## Kentucky

Behavioral Risk Factor Surveillance System 2007 Report


Kentuckiy

# Kentucky Behavioral Risk Factor Surveillance System 2007 Annual Data Report 

## Kentucky Department for Public Health

Division of Prevention and Quality Improvement
Chronic Disease Prevention \& Control Branch

# CABINET FOR HEALTH AND FAMILY SERVICES DEPARTMENT FOR PUBLIC HEALTH 

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## A Message from the Commissioner

The Kentucky Department for Public Health in the Cabinet for Health and Family Services in conjunction with the Centers for Disease Control and Prevention is pleased to present this 2007 Report of the Kentucky Behavioral Risk Factor Surveillance System (BRFSS).

Though an annual telephone survey Kentuckians from across the Commonwealth contribute important information about their health status and health prevention behaviors to the BRFSS. As such, the BRFSS report provides unique insight into our collective health as a state.

The data contained in this report are a challenge to every Kentuckian to make a personal commitment to improving his or her health---whether by exercising more with families, eating healthier or discontinuing tobacco use. While Kentucky is among the nation's leaders in reporting some of the lowest rates of binge drinking and heavy alcohol consumption, unfortunately we have the highest prevalence of many other poor behaviors and lifestyle choices that lead to chronic diseases such as cardiovascular diseases and cancer. For example, a higher percentage of our citizens smoke tobacco than any other state. Our obesity ranking is among the highest in the nation. Perhaps as a result of these and other factors, about a quarter of Kentuckians classify their health status as fair to poor.

The report challenges us as a department and a cabinet to recognize and correct the gaps in health and health behaviors evidences in this report. How? By improving data collection and assessment functions in order to examine the reasons behind risky behaviors, by strengthening outreach and education strategies that reinforce and remove barriers to healthy actions and by broadening access to medical care.

Again, the Kentucky Department for Public Health is pleased to make available to you this telling snapshot of Kentucky's health. Used in collaboration with other data sources, the 2007 BRFSS Report helps us see a clearer picture of where we are as a Commonwealth in terms of health and which areas need special attention.

## Sincerely, <br> 

William D. Hacker, MD, FAAP, CPE
Commissioner

## ACKNOWLEDGMENTS

The Behavioral Risk Factor Surveillance System (BRFSS) is a collaborative effort of the Kentucky Department for Public Health (KDPH) and the Centers for Disease Control and Prevention (CDC). Kentucky has been conducting this on-going surveillance since 1985. Administrative responsibility lies within the Division of Prevention and Quality Improvement (DPQI) within KDPH.

This report was prepared by Seth Siameh, BRFSS Epidemiologist and Dr. Sarojini Kanotra, BRFSS Director and Coordinator with input from Rebecca Yvonne Konnor, previous BRFSS Epidemiologist.

Survey interviews during 2007 were conducted by: Janie Parker, Tammy Hall, Jennifer Billingslea, Joshua Moore, Jamie Osborne, and Kisha Marlowe. The Kentucky Department for Public Health thanks these staff members and the many citizens of the Commonwealth who gave their time to make this survey successful.

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## Executive Summary

This report presents prevalence estimates of health conditions, risk behaviors, health care access and preventive health practices among Kentuckians aged 18 years or older from the 2007 BRFSS survey. Definitions for each risk factor and health behavior are presented later in the report. The following sections represent a summary of some of the findings presented in this annual report:

## Positive Change

## Cardiovascular Disease:

There were slight reductions in the prevalence of self-reported heart attack ( $6.6 \%$ to $6 \%$ ), coronary heart disease ( 5.9 to 5.7 ), and stroke ( $3.9 \%$ to $3.5 \%$ ) from 2006 to 2007. However, 2007 BRFSS estimates rank Kentucky among the top four states in the nation with high prevalence of heart attack $\left(1^{\text {st }}\right)$, coronary heart disease ( $\left.3^{\text {rd }}\right)$, and stroke ( $\left.4^{\text {th }}\right)$.

## Consumption of Fruits and Vegetables:

$18.4 \%$ of adults in Kentucky reported that they consume five or more servings of fruits and vegetables in a day. This estimate is an improvement on the $16.8 \%$ reported in 2005.

## Health Care Coverage:

The proportion of Kentuckians who reported having no health care coverage decreased from 17\% in 2006 to $15.9 \%$ in 2007. The objective of Healthy Kentuckians 2010 is to reduce this proportion to zero.

## Immunization (Adults aged 65+):

The prevalence of influenza immunization among Kentucky adults aged 65 years and older has increased significantly from $66 \%$ in 2006 to $73.2 \%$ in 2007. Among the same demographic group, pneumonia vaccination increased from $64.6 \%$ in 2006 to $66 \%$ in 2007.

## Poor Physical Health:

Poor physical health, including physical illness and injury for 14 or more days in a month, was reported by $16 \%$ of adults in Kentucky. This represents an improvement on the prevalence of poor physical health in $2006(17.1 \%)$. Despite the improvement, Kentucky is ranked as having the second highest prevalence of poor physical health in the nation.

## Tobacco Use:

Slightly more than a quarter ( $28.2 \%$ ) of adults in Kentucky reported that they have smoked at least 100 cigarettes in their life time and currently smoke everyday or some days. The 2007 estimate of current smokers is about $3 \%$ higher than the $25 \%$ target set by the objectives of Healthy Kentuckians 2010. However, there has been a decrease in the prevalence estimate from 2005 (28.7\%) to 2007 (28.2\%).

## Concerns

## Arthritis:

Thirty-two percent of Kentuckians have been told by their health care professional that they have arthritis. This estimate has increased since 2005 when it was 28.8\%.

## Asthma:

Prevalence of asthma among adults in Kentucky increased from $8.2 \%$ in 2006 to $9 \%$ in 2007. Asthma prevalence in the Appalachian region of the state was higher ( $11.3 \%$ ) than the Non-Appalachian region (9\%).

## Diabetes:

Prevalence of diabetes (excluding gestational diabetes) has increased from $7.5 \%$ in 2004 to $9.9 \%$ in 2007, which means one in ten Kentucky adults has been told by their doctor that they have diabetes. Even though the estimate hasn't changed since 2006, it is still about 4\% higher than the $6 \%$ target called for by the objectives of Healthy Kentuckians 2010.

## Hypertension:

Thirty percent of adults in Kentucky have been told by their health care professional that they have high blood pressure. In 2005, prevalence of high blood pressure was estimated at $28.2 \%$.

## Overweight and Obesity:

Based on 2007 BRFSS estimates, Kentucky is ranked number one in the prevalence of overweight adults ( $40.4 \%$ ) and among the top ten states with high obesity prevalence ( $28.7 \%$ ). The objective of Healthy Kentuckians 2010 is to reduce the prevalence of overweight adults to $25 \%$.

## Physical Activity:

More Kentuckians reported not participating in any physical activity in the past month ( $30.3 \%$ ) compared to the rest of the nation $(23 \%)$. That is almost one in three Kentucky adults reporting a lack of leisure time physical activity or exercise. The data also shows that more females (33.4\%) than males (27\%) report no participation in physical activity.

## Introduction

## What is the BRFSS?

The Behavioral Risk Factor Surveillance System (BRFSS) is a telephone health survey jointly sponsored by the Centers for Disease Control and Prevention (CDC) and the Kentucky Department for Public Health (KDPH). The survey is administered to randomly selected non-institutionalized adults who live in a household with a landline telephone. Participation in the survey is strictly voluntary. Personal identifying information, such as a person's name or address, is not collected. In Kentucky, the BRFSS has been conducted continuously since 1985. The BRFSS is a nationwide surveillance tool.

## How is the survey conducted?

Kentucky currently uses disproportionate stratified sampling to obtain a random sample of Kentucky telephone numbers. Once an interviewer reaches a household, a member of the household 18 years of age or older is randomly selected to be interviewed. Surveyors conduct interviews six days a week, Monday through Saturday, January through December. The number of completed interviews has increased each year, but the most dramatic increase occurred from approximately 3,700 respondents in 1998 to 7,500 respondents in 1999. There were approximately 8,000 respondents in 2007.

## What data are included in this report?

This report contains statewide prevalence estimates of risk factors and health behaviors from the 2007 BRFSS survey. Each topic is cross-tabulated by demographic groups, Area Development Districts (ADD), and Appalachian/Non-Appalachian Regions.

## How is this report organized?

This report is organized into two sections: the main report and the appendices.

## The Main Report

This section contains a summary of selected risk factors, and health behaviors surveyed in 2007. There are two pages of information on each topic. The first page describes each topic, lists prevalence estimates for 2007 by gender, race, age, education, and household income, and lists bullet points identifying key findings in the data tables. Kentucky data trends and comparisons to the national median are also included for each topic. Following the standards set by the CDC, the data presented excludes missing, refused, and "don't know" responses.

The second page of each topic includes data related to geographic distribution, which includes the ADD and Appalachian/Non-Appalachian Regions. This page contains a table with the prevalence estimates of the selected risk factor or health behavior for the state, each ADD, and the Appalachian/Non-Appalachian Regions.

## Appendices

Some risk factors covered in this report have related Healthy Kentuckians 2010 goals, a document that provides the state's health agenda and guides health policy. These goals are covered in the appendices as well as a comparison of Kentucky's data to the nation and a comparison of the BRFSS sample to Kentucky's population.

## Introduction (continued)

## What is a prevalence estimate?

Prevalence is the proportion of people in a population with a certain condition or health behavior at a specific point in time. The data included in this report are statewide prevalence estimates of certain risk factors and health behaviors.

Data from all respondents interviewed are weighted to determine the prevalence estimate. Weighting adjusts for over-sampling or under-sampling of certain subgroups and allows the survey responses to be projected to a state estimate. Factors in weighting include the number of telephone numbers per household, the number of adults per household, and the demographic distribution of the sample. Only crude estimates are included in this report. The data is not age-adjusted.

## What is a confidence interval (CI)?

The data presented are the weighted prevalence estimates for the risk factors with their confidence intervals (CI). It is important to remember that with survey data, the results are estimates based on the responses from individuals who complete the survey. Any survey data includes sampling error, or chance variations that occur because of using a sample, rather than a census-collecting data from all eligible respondents. The CI is a statistical calculation of the margin of error associated with each prevalence estimate. This report used a $95 \%$ CI. This means that if the survey was conducted 100 times, 95 times the result will fall within the stated confidence interval.

## How can this report be used?

Data from this report can be used in many of the following ways:

- To document health trends
- To provide information related to the development of policies and legislation
- To plan and measure the progress of health initiatives
- To educate the public about risk behaviors and preventive health practices
- To monitor health goals, such as those stated in Healthy Kentuckians 2010

The Healthy Kentuckians 2010 goals that are related to the risk factors in this report are included in the appendices. This report also includes data for each ADD so the information can be used on a more local level.

## How is the data analyzed?

Data is analyzed using the following statistical analysis software: SAS 9.1 and SAS Callable SUDAAN 9.1. A pre-calculated weighting variable provided by the CDC is used to weight the data. Data estimates for fewer than fifty respondents are considered unreliable by the CDC and are not included in this report.

## What are the limitations to the data?

There are two main limitations to BRFSS data: non-coverage bias and self-report bias. These limitations should not hinder the use of BRFSS data, but should be considered. Respondents who indicate "don't know", "not sure", or "refused" are excluded from the calculation of prevalence estimates. Therefore, the sample sizes used to calculate the estimates in this report vary.

## Introduction (continued)

## Non-coverage bias

The BRFSS is a telephone survey. According to the 2001 Census Population Estimate, $6.5 \%$ of Kentuckians were without landline telephones and therefore could not be reached to participate in the survey. This excluded the socio-economic differences between the surveyed population and the general population. The BRFSS only surveys adults in households. Individuals living in a group setting, such as a nursing home, college dormitory, the military, or prison are not surveyed.

## Self-report bias

The BRFSS survey relies on self-reporting, which means that the prevalence estimates are strictly based on the respondents answers to the survey questions. The tendency to report a more healthy lifestyle may occur.

## Race

Beginning in 2001, the BRFSS race question allowed reporting of more than one race. Therefore, data users should be extremely cautious when comparing race data from the year 2001 onward to race data from previous years due to the change in race categories. Since Kentucky's population is predominantly white, survey respondents are predominantly white and the low number of the nonwhite population tends to make data regarding that population statistically unstable. Data users are advised to use caution when using the data due to the above reason. Race data, therefore, may be excluded from this report due to the small nature of the sample size.

## Small Sample Size for Subgroups

Producing accurate prevalence estimates for different subgroups (men, women, Whites, Blacks, women aged $40+$, etc.) requires a minimum number of 50 respondents per question. In some cases, the KY BRFSS does not reach enough people in certain categories to produce statistically reliable estimates. Small sample sizes produce large variance, that is deviation from the mean, resulting in a large CI. For this reason, we are unable to include data on Hispanics and sometimes Blacks. The same problem of small numbers of responses occurs at the county level. In order to provide locally relevant estimates, data is reported by ADD. In this report, if the confidence interval for a subgroup is too large, the data is not reported.

## List of Counties in Kentucky's Area Development Districts

Kentucky has 120 Counties that are divided into 15 ADDs for the planning of a variety of programs. Data in this report are analyzed by ADDs, rather than by county, because for almost all counties, the sample size is too small to provide statistically reliable estimates.


|  | Counties in each ADD |
| :--- | :--- |
| Barren River: | Allen, Barren, Butler, Edmonson, Hart, Logan, Metcalfe, Monroe, Simpson, Warren |
| Big Sandy: | Floyd, Johnson, Magoffin, Martin, Pike |
| Bluegrass: | Anderson, Bourbon, Boyle, Clark, Estill, Fayette, Franklin, Garrard, Harrison |
|  | Jessamine, Lincoln, Madison, Mercer, Nicholas, Powell, Scott, Woodford |
| Buffalo Trace: | Bracken, Fleming, Lewis, Mason, Robertson |
| Cumberland Valley: | Bell, Clay, Harlan, Jackson, Knox, Laurel, Rockcastle, Whitley |
| FIVCO: | Boyd, Carter, Elliott, Greenup, Lawrence |
| Gateway: | Bath, Menifee, Montgomery, Morgan, Rowan |
| Green River: | Daviess, Hancock, Henderson, McLean, Ohio, Union, Webster |
| Kentucky River: | Breathitt, Knott, Lee, Leslie, Letcher, Owsley, Perry, Wolfe |
| KIPDA: | Bullitt, Henry, Jefferson, Oldham, Shelby, Spencer, Trimble |
| Lake Cumberland: | Adair, Casey, Clinton, Cumberland, Green, McCreary, Pulaski, Russell, Taylor, Wayne |
| Lincoln Trail: | Breckinridge, Grayson, Hardin, Larue, Marion, Meade, Nelson, Washington |
| Northern Kentucky: | Boone, Campbell, Carroll, Gallatin, Grant, Kenton, Owen, Pendleton |
| Pennyrile: | Caldwell, Christian, Crittenden, Hopkins, Livingston, Lyon, Muhlenberg, Todd, Trigg |
| Purchase: | Ballard, Calloway, Carlisle, Fulton, Graves, Hickman, McCracken, Marshall |

## Appalachian/Non-Appalachian Regions in Kentucky

As of 2007, Kentucky had 54 recognized Appalachian counties according to the Appalachian Regional Commission (ARC). The designated counties are listed below.


Appalachian Counties are shaded in blue

## Counties in each Region

Appalachian Counties: Adair, Bath, Bell, Boyd, Breathitt, Carter, Casey, Clark, Clay, Clinton, Cumberland, Edmonson, Elliott, Estill, Fleming, Floyd, Garrard, Green, Greenup, Harlan, Hart, Jackson, Johnson, Knott, Knox, Laurel, Lawrence, Lee, Leslie, Letcher, Lewis, Lincoln, McCreary, Madison, Magoffin, Martin, Menifee, Metcalfe, Monroe, Montgomery, Morgan, Nicholas, Owsley, Perry, Pike, Powell, Pulaski, Robertson, Rockcastle, Rowan, Russell, Wayne, Whitley, and Wolfe.

Non-Appalachian Counties: Allen, Anderson, Ballard, Barren, Boone, Bourbon, Boyle, Bracken, Breckinridge, Bullitt, Butler, Caldwell, Calloway, Campbell, Carlisle, Carroll, Christian, Crittenden, Daviess, Fayette, Franklin, Fulton, Gallatin, Grant, Graves, Grayson, Hancock, Hardin, Harrison, Henderson, Henry, Hickman, Hopkins, Jefferson, Jessamine, Kenton, Larue, Livingston, Logan, Lyon, McCracken, McLean, Marion, Marshall, Mason, Meade, Mercer, Muhlenberg, Nelson, Ohio, Oldham, Owen, Pendleton, Scott, Shelby, Simpson, Spencer, Taylor, Todd, Trigg, Trimble, Union, Warren, Washington, Webster, and Woodford.

## QUESTIONNAIRE DESIGN

The BRFSS questionnaire is designed by a working group of state coordinators and CDC staff. Currently, the questionnaire has three parts: 1) the core component, consisting of the fixed core, rotating core, and emerging core, 2) optional modules, and 3) state-added questions. All health departments must ask the core component questions without modification in wording. It includes questions about current behaviors that affect health (e.g., tobacco use, alcohol consumption etc.) and questions on demographic characteristics. The rotating core is made up of two distinct sets of questions, each asked in alternating years by all states, addressing different topics. In the years that rotating topics are not used in the core, they are supported as optional modules. The emerging core is a set of up to five questions that are added to the fixed and rotating cores. Emerging core questions typically focus on issues of a "late breaking" nature and do not necessarily receive the same scrutiny that other questions receive before being added to the instrument. These questions are part of the core for one year and are evaluated during or soon after the year concludes to determine their potential value in future surveys.
The 2007 core topics are included below:

- Activity Limitation
- Alcohol Consumption
- Arthritis
- Asthma
- Cardiovascular Disease
- Cholesterol
- Demographics
- Diabetes
- Emotional Support
- Exercise
- Healthcare Access
- Health Screenings
- HIV Testing
- Hypertension
- Immunization
- Nutrition
- Tobacco
- Weight Control

Optional CDC modules are sets of questions on specific topics (e.g., smokeless tobacco) that states elect to use on their questionnaires. Although the modules are optional, CDC standards require that, if they are used, they must be used without modification. Module topics have included survey items on smokeless tobacco, oral health, cardiovascular disease, and firearms.

State-added questions are questions that are submitted to the survey by state public health programs and other public health entities. These questions are often developed and tested by the particular programs, however, the questions can be selected out of the CDC modules.

## ACTIVITY LIMITATIONS

Individuals 18 and older who answered "YES" to the following question, "Are you limited in any way in any activities because of physical, mental, or emotional problems?"

- Kentuckians report a higher rate of activity limitations due to physical, mental, or emotional problems $(23.5 \%)$ compared to the nation as a whole (18.8\%).
- The rate of activity limitations due to physical, mental, or emotional problems is higher among females ( $25.1 \%$ ) compared to males ( $21.7 \%$ ). The difference is not statistically significant.
- More White respondents (23.9\%) report activity limitations compared to Black respondents ( $20.8 \%$ ). The difference is not statistically significant.
- The prevalence rates of activity limitations due to physical, mental, or emotional problems increase with increasing age. The percentage difference in prevalence rates between the youngest age group ( $6.3 \%$ ) and the oldest group ( $36.5 \%$ ) show a statistically significant difference.
- The rate of activity limitations decrease with increasing level of education and household income. Respondents with less than a high school degree ( $40.2 \%$ ) report twice as high rates of activity limitation due to physical, mental, or emotional problems; more than 2 times higher than college to college graduates (15.0\%).
- Those respondents with less than $\$ 15,000$ in annual household income (55.6\%) report rates of activity limitation more than six times higher than respondents making a household income of $\$ 75,000$ or more ( $8.7 \%$ ).

