THE BURDEN OF CARDIOVASCULAR DISEASE IN NEW YORK:

Mortality, Prevalence, Risk Factors, Costs, and Selected Populations

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Bureau of Chronic Disease Epidemiology and Surveillance
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Preface

The New York State Department of Health has prepared this profile of heart disease and stroke burden in New York in support of its comprehensive cardiovascular health program. The purpose of this initiative is to reduce cardiovascular disease (CVD) and to build communities that promote cardiovascular health. This comprehensive program is conducted in collaboration with voluntary agencies, local health departments, associations of health professionals, business organizations, transportation experts, municipal planners and many others.

Building healthy communities begins with measuring the diseases and risk factors they are designed to reduce. In this way, we learn where to focus our attentions, what groups we need to work with and which areas are most important to focus on. With limited public health resources, it is vital that we use our financial and human resources wisely, in ways that will be the most effective in preventing cardiovascular diseases and the deaths and disabilities they cause. It is our hope that others in New York State who are interested in building healthy communities, will use this document to assist them in planning their efforts as well. County health departments, community organizations, and others can use this document to identify the greatest need in their service areas and begin to address those needs.

The vision of a healthy New York community includes one in which all sectors of the community work together to create opportunities for healthy living and quality health care. Discovering the cardiovascular health needs of everyone in our communities allows us to attain that vision.

Executive Summary

Cardiovascular Disease (CVD) is a general category of diseases that affect the heart and the circulatory system. Specific CVD categories included in this report are coronary heart disease (CHD), congestive heart failure (CHF) and, cerebrovascular disease (stroke). CHD refers to a reduction of blood flow due to thickening and hardening of the arteries that supply the heart muscle. A complete cut off of the blood supply results in the death of heart cells, and a heart attack occurs. CHF is a disorder where the heart loses its ability to pump blood efficiently. Finally stroke occurs when a blood vessel bringing oxygen and nutrients to the brain bursts or is clogged by a blood clot.

CVD was the primary cause of death for New York's citizens, both men and women, as well as all races in 1999. CHD accounted for most of these deaths. New York State residents were 29% more likely to die of CHD than the next leading cause of death. CHD was the number one killer in New York State. CHF currently accounts for 2% of all deaths in NYS and 4% of all CVD deaths. However, it is one of the fastest growing subgroups of CVD and it has been increasing over the last 20 years. Finally, stroke was the third leading cause of death in New York in 1999.

Although CVD is a problem for all adults, 1999 mortality was especially high in older age groups and this was found to be the case for all of the CVD groupings. Differences in CVD mortality are most obvious in death before the age of 75 (premature mortality). African Americans were almost 30% more likely than whites to die prematurely from CVD. They were 25% more likely to die prematurely from CHD, 19% more likely to die prematurely from CHF, and 48% more likely to die prematurely from stroke. Many believe that CVD is a man's disease, but a greater number of women died from CVD than men. This is partly explained by the large number of women in the older age groups, where CVD deaths were concentrated. CVD mortality as a general category displayed a very similar rate of occurrence across counties, but CHD, CHF, and stroke all show different patterns. Notably higher rates of CHD mortality were found mostly in the New York City area. On the other hand, over a third of the counties were below the overall state rate by 20% or more. There are 25 counties above the state rate by 30% or more for CHF. Twenty-six counties are above the state rate by 30% or more for stroke. In either case, none of these counties are in New York City boroughs. More people are living with CVD than ever before. For every death due to a heart attack or angina in 1999, there were almost 18 people living with one of these conditions. For every death due to stroke, there were seven people coping with the disease.

Tobacco use, physical inactivity, poor nutrition, obesity, hypertension, high blood cholesterol, and diabetes are known and modifiable risk factors for CVD and are targeted by the New York State Department of Health. This report provides results from an assessment of CVD risk factor prevalence rates for the adult population and for youths in public schools, grades 9 through 12.

In 2000, the overall rate of current adult smokers in New York was 22%. Thirty percent of the New York adult population was estimated as physically inactive, 72% were consuming fewer than five servings of fruits and vegetables per day, 18% were obese, and 6% were reported to have diabetes. In 1999, 23% of the adult population had high blood pressure and 29% were suffering from high blood cholesterol. Rates for smoking, physical inactivity, high blood pressure, obesity and diabetes were all found to be higher in lower income and education groups. Compared to Whites, African Americans, were observed to have substantially higher rates of obesity, high blood pressure and

diabetes. Older New York adults were more likely to be overweight, and have high blood pressure. Men were more likely than women to be overweight and less likely to eat five servings of fruits and vegetables per day.

