



# Connecticut Cardiovascular Disease Statistics

State Public Health Actions (1305, SHAPE) Grant • March 2015 • Page 1 of 15

## Cardiovascular Diseases (CVD)

### What are Cardiovascular Diseases?

- Cardiovascular diseases (CVD) include a wide variety of heart and blood vessel diseases.
- The most common forms of CVD are coronary heart disease and cerebrovascular disease (stroke).

### CVD Mortality (Death) Statistics

#### Leading Causes of Death

- Heart disease and stroke are the first and fifth leading causes of death in Connecticut. [Table 1]
- The leading causes of death vary by age with the risk of death from heart disease increasing with age. [Table1]
  - 84% of all heart disease deaths were among residents aged 65 years and older.
  - Nearly 50% of all heart disease deaths were among residents 85 years and older

**Table 1 Leading Causes of Death, Connecticut, 2011**

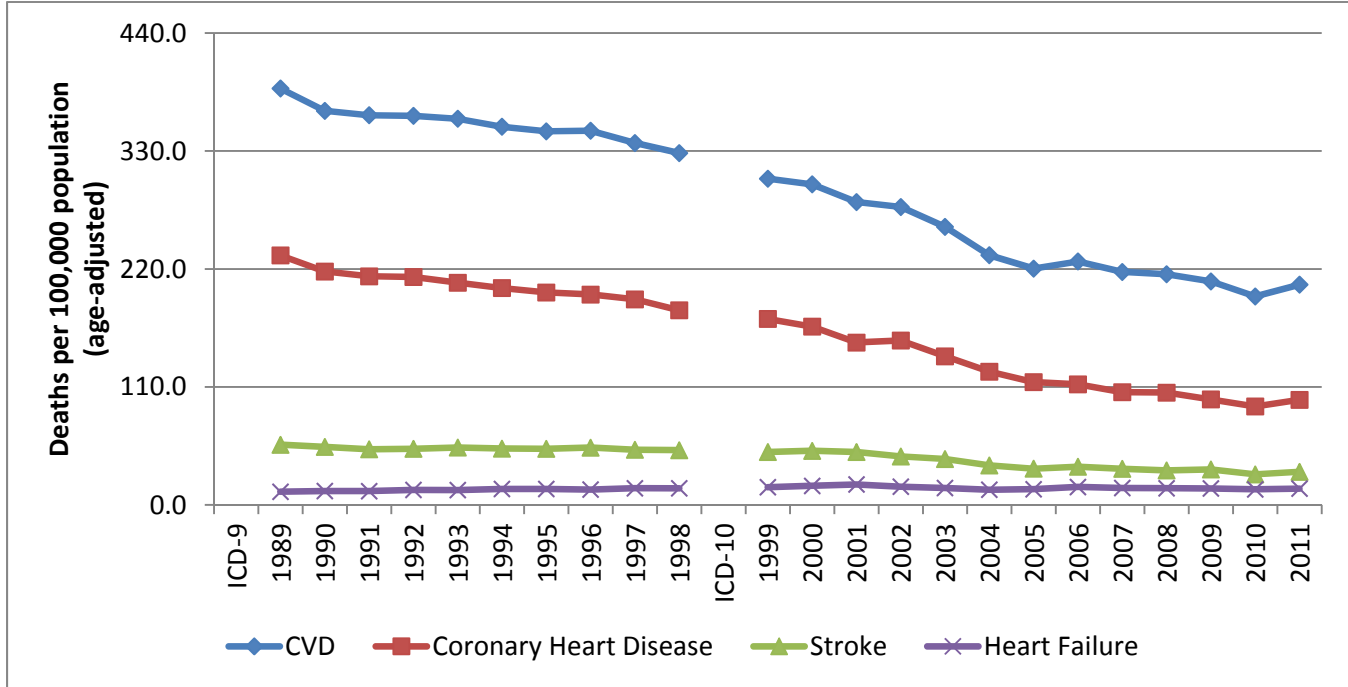
Rank	All Ages	65-74 years old	75-84 years old	85+ years old
1	Heart Diseases (7,183)	Cancer (1,567)	Cancer (1,935)	Heart Diseases (3,566)
2	Cancer (6,793)	Heart Diseases (786)	Heart Diseases (1,066)	Cancer (1,459)
3	Chronic Lower Respiratory Diseases (1,411)	Chronic Lower Respiratory Diseases (227)	Chronic Lower Respiratory Diseases (295)	Stroke (695)
4	Unintentional Injuries (1,322)	Stroke (132)	Stroke (228)	Alzheimer's Disease (584)
5	Stroke (1,308)	Diabetes (126)	Unintentional Injuries (113)	Chronic Lower Respiratory Diseases (531)

Data Source: Connecticut Department of Public Health (CT DPH), Vital Records Mortality Files, 2011 data.

**Age-adjusted CVD Mortality Rates**

- The AAMRs for CVD, coronary heart disease, heart failure, and stroke decreased from 1989 to 2011. [Figure 1]
- A trend analysis using data from 1999-2008 showed that AAMRs for CVD, coronary heart disease, heart failure, and stroke decreased significantly in that timeframe.

