

## 20. Heart Disease and Stroke

---

### Goal

Enhance the cardiovascular health and quality of life of all Kentuckians through improvement of medical management, prevention and control of risk factors, and promotion of healthy lifestyle behaviors.

### Overview

Cardiovascular disease is the leading cause of death in Kentucky. In 2001, approximately 38 percent of all deaths occurred from cardiovascular disease (heart disease - 30 percent, and cerebrovascular disease - 7 percent). Approximately 14,500 Kentuckians died from cardiovascular disease in 2001. Kentucky ranks fourth highest for cardiovascular mortality in the nation, fifth highest for heart disease mortality, and twelfth in the nation for stroke mortality.

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

### Summary of Progress

Progress is being made toward achieving the 2010 objectives. Significant improvement in the rate of deaths due to heart disease has been made, with a decline from the 1997 baseline of 316 deaths per 100,000 to 290 per 100,000 in 2003. The percent of adults who have had their blood cholesterol checked within the past 5 years has increased from the 1997 baseline of 66 percent to 74 percent in 2003.

Progress has been slow in the area of deaths due to stroke. The rate of death due to stroke has remained level, with a 1997 baseline of 65 per 100,000 as compared to 64 per 100,000 in 2002. The percent of adults who have been told that their blood pressure is too high has increased from the 1997 baseline of 27 percent to 29.8 percent in 2003.

Data from the 2003 Behavioral Risk Factor Surveillance System (BRFSS) show that 35 percent of adults are aware of all signs and symptoms of a heart attack and would react by calling 911. 2003 BRFSS data also show that 43 percent of adults know all signs of a stroke and would respond by calling 911. (This is a new developmental objective.)

### Progress toward Achieving Each HK 2010 Objective

- 20.1. To reduce heart disease deaths to no more than 200 deaths per 100,000 people. (See Revision)**

**20.1R. (REVISION) Reduce heart disease deaths to no more than 250 deaths per 100,000 people (age adjusted to the year 2000 standard).**

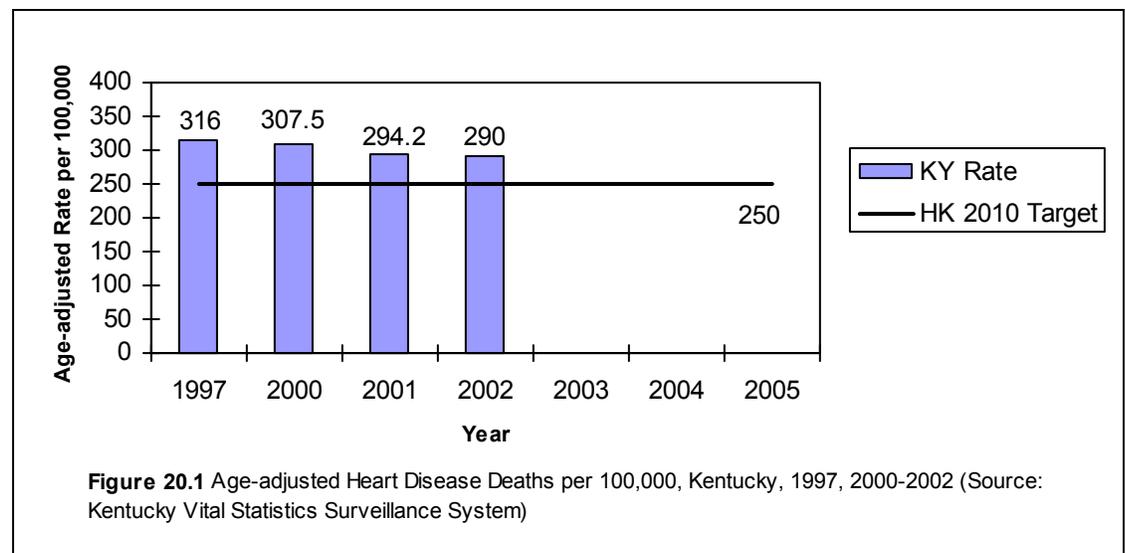
**Reason for Revision:** The original HK 2010 heart disease mortality objectives were measured using data that were age adjusted to the 1940 standard. This fact was overlooked in the establishment of the 2010 goal which should have assumed use of the year 2000 age adjustment standard.