In 1999, the overall rate of tobacco use among New York public high school students was 36%. Only 25% of all students were participating in moderate physical activity, 26% were consuming five fruits and vegetables per day, and 8% were overweight. Rates for these risk factors differed by grade. As grade increased, students were more likely to use tobacco, and eat less fruits and vegetables. On the other hand, there was little difference in weight status by grade. There were large differences by race for current tobacco use and overweight. Forty-one percent of White students were using tobacco, compared to 21% for African Americans and 31% for Hispanics. Although there were not significant differences by race in levels of moderate physical activity, Whites were more likely to participate in vigorous physical activity (75%) than African Americans (64%) and Hispanics (69%). There was very little difference by race for consuming five fruits and vegetables per day. There was no appreciable difference in levels of moderate physical activity between boys and girls, however, boys had higher rates of vigorous activity (78% and 64%, respectively). Boys and girls were also different in their rate of overweight. The rate of overweight for boys was more than twice that for girls (12% and 5%, respectively).

Hospitalization expenditure data provide an indication of the direct costs of CVD in New York State. CVD hospitalization costs in 2000 were in excess of 6.8 billion dollars. Sixty-one percent of these costs were for people less than 75 years of age. Seventy-five percent of all CVD hospitalizations were paid for with public funds. Direct and indirect expenditures for New York were also estimated, based on an application of the American Heart Association national model. Based on this model, the total economic burden of CVD for New York will be approximately 16 billion dollars in 2002

The last section of this report provides additional information about populations known to experience higher rates of CVD and are presently considered in need of special attention. CVD and risk factors for people of lower socio-economic status, African Americans, people age 65 and over, and youth were all considered. CHD and stroke are known to be higher among people and communities of lower socioeconomic status. Analysis indicated that the rate of CVD for New York residents with an income lower than $25,000 was twice as high as the rate for New York residents with higher income (11% and 5%, respectively). Analysis also indicated that as the median household income for a county increased, it experienced lower rates of CHD. The age-adjusted 1999 CHD death rate for African Americans in New York exceeds that of Whites by 7%. African Americans had CHD and stroke death rates for ages under 65 that exceeded Whites by 35% and 48% respectively. African Americans experienced higher rates of physical inactivity, overweight, obesity, high blood pressure and diabetes. It is well documented that the risk of CHD and stroke increases with age, and that this increase is independent of known risk factors. However, New York experiences an unusually high rate of increase in CVD mortality beginning with age groups 65 and older. In 1999, the death rate for this age group compared to others was 42 times higher for CVD generally, and better than 44 times higher for CHD and stroke specifically. Older New York residents have higher rates of physical inactivity, elevated blood pressure, high cholesterol and diabetes than New Yorkers under 65. It is also important to track the CVD profiles of youth. Chronic CVD is very rare in young people, however, atherosclerosis, hypertension, high cholesterol, obesity, and diabetes can all begin in adolescence and result in CVD morbidity and mortality in adulthood. Early behaviors have important implications for CVD, which manifests itself later in

life. Thirty six percent of all students in New York public schools, grades 9-12 were currently using some form of tobacco, only 25% were participating in some form of moderate exercise, 26% were consuming five fruits and vegetables each day, and 8% were overweight.

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*" We have the scientific knowledge to create a world in which most heart disease and stroke could be eliminated. In such a world, preventive practices would be incorporated early in life as a matter of course; everyone would have access to positive, healthy living, smoke-free air, good nutrition, regular physical activity, and supportive living and working environment"**

* A Call for Action, The Victoria Declaration on Heart Health, Declaration Of The Advisory Board. International Heart Health Conference. Victoria, Canada, May 28, 1992.

Introduction

The New York State Department of Health's mission is to "…protect and promote the health of New Yorkers through prevention, science and the assurance of quality health care delivery."* In accordance with this mission, this report undertakes an examination of the state's number one cause of death – cardiovascular disease.

The myth surrounding CVD is that it is just an old person's disease. The following report documents the pervasiveness of this disease among all New Yorkers, in all age groups, in both men and women, among African Americans as well as Whites, across all counties of New York State (NYS). New York's mortality and hospitalization rates are compared with the Healthy People 2010 targets and reveal that New York is far from reaching most of these goals. The level of economic burden of CVD on New York is also documented. CVD is a public health priority because the burden from this disease is tremendous, and it is mostly preventable.

The New York State Department of Health is involved in activities to prevent or manage CVD ranging from supporting quality of care efforts for cardiac patients to decreasing risk related behaviors of adults and children. For this reason, this report will also consider the prevalence of modifiable risk factors for CVD. Finally, it will assess the burden of CVD for population subgroups that are of particular interest to the cardiovascular health program. These subgroups have gained attention, because they are known to have high rates of CVD and are prominent enough in the general population to warrant special attention.