Activity Limitations
Demographic Groups
Total
\% $\quad \underline{95 \%(C I)}$
23.5 (22.1-25.0)

Gender
Male
$21.7 \quad(19.5-24.0)$
25.1 (23.4-27.0)

Race
$\begin{array}{lll} & 23.9 & (22.4-25.4) \\ \text { Black/Non-Hispanic } & 20.8 & (14.8-28.4)\end{array}$
Age
18-24
$6.3 \quad(3.5-10.9)$
25-34
35-44
45-54
17.5 (14.5-21.0)

55-64
$\begin{array}{ll}26.5 & (23.4-29.7) \\ 37.7 & (34.4-41.1)\end{array}$
65+
36.5 (33.7-39.4)

## Education

| Less than H.S. | 40.2 | $(35.8-44.8)$ |
| :--- | :---: | :---: |
| H.S. or GED | 25.8 | $(23.5-28.3)$ |
| Some Post H.S. | 17.5 | $(15.1-20.3)$ |
| College Graduate | 15.0 | $(12.5-17.8)$ |

## Household Income

| Less than $\$ 15,000$ | 55.6 | $(50.0-61.2)$ |
| :--- | :--- | :--- |
| $\$ 15,000-24,999$ | 35.2 | $(31.1-39.5)$ |
| $\$ 25,000-34,999$ | 23.1 | $(18.6-28.4)$ |
| $\$ 35,000-49,999$ | 16.2 | $(13.1-20.0)$ |
| $\$ 50,000-74,999$ | 11.4 | $(9.0-14.3)$ |
| $\$ 75,000+$ | 8.7 | $(6.3-11.9)$ |

Missing, "Don't Know", and Refused Responses are excluded. 95\% CI $=95 \%$ Confidence Interval.

Activity Limitations by Kentucky and Nationwide (States, DC, and Territories), 2000-2007 BRFSS Data


In this report, the terms 'higher' or 'lower' are descriptive and only represent a statistically significant difference when noted.


| Area Development Districts <br> (ADD) | Activity Limitations |  |  |
| :--- | :--- | :--- | :---: |
|  | $\underline{\mathbf{o}}$ | $\underline{\mathbf{9 5 \%} \mathbf{~ C I}}$ |  |
| Barren River | 31.0 | $(26.4-36.0)$ |  |
| Big Sandy | 32.8 | $(27.3-38.9)$ |  |
| Bluegrass | 21.3 | $(16.7-26.9)$ |  |
| Buffalo Trace | 32.7 | $(27.3-38.5)$ |  |
| Cumberland Valley | 37.0 | $(31.8-42.5)$ |  |
| FIVCO | 23.4 | $(19.0-28.4)$ |  |
| Gateway | 24.7 | $(20.2-29.7)$ |  |
| Green River | 21.3 | $(16.9-26.5)$ |  |
| Kentucky River | 31.1 | $(26.3-36.4)$ |  |
| KIPDA | 19.7 | $(16.2-23.7)$ |  |
| Lake Cumberland | 29.7 | $(24.9-35.0)$ |  |
| Lincoln Trail | 28.1 | $(23.2-33.5)$ |  |
| Northern Kentucky | 19.2 | $(15.5-23.5)$ |  |
| Pennyrile | 23.5 | $(18.5-29.4)$ |  |
| Purchase | 22.2 | $(16.9-28.5)$ |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

The CI is the range of values which include the actual prevalence. This report used a $95 \%$ CI. This means that if the survey were conducted many times the true value would fall in the range $95 \%$ of the time.

2007 BRFSS Data by Region: Activity Limitations


## ALCOHOL CONSUMPTION: BINGE DRINKING

Individuals 18 and older who had five or more drinks on one or more occasions in the past 30 days. Alcohol consumption questions were not asked in 2000.

- Kentuckians report a lower rate of binge drinking ( $8.2 \%$ ) than the nation as a whole ( $15.7 \%$ ). The rates of binge drinking have remained lower in Kentucky compared to the nation since 2001.
- Males (12.1\%) report binge drinking rates more than twice as high as women (4.5\%). The difference is statistically significant.
- The rate of binge drinking is slightly higher among Blacks ( $9.0 \%$ ) than Whites ( $8.1 \%$ ), though the difference is not statistically significant.
- The rates of binge drinking decrease with age. The rate of binge drinking is highest among those aged 18-24 (12.5\%), while the two lowest rates are reported by the two oldest groups, 55-64 (4.5\%), and 65+ (1.3\%).
- In regards to education, the highest rate of binge drinking is reported by those with a college degree ( $9.2 \%$ ), while the lowest rate is reported by those with a high school degree or GED (7.5\%). The differences in rates among age groups are not statistically significant.
- The rates of binge drinking generally rise with increasing annual household income. Those earning an annual household income of \$75,000 and above ( $12.8 \%$ ) report binge drinking rates twice as high as high as their counterparts making less than $\$ 15,000$ (5.1\%), and \$15,000-24,9999 (5.1\%). The difference is statistically significant.


## Binge Drinking

| Demographic Groups | \% | $\underline{\mathbf{9 5 \%}(\mathbf{C I})}$ |  |
| :--- | :--- | :--- | :---: |
| Total <br> Gender |  | 8.2 | $(7.0-9.4)$ |
|  | Male | 12.1 | $(10.0-14.5)$ |
| Race | Female | 4.5 | $(3.6-5.6)$ |
|  |  |  |  |
|  | White/Non-Hispanic | 8.1 | $(7.0-9.5)$ |
|  | Black/Non-Hispanic | 9.0 | $(4.2-18.1)$ |
|  |  |  |  |
|  | $18-24$ | 12.5 | $(8.0-19.1)$ |
|  | $25-34$ | 10.7 | $(7.8-14.6)$ |
|  | $35-44$ | 10.7 | $(7.9-14.5)$ |
|  | $45-54$ | 9.6 | $(7.4-12.5)$ |
|  | $55-64$ | 4.5 | $(3.3-6.2)$ |
|  | $65+$ | 1.3 | $(0.8-2.1)$ |

Education

| Less than H.S. | 8.4 | $(5.5-12.6)$ |
| :--- | :--- | :--- |
| H.S. or GED | 7.5 | $(6.0-9.4)$ |
| Some Post H.S. | 8.0 | $(5.8-11.0)$ |
| College Graduate | 9.2 | $(6.8-12.2)$ |

Household Income

| Less than $\$ 15,000$ | 5.1 | $(3.2-8.1)$ |
| :--- | :--- | :--- |
| $\$ 15,000-24,999$ | 5.1 | $(3.6-7.3)$ |
| $\$ 25,000-34,999$ | 8.4 | $(5.0-13.8)$ |
| $\$ 35,000-49,999$ | 11.0 | $(7.7-15.4)$ |
| $\$ 50,000-74,999$ | 8.2 | $(5.8-11.5)$ |
| $\$ 75,000+$ | 12.8 | $(9.2-17.5)$ |

Missing, "Don't Know", and Refused Responses are excluded. 95\% CI= 95\% Confidence Interval.

## Binge Drinking by Kentucky and Nationwide (States, DC, and Territories), 2000-2007 BRFSS Data



In this report, the terms 'higher' or 'lower' are descriptive and only represent a statistically significant difference when noted.

## ALCOHOL COMSUMPTION: BINGE DRINKING 2007 BRFSS Data by Geographic Distribution



| Area Development Districts <br> (ADD) | Binge Drinking |  |
| :--- | :--- | :--- |
|  | $\underline{\mathbf{\%}}$ | $\underline{\mathbf{9 5 \%} \mathbf{~ C I}}$ |
| Barren River | 10.7 | $(6.7-16.6)$ |
| Big Sandy | 7.7 | $(4.2-13.7)$ |
| Bluegrass | 6.0 | $(3.4-10.4)$ |
| Buffalo Trace | 9.1 | $(5.6-14.4)$ |
| Cumberland Valley | 6.3 | $(2.9-13.4)$ |
| FIVCO | 8.5 | $(5.1-13.6$ |
| Gateway | 1.4 | $(6.3-19.8)$ |
| Green River | 7.0 | $(3.8-12.8)$ |
| Kentucky River | 4.6 | $(2.5-8.2)$ |
| KIPDA | 8.8 | $(6.1-12.4)$ |
| Lake Cumberland | 4.7 | $(2.7-7.8)$ |
| Lincoln Trail | 7.4 | $(4.6-11.70)$ |
| Northern Kentucky | 7.8 | $(10.3-19.4$ |
| Pennyrile | 5.7 | $(3.9-15.1)$ |
| Purchase |  |  |
|  |  |  |
|  |  |  |

[^0]2007 BRFSS Data by Region: Binge Drinking


## ALCOHOL CONSUMPTION: HEAVY DRINKING

Males age 18 and older who had an average of more than two drinks per day, and females who had an average of more than one drink per day. Alcohol consumption questions were not asked in 2000.

- Kentuckians report a lower rate of heavy drinking (2.6\%) than the nation as a whole (5.2\%).
- Males (3.3\%) report higher rates of heavy drinking than females ( $1.9 \%$ ), though the difference is not statistically significant.
- The rates of heavy drinking are similar among all age groups with no statistical significance between them. The lowest rate of heavy drinking is reported by the oldest age group, those aged $65+(0.9)$.
- The reported rates of heavy drinking by level of education and level of household income are similar. There are no statistically significance difference in levels.

Heavy Drinking

| Demographic Groups | \% | 95\% (CI) |
| :---: | :---: | :---: |
| Total | 2.6 | (2.0-3.4) |
| Gender |  |  |
| Male | 3.3 | (2.3-4.8) |
| Female | 1.9 | (1.4-2.7) |
| Race |  |  |
| White/Non-Hispanic | 2.6 | (1.9-3.4) |
| Black/Non-Hispanic | * |  |
| Age |  |  |
| 18-24 | * | * |
| 25-34 | 3.0 | (1.6-5.4) |
| 35-44 | 3.4 | (1.8-6.3) |
| 45-54 | 4.3 | (2.8-6.4) |
| 55-64 | 2.2 | (1.5-3.3) |
| 65+ | 0.9 | (0.5-1.7) |
| Education |  |  |
| Less than H.S. | 3.4 | (1.5-7.7) |
| H.S. or GED | 2.5 | (1.7-3.6) |
| Some Post H.S. | 2.3 | (1.4-3.7) |
| College Graduate | 2.6 | (1.5-4.3) |
| Household Income |  |  |
| Less than \$15,000 | 1.8 | (0.8-4.1) |
| \$15,000-24,999 | 1.9 | (1.0-3.5) |
| \$25,000-34,999 | 3.0 | (1.0-8.4) |
| \$35,000-49,999 | 3.7 | (2.1-6.6) |
| \$50,000-74,999 | 2.8 | (1.5-4.9) |
| \$75,000 + | 2.7 | (1.4-4.9) |

Missing, "Don't Know", and Refused Responses are excluded. 95\% CI $=95 \%$ Confidence Interval. *Statistics for Blacks and age group 18-24 are excluded due to small sample size, which result in unstable or unreliable estimates

Heavy Drinking by Kentucky and Nationwide (States, DC, and Territories), 2000-2007 BRFSS Data


In this report, the terms 'higher' or 'lower' are descriptive and only represent a statistically significant difference when noted.

## ALCOHOL CONSUMPTION: HEAVY DRINKING 2007 BRFSS Data by Geographic Distribution

## Percentage

## Heavy Drinking

2007 BRFSS Data by Area Development Districts


| Area Development Districts <br> (ADD) | Heavy Drinking |  |
| :--- | :--- | :---: |
|  | $\underline{\mathbf{o}}$ | $\underline{\mathbf{9 5 \%} \mathbf{C I}}$ |
| Barren River | 1.4 | $(0.7-3.1)$ |
| Big Sandy | 3.3 | $(1.4-7.5)$ |
| Bluegrass | 2.4 | $(0.9-6.0)$ |
| Buffalo Trace | 1.8 | $(0.6-5.1)$ |
| Cumberland Valley | 3.2 | $(1.1-9.4)$ |
| FIVCO | 2.1 | $(0.9-4.8)$ |
| Gateway | 0.9 | $(0.4-2.2)$ |
| Green River | 2.2 | $(1.0-4.8)$ |
| Kentucky River | 1.9 | $(0.8-4.3)$ |
| KIPDA | 3.3 | $(1.9-5.5)$ |
| Lake Cumberland | 1.4 | $(0.6-3.3)$ |
| Lincoln Trail | 1.4 | $(0.6-3.4)$ |
| Northern Kentucky | 4.5 | $(2.6-7.6)$ |
| Pennyrile | 2.1 | $(0.6-7.4)$ |
| Purchase | 1.9 | $(0.7-4.9)$ |
|  |  |  |
|  |  |  |
|  |  |  |

[^1] would fall in the range $95 \%$ of the time.

2007 BRFSS Data by Region: Heavy Drinking


## ARTHRITIS

Individuals 18 and older who answered "YES" to the following question, "Have you ever been told by a doctor or other health professional that you have some form of arthritis or rheumatoid arthritis, gout, lupus, or fibromyalgia?" Arthritis questions are asked every other year on odd years.

- Kentuckians (31.6\%) report a higher rate of arthritis than the nation as a whole ( $27.5 \%$ ).
- A higher rate of arthritis is reported by females ( $34.6 \%$ ) compared to males ( $28.3 \%$ ). The difference is statistically significant.
- The rate of arthritis increases with age. There is a statistically significant difference between age groups starting from those aged 25 and older. Those aged $65+(57.6 \%)$ reported the highest rate of arthritis, with more than half the population reporting having arthritis, while the those aged 18-24 reported the lowest rate (6.2\%).
- The highest rate of arthritis is reported by those with less than a high school degree ( $47.6 \%$ ), while the lowest rate is reported by those with a college degree ( $24.4 \%$ ). There is a statistically significant difference between levels of education.
- Those earning a household income of less than $\$ 15,000$ a year ( $55.7 \%$ ) report arthritis rates more than twice as high as those earning \$50,000-74,999 (19.9\%), and \$75,000+, (19.9\%).


## Arthritis

| Demographic Groups | \% | 95\% (CI) |
| :---: | :---: | :---: |
| Total | 31.6 | (30.0-33.2) |
| Gender |  |  |
| Male | 28.3 | (25.8-30.9) |
| Female | 34.6 | (32.6-36.7) |
| Race |  |  |
| White/Non-Hispanic | 31.6 | (30.0-33.3) |
| Black/Non-Hispanic | 32.9 | (24.8-42.1) |
| Age |  |  |
| 18-24 | 6.2 | (3.7-10.1) |
| 25-34 | 11.7 | (8.8-15.4) |
| 35-44 | 21.2 | (17.6-25.3) |
| 45-54 | 35.8 | (32.3-39.5) |
| 55-64 | 51.7 | (48.1-55.3) |
| 65+ | 57.6 | (54.6-60.6) |
| Education |  |  |
| Less than H.S. | 47.6 | (42.8-52.4) |
| H.S. or GED | 32.9 | (30.3-35.6) |
| Some Post H.S. | 26.5 | (23.4-29.9) |
| College Graduate | 24.4 | (21.2-28.0) |
| Household Income |  |  |
| Less than \$15,000 | 55.7 | (50.2-61.0) |
| \$15,000-24,999 | 39.6 | (35.3-44.0) |
| \$25,000-34,999 | 32.0 | (27.1-37.3) |
| \$35,000-49,999 | 29.6 | (25.3-34.5) |
| \$50,000-74,999 | 19.9 | (16.2-24.1) |
| \$75,000 + | 19.9 | (16.3-24.2) |
| Missing, "Don’t Know", and Refused Re Interval. | d. 95\% | 95\% Confidence |

Arthritis by Kentucky and Nationwide (States, DC, and Territories), 2000-2007 BRFSS Data


In this report, the terms 'higher' or 'lower' are descriptive and only represent a statistically significant difference when noted.

## ARTHRITIS 2007 BRFSS Data by Geographic Distribution

## Percentage

Arthritis<br>2007 BRFSS Data by Area Development Districts



| Area Development Districts <br> (ADD) | Arthritis |  |
| :--- | :--- | :--- |
|  | $\underline{\text { \% }}$ | $\underline{\mathbf{9 5 \%} \mathbf{C I}}$ |
|  | 33.5 | $(28.5-38.9)$ |
| Barren River | 44.0 | $(37.8-50.4)$ |
| Big Sandy | 33.0 | $(28.3-38.4)$ |
| Bluegrass | 36.3 | $(30.1-43.0)$ |
| Buffalo Trace | 30.7 | $(25.8-36.2)$ |
| Cumberland Valley | 34.4 | $(29.2-40.1)$ |
| FIVCO | 34.9 | $(28.8-41.5)$ |
| Gateway | 31.3 | $(25.7-37.4)$ |
| Green River | 40.3 | $(34.9-46.0)$ |
| Kentucky River | 26.6 | $(22.7-31.0)$ |
| KIPDA | 36.3 | $(31.2-41.7)$ |
| Lake Cumberland | 29.2 | $(24.1-35.0)$ |
| Lincoln Trail | 26.0 | $(21.8-30.6)$ |
| Northern Kentucky | 32.8 | $(25.9-40.6)$ |
| Pennyrile | 33.6 | $(27.2-40.7)$ |
| Purchase |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

The CI is the range of values which include the actual prevalence. This report used a $95 \%$ CI. This means that if the survey were conducted many times the true value would fall in the range $95 \%$ of the time.

2007 BRFSS Data by Region: Arthritis


## ASTHMA: CURRENT ASTHMA

Individuals 18 and older who answered "YES" to the following questions: "Have you ever been told by a doctor, nurse, or other health professional that you had asthma? and "Do you still have asthma?"

- Kentucky report a higher asthma rate ( $9.0 \%$ ) than the nation ( $8.3 \%$ ). There has been an upward trend in asthma rates since 2000 .
- Compared to females ( $9.8 \%$ ), males (8.2\%) report a slightly lower rate of asthma, though the difference is not statistically significant.
- Asthma rates do not show a statistically significant difference by age.
- The prevalence of asthma decreases with higher education level. Those with less than a high school degree ( $17.6 \%$ ) report the highest rates of asthma, while those with a college degree (4.6\%) report the lowest rate, statistically significant difference between the levels.
- Generally, the rate of asthma decreases with increasing annual household income. Those earning a household income of less than $\$ 15,000$ per year (21.6\%) are four times more likely to report having asthma than those earning $\$ 75,000$ per year (5.1\%), and five times more likely to report asthma status than those earning $\$ 50,000-74,999$ per year (4.1\%).


## Current Asthma

| Demographic Groups | \% | 95\% (CI) |
| :---: | :---: | :---: |
| Total | 9.0 | (8.0-10.1) |
| Gender |  |  |
| Male | 8.2 | (6.6-10.1) |
| Female | 9.8 | (8.6-11.1) |
| Race |  |  |
| White/Non-Hispanic | 8.4 | (7.4-9.4) |
| Black/Non-Hispanic | 17.9 | (10.9-27.9) |
| Age |  |  |
| 18-24 | 11.0 | (7.0-17.0) |
| 25-34 | 10.4 | (7.3-14.5) |
| 35-44 | 6.3 | (4.4-9.0) |
| 45-54 | 7.3 | (5.7-9.2) |
| 55-64 | 10.1 | (8.4-12.2) |
| 65+ | 10.2 | (8.5-12.1) |

## Education

| Less than H.S. | 17.6 | $(14.1-21.7)$ |
| :--- | :--- | :--- |
| H.S. or GED | 8.9 | $(7.2-10.9)$ |
| Some Post H.S. | 7.9 | $(6.0-10.2)$ |
| College Graduate | 4.6 | $(3.5-6.1)$ |

## Household Income

| Less than $\$ 15,000$ | 21.6 | $(17.3-26.5)$ |
| :--- | :--- | :--- |
| $\$ 15,000-24,999$ | 9.5 | $(7.5-12.0)$ |
| $\$ 25,000-34,999$ | 13.1 | $(8.6-19.3)$ |
| $\$ 35,000-49,999$ | 5.9 | $(3.9-8.6)$ |
| $\$ 50,000-74,999$ | 4.1 | $(2.7-6.1)$ |
| $\$ 75,000+$ | 5.1 | $(3.2-7.9)$ |

Missing, "Don't Know", and Refused Responses are excluded. 95\% CI= 95\% Confidence Interval.