*Figure 1 Age-Adjusted CVD Mortality Rates, Connecticut, 1989-2011*

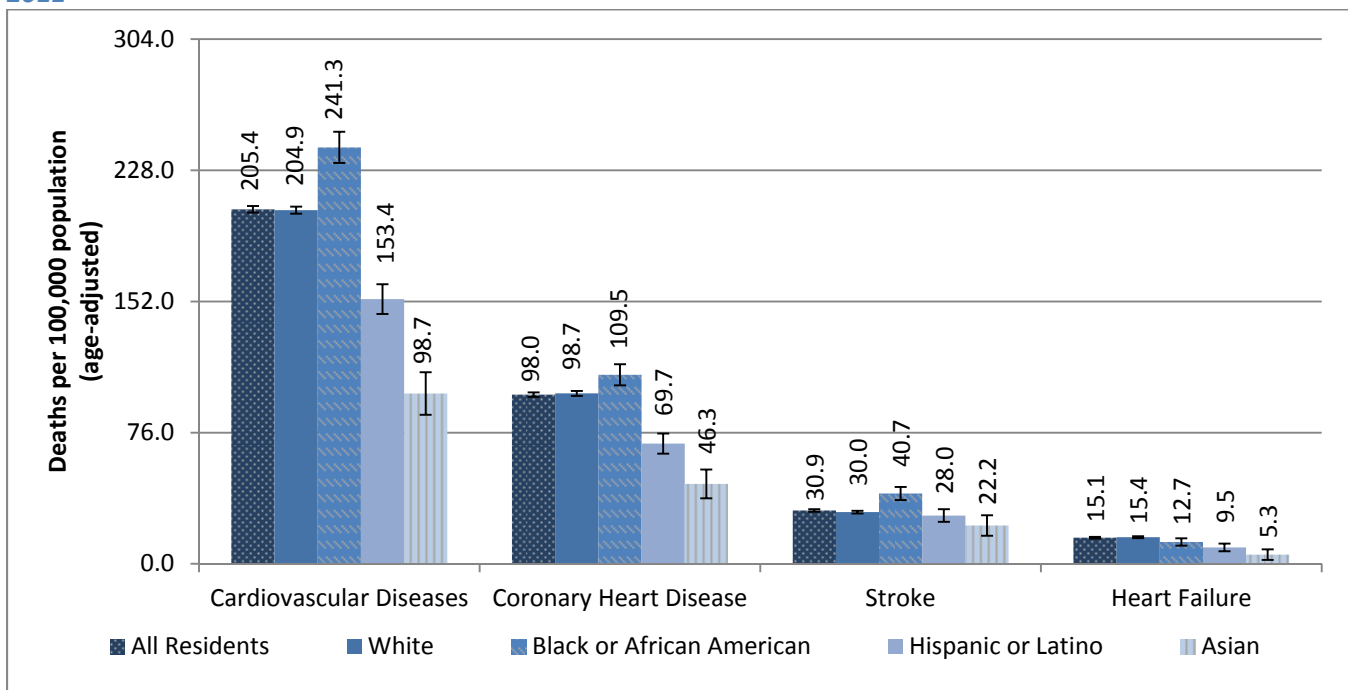


Data Source: CT DPH, Vital Records Mortality Files, 1989-2011 data.

**CVD Age-adjusted Mortality Rates (AAMR) by Race and Ethnicity<sup>1</sup> among Connecticut Residents**

- Age-adjusted CVD mortality rates (AAMRs) vary by race and ethnicity.
- Black or African American residents have higher AAMRs compared with White, Hispanic or Latino, and Asian residents for CVD (overall), coronary heart disease, and stroke. [Figure 2]
- Asian residents have lower AAMRs of CVD and coronary heart disease than the other racial and ethnic groups. [Figure 2]
- Hispanic or Latino residents have lower AAMRs for CVD and coronary heart disease compared with White and Black or African American residents
- The differences in the AAMRs for heart failure among the racial and ethnic groups did not reach statistical significance. [Figure 2]

*Figure 2 CVD Age-adjusted Mortality Rates by Race and Ethnicity with 95% Confidence Intervals, Connecticut, 2007-2011*



Data Source: CT DPH, Vital Records Mortality Files, 2007-2011 data

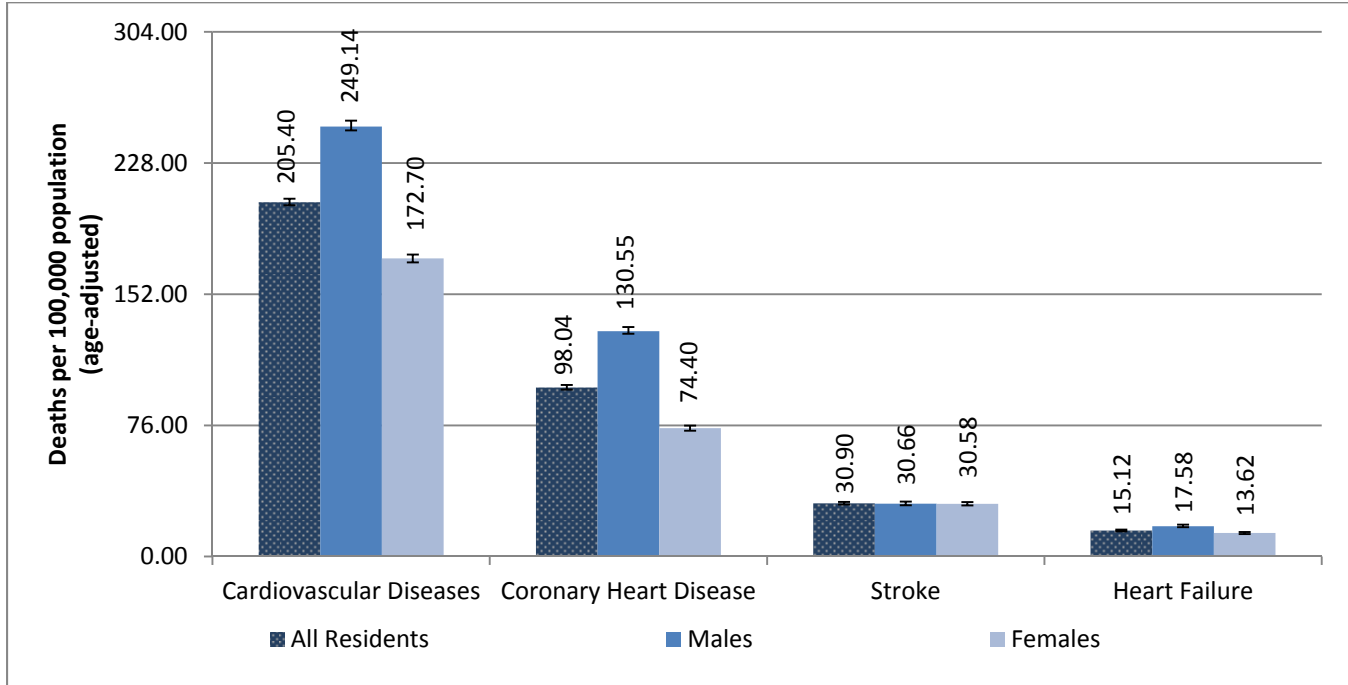
<sup>1</sup> All racial groupings (e.g., “Black,” “White,” “Asian”) exclude persons of Hispanic ethnicity. A Hispanic or Latino ethnicity category is included in figures and tables reflecting data separate from race categories. Therefore, the modifier “Non-Hispanic or Latino” is assumed.