**Data Source:** Kentucky Vital Statistics Surveillance System. Data are age adjusted to year 2000 standard.

**Baseline:** 316 per 100,000 in 1997

**HK 2010 Target:** 250 per 100,000

**Mid-Decade Status:** 290 per 100,000 in 2002



**Strategies to Achieve Objective:**

- Implement the work plan specified in the Kentucky Department for Public Health (KDPH) Cardiovascular Health Program grant application, as funded by the Centers for Disease Control and Prevention
- The cardiovascular disease problem in Kentucky and barriers to interventions will be evaluated through joint efforts of the KDPH staff, the CVH Steering Committee, research contracted to the University of Kentucky and assessments conducted by local health departments

- New partnerships will be formed between the KDPH, other state agencies, and other public and private organizations to promote cardiovascular health.
- The Kentucky Department of Education (KDE) will coordinate with KDPH staff and the CVH Coalition to strengthen and expand their capacity to plan, implement and evaluate strategies that improve cardiovascular health through the KDE Enhanced School Health Project.
- The Jefferson County Health Department will implement a Cardiovascular Health Program aimed at improving the cardiovascular health of the African American community in their county through environmental and policy change.
- Analyze death rate by sex, race and region in order to more accurately target efforts for intervention
- The KDE will work through the school nutrition programs to increase students' consumption of fruits and vegetables to five per day.
- The KDE will work with schools and communities to increase moderate to vigorous physical activity to 30 minutes, five times per week.

**20.2. To reduce cerebrovascular deaths to no more than 35 deaths per 100,000 people. (See Revision)**

**20.2R. (REVISION) Reduce cerebrovascular deaths to no more than 59 deaths per 100,000 people.**

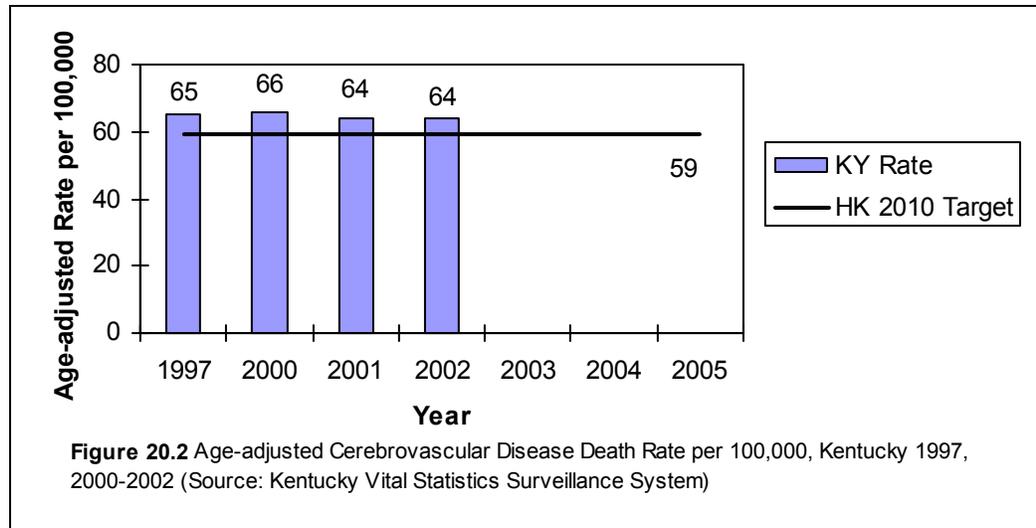
**Reason for Revision:** The original HK 2010 heart disease mortality objectives were measured using data age adjusted to the 1940 standard. This fact was overlooked in the establishment of the 2010 baseline, which should have assumed using the year 2000 age adjustment standard.

**Data Source:** Kentucky Vital Statistics Surveillance System. Data are age adjusted to year 2000 standard.

**Baseline:** 65 per 100,000 in 1997

**HK 2010 Target:** 59 per 100,000

**Mid-Decade Status:** 64 per 100,000 in 2002



**Strategies to Achieve Objective:**

- Implement the work plan specified in the KDPH Cardiovascular Health Program grant application. Analyze death rate by sex, race, and region in order to more accurately target efforts for intervention
- Partner with the American Hospital Association (AHA) to encourage use of the Stroke Connection and the AHA web site in Kentucky