Current Asthma by Kentucky and Nationwide (States, DC, and Territories), 2000-2007 BRFSS Data


## ASTHMA: CURRENT ASTHMA 2007 BRFSS Data by Geographic Distribution

Percentage
Current Asthma
2007 BRFSS Data by Area Development Districts


|  |  |  |
| :--- | :--- | :--- |
| Area Development Districts <br> (ADD) | Current Asthma |  |
|  | $\underline{\mathbf{o}}$ | $\underline{\mathbf{9 5 \%} \mathbf{C I}}$ |
| Barren River | 11.5 | $(8.0-16.2)$ |
| Big Sandy | 13.2 | $(9.5-18.0)$ |
| Bluegrass | 8.7 | $(5.7-13.1)$ |
| Buffalo Trace | 8.3 | $(5.7-12.0)$ |
| Cumberland Valley | 11.6 | $(8.1-16.4)$ |
| FIVCO | 10.8 | $(7.7-15.0)$ |
| Gateway | 8.5 | $(5.9-12.0)$ |
| Green River | 12.8 | $(8.6-18.8)$ |
| Kentucky River | 12.4 | $(9.0-17.0)$ |
| KIPDA | 6.7 | $(4.5-9.8)$ |
| Lake Cumberland | 10.6 | $(7.6-14.6)$ |
| Lincoln Trail | 8.2 | $(5.5-12.0)$ |
| Northern Kentucky | 7.4 | $(5.0-10.8)$ |
| Pennyrile | 7.7 | $(4.7-12.5)$ |
| Purchase | 6.3 | $(3.6-10.8)$ |
|  |  |  |
|  |  |  |

[^2] would fall in the range $95 \%$ of the time.

## 2007 BRFSS Data by Region: Current Asthma



## CARDIOVASCULAR DISEASE: ANGINA OR CORONARY HEART DISEASE

Individuals 18 and older who answered "YES" to the following question, "Has a doctor, nurse, or other health professional ever told you that you had angina or coronary heart disease (CHD)?" The Cardiovascular disease module was not used in 2001, 2002, and in 2004.

- Prevalence of angina or CHD has remained higher in Kentucky compared to the nation as a whole since 2003. In 2007, Kentuckians report an angina or CHD rate of $5.8 \%$, compared to $4.1 \%$ nationwide.
- The prevalence of angina or CHD is higher in males ( $6.6 \%$ ) than females (4.9\%), though the difference is not statistically significant.
- The rate of angina or CHD increase with increasing age. Older adults are over eight times more likely to report angina or CHD than younger adults. Adults 65 and older ( $15.3 \%$ ) report the highest rate of angina or CHD, while those aged 3544 (1.2\%) report the lowest, showing a statistically significant difference between age groups.
- Respondents with a college degree (4.4\%) report angina or CHD rates twice as high as those with less than a high school degree ( $9.5 \%$ ). The difference is statistically significant.
- In regards to income levels, respondents with an annual household income of \$15,000-24,999 (12.4\%) report angina or CHD rates four times as high as respondents with an annual household income of \$75,000 and above (3.0\%). The difference is statistically significant.

Angina or Coronary Heart Disease


Total
$5.8 \quad(5.2-6.4)$
Gender
Male
6.6
(5.6-7.8)

Female
4.9
(4.3-5.6)

Race
White/Non-Hispanic
$5.8 \quad(5.2-6.5)$
Black/Non-Hispanic
Age

| $18-24$ | $*$ | $*$ |
| :--- | :--- | :--- |
| $25-34$ | $*$ | $*$ |
| $35-44$ | 1.2 | $(0.7-2.0)$ |
| $45-54$ | 5.9 | $(4.4-7.8)$ |
| $55-64$ | 11.2 | $(9.1-13.6)$ |
| $65+$ | 15.3 | $(13.4-17.5)$ |

Education

| Less than H.S. | 9.5 | $(7.7-11.6)$ |
| :--- | :--- | :--- |
| H.S. or GED | 6.1 | $(5.2-7.2)$ |
| Some Post H.S. | 4.1 | $(3.0-5.5)$ |
| College Graduate | 4.4 | $(3.4-5.7)$ |

## Household Income

| Less than $\$ 15,000$ | 10.5 | $(8.0-13.5)$ |
| :--- | :--- | :--- |
| $\$ 15,000-24,999$ | 12.4 | $(10.1-15.1)$ |
| $\$ 25,000-34,999$ | 5.8 | $(4.1-8.0)$ |
| $\$ 35,000-49,999$ | 4.7 | $(3.3-6.7)$ |
| $\$ 50,000-74,999$ | 3.4 | $(2.3-5.1)$ |
| $\$ 75,000+$ | 3.0 | $(1.7-5.1)$ |

Missing, "Don't Know", and Refused Responses are excluded. 95\% CI= 95\% Confidence Interval. *Statistics are excluded because the sample size is too small for reliable estimates.

Angina or Coronary Heart Disease by Kentucky and Nationwide (States, DC, and Territories), 2000-2007 BRFSS Data


In this report, the terms 'higher' or 'lower' are descriptive and only represent a statistically significant difference when noted.

# CARDIOVASCULAR DISEASE: ANGINA OR CORONARY HEART DISEASE 2007 BRFSS Data by Geographic Distribution 



| Area Development District <br> (ADD) | Angina or Coronary <br> Heart Disease |  |
| :--- | :---: | :--- |
|  | $\underline{\mathbf{o}}$ | $\underline{\mathbf{9 5 \%} \mathbf{C I}}$ |
|  | 7.9 | $(5.6-10.9)$ |
| Barren River | 7.9 | $(5.7-10.8)$ |
| Big Sandy | 5.0 | $(3.6-6.9)$ |
| Bluegrass | 7.4 | $(4.8-11.2)$ |
| Buffalo Trace | 9.9 | $(7.3-13.3)$ |
| Cumberland Valley | 4.9 | $(3.2-7.5)$ |
| FIVCO | 5.9 | $(4.1-8.3)$ |
| Gateway | 5.3 | $(3.6-7.8)$ |
| Green River | 7.5 | $(5.2-10.8)$ |
| Kentucky River | 4.4 | $(3.1-6.3)$ |
| KIPDA | 6.2 | $(4.4-8.7)$ |
| Lake Cumberland | 3.4 | $(2.1-5.6)$ |
| Lincoln Trail | 5.2 | $(3.5-7.8)$ |
| Northern Kentucky | 6.0 | $(3.8-9.3)$ |
| Pennyrile | 8.2 | $(5.2-12.7)$ |
| Purchase |  |  |
|  |  |  |
|  |  |  |

[^3]2007 BRFSS Data by Region: Angina or Coronary Heart Disease


## CARDIOVASCULAR DISEASE: HEART ATTACK OR MYOCARDIAL INFARCTION (MI)

Individuals 18 and older who answered "YES" to the following question, "Has a doctor, nurse, or other health professional ever told you that you had a heart attack also called a myocardial infarction?" The cardiovascular disease module was not used in 2001, 2002, and in 2004.

- Kentucky has reported higher rates of heart attack or MI than the nation as a whole since 2003. In 2007, Kentuckians ( $6.0 \%$ ) report a higher rate of heart attack or MI compared to whole nation (4.2\%).
- Males (7.8\%) report a higher rate of heart attack than females (4.3\%), showing a statistically significant difference.
- Heart attack or MI rates increase with age. Data shows that adults 65 and older (17.8\%) are more than thirteen times more likely to report heart attack or MI than adults aged 35-44 (1.3\%). There is a statistically significant increase in the rate of heart attack or MI for each group.
- Those with less than a high school degree ( $14.0 \%$ ) report the highest rate of heart attack or MI compared to those with a high school degree or higher. The rate of heart attack is lowest among those with a college degree (3.5\%), showing a statistically significant difference.
- Those earning low annual income report heart attack or MI rates higher than those earning high annual income. Approximately $14 \%$ of respondents earning less than $\$ 15,000$ a year report suffering a heart attack or MI, compared to $3.8 \%$ and $2.2 \%$ of those making $\$ 50,000-74,999$ and $\$ 75,000$ and above respectively.


## Heart Attack or MI

| Demographic Groups | \% | 95\% (CI) |
| :---: | :---: | :---: |
| Total | 6.0 | (5.4-6.7) |
| Gender |  |  |
| Male | 7.8 | (6.8-9.1) |
| Female | 4.3 | (3.7-5.0) |
| Race |  |  |
| White/Non-Hispanic | 6.1 | (5.5-6.8) |
| Black/Non-Hispanic | 4.2 | (2.1-8.3) |
| Age |  |  |
| 18-24 | * | * |
| 25-34 | * | * |
| 35-44 | 1.3 | (0.8-2.2) |
| 45-54 | 5.8 | (4.3-7.7) |
| 55-64 | 10.9 | (8.9-13.3) |
| 65+ | 17.8 | (15.7-20.1) |
| Education |  |  |
| Less than H.S. | 14.0 | (11.7-16.6) |
| H.S. or GED | 5.8 | (4.8-6.9) |
| Some Post H.S. | 3.9 | (2.9-5.3) |
| College Graduate | 3.5 | (2.5-4.8) |
| Household Income |  |  |
| Less than \$15,000 | 14.2 | (11.2-17.8) |
| \$15,000-24,999 | 11.8 | (9.5-14.6) |
| \$25,000-34,999 | 4.5 | (3.2-6.3) |
| \$35,000-49,999 | 4.7 | (3.3-6.7) |
| \$50,000-74,999 | 3.8 | (2.5-5.6) |
| \$75,000 + | 2.2 | (1.3-3.7) |

Missing, "Don't Know", and Refused Responses are excluded. 95\% CI= 95\% Confidence Interval. *Statistics are excluded because the sample size is too small for reliable estimates.

Heart Attack or MI by Kentucky and Nationwide (States, DC, and Territories), 2000-2007 BRFSS Data


In this report, the terms 'higher' or 'lower' are descriptive and only represent a statistically significant difference when noted.

# CARDIOVASCULAR DISEASE: HEART ATTACK OR MYOCARDIAL INFARCTION (MI) 2007 BRFSS Data by Geographic Distribution 



| Area Development Districts <br> (ADD) | Heart Attack or MI |  |
| :--- | :--- | :--- |
|  | $\underline{\mathbf{\%}}$ | $\underline{\mathbf{9 5 \%} \mathbf{C I}}$ |
| Barren River | 7.9 | $(5.710 .8)$ |
| Big Sandy | 8.6 | $(6.3-11.7)$ |
| Bluegrass | 5.5 | $(3.9-7.7)$ |
| Buffalo Trace | 12.2 | $(8.3-17.4)$ |
| Cumberland Valley | 8.5 | $(6.2-11.5)$ |
| FIVCO | 4.7 | $(3.0-7.3)$ |
| Gateway | 6.1 | $(4.2-8.6)$ |
| Green River | 5.1 | $(3.4-7.6)$ |
| Kentucky River | 8.0 | $(5.9-10.7)$ |
| KIPDA | 5.1 | $(3.7-7.1)$ |
| Lake Cumberland | 7.0 | $(5.0-9.6)$ |
| Lincoln Trail | 3.9 | $(2.5-6.2)$ |
| Northern Kentucky | 6.3 | $(4.4-9.0)$ |
| Pennyrile | 4.9 | $(3.0-8.0)$ |
| Purchase | 5.5 | $(3.4-8.7)$ |
|  |  |  |
|  |  |  |

[^4] would fall in the range $95 \%$ of the time.

2007 BRFSS Data by Region: Heart Attack or MI


KY $\square$ Appalachian $\square$ Non-Appalachian

## CARDIOVASCULAR DISEASE: STROKE

Individuals 18 and older who answered "YES" to the following question, "Has a doctor, nurse, or a health professional ever told you that you had a stroke?" The cardiovascular disease module was not used in 2001, 2002, and 2004.

- Kentuckians (3.5\%) report a slightly higher rate of stroke than the rest of the nation (2.6\%).
- In Kentucky, more females (4.2\%) report suffering a stroke than males ( $2.9 \%$ ). The difference is not statistically significant.
- The rates of stroke increase with increasing age. Stroke rates increased from $0.9 \%$ for adults $35-44$ years old to $5.8 \%$ for adults 55-64 years, and then to $9.6 \%$ for adults 65 years and older; the difference being statistically significant.
- Those with less than a high school degree (7.7\%) report the highest rate of stroke compared those with college degree ( $1.7 \%$ ) who report the lowest rate. The difference in rates is statistically significant.
- Adults with higher income levels report lower rates of stroke. The two lowest rates of stroke are displayed by those with an annual income of \$50,000$74,999(1.7 \%)$ and $\$ 75,000$ and above ( $0.7 \%$ ), respectively. The difference is statistically significant.


## Stroke

| Demographic Groups | \% | 95\% (CI) |
| :---: | :---: | :---: |
| Total | 3.5 | (3.1-4.1) |
| Gender |  |  |
| Male | 2.9 | (2.3-3.6) |
| Female | 4.2 | (3.5-5.0) |
| Race |  |  |
| White/Non-Hispanic | 3.4 | (3.0-4.0) |
| Black/Non-Hispanic | 4.3 | (2.1-8.5) |
| Age |  |  |
| 18-24 | * | * |
| 25-34 | * | * |
| 35-44 | 0.9 | (0.5-1.5) |
| 45-54 | 4.1 | (28-5.8) |
| 55-64 | 5.8 | (4.2-7.8) |
| 65+ | 9.6 | (8.1-11.4) |
| Education |  |  |
| Less than H.S. | 7.7 | (6.2-9.9) |
| H.S. or GED | 3.6 | (2.9-4.4) |
| Some Post H.S. | 2.6 | (1.8-3.8) |
| College Graduate | 1.7 | (1.1-2.6) |
| Household Income |  |  |
| Less than \$15,000 | 8.3 | (6.3-10.8) |
| \$15,000-24,999 | 5.5 | (3.9-7.7) |
| \$25,000-34,999 | 3.3 | (2.2-5.2) |
| \$35,000-49,999 | 2.2 | (1.2-4.0) |
| \$50,000-74,999 | 1.7 | (1.0-3.0) |
| \$75,000 + | 0.7 | (0.6-1.9) |

Missing, "Don't Know", and Refused Responses are excluded. 95\% CI=95\% Confidence Interval.
*Statistics are excluded because the sample size is too small for reliable estimates.
Stroke by Kentucky and Nationwide (States, DC, and Territories), 2000-2007 BRFSS Data


In this report, the terms 'higher' or 'lower' are descriptive and only represent a statistically significant difference when noted.

## CARDIOVASCULAR DISEASE: STROKE 2007 BRFSS Data by Geographic Distribution

## Percentage

Stroke
2007 BRFSS Data by Area Development Districts


## Area Development Districts (ADD)

|  | \% | $\underline{\mathbf{9 5 \%} \mathbf{C I}}$ |
| :--- | :--- | :--- |
| Barren River | 4.0 | $(2.4-6.5)$ |
| Big Sandy | 4.9 | $(3.3-7.3)$ |
| Bluegrass | 3.0 | $(1.8-4.8)$ |
| Buffalo Trace | 5.4 | $(3.2-9.1)$ |
| Cumberland Valley | 3.0 | $(1.8-4.9)$ |
| FIVCO | 4.4 | $(2.8-6.8)$ |
| Gateway | 2.9 | $(1.8-4.6)$ |
| Green River | 3.6 | $(2.2-5.8)$ |
| Kentucky River | 5.3 | $(3.5-8.1)$ |
| KIPDA | 3.5 | $(2.4-5.2)$ |
| Lake Cumberland | 3.1 | $(2.0-4.8)$ |
| Lincoln Trail | 3.2 | $(1.8-5.4)$ |
| Northern Kentucky | 2.9 | $(1.9-4.5)$ |
| Pennyrile | 4.2 | $(2.4-7.3)$ |
| Purchase | 4.3 | $(2.6-7.1)$ |

The CI is the range of values which include the actual prevalence. This report used a $95 \%$ CI. This means that if the survey were conducted many times the true value would fall in the range $95 \%$ of the time.

2007 BRFSS Data by Region: Stroke


## CHOLESTEROL: CHOLESTEROL NOT CHECKED IN THE PAST 5 YEARS

Individuals 18 and older who have not had their blood cholesterol checked in the past 5 years. This includes respondents who have never had their blood cholesterol checked. Cholesterol questions are asked every other year on odd years.

- $24.5 \%$ of Kentuckians have not had their blood cholesterol checked in the past 5 years compared to $25.1 \%$ of the whole nation.
- Approximately 26.3 percent of males report not checking blood cholesterol in the past 5 years compared to approximately 22.8 percent of females, though the difference is not statistically significant.
- The rate of not checking blood cholesterol in the past 5 years is higher among younger adult respondents compared to older adult respondents. Data show that older adults are more likely to check their blood cholesterol than younger adults. More than half of respondents aged 18-24 (55.3\%) report not checking blood cholesterol in the past 5 years compared to $7.2 \%$ of respondents aged 65 and older.
- The rates of not checking blood cholesterol in the past 5 years are similar for those with less than a high school degree ( $25.9 \%$ ), those with a high school degree ( $28.2 \%$ ), and those with some college education ( $25.1 \%$ ). However, when these groups are individually compared to those with those with a college degree ( $16.7 \%$ ), there is a statistically significance in the difference of rates of the other groups.
- The rate of not checking blood cholesterol in the past 5 years decrease with increasing levels of household income. The highest rate is reported by those making less than $\$ 15,000$ a year ( $27.0 \%$ ) compared to $18.4 \%$, reported by those making $\$ 75,000$ and above. The difference between level of household income is not statistically significant.


## Cholesterol not checked in the past 5 years

| Demographic Groups | \% | 95\% (CI) |
| :---: | :---: | :---: |
| Total | 24.5 | (22.0-27.2) |
| Gender |  |  |
| Male | 26.3 | (23.2-29.7) |
| Female | 22.8 | (20.7-24.9) |
| Race |  |  |
| White/Non-Hispanic | 24.8 | (22.9-26.9) |
| Black/Non-Hispanic | 23.0 | (15.3-33.1) |
| Age |  |  |
| 18-24 | 55.3 | (45.9-64.3) |
| 25-34 | 45.2 | (39.4-51.1) |
| 35-44 | 23.9 | (20.0-28.3) |
| 45-54 | 18.7 | (15.7-22.0) |
| 55-64 | 10.2 | (8.2-12.6) |
| 65+ | 7.2 | (5.9-8.9) |
| Education |  |  |
| Less than H.S. | 25.9 | (21.3-31.2) |
| H.S. or GED | 28.2 | (25.1-31.5) |
| Some Post H.S. | 25.1 | (21.3-29.4) |
| College Graduate | 16.7 | (13.6-20.2) |
| Household Income |  |  |
| Less than \$15,000 | 27.0 | (21.8-32.8) |
| \$15,000-24,999 | 24.9 | (20.9-29.4) |
| \$25,000-34,999 | 23.2 | (17.8-29.6) |
| \$35,000-49,999 | 23.6 | (19.1-28.8) |
| \$50,000-74,999 | 22.9 | (18.3-28.3) |
| \$75,000 + | 18.4 | (14.1-23.6) |

Missing, "Don't Know", and Refused Responses are excluded. 95\% CI= 95\% Confidence Interval.

Cholesterol not checked in the past 5 years by Kentucky and Nationwide (States, DC, and Territories), 2000-2007 BRFSS Data


In this report, the terms 'higher' or 'lower' are descriptive and only represent a statistically significant difference when noted.

## CHOLESTEROL: CHOLESTEROL NOT CHECKED IN PAST 5 YEARS 2007 BRFSS Data by Geographic Distribution



| Area Development Districts <br> (ADD) | Cholesterol not checked in <br> past 5 years |  |
| :--- | :---: | :---: |
|  | $\underline{\text { \% }}$ | $\underline{\mathbf{9 5 \%} \mathbf{C I}}$ |
|  |  |  |
| Barren River | 31.3 | $(22.9-42.7)$ |
| Big Sandy | 25.5 | $(18.3-34.8)$ |
| Bluegrass | 23.4 | $(16.1-33.7)$ |
| Buffalo Trace | 29.9 | $(21.4-41.2)$ |
| Cumberland Valley | 27.3 | $(19.5-37.9)$ |
| FIVCO | 20.0 | $(14.5-27.7)$ |
| Gateway | 24.4 | $(17.2-35.1)$ |
| Green River | 22.5 | $(15.8-31.7)$ |
| Kentucky River | 18.9 | $(13.4-26.5)$ |
| KIPDA | 24.4 | $(18.5-32.4)$ |
| Lake Cumberland | 22.9 | $(16.5-31.6)$ |
| Lincoln Trail | 28.8 | $(21.6-38.2)$ |
| Northern Kentucky | 23.4 | $(17.8-30.8)$ |
| Pennyrile | 24.4 | $(17.2-34.1)$ |
| Purchase | 20.8 | $(13.1-32.9)$ |
|  |  |  |
|  |  |  |
|  |  |  |

[^5] would fall in the range $95 \%$ of the time.