**CVD Age-adjusted Mortality Rates (AAMR) by Gender among Connecticut Residents**

- Male residents have significantly higher AAMRs compared with females for:
  - Cardiovascular diseases (overall),
  - Coronary heart disease, and
  - Heart failure. [Figure 3]
- The AAMRs for stroke for males and females do not vary significantly. [Figure 3]

*Figure 3 CVD Age-adjusted Mortality Rates by Gender with 95% Confidence Intervals, Connecticut, 2007-2011*



Data Source: CT DPH, Vital Records Mortality Files, 2007-2011 data

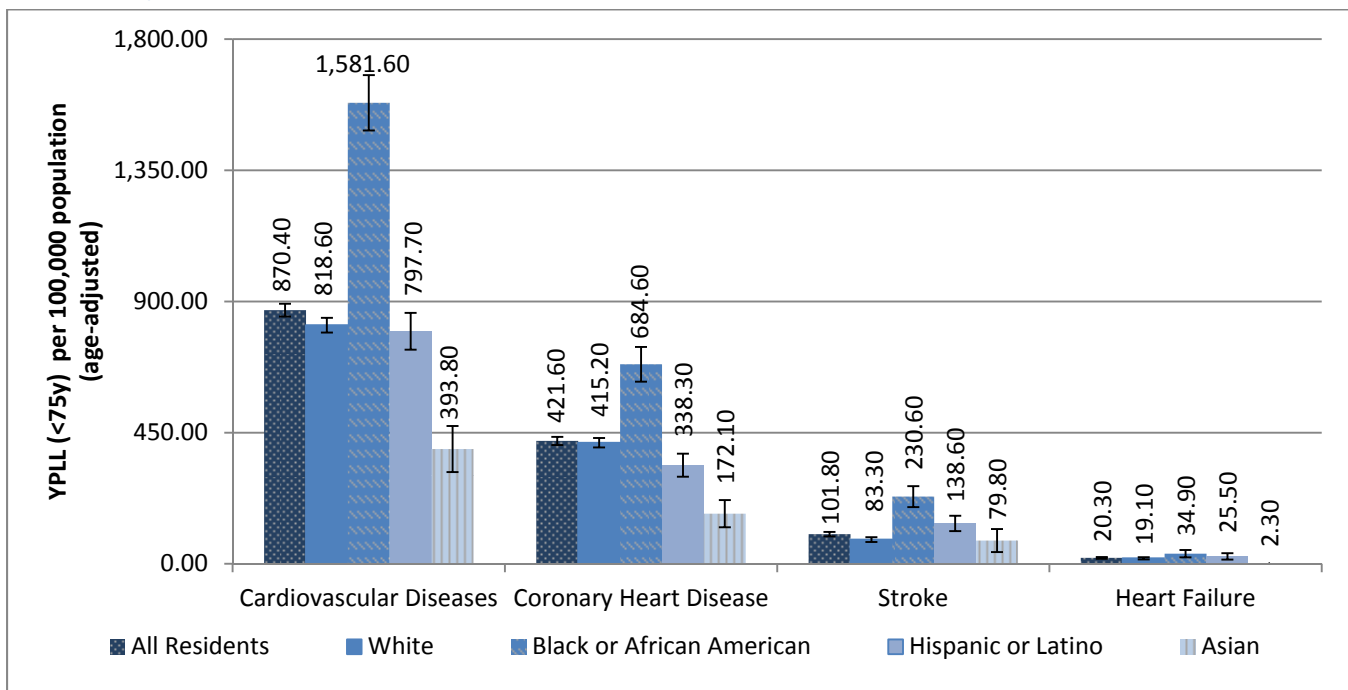
**Age-adjusted Years of Potential Life Lost (under the age of 75 years)**

- Years of potential life lost (YPLL) is a measure of premature mortality.
- YPLL represent the number of years of potential life lost by each death before a predetermined end point (e.g., 75 years of age).
- The YPLL statistic is derived by summing age-specific years of life lost figures over all age groups up to 75 years.
- YPLL is presented for persons less than 75 years of age because the average life expectancy in the United States is over 75 years.

**CVD Age-adjusted Years of Potential Life Lost < 75 Years (YPLL) by Race and Ethnicity among Connecticut Residents**

- Black or African American residents have higher age-adjusted CVD (overall), coronary heart disease, stroke, and heart failure YPLL compared with White residents. [Figure 4]
- Asian residents have the lowest age-adjusted YPLL of CVD, coronary heart disease, and heart failure. [Figure 4]
- Hispanic or Latino residents have higher age-adjusted stroke YPLL compared with White residents. In contrast, Hispanic or Latino adults have lower age-adjusted coronary heart disease YPLL compared with White residents. [Figure 4]
- Premature death from CVD can be reduced by preventing or treating CVD risk factors (e.g., high blood pressure, high blood cholesterol, diabetes, smoking, physical inactivity, and obesity).

*Figure 4 CVD Age-adjusted Years of Potential Life Lost (<75y) by Race and Ethnicity with 95% Confidence Intervals, Connecticut, 2007-2011*



Data Source: CT DPH, Vital Records Mortality Files, 2007-2011 data

**CVD Hospital Discharge Data**

**Acute Care Hospital Inpatient Discharge Database (HIDD)**

- All 29 acute care hospitals in Connecticut are required by law to submit inpatient discharge data to the Office of Health Care Access (OHCA).
- The information is taken from medical record abstracts and hospital bills.
- Although data are coded for billing, not surveillance, purposes, they can provide useful information on the burden of disease.
- Hospitalizations are the number of hospital discharges, not unduplicated patients.