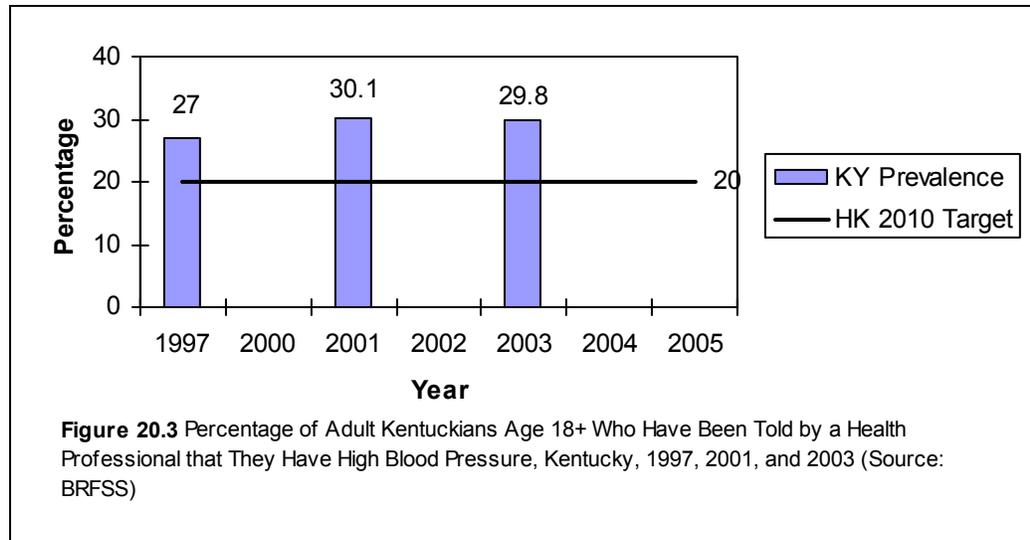
**20.3. Decrease to at least 20 percent the proportion of adult Kentuckians with high blood pressure.**

**Data Source:** BRFSS, Percentage of adult Kentuckians who have been told by a health professional that their blood pressure is high.

**Baseline:** 27 percent in 1997

**HK 2010 Target:** 20 percent

**Mid-Decade Status:** 29.8 percent in 2003



### Strategies to Achieve Objective:

- Implement the work plan specified in the Cardiovascular Health Program grant application
- Analyze rate of hypertension by sex, race and region in order to more accurately target efforts for intervention
- The AHA will implement Search Your Heart, a blood pressure education program in Kentucky churches with large African American congregations

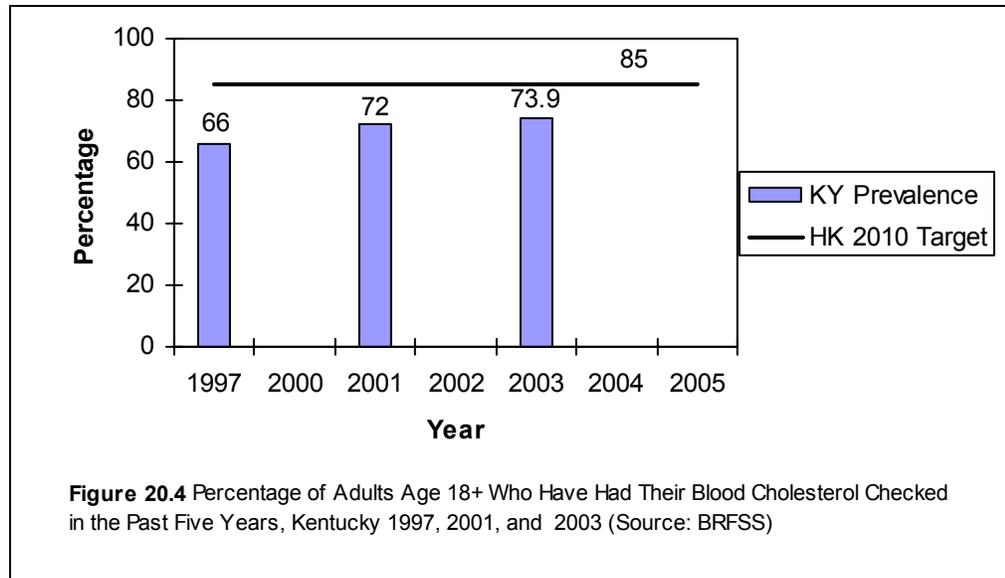
### 20.4. Increase to at least 85 percent the proportion of adults who have had their blood cholesterol checked within the preceding five years.

**Data Source:** BRFSS, Percentage of adult Kentuckians who have had their blood cholesterol checked in the past 5 years.

**Baseline:** 66 percent in 1997

**HK 2010 Target:** 85 percent

**Mid-Decade Status:** 73.9 percent in 2003



#### Strategies to Achieve Objective:

- Analyze screening rates by region, as well as by sex and race, to better target opportunities for improvement
- Target populations with lowest percentages being tested for intervention through education and increased availability of testing
- Partner with public and private, for-profit and non-profit related organizations to increase availability of blood cholesterol screening

**20.5.** (Developmental) **Increase the proportion of Kentucky adults, aged 20 years and over, who are aware of the early warning symptoms and signs of heart attack and the importance of accessing rapid emergency care by calling 911. (See Revision)**

**20.5R. (REVISION)** **Increase the proportion of Kentucky adults, aged 18 years and over, who are aware of the early warning signs and symptoms of heart attack and the importance of accessing rapid emergency care by calling 911.**

**Reason for Revision:** BRFSS data to track this objective are available for adults 18 years and older.

**Data Source:** 2002 BRFSS, optional module on heart attack and stroke signs and symptoms.

**Baseline:** In 2002, 35 percent of adults 18 and older were aware of all signs of a heart attack and would react by calling 911.

