



New Hampshire Cardiovascular Disease Data 2006



New Hampshire Department of Health and Human Services
Division of Public Health Services
Bureau of Prevention Services

New Hampshire Cardiovascular Disease Data 2006

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Introduction

Heart disease is the leading cause of death for both women and men in the United States and in New Hampshire. Almost 700,000 people die of heart disease in the U.S. each year. Annually, heart disease is estimated to cost more than \$250 billion, including health care services, medications, and lost productivity.⁽¹⁾

Stroke is the third leading cause of death in the United States and in New Hampshire. Over 160,000 people die each year from stroke in the United States. Among survivors, stroke can cause significant disability including paralysis as well as speech and emotional problems. According to the American Heart Association, as a result of strokes we lost almost \$57 billion in both direct and indirect costs in 2005.⁽²⁾

This publication is the first compilation of data on cardiovascular disease from the New Hampshire Department of Health and Human Services.

Methods

The *New Hampshire Cardiovascular Disease Data 2006* is the collection of data from various data sources. *Indicators for Chronic Disease Surveillance*⁽³⁾ was used to select individual indicators. Vital statistics, New Hampshire inpatient hospitalization data and Behavioral Risk Factor Surveillance System (BRFSS) data served as the data sources for this report.

Data are presented with 95% confidence intervals. The confidence interval reflects the degree of uncertainty for each estimate. For example, in 2005, 4.5% of New Hampshire adults reported that they have been told they had an angina or coronary heart disease with a 95% confidence interval 3.9%-5.1%. This can be interpreted to mean that our best estimate is 4.5%, but the range that is likely to capture the true value 95% of the time could be as low as 3.9% or as high as 5.1%.

Data Sources

CDC WONDER

Wide-ranging OnLine Data for Epidemiologic Research (WONDER) is an easy-to-use internet system that makes the information resources of the Centers for Disease Control and Prevention (CDC) available to public health professionals and the public at large. It provides access to a wide array of public health information. For this report, numeric data sets about mortality were queried via "fill-in-the blank" web pages. CDC WONDER is available at: <http://wonder.cdc.gov/welcome.html>.

Hospital Discharge Data

Hospital discharge data is maintained by the New Hampshire Hospital Association under contract with the Department of Health and Human Services. The 26 acute-care, non-federal, inpatient facilities in the state report all admissions to this data set. The data set includes information on New Hampshire residents hospitalized in the state. New Hampshire residents hospitalized in another state are not included. The Health Statistics and Data Management Section oversees the analysis of this data set. Additional information about New Hampshire hospital discharge data is available on-line at: <http://www.dhhs.nh.gov/DHHS/HSDM/hospital-discharge-data.htm>.

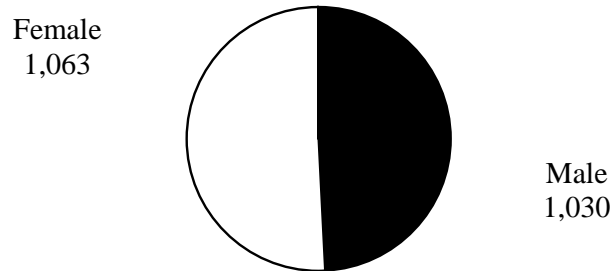
Behavioral Risk Factor Surveillance System

The Behavioral Risk Factor Surveillance System is a population-based, random-digit dialed telephone survey of civilian, non-institutionalized adults, aged 18 years and older. The survey is coordinated by the Centers for Disease Control and Prevention (CDC) and is conducted annually by all states. In New Hampshire, the Health Statistics and Data Management Section is responsible for the survey. The BRFSS includes questions on health behavior risk factors such as safety belt use, diet, weight control, oral health, diabetes, alcohol use, physical exercise, and preventive health screenings. The data are weighted to more accurately reflect the population by accounting for age, gender, and probability of selection. In New Hampshire, 6,038 interviews were completed in 2005. The national estimates are a calculation of the middle value (median) of all the state estimates. Some New Hampshire and national data can be accessed on line at: <http://www.cdc.gov/brfss/>.

Vital Statistics

Mortality from coronary heart disease

Mortality from coronary heart disease, by sex, New Hampshire, 2003



Mortality from coronary heart disease, New Hampshire, 1999-2003

Year	Deaths	Crude Rate	Age-adjusted rate*
1999	2,239	183.1 (175.5-190.6)	193.1 (185.1-201.1)
2000	2,294	185.6 (178.0-193.2)	193.6 (185.7-201.5)
2001	2,314	184.5 (176.9-192.0)	190.0 (182.3-197.8)
2002	2,199	172.7 (165.5-179.9)	175.8 (168.4-183.1)
2003	2,093	162.1 (155.2-169.1)	163.9 (156.9-171.0)

*Adjusted to 2000 standard U.S. population, per 100,000 population

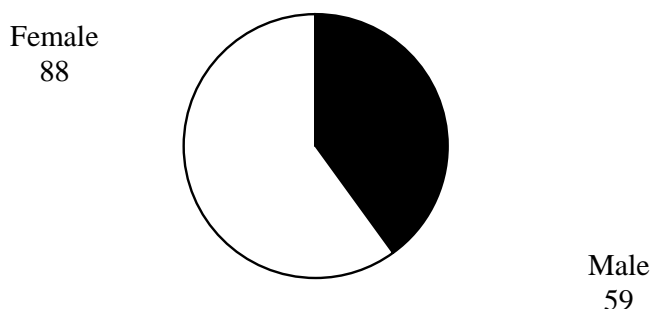
Comment: Coronary heart disease (CHD) is the most common type of heart disease and the largest component of heart disease mortality in the United States. The most common symptom of CHD is angina. CHD can lead to a heart attack. In 2003, the United States age-adjusted mortality rate (white race only) due to coronary heart disease was 169.7 per 100,000 population.

Methods: The numerator included the annual number of deaths with underlying cause of death coded by ICD-10 codes I11, I20-I25. The denominator included midyear resident population for the same calendar year. Direct method was used for age-adjustment.

Data sources: CDC WONDER⁽⁴⁾ – number of events, Section of Health Statistics and Data Management, New Hampshire Department of Health and Human Services – population estimates for rate calculations.