**Age-adjusted CVD Hospital Discharge Rates and Total Charges among Connecticut Residents**

- In 2012, approximately 17% of all hospital discharges excluding pregnancy and newborn hospitalization (55,248 discharges) had a primary diagnosis of CVD (Connecticut Acute Care Hospital Inpatient Discharge Database).
- Approximately 21% of all hospital charges (\$2.7 billion) were associated with hospitalizations with a primary diagnosis of CVD in 2012 (Connecticut Acute Care Hospital Inpatient Discharge Database).
  - Many CVD hospitalizations could be avoided through appropriate outpatient care and management in the outpatient and community settings, including blood pressure control, cholesterol control, and smoking cessation.

**Age-adjusted CVD Hospital Discharge Rates by Race and Ethnicity among Connecticut Residents**

- Black or African American residents have significantly higher age-adjusted hospital discharge rates for CVD, stroke, and heart failure compared with White and Hispanic or Latino residents. [Table 2]
- The age-adjusted hospital discharge rates for heart failure are significantly higher among Hispanic or Latino residents compared with White residents. [Table 2]
- The differences in age-adjusted coronary heart disease hospital discharges rates among the racial and ethnic groups did not reach statistical significance.
- There were too few CVD, coronary heart disease, stroke, and heart failure hospitalizations among Asian, Pacific Islander, and American Indian residents to calculate reliable rates.

*Table 2 Age-adjusted CVD Hospital Discharge Rates by Race and Ethnicity, Connecticut Residents, 2012\**

	Connecticut AAHR (95% Confidence Interval (CI))	White AAHR (95% CI)	Hispanic or Latino AAHR (95% CI)	Black or African American AAHR (95% CI)
<b>CVD</b>	1,268.8 (1,258.0-1,279.6)	1,182.7 (1,171.0-1,194.0)	1,233.7 (1,188.0-1,280.0)	1,854.9 (1,805.0-1,905.0)
<b>Coronary heart disease</b>	273.0 (268.0-278.0)	264.2 (259.0-270.0)	269.1 (248.0-290.0)	269.6 (251.0-288.0)
<b>Stroke</b>	168.2 (164.3-172.1)	153.3 (149.0-157.0)	170.1 (153.0-187.0)	275.3 (256.0-295.)
<b>Heart failure</b>	226.8 (222.3-231.2)	202.1 (198.0-207.0)	276.6 (254.0-299.0)	384.3 (361.0-407.0)

Data Source: CT DPH, Connecticut Acute Care Hospital Inpatient Discharge Database, 2012 data. \*There were too few CVD, coronary heart disease, stroke, and heart failure hospitalizations among Asian, Pacific Islander, and American Indian residents to calculate reliable rates.



## Prevalence of CVD

### Behavioral Risk Factor Surveillance System (BRFSS)

- The BRFSS is a state-based system of health surveys that generate information about health risk behaviors, clinical preventive practices, and health care access and utilization.
- The BRFSS is sponsored by the Centers for Disease Control and Prevention (CDC) and is the world's largest telephone survey. It is conducted in all 50 states.
- Respondents are randomly selected adults (aged 18 and older) within randomly selected household with landline telephones, or with cellular telephones owned by adults with no landline or who use their cellular telephones for at least 90% of their calls.

### Prevalence of Stroke and Coronary Heart Disease among Connecticut Adults (18+ years)

- BRFSS respondents are asked the following questions:
  - Has a doctor, nurse, or other health professional EVER told you that you had angina or coronary heart disease?
  - Has a doctor, nurse, or other health professional EVER told you that you had a stroke?
- An estimated 2.3% (or 63,300) Connecticut adults report having had a stroke. [Data not shown]
- An estimated 3.8% (or 104,000) Connecticut adults report having coronary heart disease [Data not shown]
- Adults with annual household incomes less than \$25,000 are significantly more likely to have had stroke or coronary heart disease compared to adults with annual household incomes of \$50,000-74,999 and \$75,000 or more. [Data not shown]

## Risk Factors CVD

- Risk Factors for CVD may be modifiable or non-modifiable.
- Non-modifiable risk factors include increasing age and family history of CVD or its risk factors.
  - Collecting and sharing one's family health history can help health care professionals assess a person's risk of developing heart disease or stroke and recommend actions to lower that risk. For more information, visit the [Department of Public Health's Genomics web page](#).
- Modifiable risk factors include high blood pressure; high LDL cholesterol or high triglycerides along with low HDL cholesterol; diabetes; obesity; and lack of physical activity.

### Prevalence of High Blood Pressure among Connecticut Adults (18+y)

- High blood pressure (HBP) is a condition where the pressure in the arteries is too high. HBP damages or weakens the arteries increasing the risk of rupture or clog. HBP also forces the heart to pump harder, which ultimately weakens the heart muscle.

- An estimated 30.5% of Connecticut adults have been told by a health professional that they have HBP. [Table 3]
- Rates of diagnosed HBP vary by gender, race and ethnicity, and age. [Table 3]
  - Males have higher rates of HBP than females.
  - Black or African American adults have the higher rates of HBP compared with other racial and ethnic groups.
  - Rates of HBP increase with increasing age.
- Rates of HBP vary by socioeconomic status. [Table 3]
  - In terms of educational attainment, college graduates have the lowest age-adjusted rates of HBP.
  - In terms of income, adults with annual household incomes of \$75,000 or more have the lowest age-adjusted rates of HBP.