85 percent would call 911 if they suspected a heart attack

40 percent were aware of all heart attack warning signs and symptoms.

92 percent recognized chest pain or discomfort

59 percent recognized jaw, neck or back pain or discomfort

90 percent recognized arm or shoulder pain or discomfort

87 percent recognized shortness of breath

69 percent recognized feeling weak, lightheaded or faint

**HK 2010 Target:** 36 percent of adults 18 and older are aware of all signs of a heart attack and would react by calling 911.

**Mid-Decade Status:** See baseline

**Strategies to Achieve Objective:**

- Analyze the baseline data by sex, race, and region to better target opportunities for improvement
- Target populations with the lowest percentages for intervention through education
- Partner with public, private, profit, and nonprofit organizations to increase education about early warning signs and symptoms of a heart attack and the importance of accessing rapid emergency care by calling 911

**20.6.** (Developmental) **Increase to 75 percent the proportion of females who are aware that cardiovascular disease (heart disease and stroke) is the leading cause of death for all females. (DELETED)**

**Reason for Deletion:** There are no data to track this objective, and no data are expected in the near future.

**20.7N. (NEW OBJECTIVE) Increase the proportion of Kentucky adults aged 18 years and over, who are aware of the early warning signs and symptoms of a stroke and the importance of accessing rapid emergency care by calling 911.**

**Data Source:** 2002 BRFSS, optional module on heart attack and stroke signs and symptoms.

**Baseline:** In 2002, 43 percent of adults knew all signs of a stroke and would respond by calling 911.

50 percent were aware of all stroke signs and symptoms

91 percent recognized sudden numbness or weakness

87 percent recognized sudden confusion or trouble speaking

74 percent recognized sudden trouble seeing in one or both eyes

86 percent recognized sudden trouble walking, dizziness, or loss of

balance

69 percent recognized severe headache from unknown cause

**HK 2010 Target:** 44 percent of adults know all signs of a stroke and would respond by calling 911.

**Mid-Decade Status:** See baseline

**Strategies to Achieve Objective:**

- Same as for Objective 20.5R

## **Contributors**

- Ron Alsup, Surveillance and Evaluation Coordinator, Kentucky Heart Disease and Stroke Program, Department for Public Health, Chapter Co-coordinator,
- Teri Wood, Ph.D., Chapter Co-Coordinator, Chronic Disease Prevention and Control Branch, Department for Public Health
- Brian Boisseau, Program Coordinator, Kentucky Heart Disease and Stroke Program, Department for Public Health

## 20. Heart Disease and Stroke – Summary Table

Summary of Objectives for Heart Disease and Stroke	Baseline	HK 2010 Target	Mid-Decade Status	Progress	Data Source
20.1R. Reduce heart disease deaths to no more than 250 deaths per 100,000 people. (age adjusted to the year 2000 standard).	316/ 100,000 (1997)	≤250/ 100,000	290/ 100,000 (2002)	Yes	Vital Statistics.
20.2R. Reduce cerebrovascular deaths to no more than 59 deaths per 100,000 people.	65/ 100,000 (1997)	≤59/ 100,000	64/ 100,000 (2002)	Yes	Vital Statistics.
20.3. Decrease to at least 20 percent the proportion of adult Kentuckians with high blood pressure.	27% (1997)	≤20%	29.8% (2003)	No	BRFSS
20.4. Increase to at least 85 percent the proportion of adults who have had their blood cholesterol checked within the preceding five years.	66% (1997)	≥85%	73.9% (2003)	Yes	BRFSS
20.5R. Increase the proportion of Kentucky adults, aged 18 years and over, who are aware of the early warning symptoms and signs of heart attack and importance of accessing rapid emergency care by calling 911.	35% (2002)	≥36%	35% (2002)	N/A	BRFSS
20.6. (DELETED)					
20.7N. Increase the proportion of Kentucky adults aged 18 years and over, who are aware of the early warning symptoms and signs of a stroke and importance of accessing rapid emergency care by calling 911.	43% (2002)	≥44%	43% (2002)	N/A	BRFSS

R = Revised objective

N = New objective

N/A = Only baseline data are available. Not able to determine progress at this time.