Mortality from congestive heart failure

Mortality from congestive heart failure, by sex, New Hampshire, 2003



Mortality from congestive heart failure, New Hampshire, 1999-2003

Year	Deaths	Crude Rate	Age-adjusted rate*
1999	100	8.2 (6.6-9.8)	8.7 (7.0-10.5)
2000	104	8.4 (6.8-10.0)	8.9 (7.2-10.6)
2001	121	9.6 (7.9-11.4)	10.0 (8.2-11.8)
2002	136	10.7 (8.9-12.5)	10.9 (9.1-12.7)
2003	147	11.4 (9.5-13.2)	11.5 (9.7-13.4)

*Adjusted to 2000 standard U.S. population, per 100,000 population

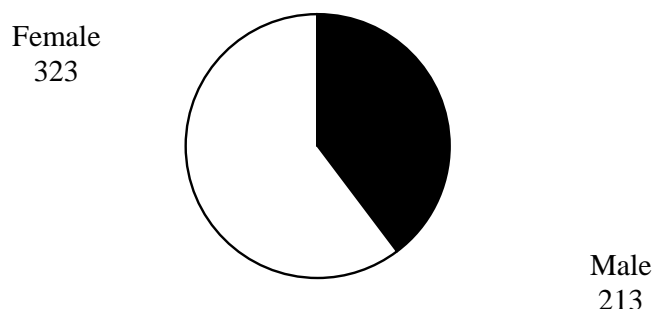
Comment: Congestive heart failure is a sequel to various heart diseases and is often the end stage of cardiac disease. Heart disease is the leading cause of death for both women and men in the United States. Approximately 75% of persons with congestive heart failure have antecedent hypertension.⁽³⁾ In 2003, the United States age-adjusted mortality rate (white race only) for congestive heart failure was 19.5 per 100,000 population.

Methods: The numerator included annual number of deaths with underlying cause of death coded by ICD-10 code I50. The denominator included midyear resident population for the same calendar year. Direct method was used for age-adjustment.

Data sources: CDC WONDER⁽⁴⁾ – number of events, Section of Health Statistics and Data Management, New Hampshire Department of Health and Human Services – population estimates for rate calculations.

Mortality from cerebrovascular disease

Mortality from cerebrovascular disease, by sex, New Hampshire, 2003



Mortality from cerebrovascular disease, New Hampshire, 1999-2003

Year	Deaths	Crude Rate	Age-adjusted rate*
1999	669	54.7 (50.6-58.8)	58.2 (53.8-62.6)
2000	662	53.5 (49.5-57.6)	56.4 (52.1-60.7)
2001	633	50.5 (46.5-54.4)	52.5 (48.4-55.6)
2002	627	49.2 (45.4-53.1)	50.5 (46.5-54.4)
2003	536	41.5 (38.0-45.0)	42.3 (38.7-45.9)

*Adjusted to 2000 standard U.S. population, per 100,000 population

Comment: Stroke is the third leading cause of death in the United States.⁽²⁾ Stroke can cause considerable disability including paralysis as well as speech and emotional problems. Modifiable risk factors for stroke include behaviors (tobacco use, physical inactivity) and health status (untreated hypertension, hyperlipidemia and diabetes).⁽³⁾ In 2003, the United States age-adjusted mortality rate (white race only) for cerebrovascular disease was 51.4 per 100,000 population.

Methods: The numerator included annual number of deaths with underlying cause of death coded by ICD-10 codes I60-I69. The denominator included midyear resident population for the same calendar year. Direct method was used for age-adjustment.

Data sources: CDC WONDER⁽⁴⁾ – number of events, Section of Health Statistics and Data Management, New Hampshire Department of Health and Human Services – population estimates for rate calculations.

Hospital Discharge Data

Hospitalization for acute myocardial infarction

Hospitalization for acute myocardial infarction, New Hampshire, 2000-2004

Year	Hospitalizations*	Crude rate (95% CI)	Age-adjusted rate**(95% CI)
2000	2,772	22.4 (21.6-23.3)	22.8 (21.9-23.6)
2001	2,709	21.6 (20.8-22.4)	21.7 (20.9-22.5)
2002	2,623	20.6 (19.8-21.4)	20.5 (19.8-21.3)
2003	2,663	20.6 (19.8-21.4)	20.5 (19.7-21.3)
2004	2,436	18.6 (17.9-19.4)	18.3 (17.6-19.0)

*Does not include out of state hospitalizations

** Adjusted to 2000 standard U.S. population, per 10,000 population

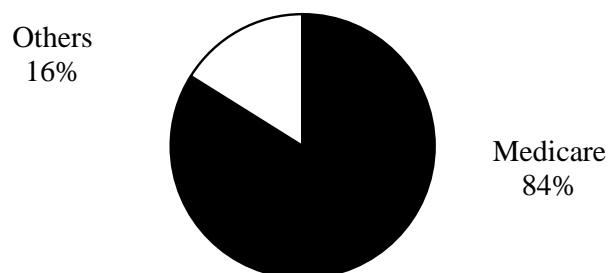
Comment: Acute myocardial infarction (heart attack) is one of the largest components of cardiovascular disease mortality. Rapid identification and treatment of heart attack reduces heart muscle damage, improves heart muscle function, and lowers the heart attack death rate. According to a CDC report, *State-specific mortality from sudden cardiac death--United States, 1999*, almost half of the cardiac deaths in 1999 occurred before emergency services and hospital treatment could be administered.⁽⁵⁾ According to the *2004 National Hospital Discharge Survey*, the hospitalization rate for acute myocardial infarction for all ages was 25.0 per 10,000 population in the United States.⁽⁶⁾ In New Hampshire, hospitalization costs associated with acute myocardial infarction, paid by both public and private insurance, were more than 85.6 million dollars in 2004. Medicare alone paid over 47.9 million dollars in hospitalization costs associated with acute myocardial infarction.

Methods: The numerator included annual number of hospitalizations with principal diagnosis of ICD-9-Code 410 among New Hampshire residents during calendar year. The denominator included midyear resident population for the same calendar year. Direct method was used for age-adjustment.

Data sources: New Hampshire hospital discharge data - number of events, Section of Health Statistics and Data Management, New Hampshire Department of Health and Human Services – population estimates for rate calculations.