* NYS DOH Mission Statement, 1999-2000 Annual Report

Cardiovascular Disease Mortality and Prevalence

Cardiovascular disease is well known as a major cause of death and disability. As such, we are fortunate to have a number of sources to draw from when investigating the severity and impact of cardiovascular diseases on our population. NYS Vital Statistics mortality data, maintained by the New York State Department of Health, provide us with leading causes of death and death count data.

The Centers for Disease Control and Prevention compressed mortality data system produced age-adjusted* and crude† mortality rates. The most recent year of available mortality data was 1999, which is the basis for mortality data presented in this report. Hospitalization data was taken from the Statewide Planning & Research Cooperative System (SPARCS). Like the Vital Statistics mortality data, SPARCS is maintained by the New York State Department of Health. We report on the most recent year of complete hospitalization data (2000) and on 1999 data when comparisons are made with the mortality data. Additional information regarding those living with cardiovascular diseases was derived from the 1999 Behavioral Risk Factor Surveillance System (BRFSS), an ongoing monthly telephone survey of adults aged 18 years and older. Finally, the United States Census Bureau was the source for all population counts.

Cardiovascular Disease (CVD)

Cardiovascular disease (CVD) is any disease of the circulatory system. Most of the deaths from CVD relate to coronary heart disease (CHD or heart attack), stroke (Cerebrovascular disease) and other diseases of the circulatory system including heart failure and diseases of the arteries.

CVD Mortality

CVD age-adjusted death rates have been declining over the last 20 years (**figure 1**), yet it is still the primary cause of death for men and women of all races in New York State (NYS) (**figure 2**). Forty-five percent of all deaths in NYS were caused by CVD (**figure 3**). That constitutes almost twice as many deaths as the next leading cause, cancer, and more deaths than the next 10 causes combined (**figure 4**).

There is a reason why many believe CVD is simply a disease of the elderly – here in New York State the greatest burden lies with the oldest segments of the population (**figure 5**). Those who should be enjoying their retirement, aged 65 to 74, have a crude mortality rate twice the state rate.

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* Age-adjusted rates are used mainly to compare the rates of two or more specific communities, or population groups. This document uses the US 2000 population as the standard population, so that rates can be compared for populations with differences in the age composition.

† Crude death rate is defined as the number of deaths for a specific condition in a given region, divided by the population of that region. Death rates in this report multiply this proportion by 100,000. This is a common practice in reporting CVD death rates.

Though the risk of death due to CVD increases with age (**table 1**), it is not just a disease of the elderly. Only cancer kills more New York State residents between the ages of 35 and 64 (**figure 6**), and CVD is one of the top five causes of death among our citizens ages 25 to 34 (**figure 7**). Even among our youngest residents, CVD is found in the top 10 causes of death (**figure 8**).

In the most recent year of data (1999), over 98% of all CVD deaths in NYS were among the White or African American populations. All other races combined showed an age-adjusted mortality rate that was far below that of the general public (**table 2**). African Americans have a CVD age-adjusted mortality rate that is only slightly greater than the White rate (**figure 9**). The disparity between these populations becomes apparent with premature deaths (ages 35-74 years)[*]; African Americans are almost 30% more likely than Whites to die prematurely from CVD (**figure 10**).

Many believe that CVD is a man's disease, but women are burdened by this disease as well. Almost 40,000 women in New York State died from CVD in 1999. On average, over 100 women died each day from a cardiovascular disease. In general, men die from CVD at younger ages than women, but since the greatest burden of CVD is among the oldest segments of the population, and since women make-up over 70% of those age 85 and older, a greater number of women end up dying from CVD than men. This is reflected by the difference between age-adjusted and crude mortality rates (**figure 11**).

The rate of CVD is fairly consistent across the counties of New York State (**figure 12**). Out of the 62 counties, 57 have CVD age-adjusted death rates close to the state rate[†]. There are only three counties above and two below the state rate by 20% or more. This makes it clear that CVD is a statewide problem.

CVD Prevalence

More people are living with CVD than ever before. This is partly explained by improvements in medicine and partly by New York's aging population. To better understand the burden of CVD in NYS, we need to take a close look at its prevalence[‡].

For every death due to a heart attack, angina, or stroke, there were almost 18 people living with one of these conditions. According to the 1999 Behavioral Risk Factor Surveillance System[§] results, 7%

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[*] Premature death is defined as death in the age range of 35 to 74. There are relatively few deaths in the age range of 1 to 34.

[†] Close to the state rate is defined within 20% of the state rate.

[‡] We have 2 methods of looking at prevalence - The 1999 Behavioral Risk Factor Survey questions to estimate CVD in the population, and hospitalization rates for 2000. Both sources have advantages and disadvantages, therefore we will present data from both. Survey data includes all past diagnoses, but only includes heart attack, angina, stroke, or any of the three. It does not include CVD in general. Also, the survey is based on a small sample of NYS residents rather than the entire NYS population. Hospitalization data includes all categories of CVD, and is population based, but it does not include all those diagnosed with CVD but not hospitalized. It also only includes those hospitalized for CVD in the year 2000, and does not include anyone hospitalized in previous years.