2007 BRFSS Data by Region: Cholesterol not checked in past 5 Years


## CHOLESTEROL: HIGH CHOLESTEROL AWARENESS

Individuals 18 and older who answered "YES" to the following question, "Have you ever been told by a doctor, nurse or other health professional that your blood cholesterol is high?" Cholesterol questions are asked every other year on odd years.

- More Kentuckians (38.5\%) than the rest of the nation ( $37.5 \%$ ) have been told by a doctor, nurse or other health professional that they have high cholesterol.
- High cholesterol rates are similar for males and females. The difference is not statistically significant.
- A higher percentage of Whites (39.3\%) report having high cholesterol compared to Blacks (29.8\%).
- The rates of high cholesterol increases significantly with age. With independent confidence intervals, most of the age groups show statistically significant difference between groups. More than half of adults aged 55 and older report high cholesterol levels compared to only $6.3 \%$ of those ages 18-24 years old.
- The prevalence of high cholesterol decreases with level of education and household income. Respondents making less than $\$ 15,000$ a year report having high cholesterol ( $92.9 \%$ ) compared to respondents making $\$ 75,000$ or more a year (28.5\%).


## High Cholesterol Awareness

| Demographic Groups | \% | $\underline{95 \%}$ (CI) |
| :---: | :---: | :---: |
| Total | 38.5 | (36.6-40.4) |
| Gender |  |  |
| Male | 37.9 | (34.8-41.2) |
| Female | 39.0 | (36.7-41.2) |
| Race |  |  |
| White/Non-Hispanic | 39.3 | (37.4-41.4) |
| Black/Non-Hispanic | 29.8 | (21.8-39.2) |
| Age |  |  |
| 18-24 | 6.3 | (3.3-11.9) |
| 25-34 | 18.6 | (13.7-24.8) |
| 35-44 | 29.6 | (24.9-34.8) |
| 45-54 | 40.3 | (36.5-44.3) |
| 55-64 | 53.6 | (50.0-57.2) |
| 65+ | 54.0 | (51.0-57.0) |

## Education

| Less than H.S. | 55.2 | $(50.1-60.2)$ |
| :--- | :--- | :--- |
| H.S. or GED | 39.4 | $(36.4-42.5)$ |
| Some Post H.S. | 35.2 | $(31.1-39.4)$ |
| College Graduate | 30.8 | $(27.0-34.7)$ |

## Household Income

| Less than $\$ 15,000$ | 52.9 | $(46.6-59.0)$ |
| :--- | :--- | :--- |
| $\$ 15,000-24,999$ | 48.3 | $(43.3-53.3)$ |
| $\$ 25,000-34,999$ | 41.3 | $(34.6-48.3)$ |
| $\$ 35,000-49,999$ | 34.3 | $(29.6-39.4)$ |
| $\$ 50,000-74,999$ | 27.6 | $(23.0-32.8)$ |
| $\$ 75,000+$ | 28.5 | $(23.6-34.0)$ |

Missing, "Don't Know", and Refused Responses are excluded. 95\% CI $=95 \%$ Confidence Interval.

High Cholesterol Awareness by Kentucky and Nationwide (States, DC, and Territories), 2000-2007 BRFSS Data


In this report, the terms 'higher' or 'lower' are descriptive and only represent a statistically significant difference when noted.

## CHOLESTEROL: HIGH CHOLESTEROL AWARENESS 2007 BRFSS Data by Geographic Distribution



Area Development Districts (ADD)

Barren River
Big Sandy
Bluegrass
Buffalo Trace
Cumberland Valley
FIVCO
Gateway
Green River
Kentucky River
KIPDA
Lake Cumberland
Lincoln Trail
Northern Kentucky
Pennyrile
Purchase

High Cholesterol Awareness

| $\underline{\text { \% }}$ | $\underline{\mathbf{9 5 \%} \mathbf{~ C I}}$ |
| :--- | :--- |
|  |  |
| 41.1 | $(35.4-46.9$ |
| 44.4 | $(38.0-51.0)$ |
| 40.3 | $(34.2-46.7)$ |
| 43.1 | $(35.8-50.7)$ |
| 41.4 | $(35.4-47.6)$ |
| 44.0 | $(37.8-50.4)$ |
| 41.1 | $(34.3-48.2)$ |
| 33.7 | $(28.0-40.0)$ |
| 46.0 | $(40.0-52.1)$ |
| 33.3 | $(28.6-38.3)$ |
| 40.8 | $(35.3-46.6)$ |
| 33.4 | $(27.5-39.9)$ |
| 35.0 | $(29.7-40.6)$ |
| 45.4 | $(37.3-53.7)$ |
| 41.0 | $(34.2-48.1)$ |

The CI is the range of values which include the actual prevalence. This report used a $95 \%$ CI. This means that if the survey were conducted many times the true value would fall in the range $95 \%$ of the time.

2007 BRFSS Data by Region: High Cholesterol Awareness


## DIABETES

Individuals 18 and older who answered "YES" to the following question, "Have you ever been told by a doctor that you have diabetes?" This does not include women who have been told that they have diabetes only during pregnancy.

- In Kentucky, the prevalence of diabetes has been increasing sine 2000. The prevalence is slightly higher in Kentucky ( $9.9 \%$ ) compared to the nation ( $8.1 \%$ )
- There is not a statistically significant difference between the rate of diabetes in males and females.
- The rates, though higher among Blacks (15.3\%) than Whites (9.4\%), are not statistically different from each other due to overlapping confidence intervals.
- Diabetes rates are higher in respondents with lower levels of education and household income. Data show that those with less than a high school degree (17.4\%) are over three times more likely to report diabetes compared to those with a college degree (5.4\%). The difference in rates for education levels are statistically significant, except the difference between those with a high school degree or some college education, when compared to each other.
- Diabetes rates are higher among those with lower annual household income compared to those with high household income, though the difference is not statistically significant between each group. $20.9 \%$ of those who make less than $\$ 15,000$ a year report having diabetes, compared to $4.6 \%$ of those who make $\$ 75,000$ a year. The difference is statistically significant.


## Diabetes

| Demographic Groups | \% | 95\% (CI) |
| :---: | :---: | :---: |
| Total | 9.9 | (9.0-10.8) |
| Gender |  |  |
| Male | 10.0 | (8.7-11.6) |
| Female | 9.8 | (8.7-11.0) |
| Race |  |  |
| White/Non-Hispanic | 9.4 | (8.6-10.4) |
| Black/Non-Hispanic | 15.3 | (10.1-22.7) |
| Age |  |  |
| 18-24 | * | * |
| 25-34 | 2.0 | (1.1-3.5) |
| 35-44 | 5.0 | (3.3-7.4) |
| 45-54 | 9.9 | (8.1-12.2) |
| 55-64 | 20.0 | (17.4-23.0) |
| 65+ | 20.5 | (18.3-22.9) |
| Education |  |  |
| Less than H.S. | 17.4 | (14.9-20.2) |
| H.S. or GED | 10.2 | (8.8-11.8) |
| Some Post H.S. | 8.8 | (7.0-11.0) |
| College Graduate | 5.4 | (4.2-6.9) |
| Household Income |  |  |
| Less than \$15,000 | 20.9 | (17.1-25.4) |
| \$15,000-24,999 | 15.8 | (13.0-19.1) |
| \$25,000-34,999 | 8.0 | (6.0-10.7) |
| \$35,000-49,999 | 10.5 | (7.9-13.9) |
| \$50,000-74,999 | 6.0 | (4.3-8.1) |
| \$75,000 + | 4.6 | (2.9-7.4) |
| Missing, "Don't Know", and Refused Responses are excluded. 95\% CI=95\% Confidence Interval. |  |  |

Diabetes by Kentucky and Nationwide (States, DC, and Territories), 2000-2007 BRFSS Data


In this report, the terms 'higher' or 'lower' are descriptive and only represent a statistically significant difference when noted.


| Area Development Districts <br> (ADD) | Diabetes |  |
| :--- | :--- | :--- |
|  | $\underline{\mathbf{o}}$ | $\underline{\mathbf{9 5 \%} \mathbf{C I}}$ |
| Barren River | 9.7 | $(7.3-12.7)$ |
| Big Sandy | 11.9 | $(9.0-15.6)$ |
| Bluegrass | 10.0 | $(7.6-13.2)$ |
| Buffalo Trace | 10.9 | $(7.8-14.9)$ |
| Cumberland Valley | 11.4 | $(8.4-15.2)$ |
| FIVCO | 10.5 | $(7.7-14.2)$ |
| Gateway | 12.6 | $(9.2-17.0)$ |
| Green River | 10.3 | $(7.7-13.7)$ |
| Kentucky River | 16.3 | $(12.9-20.3)$ |
| KIPDA | 8.6 | $(6.5-11.2)$ |
| Lake Cumberland | 12.2 | $(9.3-15.7)$ |
| Lincoln Trail | 8.4 | $(6.0-11.6)$ |
| Northern Kentucky | 8.3 | $(5.7-11.9)$ |
| Pennyrile | 9.6 | $(6.4-14.2)$ |
| Purchase | 8.5 | $(5.8-12.4)$ |
|  |  |  |
|  |  |  |

[^6]2007 BRFSS Data by Region: Diabetes


## HEALTH CARE ACCESS: NO HEALTH CARE COVERAGE

Individuals 18 and older who answered "NO" to the following question, "Do you have any kind of health care coverage, including health insurance, prepaid plans such as HMO's, or government plans such as Medicare?"

- $15.9 \%$ of Kentuckians have no kind of health care coverage compared to $14.5 \%$ of the nation.
- The difference in rates of lack of health care coverage among gender is significantly significant. More women ( $13.7 \%$ ) than men ( $18.2 \%$ ) report having no health care coverage.
- The rate of no health care coverage is higher among Blacks ( $20.0 \%$ ) than Whites ( $15.3 \%$ ).
- More younger respondents report not having health care coverage than older respondents. $31.4 \%$ of adults aged 18 24 report not having any health care coverage. $85.7 \%$ of adults aged 25-34 also report a lack of health care coverage. Adults who are between the ages of $55-64$ report a $10.5 \%$ of lack of health care coverage, while those 65 and older report $2.1 \%$. The difference between the lowest and highest rates is statistically significant.
- The rates of lack of health care coverage decrease with level of education and household income levels. Those with less than a high school degree $(24.4 \%)$ report lack of health care coverage rates five times as high as college graduates ( $4.8 \%$ ). The highest rate of lack of health care coverage, among household income, is reported by those who make less than $\$ 15,000(33.3 \%)$, followed by those who earn \$15,000-24,999 (28.7\%) and those who earn \$25,000-34,999 $(25.7 \%)$. Adults who earn $\$ 50,000$ and more report lower rates compared to those who make less; the difference being statistically significant.


## No Health Care Coverage

| Demographic Groups | \% | 95\% (CI) |
| :---: | :---: | :---: |
| Total | 15.9 | (14.4-17.6) |
| Gender |  |  |
| Male | 18.2 | (15.5-21.26) |
| Female | 13.7 | (12.3-15.3) |
| Race |  |  |
| White/Non-Hispanic | 15.3 | (13.8-16.9) |
| Black/Non-Hispanic | 20.0 | (12.3-30.8) |
| Age Breme |  |  |
| 18-24 | 31.4 | (23.7-40.4) |
| 25-34 | 25.7 | (20.9-31.1) |
| 35-44 | 15.9 | (12.7-19.7) |
| 45-54 | 15.4 | (12.9-18.2) |
| 55-64 | 10.5 | (8.7-12.5) |
| 65+ | 2.1 | (1.4-3.1) |
| Education |  |  |
| Less than H.S. | 24.4 | (19.7-29.9) |
| H.S. or GED | 20.6 | (17.9-23.6) |
| Some Post H.S. | 13.5 | (10.8-16.7) |
| College Graduate | 4.8 | (3.5-6.5) |
| Household Income |  |  |
| Less than \$15,000 | 33.3 | (27.7-39.5) |
| \$15,000-24,999 | 28.7 | (24.6-33.3) |
| \$25,000-34,999 | 25.7 | (19.1-33.7) |
| \$35,000-49,999 | 10.8 | (8.0-14.3) |
| \$50,000-74,999 | 4.2 | (2.7-6.5) |
| \$75,000 + | 4.0 | (1.8-8.5) |

Missing, "Don't Know", and Refused Responses are excluded. 95\% CI=95\% Confidence Interval.
No Health care Coverage by Kentucky and Nationwide (States, DC, and Territories), 2000-2007 BRFSS Data


In this report, the terms 'higher' or 'lower' are descriptive and only represent a statistically significant difference when noted.

## HEALTH CARE ACCESS: NO HEALTH CARE COVERAGE 2007 BRFSS Data by Geographic Distribution

Percentage
No Health Care Coverage
2007 BRFSS Data by Area Development Districts


| Area Development Districts <br> age (ADD) | No Health Care Cover- |  |
| :--- | :--- | :--- |
|  |  |  |
|  | $\underline{\%}$ | $\underline{\text { 95\% CI }}$ |
| Barren River | 15.6 | $(11.3-21.1)$ |
| Big Sandy | 27.8 | $(22.0-34.5)$ |
| Bluegrass | 12.5 | $(8.2-18.6)$ |
| Buffalo Trace | 17.1 | $(11.6-24.4)$ |
| Cumberland Valley | 20.3 | $(15.6-26.1)$ |
| FIVCO | 18.1 | $(14.0-23.3)$ |
| Gateway | 20.1 | $(15.4-27.8)$ |
| Green River | 12.7 | $(8.8-17.8)$ |
| Kentucky River | 23.4 | $(18.6-29.1)$ |
| KIPDA | 10.9 | $(7.4-15.7)$ |
| Lake Cumberland | 22.0 | $(17.2-27.5)$ |
| Lincoln Trail | 15.4 | $(11.2-20.9)$ |
| Northern Kentucky | 16.3 | $(11.6-22.5)$ |
| Pennyrile | 21.0 | $(14.5-29.4)$ |
| Purchase | 18.2 | $(13.1-24.8)$ |
|  |  |  |
|  |  |  |

[^7]2007 BRFSS Data by Region: No Health Care Coverage


## HEALTH CARE ACCESS: NO PRIMARY HEALTH CARE PROVIDER

## Individuals 18 and older who answered "NO" to the following question, "Do you have one person you think of as your personal doctor or health care provider?" The version of this question was not asked in 2000.

- Fewer Kentuckians (14.2\%) report not having a personal doctor than the rest of the nation (19.6\%).
- Males report (17.4\%) report not having a personal doctor compared to (11.1\%) percent of females, the difference is statistically significant.
- More Blacks (24.2\%) report not having a personal doctor than Whites (13.5\%). The difference is statistically significant.
- The rate of no "personal doctor" decreases with age. Twenty-nine percent of adults who are between ages 18-24 do not have "personal doctors". Those aged 25-34 (23.6\%) also report a high rate compared to those age 55-64 and $65+$ who report the two lowest rates, $6.7 \%$ and $3.1 \%$ respectively.
- The rates of no "personal doctor" are similar among those less than a high school degree (17.9\%), those with a high school degree (16.8\%) and those with some college education ( $14.0 \%$ ). The differences between these levels are not statistically significant. However, there is a statistically significant difference between the above groups and those with a college degree ( $7.4 \%$ ), who reported the lowest rate of no "personal doctor".
- A higher percentage of those with low household income report higher rates of not having a personal doctor compared to those with higher household income. Those who earn less than \$15,000 a year, and those who earn $\$ 25,999-34,999$, report more than twice the rate of not having a "personal doctor" than those who make $\$ 75,000$ or more a year.


## No Health Care Provider

| Demographic Groups | \% | 95\% (CI) |
| :---: | :---: | :---: |
| Total | 14.2 | (12.7-15.8) |
| Gender |  |  |
| Male | 17.4 | (14.9-20.3) |
| Female | 11.1 | (9.5-12.8) |
| Race |  |  |
| White/Non-Hispanic | 13.5 | (12.0-15.1) |
| Black/Non-Hispanic | 24.2 | (16.0-35.0) |
| Age |  |  |
| 18-24 | 29.0 | (21.7-37.6) |
| 25-34 | 23.6 | (19.1-28.8) |
| 35-44 | 15.3 | (12.0-19.3) |
| 45-54 | 12.2 | (9.8-15.1) |
| 55-64 | 6.7 | (5.2-8.6) |
| 65+ | 3.1 | (2.3-4.1) |
| Education |  |  |
| Less than H.S. | 17.9 | (13.7-23.0) |
| H.S. or GED | 16.8 | (14.2-19.7) |
| Some Post H.S. | 14.0 | (11.1-17.5) |
| College Graduate | 7.4 | (5.6-9.7) |
| Household Income |  |  |
| Less than \$15,000 | 19.2 | (24.4-15.7) |
| \$15,000-24,999 | 16.4 | (12.8-20.7) |
| \$25,000-34,999 | 20.9 | (15.5-27.7) |
| \$35,000-49,999 | 10.7 | (7.9-14.4) |
| \$50,000-74,999 | 11.3 | (8.3-15.2) |
| \$75,000 + | 8.8 | (5.7-13.3) |

Missing, "Don't Know", and Refused Responses are excluded. 95\% CI= 95\% Confidence Interval.

No Health care Provider by Kentucky and Nationwide (States, DC, and Territories), 2000-2007 BRFSS Data


In this report, the terms 'higher' or 'lower' are descriptive and only represent a statistically significant difference when noted.

## HEALTH CARE ACCESS: NO PRIMARY HEALTH CARE PROVIDER 2007 BRFSS Data by Geographic Distribution

Percentage
No Health Care Provider
2007 BRFSS Data by Area Development Districts


| Area Development Districts <br> (ADD) | No Health Care Provider |  |
| :--- | :---: | :--- |
|  |  |  |
|  | $\underline{\mathbf{o}}$ | $\underline{\mathbf{9 5 \%} \mathbf{C I}}$ |
| Barren River | 16.0 | $(11.2-22.3)$ |
| Big Sandy | 24.0 | $(18.2-31.1)$ |
| Bluegrass | 11.6 | $(7.5-17.5)$ |
| Buffalo Trace | 13.3 | $(8.5-20.3)$ |
| Cumberland Valley | 16.4 | $(12.4-21.4)$ |
| FIVCO | 16.3 | $(12.1-21.6)$ |
| Gateway | 14.9 | $(10.0-21.8)$ |
| Green River | 17.4 | $(12.3-24.1)$ |
| Kentucky River | 8.2 | $(5.5-12.1)$ |
| KIPDA | 12.4 | $(8.9-17.0)$ |
| Lake Cumberland | 13.8 | $(9.8-19.1)$ |
| Lincoln Trail | 16.8 | $(11.9-23.1)$ |
| Northern Kentucky | 10.4 | $(7.2-14.8)$ |
| Pennyrile | 19.1 | $(12.4-28.1)$ |
| Purchase | 15.3 | $(10.5-21.9)$ |
|  |  |  |
|  |  |  |

[^8]2007 BRFSS Data by Region: No Health Care Provider


## HEALTH CARE ACCESS: COST AS A BARRIER TO SEEING A DOCTOR

Individuals 18 and older who answered "YES" to the following question, "Was there a time in the past year when you needed to see a doctor, but could not, because of cost?" This version of the question was part of a module in 2001 and 2002.

- More Kentuckians (17.4\%) report cost as a reason for not seeing a doctor compared to the rest of the nation (12.5\%).
- The difference in rates of cost as a barrier to seeing a doctor between males and females is statistically significant. 20.1 percent of females report cost as a barrier to seeing a doctor compared to 14.5 percent of males.
- The difference between rates for White and Black is not statistically significant.
- The difference among age groups are not statistically significant, except if all age groups are individually compared to the oldest age group. Adults aged 65 and older (6.3\%) report the lowest rate of not seeing a doctor because of cost, whiles those aged 24-34 (24.1\%) report the highest rate.
- Data show that those with higher level of education report lower rates of not seeing a doctor due to cost. About twenty-seven percent of adults, with less than a high school degree, report not seeing a doctor because of cost, compared to ten percent of adults with a college degree.
- The rate of not seeing a doctor due to cost is significantly higher among those who earn less than $\$ 15,000$ a year (33.7\%) than those who make between $\$ 50,000$ and $\$ 75,000$ and above a year. The rates decrease gradually as household income increases.