Hospitalization for congestive heart failure

Hospitalization for congestive heart failure, by payor, New Hampshire, 2004



Hospitalization for congestive heart failure, New Hampshire, 2000-2004

Year	Hospitalizations*	Crude rate (95% CI)	Age-adjusted** rate (95% CI)
2000	2,671	21.6 (20.8-22.4)	22.6 (21.7-23.4)
2001	2,831	22.6 (21.7-23.4)	23.4 (22.5-24.2)
2002	2,653	20.8 (20.0-21.6)	21.4 (20.6-22.3)
2003	2,603	20.2 (19.4-20.9)	20.6 (19.8-21.4)
2004	2,594	19.8 (19.1-20.6)	20.2 (19.4-20.9)

*Does not include out of state hospitalizations

** Adjusted to 2000 standard U.S. population, per 10,000 population

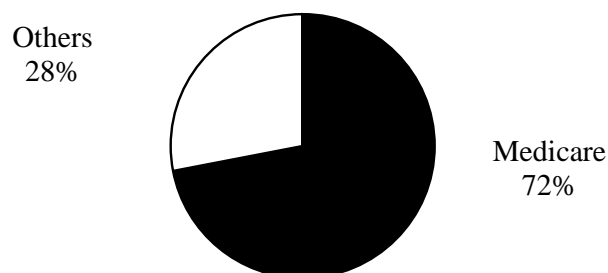
Comment: Congestive heart failure is a consequence of various heart diseases and is often the end stage of cardiac disease. Congestive heart failure is the leading principal diagnosis for Medicare hospital claims.⁽³⁾ According to the *2004 National Hospital Discharge Survey*, the hospitalization rate for congestive heart failure for all ages was 37.3 per 10,000 population in the United States.⁽⁶⁾ In 2004, approximately 84% of hospitalizations for congestive heart failure in New Hampshire were paid for by a single payor, Medicare. Overall, in 2004, Medicare paid 34.7 million dollars in hospitalization costs associated with congestive heart failure in New Hampshire.

Methods: The numerator included annual number of hospitalizations with principal diagnosis of ICD-9-Code 428.0 among New Hampshire residents during calendar year. The denominator included midyear resident population for the same calendar year. Direct method was used for age-adjustment.

Data sources: New Hampshire hospital discharge data - number of events, Section of Health Statistics and Data Management, New Hampshire Department of Health and Human Services – population estimates for rate calculations.

Hospitalization for cerebrovascular accident or stroke

Hospitalization for cerebrovascular accident or stroke, by payor, New Hampshire, 2004



Hospitalization for cerebrovascular accident or stroke, New Hampshire, 2000-2004

Year	Hospitalizations*	Crude rate (95% CI)	Age-adjusted rate** (95% CI)
2000	2,270	18.4 (17.6-19.1)	19.0 (18.2-19.8)
2001	2,266	18.1 (17.3-18.8)	18.6 (17.8-19.4)
2002	2,175	17.1 (16.4-17.8)	17.5 (16.7-18.2)
2003	1,955	15.1 (14.5-15.8)	15.4 (14.7-16.0)
2004	2,034	15.5 (14.8-16.2)	15.7 (15.0-16.4)

*Does not include out of state hospitalizations

** Adjusted to 2000 standard U.S. population, per 10,000 population

Comment: Stroke is the third leading cause of death and the leading cause of serious long-term disability.⁽²⁾ Among stroke survivors, stroke can cause significant disability including paralysis as well as speech and emotional problems. The two factors most crucial to the beneficial outcome of stroke are to know the symptoms of stroke and get to the hospital quickly following a stroke. In 2004, approximately 72% of hospitalizations for cerebrovascular accident or stroke in New Hampshire were paid for by a single payor, Medicare. Overall, in 2004, Medicare paid over 23.8 million dollars in hospitalization costs associated with cerebrovascular accidents or strokes in New Hampshire.

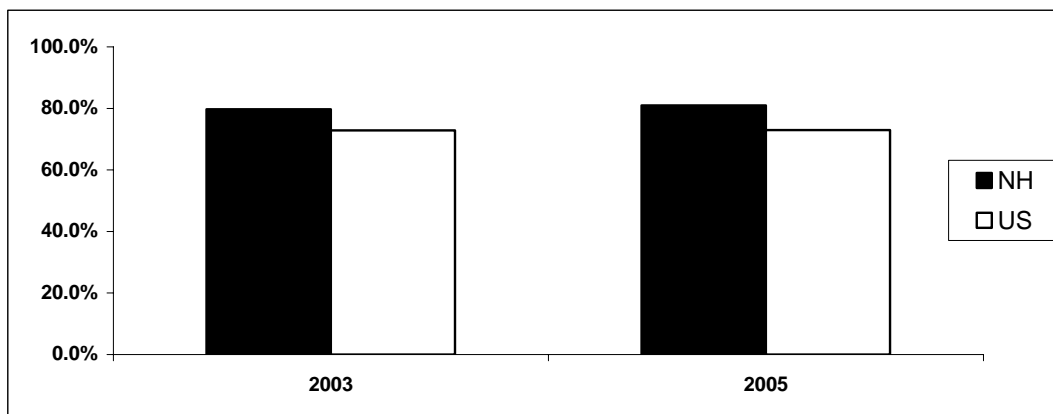
Methods: The numerator included annual number of hospitalizations with principal diagnosis of ICD-9-Code 430-434 and 436-438 during calendar year. The denominator included midyear resident population for the same calendar year. Direct method was used for age-adjustment.

Data sources: New Hampshire hospital discharge data - number of events, Section of Health Statistics and Data Management, New Hampshire Department of Health and Human Services – population estimates for rate calculations.

