Healthy People 2010
Focus Area 12:
Heart Disease and Stroke
Progress Review
May 21, 2007
Leading Causes of Death, 2004

1. Heart Disease (27%)
2. Cancer (23%)
3. Stroke (6%)

All Other Causes (43%)

Note: Heart Disease is defined by ICD-10 codes I00-I09, I11, I13, I20-I51, cancer by ICD-10 codes C00-C97, and stroke by ICD-10 codes I60-I69. Source: Vital Statistics System—Mortality (NVSS-M), NCHS, CDC.
About 16 million Americans have had a heart attack, angina pectoris or both (2004)
- about 8.5 million males and 7.2 million females.
In 2007, about 1.2 million Americans will have a new or recurrent coronary attack.
Over 650,000 people in the US died from heart disease in 2004, making it the leading cause of death.
Heart Disease Deaths, 2004

Note: Heart disease deaths are defined by ICD-10 codes I00-I09, I11, I13, I20-I51.
Source: National Vital Statistics System—Mortality (NVSS-M), NCHS, CDC.
Heart Disease Deaths, 2004

Note: Heart disease deaths are defined by ICD-10 codes I00-I09, I11, I13, I20-I51.
Source: National Vital Statistics System—Mortality (NVSS-M), NCHS, CDC.
• About 700,000 Americans have a new or recurrent stroke each year.

• Stroke kills more than 150,000 people a year.
  – about 1 of every 16 deaths.
  – 3rd leading underlying cause of death.

• Of every 5 deaths from stroke, 2 occur in men and 3 in women.

• Americans will pay about $62.7 billion in 2007 for stroke-related medical costs and disability.
Highlighted Objectives

- **Target met or exceeded**
  12-1. Coronary heart disease (CHD) deaths
  12-7. Stroke deaths

- **Improving**
  12-6. Heart failure hospitalizations
  12-10. High blood pressure control

- **Getting worse**
  12-9. High blood pressure
Coronary Heart Disease Deaths

Note: Coronary heart disease deaths are defined by ICD-10 codes I11, I20-I25. Data are age adjusted to the 2000 standard population.
Source: Vital Statistics System—Mortality (NVSS-M), NCHS, CDC.

Obj. 12-1
Coronary Heart Disease Deaths

Age-adjusted rate per 100,000 population

Note: Coronary heart disease deaths are defined by ICD-10 codes I11, I20-I25. Data are age adjusted to the 2000 standard population. Asian includes Pacific Islander. The black and white categories exclude persons of Hispanic origin. Persons of Hispanic origin may be of any race.

Source: Vital Statistics System—Mortality (NVSS-M), NCHS, CDC.

2010 Target: 162
Coronary Heart Disease Deaths by Health Service Area, 2002-2004

Note: Coronary heart disease deaths are defined by ICD-10 codes I11, I20-I25. Data are age-adjusted to the 2000 standard population. The 5 legend categories represent the following percentage of Health Service Areas (from lowest to highest): 10%, 20%, 40%, 20%, 10%. Source: National Vital Statistics System—Mortality (NVSS-M), NCHS, CDC.
Stroke Deaths

Age-adjusted rate per 100,000 population

Note: Stroke deaths are defined by ICD-10 codes I60-I69. Data are age adjusted to the 2000 standard population.
Source: Vital Statistics System—Mortality (NVSS-M), NCHS, CDC.

Obj. 12-7
Decrease desired
2010 Target: 50

Note: Stroke deaths are defined by ICD-10 codes I60-I69. Data are age adjusted to the 2000 standard population. Asian includes Pacific Islander. The black and white categories exclude persons of Hispanic origin. Persons of Hispanic origin may be of any race.

Source: Vital Statistics System—Mortality (NVSS-M), NCHS, CDC.
Stroke Deaths by Health Service Area, 2002-2004

Age-adjusted rate per 100,000

17.7 - 43.0
43.1 - 51.0
51.1 - 62.0
62.1 - 73.0
73.1 - 106.6

2010 Target: 50

Note: Stroke deaths are defined by ICD-10 codes I60-I69. Data are age-adjusted to the 2000 standard population. The 5 legend categories represent the following percentage of Health Service Areas (from lowest to highest): 10%, 20%, 40%, 20%, 10%.

Source: National Vital Statistics System—Mortality (NVSS-M), NCHS, CDC.
Stroke Deaths in Select Areas, 2004

“Stroke Belt” States

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Indian</td>
<td>63</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asian</td>
<td>20</td>
<td>20</td>
<td>33</td>
</tr>
<tr>
<td>Hispanic</td>
<td>40</td>
<td>80</td>
<td>60</td>
</tr>
<tr>
<td>Black</td>
<td>40</td>
<td>80</td>
<td>60</td>
</tr>
<tr>
<td>White</td>
<td>40</td>
<td>80</td>
<td>60</td>
</tr>
<tr>
<td>Female</td>
<td>33</td>
<td>33</td>
<td>33</td>
</tr>
<tr>
<td>Male</td>
<td>63</td>
<td>63</td>
<td>63</td>
</tr>
</tbody>
</table>

New York

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Indian</td>
<td>*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asian</td>
<td>33</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hispanic</td>
<td>20</td>
<td>20</td>
<td>33</td>
</tr>
<tr>
<td>Black</td>
<td>40</td>
<td>40</td>
<td>60</td>
</tr>
<tr>
<td>White</td>
<td>40</td>
<td>40</td>
<td>60</td>
</tr>
<tr>
<td>Female</td>
<td>33</td>
<td>33</td>
<td>33</td>
</tr>
<tr>
<td>Male</td>
<td>63</td>
<td>63</td>
<td>63</td>
</tr>
</tbody>
</table>

* = Data are statistically unreliable.
Note: Stroke deaths are defined by ICD-10 codes I60-I69. Data are age adjusted to the 2000 standard population. “Stroke Belt” States are Alabama, Arkansas, Georgia, Mississippi, North Carolina, South Carolina, and Tennessee. Asian includes Pacific Islander. The black and white categories exclude persons of Hispanic origin. Persons of Hispanic origin may be of any race. Source: National Vital Statistics System—Mortality (NVSS-M), NCHS, CDC.
Decrease desired

Note: Congestive heart failure is defined by ICD-9-CM code 428.0

Source: National Hospital Discharge Survey (NHDS), CDC, NCHS.