## Cost as a Barrier to Seeing a Doctor

| Demographic Groups | \% | 95\% (CI) |
| :---: | :---: | :---: |
| Total | 17.4 | (16.0-18.8) |
| Gender |  |  |
| Male | 14.5 | (12.5-16.8) |
| Female | 20.1 | (18.4-22.0) |
| Race |  |  |
| White/Non-Hispanic | 17.4 | (16.0-18.9) |
| Black/Non-Hispanic | 17.8 | (11.9-25.6) |
| Age |  |  |
| 18-24 | 19.7 | (14.4-26.4) |
| 25-34 | 24.1 | (19.8-28.9) |
| 35-44 | 19.8 | (16.7-23.3) |
| 45-54 | 17.5 | (15.1-20.3) |
| 55-64 | 16.7 | (14.1-19.6) |
| 65+ | 6.3 | (5.1-7.8) |
| Education |  |  |
| Less than H.S. | 26.7 | (22.8-30.9) |
| H.S. or GED | 18.3 | (16.3-20.6) |
| Some Post H.S. | 17.1 | (14.2-20.5) |
| College Graduate | 10.0 | (7.8-12.8) |
| Household Income |  |  |
| Less than \$15,000 | 33.7 | (28.6-39.2) |
| \$15,000-24,999 | 32.4 | (28.3-36.9) |
| \$25,000-34,999 | 27.0 | (21.6-33.2) |
| \$35,000-49,999 | 16.7 | (13.1-21.2) |
| \$50,000-74,999 | 9.0 | (6.3-12.6) |
| \$75,000 + | 2.5 | (1.3-4.8) |
| Missing, "Don't Know", and Refused Responses are excluded. 95\% CI= 95\% Confidence Interval. |  |  |

Cost as a Barrier to Seeing a Doctor by Kentucky and Nationwide (States, DC, and Territories) 2000-2007 BRFSS Data


In this report, the terms 'higher' or 'lower' are descriptive and only represent a statistically significant difference when noted.

# HEALTH CARE ACCESS: COST AS A BARRIER TO SEEING A DOCTOR 2007 BRFSS Data by Geographic Distribution 



| Area Development Districts <br> (ADD) | Cost as a Barrier to Seeing <br> a Doctor |  |
| :--- | :---: | :---: |
|  | $\underline{\mathbf{\%}}$ | $\underline{\mathbf{9 5 \%} \mathbf{C I}}$ |
| Barren River | 20.8 | $(16.3-26.2)$ |
| Big Sandy | 32.8 | $(26.8-39.3)$ |
| Bluegrass | 16.1 | $(12.1-21.2)$ |
| Buffalo Trace | 19.1 | $(13.9-25.7)$ |
| Cumberland Valley | 23.2 | $(18.4-28.7)$ |
| FIVCO | 15.5 | $(11.9-20.0)$ |
| Gateway | 20.4 | $(15.7-26.1)$ |
| Green River | 16.0 | $(11.7-21.5)$ |
| Kentucky River | 26.5 | $(21.7-32.0)$ |
| KIPDA | 11.9 | $(9.1-15.4)$ |
| Lake Cumberland | 16.7 | $(13.2-21.0)$ |
| Lincoln Trail | 14.6 | $(10.6-19.8)$ |
| Northern Kentucky | 16.7 | $(12.7-21.7)$ |
| Pennyrile | 19.9 | $(15.0-26.1)$ |
| Purchase | 19.3 | $(14.1-25.9)$ |
|  |  |  |
|  |  |  |

[^9]
## 2007 BRFSS Data by Region: Cost as a Barrier to Seeing a Doctor



## HEALTH STATUS: FAIR OR POOR HEALTH

Individuals 18 and older, who stated that their health was fair or poor, when asked the question: "Would you say that in general your health is excellent, very good, good, fair, or poor?"

- More Kentuckians have rated their health fair or poor compared to the rest of the nation since 2000. In 2007, the rate of fair or poor general health for Kentuckians is $23.1 \%$ compared to $15.2 \%$ for the nation.
- The rate of fair or poor general health is similar among males and females. Females ( $24.3 \%$ ) reported a slightly higher rate than males ( $21.8 \%$ ), though the difference is not statistically significant.
- Data show a linear relationship between fair or poor general health and age group. Younger respondents are less likely to report having fair or poor general health compared to older respondents. More than $45 \%$ of adults age 65 and older, report having fair or poor general health compared to $3.7 \%$ of those aged 18-24, and $12 \%$ of those aged 24-34. The differences in rates are significant among individual groups except those aged 25-34 and 35-44 years old.
- Like age group, data show a linear relationship between the rate of fair or poor health and level of education. The rate of fair or poor health decreases dramatically with increased education. More than half of respondents who have less than a high school, degree report having fair or poor general health compared to only $9 \%$ of respondents with a college degree. All differences are statistically significant.
- In regards to household income, $60.5 \%$ percent of those who earn less than \$15,000 a year report having fair or poor general health compared to $8.5 \%$ of those who make $\$ 50,000-74,999$ a year, and about $6 \%$ of those who make $\$ 75,000$ or more a year.

Fair or Poor Health

## Demographic Groups

Total
Gender
Male
Race
White/Non-Hispanic
Black/Non-Hispanic
Age
18-24
25-34
35-44
45-54
55-64
65+

## Education

| Less than H.S. | 50.5 | $(45.7-55.2)$ |
| :--- | :--- | :--- |
| H.S. or GED | 25.7 | $(23.4-28.2)$ |
| Some Post H.S. | 14.9 | $(12.6-17.6)$ |
| College Graduate | 9.0 | $(7.4-11.0)$ |

## Household Income

| Less than $\$ 15,000$ | 60.5 | $(54.9-65.9)$ |
| :--- | :--- | :--- |
| $\$ 15,000-24,999$ | 38.6 | $(34.4-43.0)$ |
| $\$ 25,000-34,999$ | 23.2 | $(18.8-28.2)$ |
| $\$ 35,000-49,999$ | 15.8 | $(12.7-19.3)$ |
| $\$ 50,000-74,999$ | 8.5 | $(6.6-10.9)$ |
| $\$ 75,000+$ | 5.7 | $(3.6-9.0)$ |

[^10]Fair or Poor Health by Kentucky and Nationwide (States, DC, and Territories), 2000-2007 BRFSS Data


In this report, the terms 'higher' or 'lower' are descriptive and only represent a statistically significant difference when noted.

## HEALTH STATUS: FAIR OR POOR HEALTH 2007 BRFSS Data by Geographic Distribution



| Area Development Districts <br> (ADD) | Fair or Poor Health |  |
| :--- | :--- | :--- |
|  |  |  |
|  | $\underline{\text { \% }}$ | $\underline{\mathbf{9 5 \%} \text { CI }}$ |
| Barren River | 25.2 | $(21.0-29.9)$ |
| Big Sandy | 34.4 | $(29.0-40.3)$ |
| Bluegrass | 19.0 | $(15.2-23.5)$ |
| Buffalo Trace | 31.5 | $(25.6-37.9)$ |
| Cumberland Valley | 34.2 | $(29.1-39.7)$ |
| FIVCO | 27.7 | $(22.6-33.4)$ |
| Gateway | 29.7 | $(24.4-35.0)$ |
| Green River | 23.3 | $(18.7-28.6)$ |
| Kentucky River | 34.0 | $(29.0-39.2)$ |
| KIPDA | 16.9 | $(13.7-20.6)$ |
| Lake Cumberland | 31.7 | $(27.0-36.0)$ |
| Lincoln Trail | 20.0 | $(16.1-24.6)$ |
| Northern Kentucky | 19.6 | $(15.8-24.0)$ |
| Pennyrile | 25.0 | $(19.4-31.0)$ |
| Purchase | 24.3 | $(19.1-30.3)$ |
|  |  |  |
|  |  |  |

[^11]2007 BRFSS Data by Region: Fair or Poor Health


## HEALTH STATUS: POOR MENTAL HEALTH

Individuals 18 and older who stated that they had 14 or more days of poor mental health when responding to the question, "Now, thinking about your mental health, which includes stress, depression and problems with emotions, for how many days during the past 30 days was your mental health not good?"

- More Kentuckians ( $12.3 \%$ ) than the rest of the nation $(9.7 \%)$ report having 14 or more days of poor mental health, which includes feeling stressed, depressed, or having problems with emotions. The rate of poor mental health has steadily remained higher in Kentucky, than the nation, as a whole since 2001.
- A slightly higher percentage of females ( $13.8 \%$ ) report poor mental health compare to males ( $10.6 \%$ ), the difference is slightly statistically significant.
- A higher percentage of Whites ( $12.5 \%$ ) than Blacks ( $8.3 \%$ ) report having poor mental health. The difference is not statistically significant.
- In regards to age groups, poor mental health is similar among age groups. The differences are not statistically significant.
- The rate of poor mental health decreases with higher level of education. $21.6 \%$ of those with less than high school degree report poor mental health, compared with $5.4 \%$ of college graduates. Those with some college education report poor mental health rates twice as high as those with less than high school degree.
- In regard to household income, poor mental health is most prevalent among those who earn less than $\$ 15,000$ a year, and least prevalent among those who make $\$ 50,000-74,999$ a year. $35.3 \%$ of respondents with a household income of less than $\$ 15,000$ a year report having poor health, compared to $6.1 \%$ of those who make $\$ 50,000-74,999$, and $\$ 75,000$ and above a year.


## Poor Mental Health

| Demographic Groups | \% | 95\% (CI) |
| :---: | :---: | :---: |
| Total | 12.3 | (11.1-13.5) |
| Gender |  |  |
| Male | 10.6 | (8.8-12.9) |
| Female | 13.8 | (12.4-15.2) |
| Race |  |  |
| White/Non-Hispanic | 12.5 | (11.3-13.9) |
| Black/Non-Hispanic | 8.3 | (4.9-13.6) |
| Age |  |  |
| 18-24 | 9.1 | (5.4-15.1) |
| 25-34 | 12.4 | (8.8-17.2) |
| 35-44 | 13.0 | (10.7-15.7) |
| 45-54 | 14.2 | (12.0-16.9) |
| 55-64 | 14.5 | (12.4-17.0) |
| 65+ | 8.7 | (7.2-10.5) |
| Education |  |  |
| Less than H.S. | 21.6 | (17.7-26.2) |
| H.S. or GED | 14.0 | (12.0-16.3) |
| Some Post H.S. | 10.2 | (8.3-12.4) |
| College Graduate | 5.4 | (3.9-7.3) |

## Household Income

| Less than $\$ 15,000$ | 35.3 | $(29.9-41.0)$ |
| :--- | :--- | :--- |
| $\$ 15,000-24,999$ | 19.4 | $(16.0-23.2)$ |
| $\$ 25,000-34,999$ | 13.0 | $(8.7-19.1)$ |
| $\$ 35,000-49,999$ | 8.5 | $(6.2-11.6)$ |
| $\$ 50,000-74,999$ | 5.8 | $(4.2-7.9)$ |
| $\$ 75,000+$ | 6.1 | $(3.5-10.4)$ |

Missing, "Don't Know", and Refused Responses are excluded. 95\% CI=95\% Confidence Interval.
Poor Mental Health by Kentucky and Nationwide (States, DC, and Territories), 2000-2007 BRFSS Data


In this report, the terms 'higher' or 'lower' are descriptive and only represent a statistically significant difference when noted.

## HEALTH STATUS: POOR MENTAL HEALTH 2007 BRFSS Data by Geographic Distribution

## Poor Mental Health

Percentage
2007 BRFSS Data by Area Development Districts


| Area Development Districts | Poor Mental Health |  |
| :--- | :--- | :--- |
| (ADD) |  |  |
|  | $\underline{\mathbf{o}}$ | $\underline{\mathbf{9 5 \%} \mathbf{C I}}$ |
|  |  |  |
| Barren River | 15.0 | $(11.5-19.4)$ |
| Big Sandy | 17.9 | $(13.8-22.9)$ |
| Bluegrass | 11.1 | $(7.8-15.7)$ |
| Buffalo Trace | 13.7 | $(9.7-18.9)$ |
| Cumberland Valley | 21.6 | $(17.0-27.1)$ |
| FIVCO | 11.9 | $(8.8-16.0)$ |
| Gateway | 11.9 | $(8.8-16.0)$ |
| Green River | 8.8 | $(6.2-12.4)$ |
| Kentucky River | 18.2 | $(14.2-23.0)$ |
| KIPDA | 8.1 | $(5.5-11.7)$ |
| Lake Cumberland | 16.1 | $(12.4-20.6)$ |
| Lincoln Trail | 8.9 | $(6.3-12.3)$ |
| Northern Kentucky | 16.0 | $(11.8-21.4)$ |
| Pennyrile | 10.6 | $(7.3-15.2)$ |
| Purchase | 10.0 | $(7.0-14.2)$ |
|  |  |  |

[^12]
## 2007 BRFSS Data by Region: Poor Metal Health



## HEALTH STATUS: POOR PHYSICAL HEALTH

Individuals 18 and older, who stated that they had 14 or more days of poor physical health when responding to the question, "Now thinking about your physical health, which includes physical illness and injury, for how many days during the past 30 days was your physical health not good?"

- More Kentuckians (16.0\%) than the rest of the nation ( $10.7 \%$ ) report having 14 or more days of poor physical health, which includes physical illness and injury. The rate of poor physical health has steadily remained higher in Kentucky, than the nation, as a whole since 2000.
- The differences in rates of poor physical health among gender and among race are not statistically significant.
- The rates of poor physical health increases with age. 9.3 percent of those aged 25-34 report poor physical health compared to 26.6 percent of adults aged 65 and older.
- In regard to education, poor physical health is most prevalent among those with less than a high school degree and least prevalent among those with a college degree. Thirty-two percent of respondents without a high school degree report having poor physical health, while only 6.3 percent of college graduates report poor physical health. The differences in rates are statistically significant.
- Data shows a linear relationship between poor physical health and level of household income. The higher the household income, the lower the rate of poor physical health. $41.5 \%$ of those who earn less than $\$ 15,000$ a year report poor physical health compared to $6.9 \%$ of those who earn $\$ 50,000-74,999$, and $4.6 \%$ of those who make $\$ 75,000$ a year. The rates of poor physical health dramatically reduced by a higher level of household income from $41.5 \%$ to $25.6 \%$, for those who earn \$15,000-24,999, and 15.7\% for those who earn $\$ 25,000-34,999$. The difference is statistically significant.

| Demographic Groups | \% | 95\% (CI) |
| :---: | :---: | :---: |
| Total | 16.0 | (14.7-17.1) |
| Gender |  |  |
| Male | 15.0 | (13.3-17.0) |
| Female | 16.7 | (15.3-18.3) |
| Race |  |  |
| White/Non-Hispanic | 16.3 | (15.1-17.6) |
| Black/Non-Hispanic | 10.7 | (7.1-15.7) |
| Age |  |  |
| 18-24 | * | * |
| 25-34 | 9.3 | (6.6-12.9) |
| 35-44 | 11.6 | (9.3-14.3) |
| 45-54 | 18.3 | (15.7-21.1) |
| 55-64 | 23.9 | (21.1-26.9) |
| 65+ | 26.6 | (24.1-29.3) |
| Education |  |  |
| Less than H.S. | 32.0 | (27.9-36.4) |
| H.S. or GED | 17.8 | (15.9-19.9) |
| Some Post H.S. | 12.0 | (10.0-14.5) |
| College Graduate | 6.3 | (4.9-8.0) |
| Household Income |  |  |
| Less than \$15,000 | 41.5 | (36.3-46.9) |
| \$15,000-24,999 | 25.6 | (22.0-29.6) |
| \$25,000-34,999 | 15.7 | (11.9-20.4) |
| \$35,000-49,999 | 10.8 | (8.2-14.0) |
| \$50,000-74,999 | 6.9 | (4.8-9.8) |
| \$75,000 + | 4.6 | (2.8-7.3) |

Missing, "Don't Know", and Refused Responses are excluded. 95\% CI= 95\% Confidence Interval. *Statistics are excluded because the sample size is too small for reliable estimates.

Poor Physical Health by Kentucky and Nationwide (States, DC, and Territories), 2000-2007 BRFSS Data


In this report, the terms 'higher' or 'lower' are descriptive and only represent a statistically significant difference when noted.

## HEALTH STATUS: POOR PHYSICAL HEALTH 2007 BRFSS Data by Geographic Distribution

## Percentage

Poor Physical Health
2007 BRFSS Data by Area Development Districts


| Area Development Districts | Poor Physical Health |  |
| :--- | :---: | :---: |
| (ADD) |  |  |
|  | $\underline{\mathbf{o}}$ | $\underline{\mathbf{9 5 \%} \mathbf{C I}}$ |
|  |  |  |
| Barren River | 17.4 | $(13.8-21.8)$ |
| Big Sandy | 24.9 | $(20.1-30.5)$ |
| Bluegrass | 13.3 | $(10.2-17.3)$ |
| Buffalo Trace | 18.7 | $(14.5-23.8)$ |
| Cumberland Valley | 26.5 | $(21.8-31.8)$ |
| FIVCO | 16.0 | $(12.6-20.1)$ |
| Gateway | 21.3 | $(16.9-26.6)$ |
| Green River | 16.3 | $(12.4-21.2)$ |
| Kentucky River | 22.3 | $(18.0-27.2)$ |
| KIPDA | 11.7 | $(9.1-15.1)$ |
| Lake Cumberland | 21.8 | $(17.9-26.3)$ |
| Lincoln Trail | 13.5 | $(10.1-17.8)$ |
| Northern Kentucky | 13.4 | $(10.4-17.2)$ |
| Pennyrile | 15.2 | $(11.3-20.1)$ |
| Purchase | 17.2 | $(12.2-23.6)$ |
|  |  |  |
|  |  |  |

[^13]
## 2007 BRFSS Data by Region: Poor Physical Health



## HYPERTENSION AWARENESS

Individuals 18 and older who answered "YES" to the following question, "Have you ever been told by a doctor, nurse, or other health professional that you have high blood pressure?"
Hypertension questions are asked every other year on odd years.

- Almost 1 in 3 Kentuckians report having high blood pressure. Kentuckians (30.0\%) report slightly higher rates of hypertension compared to the nation (27.5\%).
- The differences in rates of hypertension between gender and race are not statistically significant.
- The rate of hypertension increases with age. $58.5 \%$ of adults aged 65 and older report having hypertension compared to only 5.2 percent of adult 18-24. The difference in rates among groups are statistically significant between youngest group and those 35-44 (18.7\%), 45-54 (31.4\%), 55-64 (50.9\%), and those $65+(58.5 \%)$.
- Hypertension is most prevalent among those with lower levels of education than those with higher education. The difference in rates for those with less than high school degree (42.5\%), and those with a college degree (23.4\%) is statistically significant.
- Hypertension rates decrease with rising levels of household income.
Hypertension rates are significantly higher among those respondents who earn the least household income (44.9\%) than those who earn the most household income ( $18.9 \%$ ), showing a statistically significant difference.

Hypertension Awareness
Demographic Groups

Total $30.0 \quad$ (28.4-31.6)
Gender
Male
30.7 (28.1-33.4)

Female $\quad 29.3 \quad(27.5-31.2)$
Race
$\begin{array}{lll}\text { White/Non-Hispanic } & 29.8 & (28.2-31.4) \\ \text { Black/Non-Hispanic } & 32.4 & (24.4-41.7)\end{array}$
Age

| $18-24$ | 5.2 | $(2.8-9.3)$ |
| :--- | :--- | :--- |
| $25-34$ | 11.1 | $(8.3-14.6)$ |
| $35-44$ | 18.7 | $(15.3-22.8)$ |
| $45-54$ | 31.4 | $(28.1-31.9)$ |
| $55-64$ | 50.9 | $(47.4-54.4)$ |
| $65+$ | 58.5 | $(55.6-61.3)$ |

## Education

| Less than H.S. | 42.5 | $(38.2-46.9)$ |
| :--- | :--- | :--- |
| H.S. or GED | 31.1 | $(28.6-33.7)$ |
| Some Post H.S. | 26.6 | $(23.5-30.0)$ |
| College Graduate | 23.4 | $(20.2-26.8)$ |

## Household Income

| Less than $\$ 15,000$ | 44.9 | $(39.6-50.3)$ |
| :--- | :--- | :--- |
| $\$ 15,000-24,999$ | 39.2 | $(35.1-43.5)$ |
| $\$ 25,000-34,999$ | 33.2 | $(28.0-38.9)$ |
| $\$ 35,000-49,999$ | 26.8 | $(22.8-31.2)$ |
| $\$ 50,000-74,999$ | 26.1 | $(22.0-30.8)$ |
| $\$ 75,000+$ | 18.9 | $(15.0-23.6)$ |

Missing, "Don't Know", and Refused Responses are excluded. 95\% CI= 95\% Confidence Interval.