Behavioral Risk Factor Surveillance

Cholesterol screening among adults aged ≥ 18 years

Adults who have had their blood cholesterol checked within the past five years, New Hampshire and United States, 2003-2005



Adults who have had their blood cholesterol checked in the past five years, New Hampshire, 2005

	%	95% CI
Total	81.0	79.6-82.4
Male	79.4	77.2-81.6
Female	82.6	80.9-84.3
Age		
18-24	44.5	36.3-52.7
25-34	68.1	64.3-71.9
35-44	79.9	77.3-82.5
45-54	90.2	88.5-91.9
55-64	91.9	90.2-93.6
65+	94.4	93.1-95.7
Income		
<15,000	76.5	70.8-82.2
15,000-24,999	79.9	76.1-83.7
25,000-34,999	75.3	70.2-80.4
35,000-49,999	78.1	74.2-82.0
50,000+	84.4	82.6-86.2
Education		
< 12 year	69.7	62.5-76.9
12 years	77.0	74.4-79.6
12-16 years	80.4	77.4-83.4
> 16 years	86.2	84.5-87.9

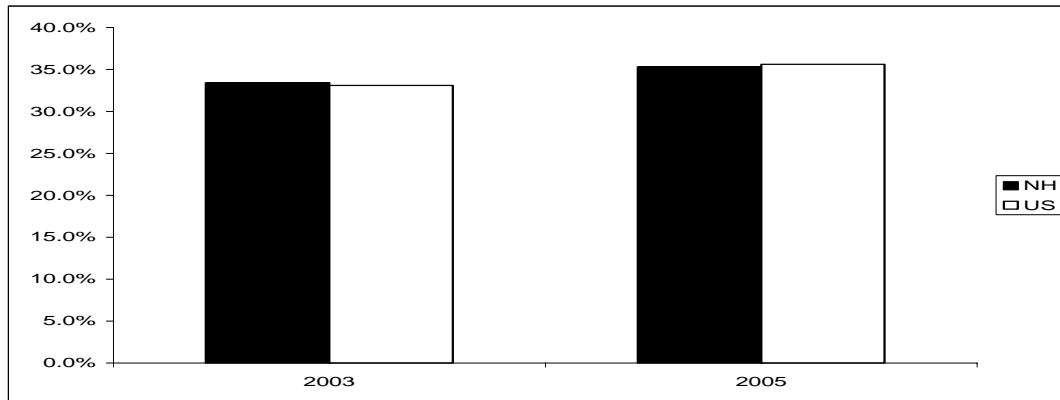
Comment: Elevated levels of serum cholesterol can lead to the development of atherosclerosis. Approximately 30-40% of coronary heart disease and 10-20% of strokes in the United States are attributable to elevated serum cholesterol. Elevated cholesterol has been associated with physical inactivity, high fat intake, smoking, diabetes, and obesity. Additionally, for some individuals heredity may play a role in the elevated cholesterol levels. Lifestyle changes and medication can reduce cholesterol and prevent heart disease among persons with elevated serum cholesterol. Studies among people with heart disease have shown that lowering high blood cholesterol and high blood pressure can reduce the risk of dying from heart disease, having a nonfatal heart attack, and needing heart bypass surgery or angioplasty. Studies among people without heart disease have shown that lowering high blood cholesterol and high blood pressure can reduce the risk of developing heart disease.⁽³⁾

Methods: The numerator included all persons ≥ 18 years of age who reported having their blood cholesterol checked within the last five years. The denominator included all persons ≥ 18 years of age who have responded to the question (excluding unknowns and refusals).

Data source: BRFSS⁽⁷⁾

High cholesterol awareness among adults aged ≥ 18 years

Adults who have had their blood cholesterol checked and have been told it was high, New Hampshire and United States, 2003-2005



Adults who have had their blood cholesterol checked and have been told it was high, New Hampshire, 2005

	%	95% CI
Total	35.3	33.8-36.8
Male	37.3	34.8-39.7
Female	33.5	31.6-35.4
Age		
18-24	9.6	3.0-16.3
25-34	17.0	13.3-20.8
35-44	24.7	21.7-27.7
45-54	37.1	34.0-40.2
55-64	50.7	47.2-54.2
65+	54.1	50.9-57.4
Income		
<15,000	45.3	38.9-51.6
15,000-24,999	44.6	39.6-49.6
25,000-34,999	35.8	30.7-40.9
35,000-49,999	34.8	30.7-38.8
50,000+	31.6	29.5-33.8
Education		
< 12 year	48.3	41.3-55.2
12 years	37.0	34.1-39.9
12-16 years	33.7	30.7-36.7
> 16 years	33.3	31.0-35.7

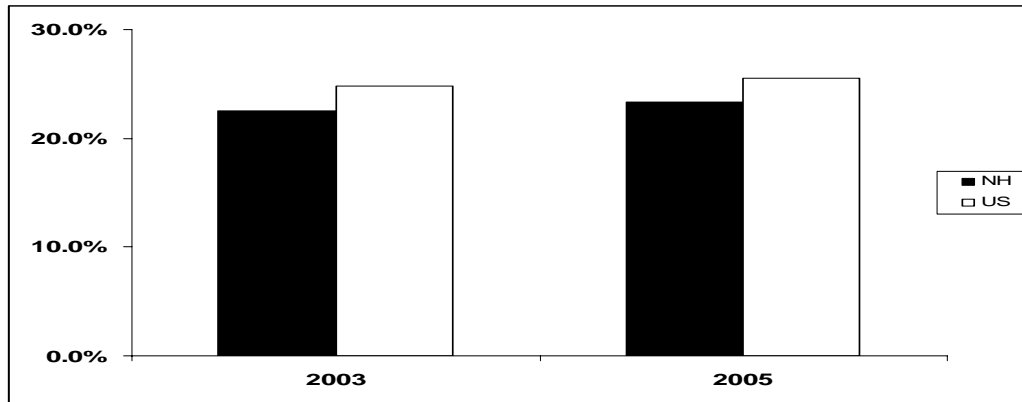
Comment: Elevated levels of serum cholesterol can lead to the development of atherosclerosis. Approximately 30-40% of coronary heart disease and 10-20% of strokes in the United States are attributable to elevated serum cholesterol. Elevated cholesterol has been associated with physical inactivity, high fat intake, smoking, diabetes, and obesity. Additionally, for some individuals heredity may play a role in the elevated cholesterol levels. Lifestyle changes and medication can reduce cholesterol and prevent heart disease among persons with elevated serum cholesterol. Studies among people with heart disease have shown that lowering high blood cholesterol and high blood pressure can reduce the risk of dying from heart disease, having a nonfatal heart attack, and needing heart bypass surgery or angioplasty. Studies among people without heart disease have shown that lowering high blood cholesterol and high blood pressure can reduce the risk of developing heart disease.⁽³⁾

Methods: The numerators included all persons \geq 18 years of age who have had their blood cholesterol checked and have been told it was high. The denominator included all persons \geq 18 years of age who responded to the question (excluding unknowns and refusals).