[§] For a more complete description of the BRFSS, the reader is referred to the section below on CVD risk factors and to the glossary.

of NYS adults have been told by a doctor that they have had a heart attack, angina, and/or stroke (**figure 13**). That means over one million people in NYS are living with one of these forms of CVD. As would be expected, the proportion of individuals reporting one or more of these forms of CVD was higher among those aged 65 years and older. Men reported these forms of CVD only slightly more often than women, while those with an educational level of some college or higher reported slightly less than those with less education. Differences by race were small, and almost no difference in CVD was observed between New York City and the rest of the state.

Although an incomplete measure of prevalence, hospitalizations provide another indication of the burden of CVD. For every death in 1999 from CVD, there were five hospitalizations. Age seems to be the most closely associated factor with the crude rate of hospitalization. Those over age 74 had a rate almost seven times higher than the average NYS resident (**figure 14**). Men and women had similar rates (**figure 14**). Likewise, citizens across New York State had similar rates (**table 3**). Out of the 62 counties, 44 were close to the state rate[*]. Ten counties were above while eight counties were below the state rate by 20% or more.

Coronary Heart Disease (CHD)

Coronary heart disease is a disorder that affects the heart muscle and the blood vessels. The most serious danger of coronary heart disease is a heart attack, which occurs when the supply of blood to the heart is greatly reduced or stopped due to a blockage in a coronary artery.

CHD Mortality

Coronary heart disease is the number one killer in New York State (**figure 2**). New York State residents are 29% more likely to die of CHD than the next leading cause of death (figure 3). It is also the overwhelmingly predominant cause of CVD deaths (**figure 15**).

Like CVD in general, CHD age-adjusted death rates have declined over the last 20 years (**figure 16**). They have dropped from a 1980 high of 441 per 100,000 to the current low of 257 per 100,000 residents. Declining rates are good news, but New York still has a long way to go. CHD is the primary cause of death for New York's citizens, both men and women, as well as all races (**figure 2**). In addition, both men and women, as well as Whites and African Americans in New York State are far from the Healthy People (HP) 2010 target of 166 deaths per 100,000 population (**figure 17**). The only race category below the HP2010 goal was 'Other Races' (other than White or African American). However, this group accounts for less than two percent of CHD deaths in NYS.

The number of deaths due to CHD increases dramatically with age (**figure 18**), showing that the greatest burden of this disease lies with New York's oldest residents (**table 4**). The age-specific mortality rate for people 65 to 74 years old is over twice that of the average NYS resident, indicating that too many of those who should be enjoying their retirement years are lost to CHD.

Though the crude mortality rate for CHD increases with age, its presence as a major cause of death is observed in all but the youngest age groups. More NYS residents age 55 to 64 die from CHD

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[*] Close to the state rate is defined within 20% of the state rate.

than from any cause other than cancer (**figure 6**). For those aged 45 to 54, CHD is the third leading cause of death, following cancer and diabetes. It is the fourth leading cause of death for 35 to 44 year olds, and is ranked as the seventh leading cause of death among New York State citizens ages 25 to 34.

Age-adjusted mortality rates do not reveal some important disparities found among minorities and women (**figure 17**). These disparities become evident when crude death rates are examined. African Americans are almost 25% more likely to die prematurely (in the age range of 35 to 74) of CHD than Whites (**figure 19**). As with CVD, the greatest burden of CHD falls on the oldest segments of our population. Since women constitute a majority of New York State's population over the age of 75, it is not surprising that crude death rates show a greater number of women die from CHD than men (**figure 20**).

CHD is found across the counties of New York State (**table 5**). Out of the 62 counties, only five are above the state age-adjusted CHD death rate by 20% or more while over a third of the counties are below the state rate by 20% or more (**figure 21**). All five counties above the state rate are found in the southern part of the state, with four of these found within New York City. Even though most counties exceed the HP2010 goal of 166 CHD deaths per 100,000 residents, eight counties are below this target.

CHD Prevalence

Mortality is not New York State's only CHD related problem. CHD morbidity is also a tremendous burden. Prevalence reports in this document are based on two sources - The 1999 Behavioral Risk Factor Surveillance System (BRFSS) questions to estimate CHD in the population, and hospitalization rates[*]. The BRFSS asks about a subset of CHD – angina and heart attack – so this document will report on the prevalence of that subset, which is also known as Ischemic Heart Disease (IHD)[†].

According to results from the 1999 Behavioral Risk Factor Surveillance System, approximately 6% of New York adults reported being told by a doctor that they have had a heart attack or angina (**figure 22**). That means there are over 850,000 adults living with IHD in NYS. For every death due to IHD, NYS has 18 people living with the disease.

