Heart Disease and Stroke Statistics — 2010 Update
• Questions on statistics? mailto:nancy.haase@heart.org

• Audio-visual questions? mailto:david.brentz@heart.org

• Please keep the red wave and logo attached to these slides.
CVD disease mortality trends for males and females
(United States: 1979-2006).

Source: NCHS and NHLBI.
Age-adjusted death rates for CHD, stroke, lung and breast for white and black females (United States: 2006).

Source: NCHS.
Deaths from diseases of the heart (United States: 1900–2006)

Note: See Glossary for an explanation of “Diseases of the Heart.”

Source: NCHS.

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Deaths from cardiovascular disease
(United States: 1900–2006). Source: NCHS and NHLBI.
Hospital discharges for cardiovascular diseases.  
(United States: 1970-2006). Note: Hospital discharges include people discharged alive, dead and status unknown.  
Source: NCHS and NHLBI.
Percentage breakdown of deaths from cardiovascular diseases

(United States: 2006) * - Not a true underlying cause.

Source: NCHS.
Prevalence of CVD in adults age 20 and older by age and sex
(NHANES 2003-2006). Source: NCHS and NHLBI.
These data include coronary heart disease, heart failure, stroke and hypertension.

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CVD deaths vs. cancer deaths by age.
(United States: 2006). Source: NCHS.

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CVD and other major causes of death: both sexes. 
(United States: 2006). Source: NCHS and NHLBI.
CVD and other major causes of death: males (United States: 2006). Source: NCHS and NHLBI.
CVD and other major causes of death: females
(United States: 2006). Source: NCHS and NHLBI.
CVD and other major causes of death for all males and females (United States: 2006). Source: NCHS and NHLBI.
CVD and other major causes of death for white males and females (United States: 2006). Source: NCHS and NHLBI.

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CVD and other major causes of death for black males and females. (United States: 2006).

Source: NCHS and NHLBI.
CVD and other major causes of death for Hispanic or Latino males and females (United States: 2006). Source: NCHS and NHLBI.
CVD and other major causes of death for Asian or Pacific Islander males and females (United States: 2006).

Source: NCHS and NHLBI.
CVD and other major causes of death for American Indian or Alaska Native males and females (United States: 2006).

A CVD (I00-I99)  
B Cancer  
C Accidents  
D Diabetes Mellitus  
E Chronic Liver Disease and Cirrhosis  
F Chronic Lower Respiratory Diseases

Source: NCHS and NHLBI.
Hospital Discharges (in millions) for the 10 Leading diagnostic Groups (United States: 2006). Source: NHDS/NCHS and NHLBI.

- Cardiovascular 390-459: 6.2
- Obstetrical V27: 4.1
- Digestive System 520-579: 3.5
- Respiratory System 460-519: 3.5
- External: Injuries, etc. 800-999: 3.0
- Mental 290-319: 2.4
- Genitourinary System 580-629: 2.0
- Musculoskeletal System 710-739: 2.0
- Endocrine System 240-279: 1.7
- Neoplasms 140-239: 1.6
Estimated 10-Year CVD risk in 50 to 54-year-old adults according to levels of various risk factors (Framingham Heart Study).

Source: D’Agostino et al., Circulation. 2008;117:743-753.
Prevalence (%) of Coronary Calcium: US Adults Ages 33-45 Years (CARDIA Study).
Prevalence (%) of Coronary Calcium: US Adults Ages 45-84 Years (The MESA Study).
Source: Bild et al., Circulation. 2005;111:1313-1320.
Hazard Ratios for CHD Events Associated With Coronary Calcium Scores: US Adults Ages 45-84 Years
(Reference Group CAC=0)

Source: Detrano et al., NEJM. 2008;358(13):1336-1345.
Hazard Ratios for CHD Events Associated With Coronary Calcium Scores: US Adults (Reference Group CAC=0 and Framingham Risk Scores <10%)  


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Mean Values of Carotid IMT for Different Carotid Artery Segments in Younger Adults by Race and Sex

(Bogalusa Heart Study)

Mean Values of Carotid IMT for Different Carotid Artery Segments in Older Adults by Race (MESA Heart Study)

### Estimated 10-Year CHD Risk in 55-Year-Old Adults According to Levels of Various Risk Factors (Framingham Heart Study)


<table>
<thead>
<tr>
<th>Blood Pressure (mm Hg)</th>
<th>120/80</th>
<th>140/90</th>
<th>140/90</th>
<th>140/90</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Cholesterol (mg/dL)</td>
<td>200</td>
<td>240</td>
<td>240</td>
<td>240</td>
</tr>
<tr>
<td>HDL Cholesterol (mg/dL)</td>
<td>50</td>
<td>50</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>Diabetes</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Cigarettes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

mm Hg = millimeters of mercury. mg/dL = milligrams per deciliter of blood

Source: NHLBI. Includes MI and fatal CHD but not silent MI’s.
Prevalence of CHD by age and sex

(NHANES :2003-2006). Source: NCHS and NHLBI.
Prevalence of low CHD risk, overall and by sex, ages 25-74

(NHANES: 1971-2006). Source: Personal communication with NHLBI 6/28/07. “Low risk” is defined as SBP <120 mm Hg and DBP<80 mm Hg; cholesterol < 200 mg/dL and BMI <25 kg/m2 and currently not smoking cigarettes and no prior MI or DM.
Annual rate of first heart attack by age, sex and race.