Data source: BRFSS⁽⁷⁾

High blood pressure awareness among adults aged ≥ 18 years

Adults who have been told they have high blood pressure, New Hampshire and United States, 2003-2005



Adults who have been told they have high blood pressure, New Hampshire, 2005

	%	95% CI
Total	23.3	22.1-24.5
Male	24.8	22.9-26.7
Female	21.8	20.3-23.3
Age		
18-24	3.4	1.1-5.7
25-34	7.3	5.1-9.5
35-44	11.9	9.7-14.1
45-54	24.1	21.5-26.7
55-64	39.1	35.8-42.4
65+	52.4	49.3-55.5
Income		
<15,000	41.1	35.4-46.8
15,000-24,999	32.7	28.6-36.8
25,000-34,999	24.4	20.5-28.3
35,000-49,999	18.8	16.0-21.6
50,000+	19.7	18.0-21.4
Education		
< 12 year	34.2	28.4-40.0
12 years	25.4	23.1-27.7
12-16 years	23.5	21.0-26.0
> 16 years	19.6	17.8-21.4

Comment: Approximately 20-30% of coronary heart disease and 20-50% of strokes in the United States are attributable to uncontrolled hypertension. Blood pressure-related cardiovascular complications can occur before onset of established hypertension. Lifestyle risk factors for hypertension include high sodium intake, excessive caloric intake, physical inactivity, excessive alcohol consumption, and deficient potassium intake. Heredity may be a contributing factor for some individuals. Lifestyle changes and medication can be used to reduce blood pressure. Studies among people with heart disease have shown that lowering high blood cholesterol and high blood pressure can reduce the risk of dying from heart disease, having a nonfatal heart attack, and requiring heart bypass surgery or angioplasty. Studies among people without heart disease have shown that lowering high blood cholesterol and high blood pressure can reduce the risk of developing heart disease.⁽³⁾

Methods: The numerator included all persons ≥ 18 years of age who reported having been told they have high blood pressure. The denominator included all persons ≥ 18 years of age who responded to the question (excluding unknowns and refusals).

Data source: BRFSS⁽⁷⁾

Taking medication for high blood pressure control among adults aged ≥ 18 years

Adults who are currently taking medication for their high blood pressure,
New Hampshire, 2005

	%	95% CI
Total	77.9	75.4-80.4
Male	74.8	70.9-78.7
Female	81.2	78.1-84.4
Age		
18-24	N/A	N/A
25-34	N/A	N/A
35-44	55.9	46.2-65.7
45-54	72.5	67.0-78.0
55-64	87.0	83.5-90.4
65+	91.0	88.6-93.5
Income		
<15,000	84.6	78.9-90.4
15,000-24,999	85.1	79.7-90.6
25,000-34,999	81.9	75.1-88.8
35,000-49,999	74.3	67.4-81.3
50,000+	72.5	67.9-77.1
Education		
< 12 year	80.0	72.3-87.7
12 years	80.3	76.2-84.4
12-16 years	74.8	69.2-80.5
> 16 years	77.2	72.9-81.6

Comment: Approximately 20-30% of coronary heart disease and 20-50% of strokes in the United States are attributable to uncontrolled hypertension. Blood-pressure related cardiovascular complications can occur before the onset of established hypertension. Lifestyle risk factors for hypertension include high sodium intake, excessive caloric intake, physical inactivity, excessive alcohol consumption, and deficient potassium intake.⁽³⁾

Methods: The numerator included all respondents ≥ 18 years of age who reported taking medicine for high blood pressure. The denominator included all persons ≥ 18 years of age who have been told by a doctor, nurse, or other health professional they have high blood pressure (excluding unknowns and refusals).

Data source: BRFSS⁽⁷⁾

Coronary heart disease/angina among adults aged ≥ 18 years

Adults who have been told they had an angina or coronary heart disease, New Hampshire, 2005

	%	95% CI
Total	4.5	3.9-5.1
Male	5.2	4.3-6.2
Female	3.8	3.1-4.5
Age		
18-24	0.6	0.0-1.8
25-34	0.7	0.0-1.4
35-44	0.8	0.2-1.4
45-54	2.3	1.4-3.1
55-64	8.1	6.1-10.0
65+	15.9	13.6-18.3
Income		
<15,000	11.1	7.8-14.4
15,000-24,999	9.2	6.7-11.7
25,000-34,999	5.2	3.3-7.1
35,000-49,999	4.2	2.7-5.6
50,000+	2.4	1.8-3.1
Education		
< 12 year	9.3	6.2-12.3
12 years	5.0	3.9-6.1
12-16 years	4.7	3.5-5.9
> 16 years	3.2	2.4-3.9

Comment: Coronary heart disease (CHD) is the most common type of heart disease. CHD occurs when the coronary arteries that supply blood to the heart muscle become hardened and narrowed due to the plaque buildup. CHD can lead to angina, heart attack, and heart failure.⁽¹⁾

Methods: The numerator included all respondents ≥ 18 years of age who reported ever being told they had an angina or coronary heart disease. The denominator included all persons ≥ 18 years of age who had responded to the question (excluding unknowns and refusals).

Data source: BRFSS⁽⁷⁾

Myocardial infarction/heart attack among adults aged ≥ 18 years

Adults who have been told they had a heart attack or myocardial infarction, New Hampshire, 2005

	%	95% CI
Total	3.8	3.3-4.3
Male	4.9	4.0-5.9
Female	2.7	2.2-3.2
Age		
18-24	0.9	0.0-2.7
25-34	0.5	0.0-1.2
35-44	1.0	0.4-1.6
45-54	1.7	0.9-2.4
55-64	7.6	5.8-9.5
65+	12.3	10.3-14.3
Income		
<15,000	11.5	8.2-15.0
15,000-24,999	8.3	6.0-10.7
25,000-34,999	4.8	2.3-7.3
35,000-49,999	4.0	2.6-5.5
50,000+	1.6	1.1-2.1
Education		
< 12 year	10.2	6.5-14.0
12 years	4.1	3.2-5.1
12-16 years	3.9	2.8-5.0
> 16 years	2.4	1.8-3.0

Comment: A heart attack is also called a myocardial infarction. If the blood supply to the heart is severely reduced or blocked, heart muscle cells may begin to die. The more time that passes without restoring the blood flow, the greater the damage to the heart. This damage can cause irregular heart rhythms, cardiac arrest or death.⁽¹⁾

Methods: The numerator included all respondents ≥ 18 years of age who reported ever being told they had a heart attack. The denominator included all persons ≥ 18 years of age who responded to the question (excluding unknowns and refusals).