**Table 3 Prevalence of HBP among Adults (18+y), Connecticut, 2011-2013**

Characteristic	Unweighted Number*	Weighted Number†	Unadjusted % (95% CI)	Age-adjusted % (95% CI)‡
<b>All Adults</b>	5,495	565,675	30.5 (29.5-31.5)	28.1 (27.1-29.0)
<b>Gender</b>				
Male	2,282	291,572	32.7 (31.1-34.3)	31.5 (30.0-33.0)
Female	3,213	274,103	28.5 (27.3-29.8)	24.7 (23.7-25.8)
<b>Race &amp; Ethnicity<sup>§</sup></b>				
White	4,331	423,144	31.5 (30.4-32.7)	26.8 (25.7-27.8)
Black or African American	526	60,237	37.2 (33.1-41.2)	37.7 (34.3-41.1)
Hispanic or Latino	359	54,387	24.5 (21.2-27.7)	30.5 (27.0-34.0)
Other	139	15,701	17.6 (13.8-21.4)	22.7 (18.8-26.7)
<b>Age (in years)</b>				
18-44	541	100,935	12.4 (11.1-13.7)	NA
45-64	2,213	246,663	36.1 (34.5-37.8)	NA
65+	2,741	218,077	61.5 (59.5-63.4)	NA
<b>Educational Attainment</b>				
Less than High School Graduate	491	83,839	38.3 (34.3-42.3)	31.9 (28.2-35.5)
High School Graduate	1,641	178,854	34.1 (32.0-36.2)	30.9 (28.9-32.9)
Some College	1,358	154,837	30.7 (28.7-32.7)	30.3 (28.4-32.1)
College Graduate	1,989	147,084	24.5 (23.2-25.8)	23.4 (22.2-24.5)
<b>Annual Household Income</b>				
<\$25,000	1,337	133,196	37.7 (35.1-40.3)	34.7 (32.3-37.1)
\$25,000-49,999	1,189	117,433	35.9 (33.3-38.4)	31.0 (28.7-33.4)
\$50,000-74,999	721	73,240	30.0 (27.4-32.7)	27.8 (25.4-30.0)
≥\$75,000	1,389	155,161	24.3 (22.7-25.8)	24.0 (22.6-25.4)

Data Source: CT DPH. BRFSS, 2011-2013 data; \*Numbers may not sum to total due to missing data; †Data are weighted to make the responses representative of the state's population; ‡Percentages are age-adjusted to eliminate differences in crude rates in populations of interest that result from differences in the populations' age distributions. The percentages were age-adjusted using the 2000 Projected U.S. Population. §Asian, Pacific Islander, American Indian or Alaskan Native, other race, and multiracial adults are not reported in separate categories due to the small number of respondents.



**Prevalence of High Cholesterol among Connecticut Adults (18+y)**

- Excess cholesterol can lead to the build-up of plaque which narrows and hardens the arteries, and results in coronary heart disease.
- An estimated 37.0% of Connecticut adults report that they have been told by a health care professional told that their cholesterol is high. [Table 4]
- Rates of high cholesterol vary by gender and age. [Table 4]
  - Males have significantly higher rates compared with females.
  - Adults age 65 years and older have significantly higher rates than adults 18-44 and 45-64 years old.
  - The differences in rates among racial and ethnic groups did not reach statistical significance.
- Rates of high cholesterol vary by socioeconomic status. [Table 4]
  - In terms of educational attainment, college graduates have the lowest rates of high cholesterol.
  - The differences in age-adjusted rates among the income categories did not reach statistical significance.

**Table 4 Prevalence of High Cholesterol among Adults (18+y), Connecticut**

Characteristic	Unweighted Number*	Weighted Number†	Unadjusted P (95% CI)	Age-adjusted % (95% CI)‡
<b>All Adults</b>	5,295	564,019	37.0 (35.9-38.2)	32.0 (30.8-33.1)
<b>Gender</b>				
Male	2,191	290,284	40.2 (38.4-42.1)	35.8 (34.0-37.6)
Female	3,104	273,735	34.2 (32.7-35.6)	28.4 (27.0-29.9)
<b>Race &amp; Ethnicity<sup>§</sup></b>				
White	4,386	444,675	38.7 (37.4-40.0)	32.2 (30.8-33.7)
Black or African American	341	40,220	32.1 (27.8-36.4)	29.5 (26.0-32.9)
Hispanic or Latino	312	50,529	33.7 (29.3-38.1)	35.1 (30.9-39.3)
Other	141	18,377	26.9 (21.6-32.2)	28.0 (23.0-33.0)
<b>Age (in years)</b>				
18-44	569	105,719	19.2 (17.3-21.1)	NA
45-64	2,426	276,725	43.4 (41.6-45.2)	NA
65+	2300	181,574	54.1 (52.1-56.2)	NA
<b>Educational Attainment</b>				
Less than High School Graduate	394	75,056	47.3 (42.5-52.0)	39.9 (34.8-44.9)
High School Graduate	1,403	166,803	39.9 (37.5-42.2)	33.4 (30.9-35.9)
Some College	1,275	146,957	36.5 (34.1-38.8)	32.7 (30.4-35.0)
College Graduate	2,209	174,332	32.4 (30.8-33.9)	28.7 (27.2-30.2)
<b>Annual Household Income</b>				
<\$25,000	1,056	103,444	39.5 (36.6-42.4)	34.0 (31.2-36.9)
\$25,000-49,999	1,060	103,323	38.9 (36.1-41.7)	31.3 (28.7-33.9)
\$50,000-74,999	774	8,0263	38.5 (35.5-41.5)	33.3 (30.4-36.2)
≥\$75,000	1,641	193,799	33.8 (31.9-35.6)	30.3 (28.6-32.1)

Data Source: CT DPH. BRFSS, 2011-2013 data; \*Numbers may not sum to total due to missing data; †Data are weighted to make the responses representative of the state's population; ‡Percentages are age-adjusted to eliminate differences in crude rates in populations of interest that result from differences in the populations' age distributions. The percentages were age-adjusted using the 2000 Projected U.S. Population. §Asian, Pacific Islander, American Indian or Alaskan Native, other race, and multiracial adults are not reported in separate categories due to the small number of respondents.

**Prevalence of Ever Having Cholesterol Tested among Connecticut Adults (18+y)**

- An estimated 84.9% of Connecticut adults report ever having had their cholesterol tested. [Table 5]
- Rates of ever having had cholesterol tested vary by race and ethnicity and age. [Table 5]
  - Hispanic or Latino adults have significantly lower rates compared with other racial and ethnic groups.
  - Adults age 65 years and older have significantly higher rates than adults 18-44 and 45-64 years old.
- Rates of ever having cholesterol tested vary by socioeconomic status. [Table 5]
  - College graduates have significantly higher rates of ever having had cholesterol tested compared to adults with lower educational attainment levels.
  - Adults with annual household incomes of \$75,000 or more have higher age-adjusted rates of ever having had cholesterol tested compared to adults with annual household incomes of less than \$25,000 or \$25,000-49,999.