Hypertension Awareness by Kentucky and Nationwide (States, DC, and Territories), 2000-2007 BRFSS Data


In this report, the terms 'higher' or 'lower' are descriptive and only represent a statistically significant difference when noted.


| Area Development Districts <br> (ADD) | Hypertension Awareness |  |
| :--- | :---: | :---: |
|  | $\underline{\mathbf{\%}}$ | $\underline{\mathbf{9 5 \%} \mathbf{~ C I}}$ |
| Barren River | 33.9 | $(28.7-39.6)$ |
| Big Sandy | 30.8 | $(25.7-36.5)$ |
| Bluegrass | 25.9 | $(21.4-31.0)$ |
| Buffalo Trace | 29.3 | $(24.1-35.2)$ |
| Cumberland Valley | 34.8 | $(29.7-40.3)$ |
| FIVCO | 35.5 | $(30.1-41.2)$ |
| Gateway | 33.6 | $(28.1-39.7)$ |
| Green River | 28.0 | $(23.0-33.6)$ |
| Kentucky River | 42.8 | $(37.3-48.5)$ |
| KIPDA | 28.6 | $(24.6-33.0)$ |
| Lake Cumberland | 36.5 | $(31.6-41.6)$ |
| Lincoln Trail | 27.6 | $(22.7-33.1)$ |
| Northern Kentucky | 23.6 | $(19.6-28.2)$ |
| Pennyrile | 34.8 | $(28.3-41.9)$ |
| Purchase | 34.4 | $(28.1-41.1)$ |
|  |  |  |
|  |  |  |

[^14] would fall in the range $95 \%$ of the time.

2007 BRFSS Data by Region:
Hypertension Awareness


## IMMUNIZATION: NO FLU SHOT IN THE PAST 12 MONTHS, ADULTS 65 AND OLDER

Individuals 65 and older who answered "NO" to the following question, "Have you had a flu shot during the past $\mathbf{1 2}$ months?" after being told that a flu shot is an influenza vaccine injected into the arm. Immunization questions were not asked in 2000.

- Fewer Kentuckians (26.8\%) report not having a flu shot in the past year than the rest of the nation (28.4\%). Data shows that more Kentuckians age 65 and older are getting flu shots, judging from the decrease in rates since 2001. The rates of no flu shot in past 12 months for adults, 65 and older, have been steadily decreasing since then.
- The difference in rates is not statistically significant for males and females.
- A higher percentage of Blacks (39.7\%), 65 and older, report not having a flu shot in the past 12 months than Whites (25.5\%), though the difference is not statistically significant.
- A higher percentage of those with less than a high school degree (30.3\%), report not having a flu shot in the past 12 months, compared to those with college degree ( $20.0 \%$ ). The difference is not statistically significant.
- The rate of not having a flu shot in past 12 months decreases with increasing level of household income. 36.6 percent of those who earn less than $\$ 15,000$ a year report not having a flu shot in past 12 months compared to an average of $15 \%$ of those who earn $\$ 50,000-74,999$ and $\$ 75,000$ or more a year. The difference is not statistically significant.


## No flu shot in past 12 months, Adults 65+

| Demographic Groups | \% | 95\% (CI) |
| :---: | :---: | :---: |
| Total | 26.8 | (24.3-29.3) |
| Gender |  |  |
| Male | 24.5 | (20.6-28.9) |
| Female | 28.4 | (25.5-31.5) |
| Race |  |  |
| White/Non-Hispanic | 25.5 | (23.1-28.0) |
| Black/Non-Hispanic | 39.7 | (24.6-57.1) |
| Education |  |  |
| Less than H.S. | 30.3 | (26.2-34.9) |
| H.S. or GED | 26.9 | (22.9-31.3) |
| Some Post H.S. | 25.7 | (20.0-32.5) |
| College Graduate | 20.0 | (14.9-26.4) |
| Household Income |  |  |
| Less than \$15,000 | 36.6 | (29.6-44.3) |
| \$15,000-24,999 | 30.7 | (25.2-36.7) |
| \$25,000-34,999 | 22.4 | (16.2-30.2) |
| \$35,000-49,999 | 24.5 | (17.1-33.7) |
| \$50,000-74,999 | 14.5 | (7.5-26.5) |
| \$75,000 + | 15.4 | (8.5-26.2) |

Missing, "Don't Know", and Refused Responses are excluded. $95 \% \mathrm{CI}=95 \%$ Confidence Interval.

No flu shot in the past $\mathbf{1 2}$ months, Adults 65+ by Kentucky and Nationwide (States, DC, and Territories), 2000-2007 BFSS Data


In this report, the terms 'higher' or 'lower' are descriptive and only represent a statistically significant difference when noted.


| Area Development Districts <br> (ADD) | No flu shot in past 12 Months, <br> Adults 65+ |  |
| :--- | :---: | :---: |
|  | $\underline{\text { \% }}$ | $\underline{\mathbf{9 5 \%} \mathbf{C I}}$ |
| Barren River | 27.9 | $(20.4-36.9)$ |
| Big Sandy | 26.6 | $(18.0-37.4)$ |
| Bluegrass | 22.1 | $(15.8-29.9)$ |
| Buffalo Trace | 29.8 | $(21.5-39.7)$ |
| Cumberland Valley | 36.1 | $(26.5-47.1)$ |
| FIVCO | 26.0 | $(18.6-35.1)$ |
| Gateway | 29.8 | $(20.8-40.6)$ |
| Green River | 21.7 | $(15.1-30.1)$ |
| Kentucky River | 36.0 | $(26.7-46.4)$ |
| KIPDA | 26.2 | $(19.7-34.1)$ |
| Lake Cumberland | 31.5 | $(24.7-39.3)$ |
| Lincoln Trail | 21.9 | $(14.3-31.9)$ |
| Northern Kentucky | 30.9 | $(23.3-39.6)$ |
| Pennyrile | 20.8 | $(14.4-29.2)$ |
| Purchase | 30.4 | $(21.5-41.1)$ |
|  |  |  |

[^15]
## IMMUNIZATION: NEVER HAD A PNEUMONIA SHOT, ADULTS 65 AND OLDER

Individuals 65 and older who responded "NO" to the following question, "Have you ever had a pneumonia shot? This shot is usually given only once or twice in a person's lifetime and is different from the flu shot. It is also called a pneumococcal vaccine". Immunization questions were not asked in 2000.

- Since 2001, more Kentuckians 65 and older have reported never having a pneumonia shot than the rest of the nation.
- In 2007, 34.0\% of Kentuckians 65 and older report never having a pneumonia shot compared to $33.1 \%$ of the nation as a whole.
- A slightly higher percentage of males than females report never having a pneumonia shot, though the difference is not statistically significant.
- The rate of no pneumonia shots for adults 65 and older are higher for Blacks (54.7\%) than Whites (32.6\%). The difference is not statistically significant.
- Never having a pneumonia shot for adults, age 65 and older, rates are not statistically significant among household levels.
$\underline{\text { Never had a pneumonia shot, Adults 65+ }}$

| Demographic Groups | \% | 95\% (CI) |
| :---: | :---: | :---: |
| Total | 34.0 | (31.4-36.8) |
| Gender |  |  |
| Male | 34.5 | (29.9-39.4) |
| Female | 33.7 | (30.6-37.0) |
| Race |  |  |
| White/Non-Hispanic | 32.6 | (30.0-65.4) |
| Black/Non-Hispanic | 54.7 | (38.1-70.4) |
| Education |  |  |
| Less than H.S. | 38.1 | (33.5-43.0) |
| H.S. or GED | 35.1 | (30.6-39.8) |
| Some Post H.S. | 33.1 | (26.6-40.4) |
| College Graduate | 24.5 | (18.6-31.4) |
| Household Income |  |  |
| Less than \$15,000 | 40.2 | (32.9-48.1) |
| \$15,000-24,999 | 37.4 | (31.4-43.8) |
| \$25,000-34,999 | 27.1 | (20.4-34.9) |
| \$35,000-49,999 | 29.9 | (21.7-39.6) |
| \$50,000-74,999 | 25.4 | (16.1-37.7) |

Missing, "Don't Know", and Refused Responses are excluded. 95\% CI= 95\% Confidence Interval.

Never had a pneumonia shot, Adults 65+ by Kentucky and Nationwide (States, DC, and Territories), 2000-2007 BRFSS Data


In this report, the terms 'higher' or 'lower' are descriptive and only represent a statistically significant difference when noted.

## IMMUNIZATION: NEVER HAD A PNEUMONIA SHOT, ADULTS 65 AND OLDER 2007 BRFSS Data by Geographic Distribution

## Percentage

Never had a pneumonia shot, Adults 65+
2007 BRFSS Data by Area Development Districts


| Area Development Districts <br> (ADD) | Never had a pneumonia <br> shot, Adults 65+ |  |
| :--- | :--- | :--- |
|  | $\underline{\mathbf{\%}}$ | $\underline{\mathbf{9 5 \%} \mathbf{~ C I}}$ |
| Barren River | 47.0 | $(38.1-56.2)$ |
| Big Sandy | 38.1 | $(27.7-49.7)$ |
| Bluegrass | 25.2 | $(18.3-3.6)$ |
| Buffalo Trace | 38.1 | $(28.0-49.2)$ |
| Cumberland Valley | 36.9 | $(27.1-47.9)$ |
| FIVCO | 33.7 | $(24.9-43.8)$ |
| Gateway | 38.2 | $(28.3-49.2)$ |
| Green River | 26.5 | $(19.5-34.9)$ |
| Kentucky River | 41.0 | $(31.3-51.4)$ |
| KIPDA | 30.9 | $(23.9-39.0)$ |
| Lake Cumberland | 37.0 | $(29.6-45.1)$ |
| Lincoln Trail | 32.1 | $(22.4-43.6)$ |
| Northern Kentucky | 36.9 | $(28.6-46.1)$ |
| Pennyrile | 30.7 | $(21.8 .41 .3)$ |
| Purchase | 47.9 | $(36.1-59.9)$ |
|  |  |  |
|  |  |  |

[^16]2007 BRFSS Data by Region: Never had a pneumonia shot, Adults 65+


## NUTRITION: CONSUME LESS THAN FIVE SERVINGS OF FRUITS AND VEGETABLES A DAY

Individuals 18 and older who consume less than five servings of fruits and vegetables per day. This version of the question was not asked in 2004 and in 2006.

- More Kentuckians (81.6\%) consume less than five servings of fruits and vegetables a day compared to the rest of the nation (75.7\%).
- The difference in rates for males and females is statistically significant. More males ( $84.8 \%$ ) report consuming less than five servings of fruits and vegetables a day compared to females (78.8\%).
- There are no statistically significant differences in the rates of less than five fruits and vegetables a day among age groups.
- A higher percent of respondents with less than a high school degree report consuming less than five servings of fruits and vegetables than college graduates, although the difference is not statistically significant.


## Consume less than five a day

| Demographic Groups | \% | 95\% (CI) |
| :---: | :---: | :---: |
| Total | 81.6 | (80.0-83.1) |
| Gender |  |  |
| Male | 84.8 | (82.2-87.1) |
| Female | 78.8 | (76.8-80.7) |
| Race |  |  |
| White/Non-Hispanic | 81.4 | (79.8-83.0) |
| Black/Non-Hispanic | 87.7 | (81.1-92.2) |
| Age |  |  |
| 18-24 | 78.2 | (68.7-85.5) |
| 25-34 | 82.8 | (78.3-86.5) |
| 35-44 | 86.6 | (83.1-89.4) |
| 45-54 | 83.8 | (80.3-85.9) |
| 55-64 | 79.2 | (76.1-82.0) |
| 65+ | 77.0 | (74.3-79.5) |
| Education |  |  |
| Less than H.S. | 85.6 | (80.0-89.8) |
| H.S. or GED | 83.7 | (81.3-85.8) |
| Some Post H.S. | 80.1 | (76.6-83.2) |
| College Graduate | 77.3 | (73.9-80.3) |

Household Income

| Less than $\$ 15,000$ | 89.8 | $(86.2-92.6)$ |
| :--- | :--- | :--- |
| $\$ 15,000-24,999$ | 83.6 | $(79.3-87.1)$ |
| $\$ 25,000-34,999$ | 76.0 | $(69.2-81.7)$ |
| $\$ 35,000-49,999$ | 79.7 | $(75.4-83.4)$ |
| $\$ 50,000-74,999$ | 83.8 | $(79.8-87.2)$ |
| $\$ 75,000+$ | 81.5 | $(77.2-85.2)$ |

Missing, "Don't Know", and Refused Responses are excluded. 95\% CI= 95\% Confidence Interval.

Consume less than five a day by Kentucky and Nationwide (States, DC, and Territories), 2000-2007 BRFSS Data


In this report, the terms 'higher' or 'lower' are descriptive and only represent a statistically significant difference when noted.

## NUTRITION: CONSUME LESS THAN FIVE SERVINGS OF FRUITS AND VEGETABLES A DAY 2007 BRFSS Data by Geographic Distribution

Percentage
Consume less than five a day
2007 BRFSS Data by Area Development Districts


| Area Development Districts <br> (ADD) | Consume less than five a day |  |
| :--- | :---: | :--- |
|  | $\underline{\mathbf{o}}$ | $\underline{\mathbf{9 5 \%} \mathbf{C I}}$ |
| Barren River | 81.0 | $(76.6-85.7)$ |
| Big Sandy | 88.4 | $(84.4-91.5)$ |
| Bluegrass | 83.7 | $(79.3-87.4)$ |
| Buffalo Trace | 84.5 | $(78.3-89.2)$ |
| Cumberland Valley | 82.7 | $(77.5-86.9)$ |
| FIVCO | 85.4 | $(81.1-88.8)$ |
| Gateway | 83.0 | $(77.8-87.3)$ |
| Green River | 77.0 | $(70.4-82.4)$ |
| Kentucky River | 83.7 | $(78.4-87.9)$ |
| KIPDA | 76.9 | $(71.7-81.4)$ |
| Lake Cumberland | 80.3 | $(75.3-84.5)$ |
| Lincoln Trail | 84.1 | $(78.6-88.4)$ |
| Northern Kentucky | 80.4 | $(75.2-84.7)$ |
| Pennyrile | 86.4 | $(80.9-90.6)$ |
| Purchase | 82.0 | $(76.4-86.8)$ |
|  |  |  |
|  |  |  |
|  |  |  |

[^17]2007 BRFSS Data by Region:
Consume less than five a day


## PHYSICAL ACTIVITY: NO LEISURE TIME PHYSICAL ACTIVITY

Individuals 18 and older who answered "NO" to the following question, "During the past 30 days, other than your regular job, did you participate in any physical activities or exercises such as running, calisthenics, golf, gardening, or walking for exercise?"

- More Kentuckians (30.3\%) report no physical activity compared to the rest of the nation (23.0\%).
- More females (33.4\%) than males ( $27.0 \%$ ) report not participating in physical activity, showing a statistically significant difference in rates.
- Respondents aged 65 and older (44.8\%) reported higher rates of not participating in any physical activity than those aged 18-24 years old. The difference between those groups is statistically significant. The difference in rates for those age 25-$34,35-44$, and 54-54 are not statistically significant.
- $\quad 55.7$ percent of respondents with less than a high school degree report not participating in any physical activity compared to 14.4 percent of college graduates. The difference between these groups are statistically significant.
- Fifty-two percent of respondents who earn less than $\$ 15,000$ a year report not participating in any physical activity compared to $14.1 \%$ of those who earn $\$ 75,000$ and above a year, the difference being statistically significant.

No leisure time physical activity

| Demographic Groups | \% | 95\% (CI) |
| :---: | :---: | :---: |
| Total | 30.3 | (28.7-32.0) |
| Gender |  |  |
| Male | 27.0 | (24.5-29.7) |
| Female | 33.4 | (31.4-35.5) |
| Race |  |  |
| White/Non-Hispanic | 30.5 | (28.8-33.2) |
| Black/Non-Hispanic | 25.3 | (18.6-33.4) |
| Age |  |  |
| 18-24 | 15.9 | (10.9-22.7) |
| 25-34 | 24.7 | (20.4-29.6) |
| 35-44 | 24.1 | (20.6-28.0) |
| 45-54 | 30.7 | (27.4-34.2) |
| 55-64 | 37.1 | (33.9-40.5) |
| 65+ | 44.8 | (41.9-47.7) |
| Education |  |  |
| Less than H.S. | 55.7 | (50..8-60.5) |
| H.S. or GED | 35.5 | (32.7-38.4) |
| Some Post H.S. | 20.6 | (17.8-23.7) |
| College Graduate | 14.4 | (11.9-17.4) |
| Household Income |  |  |
| Less than \$15,000 | 52.0 | (46.5-57.4) |
| \$15,000-24,999 | 46.2 | (41.7-50.8) |
| \$25,000-34,999 | 29.5 | (24.6-34.9) |
| \$35,000-49,999 | 27.4 | (23.0-32.2) |
| \$50,000-74,999 | 19.1 | (15.6-23.2) |
| \$75,000 + | 14.1 | (10.7-18.5) |

Missing, "Don't Know", and Refused Responses are excluded. $95 \% \mathrm{CI}=95 \%$ Confidence
Interval.
No leisure time physical activity by Kentucky and Nationwide (States, DC, and Territories), 2000-2007 BRFSS Data


In this report, the terms 'higher' or 'lower' are descriptive and only represent a statistically significant difference when noted.

# PHYSICAL ACTIVITY: NO LEISURE TIME PHYSICAL ACTIVITY 2007 BRFSS Data by Geographic Distribution 



| Area Development Districts <br> (ADD) | No leisure time physical <br> activity |  |
| :--- | :--- | :--- |
|  |  |  |
|  | $\underline{\mathbf{o}}$ | $\underline{\mathbf{9 5 \%} \mathbf{C I}}$ |
| Barren River | 35.7 | $(30.4-41.4)$ |
| Big Sandy | 44.1 | $(37.8-50.5)$ |
| Bluegrass | 27.3 | $(22.5-32.7)$ |
| Buffalo Trace | 36.7 | $(30.4-43.5)$ |
| Cumberland Valley | 40.6 | $(34.9-46.5)$ |
| FIVCO | 35.8 | $(30.5-41.6)$ |
| Gateway | 32.4 | $(27.1-38.3)$ |
| Green River | 26.1 | $(21.2-31.7)$ |
| Kentucky River | 37.8 | $(32.6-43.4)$ |
| KIPDA | 23.2 | $(19.5-27.4)$ |
| Lake Cumberland | 39.3 | $(34.1-44.8)$ |
| Lincoln Trail | 32.7 | $(27.0-38.9)$ |
| Northern Kentucky | 26.8 | $(22.1-32.1)$ |
| Pennyrile | 30.1 | $(23.7-37.5)$ |
| Purchase | 28.4 | $(22.4-35.3)$ |
|  |  |  |
|  |  |  |

[^18]2007 BRFSS Data by Region: No leisure time physical activity


## PHYSICAL ACTIVITY: NO MODERATE PHYSICAL ACTIVITY

Individuals 18 and older who have NOT participated in 30 or more minutes of moderate physical activity for five or more times a week or 20 minutes or more of vigorous physical activity three or more times a week. Physical activity module questions are asked every other year on odd years.

- More adults 18 and older in Kentucky ( $55.8 \%$ ) report not participating in 30 or more minutes of moderate physical activity compared to the rest of the nation (50.8\%).
- The difference in rates of not participating in 30 or more minutes of moderate physical activity is statistically significant between males ( $52.2 \%$ ) and females (59.1\%).
- There is no statistically significant difference in White and Black respondents.
- Lack of moderate physical activity increases with age. $72.3 \%$ of adults 65 and older report not participating in 30 or more minutes of moderate physical activity, compared to $35.2 \%$ of adults 18 -24 . The difference between these two groups is statistically significance. There is a statistically significant difference in lack of moderate physical activity between those age 18-24 and those aged $35-44$. Also, those aged 45-54 are different from those aged 65 and older.
- Respondents with less than a high school degree ( $65.2 \%$ ) report a higher rate of not participating in 30 or more minutes of moderate physical activity than respondents with a college degree ( $50.4 \%$ ). The difference for these two groups is statistically significant.
- There is a statistically significant difference between the respondents with a household income of less than $\$ 15,000$ and those with a household income of $\$ 75,000$.


