The Burden of Heart Disease and Stroke in New Hampshire

Introduction

According to the Centers for Disease Control and Prevention (CDC), more than 1 of 3 (83 million) U.S. adults currently live with one or more types of cardiovascular disease, and more than one-third (33.6%) of all U.S. deaths are due to cardiovascular diseases.

In New Hampshire (NH), heart disease and stroke are the second and fourth leading causes of death, accounting for 2,268 and 499 deaths in 2009, respectively. About 80% of deaths from diseases of the heart and blood vessels in New Hampshire are from coronary heart disease, heart attack, congestive heart failure and stroke.

The estimated cost for cardiovascular disease and stroke in 2009 in the U.S. was $312.6 billion. This figure included health expenditures (direct costs) and loss of productivity resulting from morbidity and mortality (indirect costs). From that number, $195.2 billion were for heart disease and $38.6 billion for stroke.

The remaining cost was for hypertensive disease and other circulatory conditions.

Along with addressing the prevalence and death data, this brief will address the following risk factors: high blood pressure, high cholesterol, smoking, diabetes, physical inactivity, and overweight and obesity.

The goal of the Heart Disease and Stroke Prevention Program is to reduce the burden of cardiovascular disease in New Hampshire through mobilizing partnerships, building capacity, enhancing surveillance and developing and implementing strategies that address risk factors for heart disease and stroke in New Hampshire.

What is the Prevalence and Incidence of Heart Disease and Stroke in New Hampshire?

According to the 2010 NH Behavioral Risk Factor Surveillance System (BRFSS) survey, 4.4% of adults in NH indicated that

Table 1. Top 10 Leading Causes of Deaths in New Hampshire, 2009

<table>
<thead>
<tr>
<th>Causes of Deaths</th>
<th>Deaths</th>
<th>Age-adjusted Rates per 100,000</th>
<th>Death</th>
<th>Percentage of Total Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>1- Malignant Neoplasms</td>
<td>2,562</td>
<td>170.4</td>
<td>150.1</td>
<td>25.4</td>
</tr>
<tr>
<td>2- Heart Disease</td>
<td>2,268</td>
<td>150.1</td>
<td>144.5</td>
<td>22.5</td>
</tr>
<tr>
<td>3- Chronic Lower Resp. Disease</td>
<td>652</td>
<td>44.5</td>
<td>44.5</td>
<td>6.5</td>
</tr>
<tr>
<td>4- Cerebrovascular Disease</td>
<td>499</td>
<td>33.3</td>
<td>33.3</td>
<td>4.9</td>
</tr>
<tr>
<td>5- Unintentional Injury</td>
<td>482</td>
<td>34.3</td>
<td>34.3</td>
<td>4.8</td>
</tr>
<tr>
<td>6- Alzheimer's Disease</td>
<td>367</td>
<td>24.3</td>
<td>24.3</td>
<td>3.6</td>
</tr>
<tr>
<td>7- Diabetes Mellitus</td>
<td>276</td>
<td>18.3</td>
<td>18.3</td>
<td>2.7</td>
</tr>
<tr>
<td>8- Influenza Pneumonia</td>
<td>194</td>
<td>12.8</td>
<td>12.8</td>
<td>1.9</td>
</tr>
<tr>
<td>9- Suicide</td>
<td>166</td>
<td>11.7</td>
<td>11.7</td>
<td>1.6</td>
</tr>
<tr>
<td>10- Nephritis</td>
<td>165</td>
<td>11.1</td>
<td>11.1</td>
<td>1.6</td>
</tr>
<tr>
<td>All Others Causes</td>
<td>2,469</td>
<td>24.4</td>
<td>24.4</td>
<td>24.4</td>
</tr>
</tbody>
</table>

Adapted From: Web-based Injury Statistics Query and Reporting System, Office of Statistics and Programming, National Center for Injury Prevention and Control, Centers for Disease Control and Prevention
Data Source: National Center for Health Statistics, National Vital Statistics System
they were told by a health professional that they had angina or coronary heart disease (CHD). Age-adjusted death rates for CHD decreased by 47% from 193.7 deaths to 102.3 deaths per 100,000 population between 2000 and 2009.

Figure 1. Trends in Age-Adjusted Death Rates from Coronary Heart Disease in New Hampshire, Overall and by Sex, 2000–2009

However, more males and more people aged 75 and older died from CHD than females and people younger than 75. At the county level, Coos County registered the highest age-adjusted death rate per 100,000 for the period 2005-2009 combined, whereas Hillsborough County experienced the highest actual number of deaths.

In 2010, 4% of adults had been told they had a heart attack or myocardial infarction and regarding hospitalizations for heart attack, the age-adjusted rates decreased by 29%, from 26.1 in 2000 to 18.6 per 10,000 population in 2008. There were more hospitalizations among men. Adjusted death rates for heart attack decreased by 52%, from 58.8 deaths per 100,000 population in 2000 to 28.1 deaths in 2009. Regarding stroke, in 2010, about 2% of adults had been told they had stroke and stroke prevalence increased with age but was inversely related to income and education. Age-adjusted hospitalization rates for stroke decreased by 18% from 21.7 in 2000 to 17.9 per 10,000 population in 2008. Lastly age-adjusted death rates from stroke decreased by 41% from 56.4 deaths in 2000 to 33.3 deaths per 100,000 population in 2009.

What are the Risk Factors for Heart Disease and Stroke in New Hampshire?

The common modifiable risk factors for heart disease and stroke include: high blood pressure, high cholesterol, diabetes, obesity, smoking, physical inactivity and a diet lacking in fruits and vegetables. High blood pressure (HBP) increases the risk of stroke, coronary heart disease, heart attack and congestive heart failure.

Based on the 2009 BRFSS survey results, over one in four adults (28.6%) reported having been told that they have HBP and the prevalence of high blood cholesterol among
According to the 2010 BRFSS survey, 7.9% of adults in New Hampshire reported having been told that they have diabetes and 16.9% of adults were current smokers. Regarding overweight and obesity, over one third (37.6%) of respondents were found to be overweight based on their BMI score and one fourth (25.5%) were found to be obese. Regarding physical activity, the results from the 2009 BRFSS survey indicated that 21.2% of New Hampshire adults were physically inactive.

**References**

Heart Disease and Stroke Prevention Burden Report, 2013, prepared by Jean A. Cadet, MD, MPH.

For More Detailed Information

Please see full report, *The Burden of Heart Disease and Stroke in New Hampshire, 2013.*

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