*Table 5 Prevalence of Ever Having Cholesterol Tested among Adults (18+y), Connecticut*

Characteristic	Unweighted Number*	Weighted Number†	Unadjusted Percent (95% CI)	Age-adjusted % (95% CI)‡
<b>All Adults</b>	12,811	1,520,204	84.9 (83.9-86.0)	82.9 (81.8-94.0)
<b>Gender</b>				
Male	5,028	721,120	83.1 (81.4-84.7)	81.8 (80.2-83.4)
Female	7,783	799,084	86.6 (85.3-88.0)	83.9 (82.5-85.4)
<b>Race &amp; Ethnicity§</b>				
White	10,272	1,150,548	88.2 (87.1-89.3)	85.0 (83.7-86.3)
Black or African American	961	123,885	81.5 (77.6-85.4)	81.3 (77.6-84.9)
Hispanic or Latino	823	147,993	68.8 (64.7-73.0)	73.1 (69.8-76.5)
Other	445	67,599	80.5 (75.6-85.4)	83.5 (79.7-87.2)
<b>Age (in years)</b>				
18-44	2,966	545,283	70.8 (68.7-73.0)	NA
45-64	5,645	637,987	94.5 (93.7-95.3)	NA
65+	4,200	336,935	97.5 (96.8-98.1)	NA
<b>Educational Attainment</b>				
Less than High School Graduate	769	157,867	74.8 (70.6-79.0)	69.0 (64.4-73.5)
High School Graduate	3,128	417,080	83.0 (80.9-85.2)	80.7 (78.4-83.0)
Some College	2,950	402,200	82.7 (80.5-84.9)	82.9 (81.0-84.9)
College Graduate	5,929	539,714	91.9 (90.9-93.0)	88.5 (87.0-90.0)
<b>Annual Household Income</b>				
<\$25,000	2,299	262,040	76.6 (73.8-79.3)	74.8 (72.0-77.6)
\$25,000-49,999	2,379	264,876	83.8 (81.3-86.3)	80.3 (77.4-83.2)
\$50,000-74,999	1,765	208,156	87.8 (85.4-90.3)	85.2 (82.4-88.0)
≥\$75,000	4,584	574,318	91.5 (90.1-93.0)	88.5 (86.8-90.2)

Data Source: CT DPH. BRFSS, 2011-2013 data; \*Numbers may not sum to total due to missing data; †Data are weighted to make the responses representative of the state’s population; ‡Percentages are age-adjusted to eliminate differences in crude rates in populations of interest that result from differences in the populations’ age distributions. The percentages were age-adjusted using the 2000 Projected U.S. Population. §Asian, Pacific Islander, American Indian or Alaskan Native, other race, and multiracial adults are not reported in separate categories due to the small number of respondents.



**Prevalence of Diagnosed Diabetes among Connecticut Adults (18+ years)**

- An estimated 8.9% of Connecticut adults have diagnosed diabetes or approximately 250,000 adults. [Table 6]
  - An additional 83,000 adults are estimated to have undiagnosed diabetes.
  - These estimates include types 1 and 2 diabetes.
- Age-adjusted rates of diagnosed diabetes vary by gender, race and ethnicity, and age. [Table 6]
  - Males have higher rates than females.
  - Black or African American and Hispanic or Latino adults have nearly twice the rate of White adults.
  - Rates of diabetes increase with increasing age.
- Age-adjusted rates of diagnosed diabetes vary by socioeconomic status. [Table 6]
  - In terms of educational attainment, adults who are less than high school graduates have the highest rates of diabetes.
  - In terms of income, adults with annual household incomes of <\$25,000 have the highest diabetes rates.

**Table 6 Prevalence of Diagnosed Diabetes among Adults (18+y), Connecticut, 2011-2013**

Characteristic	Unweighted Number*	Weighted Number†	Unadjusted % (95% CI)	Age-adjusted % (95% CI)‡
<b>All Adults</b>	2,519	248,453	8.9 (8.5-9.4)	8.0 (7.6-8.5)
<b>Gender</b>				
Male	1,138	133,102	10.0 (9.2-10.8)	9.4 (8.6-10.1)
Female	1,381	115,351	8.0 (7.4-8.6)	6.9 (6.4-7.4)
<b>Race &amp; Ethnicity<sup>§</sup></b>				
White	1,783	163,383	8.1 (7.7-8.6)	6.7 (6.3-7.1)
Black or African American	300	33,239	13.6 (11.3-15.9)	14.1 (11.9-16.2)
Hispanic or Latino	272	35,809	10.6 (8.8-12.4)	14.6 (12.4-16.9)
Other	91	9,313	7.1 (5.2-9.0)	9.8 (7.5-12.1)
<b>Age (in years)</b>				
18-44	186	32,043	2.6 (2.1-3.1)	NA
45-64	1,006	109,647	10.7 (9.8-11.6)	NA
65+	1,327	106,763	19.9 (18.7-21.2)	NA
<b>Educational Attainment</b>				
Less than High School Graduate	334	51,699	15.9 (13.6-18.1)	13.3 (11.3-15.4)
High School Graduate	852	83,134	10.6 (9.8-11.6)	9.2 (8.3-10.2)
Some College	645	64,401	8.5 (7.6-9.4)	8.3 (7.4-9.1)
College Graduate	679	48,433	5.3 (4.8-5.9)	5.1 (4.6-5.6)
<b>Annual Household Income</b>				
<\$25,000	817	74,299	14.1 (12.8-15.5)	12.9 (11.7-14.2)
\$25,000-49,999	540	51,649	10.6 (9.4-11.8)	8.5 (7.5-9.6)
\$50,000-74,999	292	28,582	8.0 (6.7-9.3)	7.3 (6.0-8.5)
≥\$75,000	457	53,780	5.5 (4.9-6.2)	5.5 (4.9-6.2)

Data Source: CT DPH. BRFSS, 2011-2013 data; \*Numbers may not sum to total due to missing data. †Data are weighted to make the responses representative of the state's population. ‡Percentages are age-adjusted to eliminate differences in crude rates in populations of interest that result from differences in the populations' age distributions. The percentages were age-adjusted using the 2000 Projected U.S. Population. §Asian, Pacific Islander, American Indian or Alaskan Native, other race, and multiracial adults are not reported in separate categories due to the small number of respondents.