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[*] BRFSS and hospitalization data each have advantages and disadvantages, therefore data is presented from both. Survey data includes all past diagnoses, but only includes two categories of CHD - heart attack and angina. Also, the survey is based on a small sample of NYS residents rather than the entire NYS population. Hospitalization data includes all categories of CHD, and is population based, but it does not include all those diagnosed with CHD but not hospitalized. Also, it only includes those hospitalized for CHD in a particular year, and does not include anyone hospitalized in previous years.

[†] Ischemic Heart Disease (ICD/10 I20-I25) includes angina and acute myocardial infarction. This differs from the definition for CHD in this document in that it excludes hypertension with heart disease (ICD/10 I11). This more limited disease grouping is used here to provide a better comparison to people reporting a heart attack and/or angina.

As expected, the proportion of individuals reporting some form of IHD was higher among those aged 65 years and older. Men reported IHD slightly more often than women. NYS adults with at least some college education reported slightly less IHD than those with less education. Differences by race were small. Finally, New York City showed almost no difference from the rest of the state in reported prevalence of IHD.

Another measure of CHD prevalence, hospitalization counts and rates, include all diagnoses associated with CHD, and will be reported as such rather than as IHD numbers. In 1999, for every death due to CHD, there were almost three people hospitalized for this condition. As with CVD, CHD hospitalization rates are most affected by age (**figure 23**). Given that men had a lower crude mortality rate than women (**figure 20**), it is surprising that the crude male hospitalization rate is 48% higher than the female rate (**figure 23**). It is possible that women are less likely to survive their illness, resulting in fewer hospitalizations. Men and women differ in several ways in their experience with CHD that could explain women's lower hospitalization rates, including differences in diagnosis, treatment, symptoms, reaction to drugs, as well as age at the onset of the disease. This could result in fewer deaths and more hospitalizations for men than for women. More research is needed to understand the basis for these differences and to provide for appropriate treatments for women with heart disease.

The highest crude hospitalization rates are not limited to a particular part of the state (**table 6**). Counties with rates over 20% of the state rate are found in all areas of the state.

Congestive Heart Failure (CHF)

Congestive heart failure is a disorder where the heart loses its ability to pump blood efficiently, leading to problems like fatigue and shortness of breath. Congestive heart failure is not a single disease but the end stage of many different forms of heart diseases. The most common of these is coronary artery disease. This develops when the coronary arteries are blocked. Coronary arteries are the means by which oxygen and other fuels are carried to the working heart muscle. The resulting obstruction can cause heart attacks leaving less muscle to pump blood.

CHF Mortality

CHF currently accounts for 2% of all deaths in NYS (figure 3) and 4% of CVD deaths (**figure 15**). It is not one of the leading causes of death in this state, but it is one of the fastest growing subgroups of CVD, making it a cause for concern and attention.

CHF has not followed the same mortality trend as CVD in general. Rather than declining over time, mortality due to CHF has increased over the last 20 years (**figure 24**). The change in age-adjusted mortality rates has been very modest, so it could be read as a fairly flat rate over the last 20 years, but even a flat rate for CHF is a concern when general CVD rates are declining.

Though mortality trends are different, there is some consistency between CVD and CHF. First, as with CVD, the number of deaths due to CHF increases dramatically with age (**figure 25 and table 7**). The mortality rate for people in the prime of their retirement years, within the ages of 65 to 74, is almost twice the state rate. Second, the burden of CHF in the African American population is not obvious (**figure 26**) until premature death rates (among 35 to 74 year olds) are reviewed. African

Americans are 19% more likely than Whites to die from CHF before the age of seventy-five (**figure 27**). Finally, though the age-adjusted CHF mortality rate is higher for men, suggesting that men die from CHF at younger ages than women, we find the actual number of women dying from CHF to be greater than men. The burden of CHF is found most dramatically in the older segments of our population, and women constitute over 70% of the population aged 85 and older, resulting in women bearing the greatest burden from this condition. This is reflected by the crude mortality rate for women exceeding that for men by over 46% (**figure 28**).

Unlike CVD in general, which is found consistently throughout the state, CHF mortality appears to concentrate in certain areas (**figure 29 and table 8**). There are 25 counties above the state CHF rate by 30% or more. It is interesting to note that none of the counties with high CHF mortality rates are found in NYC, while three out of the four counties* with rates 20% or more below the state rate are in NYC. The reason for this is unknown.

CHF Prevalence

The 1999 Behavioral Risk Factor Surveillance System does not have any questions to estimate CHF in the population, so CHF prevalence is limited to hospitalization counts and rates.