Data source: BRFSS⁽⁷⁾

Stroke among adults aged ≥ 18 years

Adults who have been told they had a stroke, New Hampshire, 2005

	%	95% CI
Total	2.6	2.2-3.1
Male	2.8	2.1-3.5
Female	2.4	1.8-3.0
Age		
18-24	1.0	0.0-2.7
25-34	0.5	0.0-1.1
35-44	0.7	0.3-1.2
45-54	1.4	0.6-2.2
55-64	3.1	2.0-4.3
65+	9.3	7.4-11.3
Income		
<15,000	9.9	6.4-13.5
15,000-24,999	5.7	3.2-8.3
25,000-34,999	1.8	0.7-2.9
35,000-49,999	1.9	1.0-2.8
50,000+	1.2	0.8-1.7
Education		
< 12 year	4.9	3.0-6.9
12 years	2.9	2.0-3.9
12-16 years	2.9	1.9-4.0
> 16 years	1.7	1.2-2.3

Comment: A stroke occurs when the blood supply to part of the brain is blocked or when a blood vessel in the brain bursts, causing damage to a part of the brain. A stroke is also called a brain attack. Stroke can cause significant disability including paralysis as well as speech and emotional problems. Stroke is the third leading cause of death in the United States.⁽²⁾

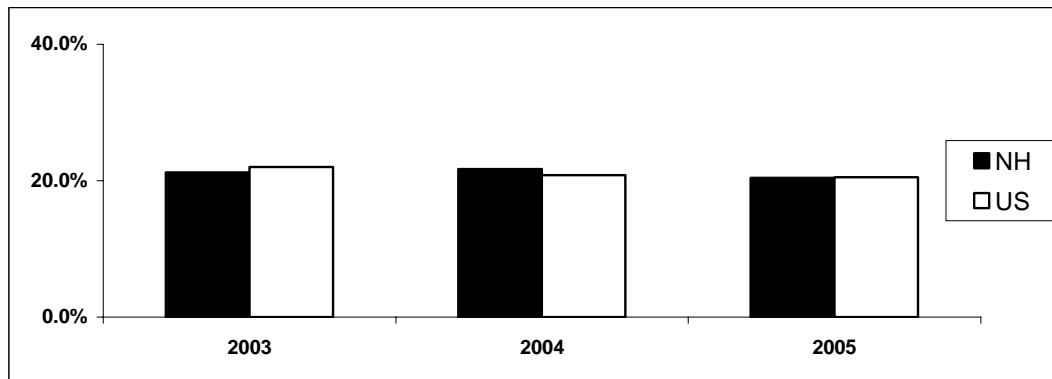
Methods: The numerator included all respondents ≥ 18 years of age who reported ever being told they had a stroke. The denominator included all persons ≥ 18 years of age who had responded to the question (excluding unknowns and refusals).

Data source: BRFSS⁽⁷⁾

Modifiable Risk Factors

Cigarette smoking among adults aged ≥ 18 Years

Adults who are current smokers, New Hampshire and United states, 2003-2005



Adults who are current smokers, New Hampshire, 2005

	%	95% CI
Total	20.4	19.1-21.7
Male	20.3	18.3-22.3
Female	20.5	18.8-22.2
Age		
18-24	31.8	24.9-38.7
25-34	26.7	23.0-30.4
35-44	22.5	19.8-25.2
45-54	20.1	17.8-22.4
55-64	16.7	14.2-19.2
65+	7.7	6.0-9.4
Income		
<15,000	32.5	27.2-37.8
15,000-24,999	33.5	29.0-38.0
25,000-34,999	26.6	21.9-31.3
35,000-49,999	23.9	20.0-27.8
50,000+	14.3	12.7-15.9
Education		
< 12 year	38.1	31.5-44.7
12 years	29.1	26.4-31.8
12-16 years	20.9	18.4-23.4
> 16 years	10.4	8.9-11.9

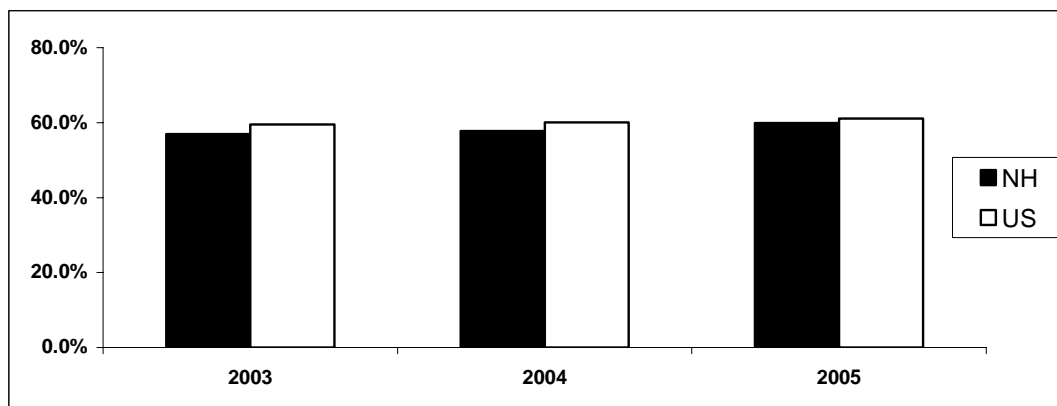
Comment: Smoking is the leading preventable cause of death in the United States. Smoking increases the risk of heart disease, stroke, cancer, and chronic lung disease. Smoking cessation by current smokers reduces risk of these diseases.⁽³⁾

Methods: The numerator included all respondents ≥ 18 years of age who reported having smoked 100 cigarettes in their lifetime and are currently smoking every day or some days. The denominator included all persons ≥ 18 years of age who have responded to the question (excluding unknowns and refusals).