Hospital discharges for coronary heart disease by sex (United States: 1970-2006). Source: NHDS/NCHS.

Note: Hospital discharges include people discharged alive, dead, and status unknown.
Trends in Carotid Endarterectomy Procedures
(United States: 1979-2006). Source: NHDS/NCHS and NHLBI.

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Prevalence of stroke by age and sex *(NHANES: 2003-2006).*  
**Source:** NCHS and NHLBI.

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Annual rate of first cerebral infarction by age, sex and race (GCNKSS: 1999). Source: Unpublished data GCNKSS. Note – rates for ages 45-54 for black males and females and for black males ages 75 and over, are considered unreliable. An estimated 15,000 people have first cerebral infarctions before age 45.

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Annual rate of all first-ever strokes by age, sex and race (GCNKSS: 1999).

Source: GCNKSS unpublished data. Note: rates for ages 45-54 for black men and women and for black men 75 and over, are considered unreliable.

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Estimated 10-year stroke risk in 55-year-old adults according to levels of various risk factors (FHS).

*Closest ranges for women are: 95-104 and 115-124.

Prevalence of high blood pressure in Adults age 20 and older, by age and sex (NHANES: 2003-2006). Source: NCHS and NHLBI.

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Extent of awareness, treatment and control of high blood pressure by race/ethnicity (NHANES : 2003-2006).
Source: NCHS and NHLBI.
Extent of Awareness, Treatment and Control of High Blood Pressure by Age (NHANES: 2003-2006). Source: NCHS and NHLBI.
Extent of Awareness, Treatment and Control of High Blood Pressure by Race/Ethnicity and Sex

(NHANES: 1999-2006). Source: NCHS and NHLBI.
Prevalence of heart failure by age and sex
(NHANES: 2003-2006). Source: NCHS and NHLBI.

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Hospital discharges for heart failure by sex. (United States: 1979-2006). Source: NHDS/NCHS and NHLBI.

Note: Hospital discharges include people discharged alive, dead and status unknown.
Incidence of Heart Failure* by age and sex.


* HF based on physician review of medical records and strict diagnostic criteria.
Prevalence of current smoking for Adults age 18 and older by race/ethnicity and sex (NHIS:2007).

Source: NCHS and NHLBI.
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Trends in the prevalence of total serum cholesterol (200+mg/dL) in adults age 20 and older, by sex, race/ethnicity and survey. (NHANES: 2003-04 and 2005-06)

Source: NCHS and NHLBI. NH – non-Hispanic. MA – Mexican Am.

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Prevalence of students in grades 9-12 who met currently recommended levels of physical activity during the past 7 days by race/ethnicity and sex (YRBS: 2007). Source: MMWR. 2008;57:No. SS-4. NH – non-Hispanic.

Note: “Currently recommended levels” is defined as activity that increased their heart rate and made them breathe hard some of the time for a total of at least 60 minutes/day on 5 or more of the 7 days preceding the survey.

NH – non-Hispanic.
Prevalence of students in grades 9-12 who did not meet currently recommended MVPA during the past 7 days by race/ethnicity, and sex. *(YRBS: 2007).* Source: *MMWR 2008;57* (No.SS-4). NH – non-Hispanic.
Prevalence of children ages 6-19 who attained sufficient MVPA to meet public health recommendations of >60 minutes/day on >5 of 7 days by sex and age. *(NHANES: 2003-04).* Source: MSSE 2008;40:181-8.

Note: Obesity is defined as a BMI of 30.0 or higher.
Prevalence of physician-diagnosed diabetes in Adults age 20 and older by race/ethnicity and sex


<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Less than high school</th>
<th>High school</th>
<th>More than high school</th>
</tr>
</thead>
<tbody>
<tr>
<td>NH Whites</td>
<td>9.2</td>
<td>6.2</td>
<td>5.8</td>
</tr>
<tr>
<td>NH Blacks</td>
<td>13.4</td>
<td>15.3</td>
<td>11.0</td>
</tr>
<tr>
<td>Mexican Americans</td>
<td>12.8</td>
<td>9.6</td>
<td>13.0</td>
</tr>
</tbody>
</table>

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Trends in diabetes prevalence in adults age 20+ by Sex
Diabetes Awareness, Treatment and Control (NHANES: 2003-2006). Source: NHLBI.
Figure 16-3. Total U.S. Food Expenditures Away from Home and At Home, 1977 and 2007. **Source:** United States Department of Agriculture Economic Research Service

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Figure 16-2. Per Capita Calories Consumed from Different Beverages by U.S. Adults (age 19 and older), 1965-2002.

Figure 16-1. Age-Adjusted Trends in Macronutrients and Total Calories Consumed by U.S. Adults (20-74 years), 1971-2004.

Source: National Center for Health Statistics. Health, United States 2008, With Special Focus on Young Adults. NCHS; 2009

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Source: United Network for Organ Sharing (UNOS), scientific registry data.
Trends in Cardiovascular Operations and Procedures
(United States: 1979-2006). Source: NCHS and NHLBI.
Note: In-hospital procedures only.

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Number of Surgical Procedures in the 10 Leading Diagnostic Groups (United States: 2006). Source: NHDS/NCHS and NHLBI.
Direct Costs of the 10 Leading Diagnostic Groups
(Billions of dollars) (United States: 2010). Source: NHLBI.
Estimated direct and indirect costs (in billions of dollars) of major cardiovascular diseases and stroke

(United States: 2010). Source: NHLBI.