## No moderate physical activity

| Demographic Groups | \% | 95\% (CI) |
| :---: | :---: | :---: |
| Total | 55.8 | (53.7-57.8) |
| Gender |  |  |
| Male | 52.2 | (48.8-55.5) |
| Female | 59.1 | (56.7-61.5) |
| Race |  |  |
| White/Non-Hispanic | 56.0 | (53.9-58.1) |
| Black/Non-Hispanic | 55.5 | (45.1-65.4) |
| Age |  |  |
| 18-24 | 35.2 | (27.6-43.7) |
| 25-34 | 44.1 | (38.5-49.8) |
| 35-44 | 55.3 | (50.3-60.2) |
| 45-54 | 59.4 | (55.5-63.3) |
| 55-64 | 60.7 | (57.0-64.3) |
| 65+ | 72.3 | (69.4-75.0) |
| Education |  |  |
| Less than H.S. | 65.2 | (59.2-70.8) |
| H.S. or GED | 58.1 | (54.9-61.2) |
| Some Post H.S. | 51.7 | (47.3-56.1) |
| College Graduate | 50.4 | (46.0-54.7) |
| Household Income |  |  |
| Less than \$15,000 | 68.8 | (62.9-74.1) |
| \$15,000-24,999 | 61.5 | (56.4-66.3) |
| \$25,000-34,999 | 54.9 | (47.9-61.7) |
| \$35,000-49,999 | 54.8 | (49.4-60.2) |
| \$50,000-74,999 | 51.2 | (45.4-56.9) |
| \$75,000 + | 45.6 | (40.0-5135) |

Missing, "Don't Know", and Refused Responses are excluded. 95\% CI= 95\% Confidence Interval.

No moderate physical activity by Kentucky and Nationwide (States, DC, and Territories), 2000-2007 BRFSS Data


In this report, the terms 'higher' or 'lower' are descriptive and only represent a statistically significant difference when noted.

## PHYSICAL ACTIVITY: NO MODERATE PHYSICAL ACTIVITY 2007 BRFSS Data by Geographic Distribution



| Area Development Districts <br> (ADD) | No moderate physical activity |  |
| :--- | :---: | :---: |
|  |  |  |
|  | $\underline{\mathbf{\%}}$ | $\underline{\mathbf{9 5 \%} \mathbf{C I}}$ |
|  |  |  |
| Barren River | 58.6 | $(52.1-64.9)$ |
| Big Sandy | 61.5 | $(54.4-68.1)$ |
| Bluegrass | 57.5 | $(51.0-63.7)$ |
| Buffalo Trace | 53.1 | $(45.2-60.7)$ |
| Cumberland Valley | 64.4 | $(57.8-70.5)$ |
| FIVCO | 59.1 | $(52.7-65.2)$ |
| Gateway | 55.4 | $(47.9-62.6)$ |
| Green River | 47.0 | $(39.9-54.3)$ |
| Kentucky River | 61.8 | $(55.5-67.8)$ |
| KIPDA | 54.0 | $(48.4-59.4)$ |
| Lake Cumberland | 54.9 | $(48.9-60.8)$ |
| Lincoln Trail | 51.6 | $(44.7-58.5)$ |
| Northern Kentucky | 51.8 | $(46.0-57.6)$ |
| Pennyrile | 61.9 | $(53.2-69.8)$ |
| Purchase | 51.6 | $(44.0-59.1)$ |
|  |  |  |
|  |  |  |

[^19]2007 BRFSS Data by Region: No moderate physical activity

$\square K Y \square$ Appalachian $\square$ Non-Appalachian

## PHYSICAL ACTIVITY: NO VIGOROUS PHYSICAL ACTIVITY

Individuals 18 and older who have NOT participated in $\mathbf{2 0}$ or more minutes of vigorous physical activity three or more times a week. Physical activity module questions are asked every other year on odd years.

- More Kentucky adults 18 and older ( $78.3 \%$ ) report not participating in 20 or more minutes of vigorous physical activity compared to the rest of the nation (71.9\%).
- The difference in rates of not participating in 20 or more minutes of vigorous physical activity is statistically significant for males ( $72.2 \%$ ) and females (83.8\%).
- There is no statistically significant difference among White and Black respondents.
- $91.5 \%$ of adults 65 and older report not participating in 20 or more minutes of vigorous physical activity compared to 59.5 percent of adults ages $18-24$. The difference between these two groups is statistically significant. The are no statistically significant differences between the other age groups.
- Respondents with less than a high school degree ( $83.0 \%$ ) report a higher rate of not participating in 20 or more minutes of vigorous physical activity than respondents with some college education (74.5\%). The difference in rates for these groups is not statistically significant.
- The rate of not participating in 20 or more minutes of vigorous physical activity is highest among respondents who earn less than $\$ 15,000$ a year compared to those who earn $\$ 75,000$ and above year, showing a statistically significant difference.

No vigorous physical activity

| Demographic Groups | \% | 95\% (CI) |
| :---: | :---: | :---: |
| Total | 78.3 | (76.3-80.1) |
| Gender |  |  |
| Male | 72.2 | (68.8-75.3) |
| Female | 83.8 | (81.8-85.6) |
| Race |  |  |
| White/Non-Hispanic | 78.8 | (76.8-80.6) |
| Black/Non-Hispanic | 77.9 | (66.8-86.0) |
| Age |  |  |
| 18-24 | 59.5 | (50.0-68.4) |
| 25-34 | 70.1 | (64.4-75.3) |
| 35-44 | 75.9 | (71.3-79.9) |
| 45-54 | 80.7 | (77.3-83.3) |
| 55-64 | 85.3 | (82.4-87.8) |
| 65+ | 91.5 | (89.6-93.1) |

## Education

| Less than H.S. | 83.0 | $(76.1-88.2)$ |
| :--- | :--- | :--- |
| H.S. or GED | 82.2 | $(79.4-84.6)$ |
| Some Post H.S. | 74.5 | $(70.0-78.5)$ |
| College Graduate | 72.6 | $(68.6-76.3)$ |

## Household Income

| Less than $\$ 15,000$ | 88.6 | $(83.7-92.2)$ |
| :--- | :--- | :--- |
| $\$ 15,000-24,999$ | 82.9 | $(77.7-87.1)$ |
| $\$ 25,000-34,999$ | 79.2 | $(71.0-85.8)$ |
| $\$ 35,000-49,999$ | 76.8 | $(71.7-81.3)$ |
| $\$ 50,000-74,999$ | 73.4 | $(67.9-78.3)$ |
| $\$ 75,000+$ | 69.6 | $(64.0-74.7)$ |

Missing, "Don't Know", and Refused Responses are excluded. 95\% CI= 95\% Confidence Interval.

No vigorous physical activity by Kentucky and Nationwide (States, DC, and Territories), 2000-2007 BRFSS Data


In this report, the terms 'higher' or 'lower' are descriptive and only represent a statistically significant difference when noted.

## PHYSICAL ACTIVITY: NO VIGOROUS PHYSICAL ACTIVITY 2007 BRFSS Data by Geographic Distribution



| Area Development Districts <br> (ADD) | No vigorous physical activity |  |
| :--- | :---: | :---: |
|  |  |  |
|  | $\underline{\mathbf{\%}}$ | $\underline{\mathbf{9 5 \%} \mathbf{C I}}$ |
| Barren River |  |  |
| Big Sandy | 81.7 | $(75.9-86.4)$ |
| Bluegrass | 82.4 | $(75.5-87.7)$ |
| Buffalo Trace | 78.7 | $(72.5-83.9)$ |
| Cumberland Valley | 81.9 | $(74.0-87.8)$ |
| FIVCO | 84.5 | $(78.2-89.2)$ |
| Gateway | 83.8 | $(78.1-88.2)$ |
| Green River | 76.3 | $(68.5-85.6)$ |
| Kentucky River | 74.1 | $(66.1-80.8)$ |
| KIPDA | 82.8 | $(76.4-87.7)$ |
| Lake Cumberland | 75.1 | $(69.3-80.1)$ |
| Lincoln Trail | 80.8 | $(75.1-85.5)$ |
| Northern Kentucky | 74.5 | $(67.9-80.1)$ |
| Pennyrile | 74.8 | $(69.2-79.7)$ |
| Purchase | 80.9 | $(72.1-87.4)$ |
|  | 80.3 | $(73.3-85.8)$ |
|  |  |  |

[^20]2007 BRFSS Data by Region: No vigorous physical activity


## TOBACCO USE: EVER SMOKED AT LEAST 100 CIGARETTES

Individuals 18 and older, who answered "YES" to the following question, "Have you smoked at least 100 cigarettes in your entire lifetime?"

- More Kentuckians report having smoked at least 100 cigarettes in their lifetime, compared to the rest of the nation.
- Data show a statistically significant difference in the rates of having smoked at least 100 cigarettes among males and females. The higher rate is reported by males ( $55.4 \%$ ) and the lower rate is reported by females (49.0\%).
- More Whites (52.1\%) than Blacks (47.0\%) report having smoked at least 100 cigarettes in their lifetime, though the difference is not statistically significant.
- The differences in rates of having smoked at least 100 cigarettes in a lifetime are not statistically significant between age groups.
- There is a linear correlation between smoking cigarettes and education levels. $69.8 \% \mathrm{t}$ of respondents with less than a high school degree report having smoked at least 100 cigarettes in their lifetime compared to $33.4 \%$ of college graduates. The difference in rates between these levels is statistically significant.
- The rate of smoking at least 100 cigarettes decreases with level of household income. 66.5 percent of respondents earning less than $\$ 15,000 \mathrm{a}$ year report having smoked at least 100 cigarettes in their lifetime, while $39.7 \%$ of respondents earning $\$ 75,000$ and above a year report having smoked at least 100 cigarettes in their lifetime. This difference in rates is statistically significant.


## Smoked at least 100 Cigarettes

| Demographic Groups | \% | 95\% (CI) |
| :---: | :---: | :---: |
| Total | 52.1 | (50.2-54.0) |
| Gender |  |  |
| Male | 55.4 | (52.1-58.6) |
| Female | 49.0 | (46.8-51.3) |
| Race |  |  |
| White/Non-Hispanic | 52.1 | (50.1-54.1) |
| Black/Non-Hispanic | 47.0 | (37.6-56.6) |
| Age |  |  |
| 18-24 | 50.1 | (41.5-58.7) |
| 25-34 | 48.8 | (43.2-54.3) |
| 35-44 | 45.5 | (40.7-50.3) |
| 45-54 | 57.5 | (53.8-61.2) |
| 55-64 | 59.1 | (55.6-62.5) |
| 65+ | 53.9 | (51..0-56.8) |
| Education |  |  |
| Less than H.S. | 69.8 | (65.5-73.7) |
| H.S. or GED | 56.6 | (53.4-59.7) |
| Some Post H.S. | 51.2 | (47.0-55.4) |
| College Graduate | 33.4 | (29.7-37.4) |
| Household Income |  |  |
| Less than \$15,000 | 66.5 | (61.0-71.7) |
| \$15,000-24,999 | 62.6 | (57.9-67.1) |
| \$25,000-34,999 | 58.8 | (52.4-64.9) |
| \$35,000-49,999 | 56.1 | (51.0-61.1) |
| \$50,000-74,999 | 50.6 | (45.0-56.1) |
| \$75,000 + | 39.7 | (34.5-45.2) |

Missing, "Don't Know", and Refused Responses are excluded. 95\% CI= 95\% Confidence Interval.

Smoked at least 100 cigarettes by Kentucky and Nationwide (States, DC, and Territories), 2000-2007 BRFSS Data


In this report, the terms 'higher' or 'lower' are descriptive and only represent a statistically significant difference when noted.

## TOBACCO USE: EVER SMOKED AT LEAST 100 CIGARETTES 2007 BRFSS Data by Geographic Distribution

Percentage

## Smoked at least 100 cigarettes <br> 2007 BRFSS Data by Area Development Districts



| Area Development Districts <br> (ADD) | Smoked at least $\mathbf{1 0 0}$ cigarettes |  |
| :--- | :---: | :---: |
|  |  |  |
|  | $\underline{\mathbf{\%}}$ | $\underline{\mathbf{9 5 \%} \mathbf{C I}}$ |
|  |  |  |
| Barren River | 55.2 | $(49.2-61.1)$ |
| Big Sandy | 57.7 | $(51.2-64.0)$ |
| Bluegrass | 48.8 | $(42.6-55.0)$ |
| Buffalo Trace | 58.5 | $(51.2-65.4)$ |
| Cumberland Valley | 51.4 | $(45.3-57.5)$ |
| FIVCO | 56.6 | $(50.9-62.2)$ |
| Gateway | 53.7 | $(46.9-60.5)$ |
| Green River | 52.0 | $(45.2-58.8)$ |
| Kentucky River | 55.6 | $(49.9-61.2)$ |
| KIPDA | 49.8 | $(44.7-54.9)$ |
| Lake Cumberland | 56.7 | $(51.0-62.2)$ |
| Lincoln Trail | 58.3 | $(52.0-64.4)$ |
| Northern Kentucky | 47.8 | $(42.1-53.5)$ |
| Pennyrile | 55.1 | $(47.2-62.8)$ |
| Purchase | 50.9 | $(43.8-58.0)$ |
|  |  |  |
|  |  |  |

[^21]2007 BRFSS Data by Region: Smoked at least 100 cigarettes

$\square K Y \square$ Appalachian $\square$ Non-Appalachian

## TOBACCO USE: CURRENT CIGARETTE SMOKING

## Individuals 18 and older who have smoked at least 100 cigarettes in their entire lifetime and now smoke everyday or some days.

- Kentuckians have reported higher cigarette smoking rates compared to the rest of the nation since 2000 .
- The differences in rates of current cigarette smoking among gender and race are not statistically significant.
- The rates of current cigarette smoking are higher in some of the younger respondents than in older respondents, though the differences are statistically significant. The difference in rates are statistically significant between the youngest (38.1\%), the second oldest (23.6\%) and oldest groups (12.4\%).
- The rate of cigarette smoking differs significantly by education level. 40.7 percent of respondents with less than a high school degree reported current cigarette smoking compared to $12.9 \%$ of respondents with college degree. This difference in rates is statistically significant.
- The reported rates of current cigarette smoking vary among levels of household income. Those respondents who earn higher annual income report lower rates of current cigarette smoking compared to those respondent who earn less annual income. The difference in rate is statistically significant between those who earn less than \$15,000 a year and those who earn $\$ 75,000$ and above a year.

Current cigarette smoking

| Demographic Groups | \% | 95\% (CI) |
| :---: | :---: | :---: |
| Total | 28.2 | (26.4-30.0) |
| Gender |  |  |
| Male | 28.7 | (25.8-31.7) |
| Female | 27.7 | (25.7-29.9) |
| Race |  |  |
| White/Non-Hispanic | 27.7 | (26.0-29.5) |
| Black/Non-Hispanic | 31.5 | (22.8-41.7) |
| Age |  |  |
| 18-24 | 38.1 | (30.0-47.0) |
| 25-34 | 36.6 | (31.5-42.0) |
| 35-44 | 28.8 | (24.7-33.3) |
| 45-54 | 32.1 | (28.8-35.7) |
| 55-64 | 23.6 | (21.0-26.5) |
| 65+ | 12.4 | (10.6-14.5) |
| Education |  |  |
| Less than H.S. | 40.7 | (35.8-45.7) |
| H.S. or GED | 32.6 | (29.8-35.6) |
| Some Post H.S. | 27.3 | (23.8-31.1) |
| College Graduate | 12.9 | (10.3-16.1) |
| Household Income |  |  |
| Less than \$15,000 | 44.1 | (38.7-49.6) |
| \$15,000-24,999 | 37.3 | (32.9-41.8) |
| \$25,000-34,999 | 35.1 | (28.7-42.1) |
| \$35,000-49,999 | 30.0 | (25.4-35.1) |
| \$50,000-74,999 | 24.9 | (20.4-30.2) |
| \$75,000 + | 17.3 | (13.5-21.8) |

Missing, "Don't Know", and Refused Responses are excluded. 95\% CI= $95 \%$ Confidence Interval.

Current cigarettes smoking by Kentucky and Nationwide (States, DC, and Territories), 2000-2007 BRFSS Data


In this report, the terms 'higher' or 'lower' are descriptive and only represent a statistically significant difference when noted.

## TOBACCO USE: CURRENT CIGARETTE SMOKING 2007 BRFSS Data by Geographic Distribution

Percentage
Current cigarettes smoking
2007 BRFSS Data by Area Development Districts


| Area Development Districts <br> (ADD) | Current cigarettes smoking |  |
| :--- | :---: | :---: |
|  | $\underline{\text { \% }}$ | $\underline{\mathbf{9 5 \%} \text { CI }}$ |
| Barren River | 31.5 | $(26.3-37.3)$ |
| Big Sandy | 34.3 | $(28.1-41.0)$ |
| Bluegrass | 24.3 | $(19.3-30.0)$ |
| Buffalo Trace | 31.8 | $(25.3-39.2)$ |
| Cumberland Valley | 28.9 | $(23.5-35.1)$ |
| FIVCO | 34.2 | $(28.4-40.5)$ |
| Gateway | 30.6 | $(24.7-37.1)$ |
| Green River | 24.9 | $(19.7-30.9)$ |
| Kentucky River | 35.3 | $(29.8-41.1)$ |
| KIPDA | 25.0 | $(20.6-30.1)$ |
| Lake Cumberland | 31.5 | $(26.1-37.4)$ |
| Lincoln Trail | 34.3 | $(28.0-41.1)$ |
| Northern Kentucky | 27.1 | $(22.2-32.6)$ |
| Pennyrile | 32.1 | $(25.1-40.2)$ |
| Purchase | 24.4 | $(18.5-31.5)$ |
|  |  |  |
|  |  |  |
|  |  |  |

[^22]2007 BRFSS Data by Region: Current cigarettes smoking


## WEIGHT CONTROL: OVERWEIGHT OR OBESE

## Individuals 18 and older who have a body mass index (BMI) of $\mathbf{2 5} \mathbf{~ k g / m}$ ² or greater.

- More Kentuckians report being overweight or obese compared to the rest of the nation.
- $79.8 \%$ of males report being overweight or obese compared to 58.6 percent of females. The difference is statistically significant.
- 82.3 percent of Blacks report being overweight or obese compared to 68.1 percent of Whites. The difference is statistically significant.
- The differences in rates of overweight or obese are not statistically significant between levels of education.
- The differences in rates of overweight or obese are not significant between levels of household income.
. $\mathrm{Kg} / \mathrm{m}^{2}$ is a measurement of one's weight versus height.


## Overweight or Obese

| Demographic Groups | \% | 95\% (CI) |
| :---: | :---: | :---: |
| Total | 69.1 | (67.3-70.8) |
| Gender |  |  |
| Male | 79.8 | (77.4-82.1) |
| Female | 58.6 | (56.3-60.9) |
| Race |  |  |
| White/Non-Hispanic | 68.1 | (66.3-69.9) |
| Black/Non-Hispanic | 82.3 | (74.1-88.3) |
| Age |  |  |
| 18-24 | 61.2 | (52.5-69.2) |
| 25-34 | 66.0 | (60.8-70.9) |
| 35-44 | 72.7 | (68.6-76.4) |
| 45-54 | 73.2 | (69.7-76.5) |
| 55-64 | 75.2 | (72.0-78.1) |
| 65+ | 62.6 | (59.7-65.4) |

## Education

| Less than H.S. | 69.8 | $(65.5-73.8)$ |
| :--- | :--- | :--- |
| H.S. or GED | 71.3 | $(68.6-73.8)$ |
| Some Post H.S. | 68.5 | $(64.4-72.3)$ |
| College Graduate | 65.9 | $(62.0-69.5)$ |

## Household Income

| Less than $\$ 15,000$ | 66.0 | $(60.6-71.0)$ |
| :--- | :--- | :--- |
| $\$ 15,000-24,999$ | 70.4 | $(65.9-74.4)$ |
| $\$ 25,000-34,999$ | 71.3 | $(65.5-76.5)$ |
| $\$ 35,000-49,999$ | 72.7 | $(68.1-76.9)$ |
| $\$ 50,000-74,999$ | 71.5 | $(66.3-76.2)$ |
| $\$ 75,000+$ | 71.4 | $(66.3-75.9)$ |

Missing, "Don't Know", and Refused Responses are excluded. 95\% CI= 95\% Confidence Interval. $\mathrm{K} / \mathrm{m}^{2}$ is a measurement of one's weight versus height.
Overweight or Obese by Kentucky and Nationwide (States, DC, and Territories), 2000-2007 BRFSS Data


In this report, the terms 'higher' or 'lower' are descriptive and only represent a statistically significant difference when noted.