For every death due to CHF in 1999, there were 22 people hospitalized with this condition. As with CVD in general, crude hospitalization rates for CHF are most affected by age (**figure 30**). The World Health Organization incorporated three of the oldest age groupings into the HP2010 hospitalization rate targets. New York State has not yet reached these HP2010 goals (**figure 31**). In order to reach the target for residents aged 65 to 74, the CHF rate would need to decline by over 5% each year from 2000 to 2010. An average annual rate decline of 11% would be required to reach the HP2010 target for those aged 75 to 84, and the CHF hospitalization rate would need to decline by over 24% each year to reach the goal for those over the age of 85. An intense effort will be required for NYS to reach these goals.

Factors such as gender and geographic location also vary in NYS crude hospitalization rates (**table 9**). Women have a 15% higher rate than men (**figure 30**). Among the 62 counties of NYS, there are only eight counties with rates that exceed the state rate by 20% or more, while there are 18 counties that fall 20% or more below the state rate. Counties with higher rates are found in all areas of the state.

Stroke

Stroke (Cerebrovascular disease) occurs when a blood vessel that brings oxygen and nutrients to the brain bursts or is clogged by a blood clot or some other particle. Because of this rupture or blockage, part of the brain does not get the blood and oxygen it needs. Deprived of oxygen, nerve cells in the affected area of the brain can't work and die within minutes.

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* There are 4 counties with rates 20% below the state rate. There are an additional 6 counties with fewer than 5 deaths in 1999, with populations of less than 100,000 in the 1990 Census counts. These numbers are too small to support a stable rate, so rates are not calculated for these counties. The text refers only to those counties with calculated rates.

Stroke Mortality

Stroke is the third leading cause of death in New York State (**figure 3**). In 1999, the most recent data available, stroke was the second deadliest form of CVD, causing 11% of all CVD deaths (**figure 15**).

Like CVD in general, age-adjusted stroke death rates have declined over the last 20 years (**figure 32**). The rate has dropped from a 20 year high in 1980 of 80 per 100,000 to the current rate of 42 per 100,000. Though the current NYS rate is below the HP2010 goal of 48 deaths per 100,000 population, stroke is still a primary cause of death for New York's citizens, killing more men and women than AIDS (**figure 2**).

The number of deaths due to stroke dramatically increases with age (**figure 33**). For all those below age 65, the age-specific crude mortality rates are below the overall state rate, but those in the age range of 65 to 74 have a crude mortality rate more than twice the state rate (**table 10**). Seventy-five to eighty-four year olds have a rate that is over seven times higher than the rate for the average New York citizen, and the mortality rate is 23 times higher than the state rate for those over 85.

Age also plays a role in the burden of stroke within the African American population. African Americans are 48% more likely to die prematurely of stroke than Whites (**figure 34**).

Stroke is the fourth leading killer of men and the third leading cause of death for women. The overall age-adjusted death rates for men and women are very similar (**figure 35**). However, men are almost 26% more likely to die prematurely between ages 35 and 74 (**figure 34**), while a greater actual number of women die from stroke (**figure 36**) since women constitute a larger portion of the over 75 population. So this disease should be a cause of concern to both men and women.

Some counties in New York have substantially higher rates of stroke than others (**figure 37 and table 11**). There are 26 counties above the state stroke rate by 30% or more and another eight counties that exceed the state rate by at least 20%. It is interesting to note that all high CHD age-adjusted mortality rates are found in the downstate area. In contrast, none of the high stroke mortality rates are found in NYC. There are only seven counties below the state stroke rate by 20% or more, and four of these counties are in the NYC area. As a result of the unequal distribution of stroke within the state, where lower age-adjusted mortality rates are found in the most heavily populated areas, there are 42 counties that exceed the HP2010 target for stroke.

Stroke Prevalence

The burden of stroke is not limited to mortality, morbidity must also be taken into account in order to appreciate its impact on NYS citizens. The 1999 BRFSS includes questions to estimate stroke in the population, therefore we have two sources from which to estimate the prevalence of stroke in NYS, the BRFSS and hospitalization rates*.

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* Each source has advantages and disadvantages, therefore data is presented from both. Survey data includes all past diagnoses of stroke, but is based on a small sample of NYS residents rather than the entire NYS population. Hospitalization data is population based, but it does not include all those diagnosed with stroke but not hospitalized.

According to the 1999 Behavioral Risk Factor Surveillance System results, for every person that dies from stroke, there are 35 who live with the consequences of this disease. Approximately 2% of New York adults reported being told by a doctor that they have had a stroke (**figure 38**). That means over a quarter of a million people in NYS have survived a stroke.

With the exception of senior citizens age 65 and older, stroke morbidity appears to be found equally in all major segments of the population. There were practically no differences in the reporting of stroke between men and women, Whites and non-whites, those with some verses those with no college education, or by upstate verses downstate. The proportion of individuals reporting stroke was higher among those aged 65 years and older, but not to the same extent as found in CVD (**figure 13**) or CHD (**figure 22**).