**Obesity**

- Research has shown that some of the consequences of obesity may include coronary heart disease, stroke, high blood pressure, high cholesterol, and type 2 diabetes.
- An estimated 25.0% of Connecticut adults (18+y) are obese. [Table 7]
- Rates of obesity among adults (18+y) vary by age and race and ethnicity. [Table 7]
  - Adults aged 18-44 years have the lowest rates of obesity compared with other age groups.
  - White adults have significantly lower age-adjusted rates of obesity compared with Black or African American and Hispanic or Latino adults.
  - The difference in obesity rates among males and females did not reach statistical significance.
- Rates of obesity among adults (18+y) vary by socioeconomic status. [Table 7]
  - In terms of educational attainment, adults who are college graduates have the lowest rates of obesity.
  - In terms of income, adults with annual household incomes of <\$25,000 have the highest obesity rates.

*Table 7 Prevalence of Obesity among Adults (18+y), Connecticut, 2011-2013*

Characteristic	Unweighted Number*	Weighted Number†	Unadjusted Percent (95% CI)	Age-adjusted % (95% CI)‡
<b>All Adults</b>	5,607	659,886	25.0 (24.2-25.8)	24.8 (24.0-25.7)
<b>Gender</b>				
Male	2,466	341,169	26.0 (24.8-27.2)	25.9 (24.7-27.2)
Female	3,141	318,717	24.0 (22.9-25.1)	23.8 (22.6-24.9)
<b>Race &amp; Ethnicity<sup>§</sup></b>				
White	4,089	450,217	23.5 (22.6-24.4)	22.8 (21.8-23.8)
Black or African American	629	76,934	33.2 (30.0-36.5)	32.9 (29.7-36.1)
Hispanic or Latino	586	100,237	32.5 (29.4-35.7)	33.9 (30.8-37.1)
Other	145	16,427	13.1 (10.3-16.0)	14.0 (11.2-16.8)
<b>Age (in years)</b>				
18-44	1,404	257,912	22.5 (21.0-23.9)	NA
45-64	2,502	270,438	27.7 (26.4-29.0)	NA
65+	1,701	131,537	25.5 (24.1-27.0)	NA
<b>Educational Attainment</b>				
Less than High School Graduate	503	95,686	31.3 (28.0-34.5)	31.4 (27.8-35.1)
High School Graduate	1,689	214,811	28.9 (27.2-30.6)	29.5 (27.7-31.4)
Some College	1,540	195,491	27.2 (25.6-28.9)	28.4 (26.7-30.2)
College Graduate	1,863	153,296	17.7 (16.7-18.7)	16.9 (15.8-17.9)
<b>Annual Household Income</b>				
<\$25,000	1,371	155,418	31.5 (29.3-33.6)	32.6 (30.4-34.9)
\$25,000-49,999	1,215	130,105	27.7 (25.8-29.7)	27.2 (25.1-29.3)
\$50,000-74,999	756	85,528	24.8 (22.7-26.9)	23.5 (21.3-25.6)
≥\$75,000	1,563	197,681	21.1 (19.8-22.4)	20.3 (18.9-21.6)

Data Source: CT DPH. BRFSS, 2011-2013 data; \*Numbers may not sum to total due to missing data; †Data are weighted to make the responses representative of the state’s population; ‡Percentages are age-adjusted to eliminate differences in crude rates in populations of interest that result from differences in the populations’ age distributions. The percentages were age-adjusted using the 2000 Projected U.S. Population. §Asian, Pacific Islander, American Indian or Alaskan Native, other race, and multiracial adults are not reported in separate categories due to the small number of respondents.



**Physical Inactivity**

- In this document, physical inactivity is defined as not meeting the recommendation of participating in 150 minutes or more of aerobic physical activity per week.
- According to the CDC, regular physical activity can reduce the risk of CVD, lower blood pressure, and improve cholesterol levels.
- An estimated 48.2% of Connecticut adults are physically inactive. [Table 8]
- Rates of physical activity vary by race and ethnicity and socioeconomic status. [Table 8]
  - Hispanic or Latino adults have significantly higher rates than White and Black or African American adults.
  - In terms of educational attainment, adults who are college graduates have the lowest rates.
  - In terms of income, adults with annual household incomes of \$75,000 or more have the lowest rates.
  - The differences in rates among gender and age groups did not reach statistical significance.

*Table 8 Prevalence of Not Meeting Aerobic Physical Activity Recommendations, Adults (18+y), Connecticut, 2011-2013*

Characteristic	Unweighted Number*	Weighted Number†	Unadjusted Percent (95% CI)	Age-adjusted % (95% CI)‡
<b>All Adults</b>	6,228	818,335	48.2 (47.0-49.5)	48.3 (47.0-49.7)
<b>Gender</b>				
Male	2,379	380,630	46.7 (44.8-48.6)	47.1 (45.1-49.0)
Female	3,849	437,704	49.7 (48.1-51.3)	49.4 (47.7-51.2)
<b>Race &amp; Ethnicity§</b>				
White	4,599	559,466	44.8 (43.4-46.2)	44.5 (42.9-46.1)
Black or African American	594	77,969	54.9 (50.3-59.5)	54.7 (50.1-59.2)
Hispanic or Latino	619	124,157	63.2 (59.0-67.5)	64.4 (60.3-68.5)
Other	284	42,640	54.9 (48.6-61.1)	56.2 (50.7-61.7)
<b>Age (in years)</b>				
18-44	1,767	357,237	48.2 (46.0-50.5)	NA
45-64	2,539	301,358	47.9 (46.1-49.7)	NA
65+	1,922	159,740	48.9 (46.8-50.9)	NA
<b>Educational Attainment</b>				
Less than High School Graduate	565	122,127	62.9 (58.4-67.4)	63.0 (58.2-67.9)
High School Graduate	1,809	253,090	53.2 (50.7-55.8)	52.6 (49.9-55.3)
Some College	1,516	224,442	48.0 (45.5-50.5)	48.2 (45.6-50.7)
College Graduate	2,323	217,758	39.1 (37.4-40.7)	38.8 (36.9-40.6)
<b>Annual Household Income</b>				
<\$25,000	1,467	186,596	58.3 (55.4-61.3)	58.6 (55.5-61.8)
\$25,000-49,999	1,268	158,184	52.0 (49.1-55.0)	52.3 (49.0-55.5)
\$50,000-74,999	809	108,581	47.4 (44.1-50.6)	47.1 (43.5-50.7)
≥\$75,000	1,769	235,755	39.6 (37.7-41.6)	39.6 (37.4-41.9)