Data source: BRFSS⁽⁷⁾

Overweight among adults aged ≥ 18 Years

Adults who are overweight or obese, New Hampshire and United States, 2003-2005



Adults who are overweight or obese, New Hampshire, 2005

	Overweight		Obese	
	%	95% CI	%	95% CI
Total	36.8	35.3-38.3	23.1	21.8-24.4
Male	45.4	43.0-47.8	24.4	22.4-26.4
Female	28.2	26.4-30.0	21.9	20.2-23.6
Age				
18-24	18.6	12.9-24.3	14.9	9.4-20.4
25-34	35.6	31.5-39.7	23.1	19.5-26.7
35-44	38.0	34.8-41.2	23.3	20.5-26.1
45-54	39.7	36.7-42.7	24.1	21.5-26.7
55-64	41.4	38.0-44.8	29.4	26.2-32.6
65+	40.3	37.2-43.4	21.3	18.7-23.9
Income				
<15,000	31.4	26.0-36.8	27.7	22.2-33.2
15,000-24,999	36.4	31.8-41.0	26.2	21.8-30.6
25,000-34,999	37.1	32.2-42.0	22.6	18.3-26.9
35,000-49,999	36.8	32.7-40.9	26.3	22.6-30.0
50,000+	38.8	36.6-41.0	21.7	19.9-23.5
Education				
< 12 year	31.2	26.3-37.9	26.2	20.5-31.9
12 years	35.5	32.7-38.3	27.1	24.5-29.7
12-16 years	38.2	35.0-41.4	24.7	22.0-27.4
> 16 years	37.6	35.2-40.0	18.6	16.7-20.5

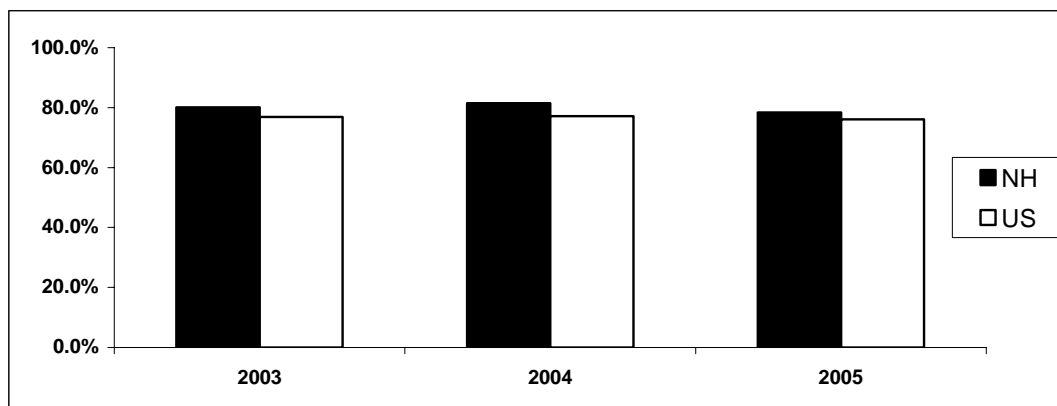
Comment: Being overweight or obese increases the risk for multiple chronic diseases including: heart disease, stroke, hypertension, type 2 diabetes, osteoarthritis and certain cancers.⁽³⁾ Overweight is defined as Body Mass Index (BMI) 25-29.9, and obesity as BMI equal to or more than 30.0. BMI is calculated by dividing weight in kg by height in squared meters.

Methods: The numerator included all respondents ≥ 18 years of age for whom Body Mass Index was calculated (≥ 25.0 kg/m²) from self-reported weight and height. The denominator included all persons ≥ 18 years of age who have reported their height and weight (excluding unknowns and refusals).

Data source: BRFSS⁽⁷⁾

Physical exercise among adults aged ≥ 18 Years

Adults who participated in any physical activity during the past month, New Hampshire and United states, 2003-2005



Adults who participated in any physical activity during the past month, New Hampshire, 2005

	%	95% CI
Total	78.4	77.2-79.6
Male	80.9	79.1-82.7
Female	76.0	74.3-77.7
Age		
18-24	81.5	75.6-87.4
25-34	84.2	81.3-87.1
35-44	79.9	77.3-82.5
45-54	79.4	77.0-81.8
55-64	74.3	71.3-77.3
65+	70.6	67.8-73.4
Income		
<15,000	57.1	51.2-63.0
15,000-24,999	66.2	61.8-70.6
25,000-34,999	74.9	70.7-79.1
35,000-49,999	76.5	72.9-80.1
50,000+	85.6	84.1-87.1
Education		
< 12 year	59.6	53.3-65.9
12 years	70.4	67.8-73.0
12-16 years	80.5	78.0-83.0
> 16 years	86.4	84.8-88.0

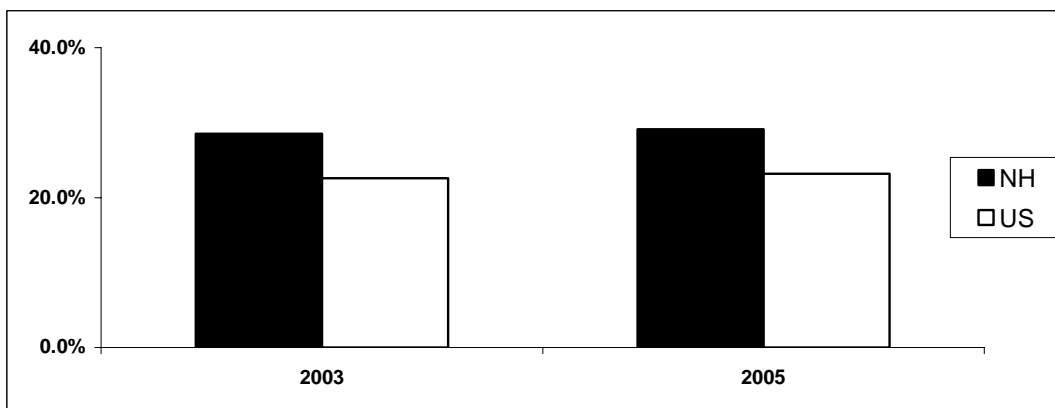
Comment: Physical activity reduces the risk for heart disease, colon cancer, stroke, type 2 diabetes and its complications.⁽³⁾ Respondents were asked about any physical activity or exercise, other than their regular job, such as running, calisthenics, golf, gardening, or walking for exercise.

Methods: The numerator included all respondents ≥ 18 years of age who reported any physical activity during the past month. The denominator included all persons ≥ 18 years of age who responded to the question (excluding unknowns and refusals).