In 1999, seven people were hospitalized for every person who died from a stroke. According to hospitalization data, which only provides a snapshot of stroke morbidity, we find that like all other types of cardiovascular disease, age is the factor of greatest impact on crude hospitalization rates (**figure 39**). Those 75 and older are eight times more likely to be hospitalized for stroke than the average NYS resident. In addition, women have a crude hospitalization rate 17% higher than men.

Stroke hospitalization rates are fairly consistent across the state. Forty counties are within 20% of the state hospitalization rate (**table 12**). There are only eight counties 20% or more over the state rate. These counties are located in two areas, the western and central sections of the state. Fourteen counties are below the state rate by 20% or more. Nine of these low rate counties are in central NY, near the western end of the state. The remaining five counties are scattered across the state.

Also, it only includes those hospitalized for stroke in the year 2000, and does not include anyone hospitalized in previous years.

Cardiovascular Disease Risk Factors

Tobacco use, physical inactivity, poor nutrition, obesity, hypertension, high blood cholesterol, and diabetes are known and modifiable risk factors for CVD and are targeted by the New York State Department of Health. Studies have shown that people can reduce their risk for cardiovascular disease by modifying their behavior. By quitting smoking, getting regular exercise and improving nutrition, people lower their blood pressure, cholesterol and reduce obesity. This also lowers a person's risk for heart disease and stroke.

This assessment of CVD risk factor burden in New York relies primarily on two sources. It relies heavily upon the Behavioral Risk Factor Surveillance System (BRFSS), an ongoing monthly telephone survey of adults aged 18 years and older. It also gathers information from the Youth Risk Behavior Surveillance System (YRBSS), an ongoing school-based survey of students in grades 9 through 12.

Reports for each risk factor include trends for the total adult population (1990-2000) and socioeconomic and demographic breakdowns for the most recent year of available data. Criteria used for these breakdowns include age, race, gender, income[*], and education. For some risk factors, county specific rates are also provided. Where the data will support it, rates for counties are reported based on a direct estimate (over a 5-year period)[†]. Counties with sparse data have estimates reported based on a synthetic estimate procedure[‡]. Where the data are available, rates are also reported for youth.

Healthy People 2010 objectives are used throughout this section as a guide for how risk factors are defined, measured and reported. Occasionally, other means to define a risk factor will appear, because of the history of intervention efforts or because the data sources were designed to collect information along a different criteria. The reporting on poor nutrition is a good example. Healthy People 2010 objectives provide criteria for eating two servings of fruit per day and a separate

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[*] Response rates for income are very low. In 2000 income is unknown for 17% of the respondents in the survey. In 1999, income was unknown for 22% of the respondents. Because of the great interest and need to have income information on these risk factors, this socioeconomic indicator is included in these tables, but the reader should be aware that this response rate may bias the reported estimates.

[†] A direct estimate was used for counties with a sample size adequate to support this method. BRFSS data from 1996 through 2000 were combined for this analysis. The data were re-weighted and adjusted to the age distribution of each county. Additional race-specific adjustment (white vs. non-white) was done for twelve large counties with sizeable minority populations: Albany, Bronx, Erie, Kings, Monroe, Nassau, New York, Onondaga, Queens, Richmond, Suffolk and Westchester. Direct prevalence estimates and confidence intervals were calculated for counties with a minimum sample size of 50 respondents in the five year combined data set.

[‡] An indirect method was used for counties with a sample size that would not support reliable and precise prevalence estimates. Ward's clustering methodology was used to group counties with similar demographic and socio-economic population characteristics. Discriminate analysis was used to validate and adjust the resulting county clusters. Indirect prevalence estimates for counties within clusters not having sufficient sample for direct estimation were calculated by age- and sex-specific extrapolation. In addition, a different indirect method was used for all diabetes rates. Diabetes rates were calculated for all ages by extrapolation from national and statewide data. It was not possible to calculate the confidence intervals for the indirect county estimates.

the consumption of five fruits and vegetables per day as a composite and the Department of Health initiatives targeting this behavior are modeled after the 5-A-Day program initiated by the National Cancer Institute. Although tables for each risk factor (one for adults plus a separate one for youth whenever youth is reported) may report many different criteria, the descriptions below will focus on one measure for each risk factor. Occasionally results will warrant a discussion of additional measures. Finally, the reader should note that definitions for all reported risk factors appear at least once in the text as well as on the tables and figures in which they are reported and in the glossary.