Data Source: CT DPH. BRFSS, 2011-2013 data; \*Numbers may not sum to total due to missing data; †Data are weighted to make the responses representative of the state’s population; ‡Percentages are age-adjusted to eliminate differences in crude rates in populations of interest that result from differences in the populations’ age distributions. The percentages were age-adjusted using the 2000 Projected U.S. Population. §Asian, Pacific Islander, American Indian or Alaskan Native, other race, and multiracial adults are not reported in separate categories due to the small number of respondents.



**Health Care Coverage among Connecticut Adults (18-64 years old)**

- Access to health care is crucial to the prevention, diagnosis, treatment, and management of CVD.
- An estimated 13.3% of Connecticut adults were uninsured prior to health insurance expansion. [Table 9]
- Age-adjusted rates of not having health insurance vary by gender and race and ethnicity. [Table 9]
  - Adult males are less likely to have health insurance than adult females.
  - In terms of race and ethnicity, Hispanic or Latino adults are least likely to have health insurance.
  - Black or African American adults are less likely than White adults to have health insurance.
- Age-adjusted rates of not having health insurance vary by socioeconomic status. [Table 9]
  - The rates of uninsured decrease with increasing educational attainment levels.
  - Adults with annual household incomes of less than \$25,000 are 11 times more likely to not have health insurance compared to adults with annual household incomes of \$75,000 or more.
- Provisions of the Patient Protection and Affordable Care Act (ACA) that went into effect on January 1, 2014, expanded health care coverage in many states, including Connecticut.
  - Access Health CT reports that the percent of uninsured Connecticut residents was halved in the first year of implementation of the ACA ([8 Key Facts](#), August 6, 2014).

*Table 9 Prevalence of Not Having Health Care Coverage among Adults (18-64y), Connecticut, 2011-2013\**

Characteristic	Unweighted Number†	Weighted Number‡	Unadjusted Percent (95% CI)	Age-adjusted % (95% CI) §
<b>All Adults</b>	1,783	293,888	13.3 (12.5-14.1)	13.7 (12.9-14.6)
<b>Gender</b>				
Male	905	173,285	15.8 (14.6-17.1)	16.5 (15.1-17.8)
Female	878	120,603	10.8 (9.8-11.7)	11.0 (10.0-12.1)
<b>Race &amp; Ethnicity¶</b>				
White	945	131,253	8.6 (7.8-9.3)	8.9 (8.1-9.7)
Black or African American	238	40,440	19.5 (16.4-22.6)	19.5 (16.4-22.7)
Hispanic or Latino	448	103,259	33.2 (29.9-36.4)	33.0 (29.8-36.1)
Other	83	10,979	9.3 (6.6-11.9)	9.3 (6.7-11.8)
<b>Educational Attainment</b>				
Less than High School Graduate	285	78,578	34.1 (30.0-38.1)	34.6 (30.5-38.6)
High School Graduate	607	104,994	17.4 (15.7-19.2)	18.5 (16.6-20.4)
Some College	499	75,272	12.2 (10.9-13.5)	12.9 (11.5-14.3)
College Graduate	383	34,158	4.5 (3.9-5.1)	4.7 (4.0-5.3)
<b>Annual Household Income</b>				
<\$25,000	799	128,291	32.6 (30.0-35.2)	33.3 (30.6-35.9)
\$25,000-49,999	416	64,405	18.2 (15.9-20.4)	18.3 (16.0-20.7)
\$50,000-74,999	145	23,361	8.1 (6.4-9.8)	8.1 (6.2-10.0)
≥\$75,000	143	21,717	2.5 (2.0-3.0)	3.0 (2.2-3.7)

Data Source: CT DPH. BRFSS, 2011-2013 data; \*Time period prior to health insurance expansion; †Numbers may not sum to total due to missing data; ‡Data are weighted to make the responses representative of the state’s population; §Percentages are age-adjusted to eliminate differences in crude rates in populations of interest that result from differences in the populations’ age distributions. The percentages were age-adjusted using the 2000 Projected U.S. Population. ¶Asian, Pacific Islander, American Indian or Alaskan Native, other race, and multiracial adults are not reported in separate categories due to the small number of respondents.



## Prevention and Control of CVD

- The Centers for Disease Control and Prevention (CDC) recommends addressing CVD and the related risk factors through policies, systems, and environmental changes with the potential for broad reach and impact on the general population and high-risk populations. For example:
  - Promoting healthy eating and active living in schools, early childhood education centers, worksites, state and local government agencies, and community settings;
  - Expanding access to healthy choices for people of all ages related to diabetes, cardiovascular health, physical activity, healthy foods and beverages, obesity, and breastfeeding;
  - Improving the delivery and use of quality clinical and other health services aimed at preventing and managing high blood pressure and diabetes; and
  - Increasing links between community and clinical organizations to support prevention, self-management and control of diabetes, high blood pressure, and obesity.
- The Connecticut Department of Public Health works with partners (e.g., Regional Extension Center, UCONN School of Pharmacy, community pharmacists, and healthcare systems) to:
  - Increase electronic health record (EHR) adoption and the use of health information technology to prevent and manage high blood pressure and diabetes;
  - Assist health care systems in the implementation of self-blood pressure monitoring programs; and
  - Implement Medication Therapy Management (MTM) in pharmacies.
- For information on the Department of Public Health's efforts to prevent and control CVD visit:
  - [www.ct.gov/dph/ChronicDisease](http://www.ct.gov/dph/ChronicDisease)
  - [www.ct.gov/dph/HeartStrokeData](http://www.ct.gov/dph/HeartStrokeData)