# WEIGHT CONTROL: OVERWEIGHT OR OBESE 2007 BRFSS Data by Geographic Distribution 

## Percentage

## Overweight or Obese <br> 2007 BRFSS Data by Area Development Districts



| Area Development Districts <br> (ADD) | Overweight or Obese |  |
| :--- | :---: | :--- |
|  |  |  |
|  | $\underline{\mathbf{\%}}$ | $\underline{\mathbf{9 5 \%} \text { CI }}$ |
| Barren River | 66.0 | $(59.9-71.5)$ |
| Big Sandy | 77.8 | $(72.6-82.2)$ |
| Bluegrass | 69.0 | $(63.4-74.1)$ |
| Buffalo Trace | 68.8 | $(61.3-75.4)$ |
| Cumberland Valley | 70.0 | $(64.2-75.1)$ |
| FIVCO | 72.8 | $(67.0-78.0)$ |
| Gateway | 71.0 | $(64.7-76.5)$ |
| Green River | 67.3 | $(60.8-73.2)$ |
| Kentucky River | 74.5 | $(69.4-79.0)$ |
| KIPDA | 66.9 | $(61.8-71.6)$ |
| Lake Cumberland | 68.3 | $(62.9-73.3)$ |
| Lincoln Trail | 65.3 | $(59.0-71.1)$ |
| Northern Kentucky | 72.2 | $(66.9-76.9)$ |
| Pennyrile | 72.9 | $(65.9-79.0)$ |
| Purchase | 64.5 | $(57.8-70.7)$ |
|  |  |  |
|  |  |  |

[^23] fall in the range $95 \%$ of the time.

2007 BRFSS Data by Region:
Overweight or Obese


## WEIGHT CONTROL: OBESE

Individuals 18 and older who have a body mass index (BMI) of greater or equal to $\mathbf{3 0} \mathbf{~ k g} / \mathrm{m}^{2}$.

- Compared to the rest of the nation, Kentuckians report a slightly higher rate of obesity.
- The difference in the rates of obesity between females and males is not statistically significant.
- The difference in rates of obesity is not statistically significant among race, though a higher percentage of Blacks (38.8\%) report obesity compared to Whites (28.2\%).
- The lowest rates of obesity are reported by the youngest ( $20.1 \%$ ) and the oldest ( $21.1 \%$ ) respondents, while the highest rates are reported by those aged 45-54 ( $35.5 \%$ ). The differences are not statistically significant, unless each age group is individually compared to the lowest rate.
- There are no statistically significant differences in the rates of obesity among education levels.
- The rate of obesity is highest among those who earn less than $\$ 15,000$ a year compared to those who earn $\$ 75,000$ and above a year. The difference in rates between these groups is statistically significant.

|  | Obese |  |
| :---: | :---: | :---: |
| Demographic Groups | \% | 95\% (CI) |
| Total | 28.7 | (26.9-30.5) |
| Gender |  |  |
| Male | 29.0 | (26.3-31.9) |
| Female | 28.5 | (26.5-30.6) |
| Race |  |  |
| White/Non-Hispanic | 28.2 | (26.4-30.0) |
| Black/Non-Hispanic | 38.8 | (29.7-48.7) |
| Age |  |  |
| 18-24 | 20.1 | (14.5-27.2) |
| 25-34 | 25.3 | (21.1-30.1) |
| 35-44 | 31.6 | (27.1-36.4) |
| 45-54 | 35.5 | (31.9-39.3) |
| 55-64 | 34.7 | (31.3-38.2) |
| 65+ | 21.1 | (18.8-23.6) |
| Education |  |  |
| Less than H.S. | 30.7 | (26.6-35.1) |
| H.S. or GED | 29.8 | (27.1-32.7) |
| Some Post H.S. | 29.1 | (25.5-32.9) |
| College Graduate | 25.2 | (21.7-28.9) |
| Household Income |  |  |
| Less than \$15,000 | 38.1 | (33.1-43.3) |
| \$15,000-24,999 | 33.3 | (28.9-38.1) |
| \$25,000-34,999 | 29.1 | (23.7-35.2) |
| \$35,000-49,999 | 28.6 | (24.3-33.3) |
| \$50,000-74,999 | 30.2 | (25.1-35.9) |
| \$75,000 + | 24.5 | (20.1-29.4) |

Missing, "Don't Know", and Refused Responses are excluded. 95\% CI= 95\% Confidence Interval. $\mathrm{Kg} / \mathrm{m}^{2}$ is a measurement of one's weight versus height.

Obese by Kentucky and Nationwide (States, DC, and Territories), 2000-2007 BRFSS Data


In this report, the terms 'higher' or 'lower' are descriptive and only represent a statistically significant difference when noted.

## WEIGHT CONTROL: OBESE 2007 BRFSS Data by Geographic Distribution



| Area Development Districts <br> (ADD) | Obese |  |
| :--- | :--- | :--- |
|  |  |  |
|  | $\underline{\text { \% }}$ | $\underline{\mathbf{9 5 \%} \mathbf{C I}}$ |
| Barren River | 25.9 | $(21.2-31.3)$ |
| Big Sandy | 43.1 | $(36.5-49.9)$ |
| Bluegrass | 28.5 | $(23.2-34.4)$ |
| Buffalo Trace | 34.9 | $(27.9-42.5)$ |
| Cumberland Valley | 30.0 | $(24.8-35.7)$ |
| FIVCO | 28.2 | $(23.0-34.0)$ |
| Gateway | 31.1 | $(25.5-37.4)$ |
| Green River | 27.4 | $(22.1-33.4)$ |
| Kentucky River | 38.6 | $(32.9-44.5)$ |
| KIPDA | 25.3 | $(21.2-30.0)$ |
| Lake Cumberland | 27.5 | $(22.9-32.6)$ |
| Lincoln Trail | 26.7 | $(21.2-33.0)$ |
| Northern Kentucky | 29.5 | $(24.5-35.2)$ |
| Pennyrile | 33.2 | $(25.5-41.8)$ |
| Purchase | 22.0 | $(17.0-27.9)$ |
|  |  |  |
|  |  |  |
|  |  |  |

[^24]2007 BRFSS Data by Region: Obese


## WEIGHT CONTROL: OVERWEIGHT (NOT OBESE)

Individuals 18 and older who have a body mass index (BMI) between $25 \mathrm{~kg} / \mathbf{m}^{2}$ and $29.9 \mathrm{~kg} / \mathrm{m}^{2}$.

- More Kentuckians (40.4\%) report being overweight compared to the rest of the nation (36.7\%).
- More males (50.8\%) than females (30.1\%) report being overweight. The difference in rates is statistically significant.
- More Blacks (43.5\%) than Whites ( $40.0 \%$ ) report being overweight, though the difference in rates is not statistically significant.
- The differences in rates are not statistically significant between age groups.
- The differences in rates are not statistically significant between levels of education.
- The differences in rates of overweight are not statistically significant between levels of household income, except the difference between the lowest (27.9\%) and highest (46.9\%) household income groups.

| Demographic Groups | $\underline{\text { Overweight NOT Obese }}$ |  |
| :---: | :---: | :---: |
|  | \% | 95\% (CI) |
| Total | 40.4 | (38.4-42.4) |
| Gender |  |  |
| Male | 50.8 | (47.7-54.0) |
| Female | 30.1 | (28.1-32.3) |
| Race |  |  |
| White/Non-Hispanic | 40.0 | (38.0-42.0) |
| Black/Non-Hispanic | 43.5 | (34.0-53.5) |
| Age |  |  |
| 18-24 | 41.1 | (32.2-50.5) |
| 25-34 | 40.7 | (35.3-46.1) |
| 35-44 | 41.1 | (36.3-46.1) |
| 45-54 | 37.7 | (34.0-41.6) |
| 55-64 | 40.5 | (37.0-44.0) |
| 65+ | 41.5 | (38.6-44.4) |
| Education |  |  |
| Less than H.S. | 39.1 | (34.3-44.1) |
| H.S. or GED | 41.4 | (38.4-44.6) |
| Some Post H.S. | 39.4 | (35.2-43.8) |
| College Graduate | 40.7 | (36.6-45.0) |
| Household Income |  |  |
| Less than \$15,000 | 27.9 | (23.0-33.5) |
| \$15,000-24,999 | 37.0 | (32.7-41.6) |
| \$25,000-34,999 | 42.2 | (35.7-49.1) |
| \$35,000-49,999 | 44.1 | (39.0-49.4) |
| \$50,000-74,999 | 41.3 | (35.9-46.9) |
| \$75,000 + | 46.9 | (41.2-52.6) |

Missing, "Don't Know", and Refused Responses are excluded. 95\% CI= 95\% Confidence Interval. $\mathrm{Kg} / \mathrm{m}^{2}$ is a measurement of one's weight versus height.

Overweight (not Obese by Kentucky and Nationwide (States, DC, and Territories), 2000-2007 BRFSS Data


In this report, the terms 'higher' or 'lower' are descriptive and only represent a statistically significant difference when noted.

# WEIGHT CONTROL: OVERWEIGHT (NOT OBESE) 2007 BRFSS Data by Geographic Distribution 



| Area Development Districts <br> (ADD) | Overweight (NOT Obese) |  |
| :--- | :---: | :---: |
|  |  |  |
|  | $\underline{\mathbf{o}}$ | $\underline{\mathbf{9 5 \%} \text { CI }}$ |
| Barren River | 40.0 | $(34.1-46.1)$ |
| Big Sandy | 34.7 | $(28.8-41.1)$ |
| Bluegrass | 40.5 | $(34.4-46.9)$ |
| Buffalo Trace | 33.9 | $(27.8-40.6)$ |
| Cumberland Valley | 39.9 | $(33.8-46.4)$ |
| FIVCO | 44.6 | $(38.7-50.7)$ |
| Gateway | 39.8 | $(32.9-47.2)$ |
| Green River | 39.9 | $(33.3-46.9)$ |
| Kentucky River | 35.9 | $(30.5-41.7)$ |
| KIPDA | 41.6 | $(36.3-47.0)$ |
| Lake Cumberland | 40.8 | $(35.0-46.9)$ |
| Lincoln Trail | 38.7 | $(32.3-45.4)$ |
| Northern Kentucky | 42.6 | $(36.9-48.6)$ |
| Pennyrile | 39.8 | $(32.2-47.9)$ |
| Purchase | 42.5 | $(35.2-50.2)$ |
|  |  |  |
|  |  |  |

[^25]2007 BRFSS Data by Region:
Overweight (NOT Obese)



## Healthy Kentuckians 2010 BRFSS Monitored Objectives

| HK 2010 Objectives <br> Mid Decade Review | Target | Kentucky <br> Prevalence <br> BRFSS, 2007 | Objective Met? |
| :--- | :--- | :--- | :--- |

## Healthy Kentuckians 2010 BRFSS Monitored Objectives

| HK 2010 Objectives <br> Mid Decade Review | Target | Kentucky <br> Prevalence <br> BRFSS, 2007 | Objective Met? |
| :--- | :--- | :--- | :--- |

## Comparing Kentucky to the Nation Ranking is denoted by Highest to Lowest using Prevalence of Risk Factor or Health Behavior

| Risk Factor or Health Behavior | Kentucky Prevalence Estimate (\%) | National Median ${ }^{1}$ (\%) | National Range (\%) | Kentucky's <br> Rank in <br> Nation ${ }^{2}$ |
| :---: | :---: | :---: | :---: | :---: |
| Activity Limitation, Age 18+ | 23.5 | 18.8 | 10.3-25.9 | 3 |
| Alcohol Consumption: Binge Drinking, Age 18+ | 8.2 | 15.7 | 8.2.23.4 | 54 |
| Alcohol Consumption: Heavy Drinking, Age 18+ | 2.6 | 5.2 | 2.5-7.7 | 52 |
| Arthritis, Age 18+ | 31.6 | 27.5 | 13.7-35.5 | 8 |
| Asthma, Age 18+ | 9.0 | 8.3 | 5.4-10.3 | 15 |
| Cardiovascular <br> Disease: <br> Coronary Heart <br> Disease <br> Age 18+ | 5.8 | 4.1 | 1.7-7.6 | 3 |

${ }^{1}$ Unless stated differently the national median is the middle value of all 50 states, Washington D.C., Guam, Puerto Rico, and the U.S. Virgin Islands.
${ }^{2}$ For most risk factors, the ranking is based on a comparison of Kentucky to all 50 states, Washington D.C., Guam, Puerto Rico, and the U.S.
Virgin Islands. There will be a notation when Kentucky is compared to fewer states and territories. The ranking is based from highest prevalence to lowest prevalence. This ranking does not mean that the prevalence estimate for Kentucky is significantly different from the other states and territories. The confidence intervals may overlap.

## Comparing Kentucky to the Nation Ranking is denoted by Highest to Lowest using Prevalence of Risk Factor or Health Behavior

| Risk Factor or Health Behavior | Kentucky Prevalence Estimate (\%) | National Median ${ }^{1}$ (\%) | National Range (\%) | Kentucky's <br> Rank in <br> Nation ${ }^{2}$ |
| :---: | :---: | :---: | :---: | :---: |
| Cardiovascular Disease: <br> Heart Attack <br> Age 18+ | 6.0 | 4.2 | 1.6-6.0 | 1 |
| Cardiovascular Disease: <br> Stroke <br> Age 18+ | 3.5 | 2.6 | 1.1-3.7 | 4 |
| Cholesterol: <br> High Cholesterol <br> Awareness <br> Age18+ | 38.5 | 37.5 | 27.2-42.4 | 16 |
| Diabetes, Age 18+ | 9.9 | 8.1 | 5.3-12.5 | 10 |
| Health Care Access: <br> No Health Care <br> Coverage, <br> Age 18+ | 15.9 | 14.5 | 6.0-28.7 | 21 |

[^26]
## Comparing Kentucky to the Nation Ranking is denoted by Highest to Lowest using Prevalence of Risk Factor or Health Behavior

| Risk Factor or <br> Health Behavior | Kentucky <br> Prevalence <br> Estimate <br> (\%) | National <br> Median <br> (\%) | National Range <br> (\%) | Kentucky's <br> Rank in <br> Nation |
| :--- | :---: | :---: | :---: | :---: |
| Health Care Access: <br> No Primary Health <br> Care Provider, <br> Age 18+ | 14.2 | 19.6 | $9.9-30.2$ | 45 |
| Health Care Access: <br> Cost as a Barrier to <br> Seeing a Doctor, <br> Age 18+ | 17.4 | 12.5 | $6.5-20.2$ |  |
| Health Status: <br> Fair or Poor Health, <br> Age 18+ | 23.1 | 15.2 | $10.9-32.2$ | 6 |
| Health Status: <br> Poor Mental Health, <br> Age 18+ |  |  |  | 2 |
| Health Status: <br> Poor Physical <br> Problems, <br> Age 18+ | 12.3 | 9.7 | $6.8-14.3$ | 5 |

[^27]
## Comparing Kentucky to the Nation Ranking is denoted by Highest to Lowest using Prevalence of Risk Factor or Health Behavior

| Risk Factor or Health Behavior | Kentucky Prevalence Estimate (\%) | National Median ${ }^{1}$ (\%) | National Range (\%) | Kentucky's Rank in Nation ${ }^{2}$ |
| :---: | :---: | :---: | :---: | :---: |
| Hypertension Awareness, Age 18+ | 30.0 | 27.5 | 19.7-33.8 | 11 |
| Immunization: <br> No Flu Shot in Past 12 <br> Months, <br> Age 65+ | 26.8 | 28.4 | 20.0-67.8 | 35 |
| Immunization: <br> Never Had a Pneumonia <br> Shot, <br> Age 65+ | 34.0 | 33.1 | 26.0-73.9 | 22 |
| Nutrition: <br> Consume Less than five <br> Fruits and Vegetables <br> Servings per day, <br> Age 18+ | 81.6 | 75.7 | 67.5-86.3 | 4 |
| Physical Activity: <br> Lack of Leisure Time Physical Activity, Age 18+ | 30.3 | 23.0 | 16.7-43.7 | 6 |
| Physical Activity: <br> Lack of Moderate Physical Activity, Age 18+ | 55.8 | 50.8 | 39.2-69.1 | 8 |

[^28]
# Comparing Kentucky to the Nation Ranking is denoted by Highest to Lowest using Prevalence of Risk Factor or Health Behavior 

| Risk Factor or <br> Health Behavior | Kentucky <br> Prevalence <br> Estimate <br> (\%) | National Median <br> (\%) | National Range <br> (\%) | Kentucky's <br> Rank in <br> Nation |
| :--- | :---: | :---: | :---: | :---: |
| Physical Activity: <br> Lack of Vigorous <br> Physical Activity, <br> Age 18+ | 78.3 | 71.9 | $60.5-81.5$ | 6 |
| Tobacco Use: <br> Ever Smoked <br> Cigarettes, <br> Age 18+ | 52.1 | 45.2 | $20.5-52.1$ |  |
| Tobacco Use: <br> Current Cigarettes <br> Smoking, <br> Age 18+ | 28.2 | 19.7 | $8.7-31.0$ | 1 |
| Weight Control: <br> Overweight or Obesity <br> (BMI $\left.\geq 25 \mathrm{~kg} / \mathrm{m}^{2}\right)$, | 69.1 | 63.0 | $55.3-69.1$ |  |
| Age 18+ |  |  |  |  |

[^29]| Comparison of 2007 BRFSS Sample to 2007 Kentucky Population <br> Age 18 and Older |  |  |  |
| :---: | :---: | :---: | :---: |
| Demographic Characteristics | Unweighted BRFSS Sample Size | Unweighted BRFSS <br> Percentage | Weighted BRFSS Percentage |
| GENDER |  |  |  |
| Male | 2,301 | 33.3 | 48.5 |
| Female | 4,607 | 66.7 | 51.5 |
| RACE |  |  |  |
| White, Non-Hispanic | 6,460 | 94.0 | 91.0 |
| Black, Non-Hispanic | 230 | 3.4 | 6.0 |
| Hispanics | 83 | 1.2 | 1.4 |
| Multiracial, Non-Hispanic | 47 | 0.7 | 0.7 |
| Other | 54 | 0.8 | 1.0 |
| AGE |  |  |  |
| 18-24 Years | 251 | 3.6 | 9.1 |
| 25-34 Years | 691 | 10.0 | 19.2 |
| 35-44 Years | 1,058 | 15.3 | 20.8 |
| 45-54 Years | 1,334 | 19.3 | 19.3 |
| 55-64 Years | 1,534 | 22.2 | 14.9 |
| 65+ | 2,040 | 29.5 | 16.6 |

2007 Kentucky Population Estimates by Demographic Groups



[^0]:    The CI is the range of values which include the actual prevalence. This report used a $95 \%$ CI. This means that if the survey were conducted many times the true value would fall in the range $95 \%$ of the time.

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[^10]:    Missing, "Don't Know", and Refused Responses are excluded. 95\% CI=95\% Confidence Interval.

[^11]:    The CI is the range of values which include the actual prevalence. This report used a $95 \%$ CI. This means that if the survey were conducted many times the true value would fall in the range $95 \%$ of the time.

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[^26]:    ${ }^{1}$ Unless stated differently the national median is the middle value of all 50 states, Washington D.C., Guam, Puerto Rico, and the U.S. Virgin Islands.
    ${ }^{2}$ For most risk factors, the ranking is based on a comparison of Kentucky to all 50 states, Washington D.C., Guam, Puerto Rico, and the U.S. Virgin Islands. There will be a notation when Kentucky is compared to fewer states and territories. The ranking is based from highest prevalence to lowest prevalence. This ranking does not mean that the prevalence estimate for Kentucky is significantly different from the other states and territories. The confidence intervals may overlap.

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