Data source: BRFSS⁽⁷⁾

Fruit and vegetable consumption among adults aged ≥ 18 Years

Adults who have consumed fruits and vegetables five or more times per day,
New Hampshire and United states, 2003-2005



Adults who have consumed fruits and vegetables five or more times per day, New
Hampshire, 2005

	%	95% CI
Total	29.1	27.7-30.5
Male	22.9	20.9-24.9
Female	35.1	33.2-37.0
Age		
18-24	26.6	19.9-33.3
25-34	25.8	22.3-29.3
35-44	25.9	23.1-28.7
45-54	29.1	26.4-31.8
55-64	29.5	26.4-32.6
65+	38.1	35.0-41.2
Income		
<15,000	28.4	23.1-33.7
15,000-24,999	25.7	21.7-29.7
25,000-34,999	27.2	22.7-31.7
35,000-49,999	27.5	23.7-31.3
50,000+	31.2	29.1-33.3
Education		
< 12 year	20.9	15.5-26.3
12 years	24.4	21.8-27.0
12-16 years	28.6	25.8-31.4
> 16 years	34.4	32.2-36.6

Comment: A diet rich in fruits and vegetables offers many health benefits, including reduced risks of coronary heart disease and certain types of cancer.⁽³⁾

Methods: The numerator included all respondents ≥ 18 years of age who reported eating fruits and vegetables five and more times a day. The denominator included all persons ≥ 18 years of age who responded to the question (excluding unknowns and refusals).

Data source: BRFSS⁽⁷⁾

County Comparison, New Hampshire, 2005

Region	Prevalence of Coronary Heart Disease	Prevalence of Myocardial Infarction	Prevalence of Stroke	Prevalence of Elevated Cholesterol	Prevalence of Hypertension	Prevalence of Overweight and Obesity	Prevalence of No Leisure Time Activity	Prevalence of Current Smokers
Belknap	2.2 0.9-3.4	1.7 0.3-3.2	2.0 0.7-3.4	36.3 30.5-42.1	25.5 20.6-30.3	56.7 50.2-63.2	18.9 14.5-23.2	22.6 17.2-28.0
Carroll	4.8 2.4-7.3	5.7 2.8-8.6	2.0 0.6-3.4	39.6 32.8-46.3	26.0 20.5-31.6	57.9 51.5-64.3	22.1 16.7-27.5	20.8 15.7-25.9
Cheshire	3.2 1.8-4.7	2.9 1.4-4.4	2.1 0.8-3.4	30.7 26.0-35.5	23.3 19.4-27.3	59.4 54.3-64.6	17.7 13.9-21.6	20.8 16.8-24.9
Coos	8.1 4.4-11.8	8.8 5.0-12.6	8.5 4.8-12.3	41.1 34.2-48.0	26.7 21.2-32.2	61.2 54.8-67.7	29.6 23.8-35.3	26.2 20.6-31.7
Grafton	3.5 2.1-4.9	2.6 1.4-2.9	3.0 1.5-4.4	34.1 28.9-39.2	21.9 17.9-25.9	56.1 50.3-61.8	17.6 14.0-21.3	17.0 12.8-21.1
Hillsborough	5.2 4.0-6.5	3.4 2.4-4.3	2.6 1.6-3.5	35.6 32.6-38.6	21.7 19.3-24.0	58.9 55.7-62.0	24.2 21.6-26.8	20.7 18.1-23.3
Merrimack	5.6 3.8-7.4	3.9 2.6-5.2	3.3 1.5-5.1	38.0 33.2-42.7	25.4 21.6-29.2	65.3 60.7-69.9	19.6 16.1-23.1	18.2 14.2-22.1
Rockingham	3.1 1.9-4.2	3.8 2.4-5.2	1.5 0.7-2.3	33.9 30.5-37.3	22.1 19.4-24.9	60.9 57.1-64.7	20.2 17.4-23.1	20.4 17.3-23.5
Strafford	5.6 3.7-7.5	5.1 3.2-7.0	3.3 1.9-4.6	35.6 30.9-40.3	26.0 22.0-30.0	60.9 56.3-65.5	23.7 19.7-27.7	22.1 18.2-26.0
Sullivan	4.9 2.6-7.2	4.2 2.0-6.4	2.8 0.7-4.9	31.5 25.5-37.4	23.7 18.7-28.8	57.2 50.8-63.5	20.9 15.8-26.0	19.3 14.2-24.4
New Hampshire	4.5 3.9-5.1	3.8 3.3-4.3	2.6 2.2-3.1	35.3 33.8-36.8	23.3 22.1-24.5	60.0 58.4-61.6	21.6 20.4-22.8	20.4 19.1-21.7

Data source: BRFSS⁽⁷⁾

Terms and Definitions

AGE ADJUSTED RATE

Age-adjusted rates in this document are age-adjusted to the 2000 U.S. standard population. This allows the comparison of rates among populations having different age distributions by standardizing the age-specific rates in each population to one standard population. Age-adjusted rates refer to the number of events that would be expected in a selected population if that population had the same age distribution as a standard population. The multiplier, e.g. 10,000, is chosen to produce a rate that can be expressed as a convenient number.

AGE SPECIFIC RATE

Age-specific rates are rates for a specified age group with the numerator and denominator referring to the same age group. The multiplier is chosen to produce a rate that can be expressed as a convenient number.⁽⁸⁾

CONFIDENCE INTERVAL

Confidence intervals are computed intervals with a given probability, e.g. 95%, that the true value of a variable is contained within the interval.⁽⁸⁾

MORTALITY

Mortality refers to the number or rate of deaths. Rates are age-adjusted to 2000 U.S. standard population.

References

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- 5) Zheng ZJ, Croft JB, Giles WH, Ayala CI, Greenlund KJ, Keenan NL, Neff L, Wattigney WA, Mensah GA. State-specific mortality from sudden cardiac death--United States, 1999. *MMWR* 2002;51(6):123–126, available at <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5106a3.htm>., accessed on 07/06/06
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- 7) Behavioral Risk Factor Surveillance System, available at: <http://www.cdc.gov/BRFSS>, accessed on 07/06/06
- 8) Last J., *Dictionary of Epidemiology*, Third Edition, Oxford University Press, 1995