1 = 95% confidence interval.

Congestive Heart Failure Hospitalizations

Obj. 12-6
Congestive Heart Failure Hospitalizations

<table>
<thead>
<tr>
<th>Year</th>
<th>Rate per 100,000 population</th>
<th>65 to 74 years</th>
<th>75 to 84 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997</td>
<td>Black</td>
<td></td>
<td>16.5</td>
</tr>
<tr>
<td></td>
<td>White</td>
<td></td>
<td>7.0</td>
</tr>
<tr>
<td>2005</td>
<td>Black</td>
<td>23.0</td>
<td>20.5</td>
</tr>
<tr>
<td></td>
<td>White</td>
<td>8.0</td>
<td>6.0</td>
</tr>
</tbody>
</table>

2010 Target:
- 65 to 74 years: 6.5
- 75 to 84 years: 13.5

I = 95% confidence interval.
Note: Congestive heart failure is defined by ICD-9-CM code 428.0
Source: National Hospital Discharge Survey (NHDS), CDC, NCHS.

Obj. 12-6
Congestive Heart Failure Hospitalizations

Rate per 100,000 population

<table>
<thead>
<tr>
<th>Year</th>
<th>Group</th>
<th>1997</th>
<th>2005</th>
<th>2010 Target</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>65 to 74 years</td>
<td></td>
<td></td>
<td>6.5</td>
</tr>
<tr>
<td></td>
<td>75 to 84 years</td>
<td></td>
<td></td>
<td>13.5</td>
</tr>
<tr>
<td></td>
<td>85 years and over</td>
<td></td>
<td></td>
<td>26.5</td>
</tr>
</tbody>
</table>

I = 95% confidence interval.

Note: Congestive heart failure is defined by ICD-9-CM code 428.0
Source: National Hospital Discharge Survey (NHDS), CDC, NCHS.

Obj. 12-6
Related Risk Factors

- Tobacco
- Obesity
- Nutrition
- Physical Activity
- Diabetes
- Cholesterol
- High Blood Pressure
Related Risk Factors

- Tobacco
- Obesity
- Nutrition
- Physical Activity
- Diabetes
- Cholesterol
- High Blood Pressure
High Blood Pressure Prevalence

Age-adjusted percent


Decrease desired

= 2010 Target: 14%

I = 95% confidence interval. Note: Data are for adults aged 20 years and over and are age adjusted to the 2000 standard population. The black and white categories exclude persons of Hispanic origin. Persons of Mexican American origin may be any race. Prior to 1999, respondents were asked to select one race category; selection of more than one race was not an option. For 1999 and later years, respondents were asked to select one or more races. Data for the single race categories are for persons who reported only one racial group. Source: National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.

Obj. 12-9
Blood Pressure Distribution, 2001-2004

Note: Data are for adults aged 18 years and over. The black and white categories exclude persons of Hispanic origin. Persons of Mexican American origin may be any race. Respondents were asked to select one or more races. Data for the single race categories are for persons who reported only one racial group.
Source: National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.
High Blood Pressure Control

Age-adjusted percent

2010 Target: 68

I = 95% confidence interval. Note: Data are for adults aged 18 years and over and are age adjusted to the 2000 standard population. The black and white categories exclude persons of Hispanic origin. Persons of Mexican American origin may be any race. Prior to 1999, respondents were asked to select one race category; selection of more than one race was not an option. For 1999 and later years, respondents were asked to select one or more races. Data for the single race categories are for persons who reported only one racial group. Source: National Health and Nutrition Examination Survey (NHANES), CDC, NCHS.
Heart Disease and Stroke Objectives

12-1. Coronary heart disease (CHD) deaths
12-2. Knowledge of symptoms of heart attack and importance of calling 911
12-3a. Artery-opening therapy within an hour of symptom onset
12-3b. Percutaneous intervention (PCI) within 90 min of symptom onset
12-4. Persons trained in cardiopulmonary resuscitation (CPR) within 1 year
12-5. Out-of-hospital cardiac arrest – timely electrical shock therapy
12-6a. Heart failure hospitalizations, 65 - 74 yrs
12-6b. Heart failure hospitalizations, 75-84 yrs
12-6c. Heart failure hospitalizations, 85+ yrs
12-7. Stroke deaths
12-8. Knowledge of early warning symptoms of stroke
12-9. High blood pressure
12-10. High blood pressure control
12-11. Taking action to help control blood pressure
12-12. Blood pressure monitoring
12-13. Mean total blood cholesterol levels
12-14. High blood cholesterol levels
12-15. Blood cholesterol screening within 5 years
12-16. LDL-cholesterol level in CHD patients

* Developmental – No data available

- Target met
- Improving
- Little or no change
- Getting worse
- Baseline only
Summary

- Met or exceeded targets: reducing coronary heart disease deaths, stroke deaths, and high blood cholesterol levels

- High blood pressure remains a problem
  - Prevalence is getting worse
  - Control of high blood pressure is improving
    - control is still about 50% below target

- Disparities in deaths and risk factors remain: race/ethnicity, gender, geography
Progress review data and slides are available on the web at:

http://www.cdc.gov/nchs/hphome.htm