Tobacco Use

Tobacco use is the single most preventable cause of death in the United States. Approximately 24,600 overall deaths in New York State each year can be attributed to tobacco use. The New York State rate of CHD deaths caused by smoking was 66.7 per 100,000 in 1999. Using the BRFSS, current tobacco use is defined as the adult population estimated to have smoked 100 cigarettes in their lifetime and currently smoke every day or some days. In 2000, the overall rate was 22%, which exceeds the Healthy People 2010 objective (12%). Current smoker status decreased with age (**table 13**). New York residents ages 18-24 had the highest current smoker rate at 33.0%. By the age group of 45-54, the rate dropped to 19.5% and by 65 and over it dropped to 9.4%. Little differences were observed in current use by race. For education, however, people with a reported annual income of $50,000 or more (17.9%) or who were college graduates (14.2%) had substantially lower estimated rates than other New York residents. Data from the BRFSS was combined for 1996-2000 to establish current smoker county estimates among adults and are presented in **table 23**. There was considerable variation in current smoker rates across New York counties. Estimates for individual counties range from a low of 17.0% to a high of 37.4%. There were 40 counties with a current use rate at or above the overall 1998 state rate of 24.1%[*]. This high number of counties exceeding the state rate can be explained by the tendency for rural counties, which have fewer people, to have higher rates. Rural areas throughout the nation are known for having high rates of tobacco use. For example, the five counties with the highest rate were Greene, Schoharie, Cayuga, Clinton, and Livingston.

The prevalence of cigarette smoking nationwide among high school students increased throughout the 1990s. This is a notable trend, because approximately 80% of adult tobacco users initiate use before the age of 18. The YRBSS estimated that in 1999, 36% of all students in New York public schools, grades 9 through 12, were currently using some form of tobacco (**table 14**). Current tobacco use is defined as smoking cigarettes or cigars or using chewing tobacco or snuff on ≥1 of the 30 days preceding the survey. This exceeds the Healthy People 2010 adolescent tobacco use objective (21%). Current tobacco use increased substantially with school grade (from 28.6% to 45.4% among 9th and 12th grade students respectively) and the rate for Whites was nearly twice the rate of African Americans (40.9% and 20.8%, respectively).

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[*] County rates are compared to the 1998 rate for New York, because this is the mid-year for the range used in county estimates.

Physical Inactivity

Physical inactivity is a primary risk factor for coronary heart disease. The risk for coronary heart disease associated with physical inactivity is similar to that of cigarette smoking. Research has clearly shown that physically active people will have better health than physically inactive people. Many diseases and health conditions are positively affected by increased levels of physical activity, including coronary heart disease, hypertension, and obesity. The BRFSS is used to estimate the level of leisure time physical activity of New York State adults. In 1990 the rate of physical inactivity for New York adults was 35% (**figure 40**). In 2000, 30% of the New York adult population was physically inactive (**table 15**), falling short of the Healthy People 2010 objective (20%). Physical inactivity increases with age and was substantially higher in the 65 and over age group. Whites were significantly less likely to be inactive than African Americans or Hispanics. Both income and education displayed a reverse relationship with physical inactivity: As income/education increased, the rate of physical inactivity decreased.

Data from the BRFSS was combined for 1996-2000 to establish estimated rates of physical inactivity for the adult population of each county. There was considerable variation in rates across New York counties. Estimates for individual counties ranged from a low of 14.7% to a high of 48.5%. There were 40 counties with a rate at or above the 1998 state overall rate of 31.9%.

The precise relationship between the on-set of CVD during adulthood and physical activity levels during adolescence needs further research. There is evidence that physical activity affects cardiovascular disease risk factors, such as obesity[*]. Furthermore, it is probably true that establishing good behavior practices at an early age makes it more likely that they will be practiced during adulthood. In 1999, 25.1% of all students in New York public schools, grades 9 through 12, were estimated to participate in moderate physical activity for at least 30 minutes on five or more of the past seven days (**table 16**). This falls short of the Healthy People 2010 objective (35%). Substantial differences by grade, race or gender were not observed. The profile for vigorous activity for New York youth is quite different. Seventy-one percent of New York adolescents are estimated to be exercising vigorously. Although a slight decline in vigorous activity was observed by grade, as with moderate exercise, differences by grade, or gender were not substantial.

The reasons for the wide differences between moderate and vigorous leisure time physical activity are unknown. One possible explanation is that students have difficulty distinguishing between moderate and vigorous activity. The vigorous definition requires less time spent per day and less days per week than the moderate definition. If students do not perceive the intensity of their activities correctly, then the remainder of the criteria for vigorous exercise would make it easier to achieve. A break down of the rates for meeting recommended levels of physical activity is revealing. Seventy-five percent of all students meet either the moderate or vigorous criteria. This is only 4% higher than the vigorous criteria alone.

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[*] Sallis JF, Patterson TL, Buono MJ, Nader PR. Relation of cardiovascular fitness and physical activity to cardiovascular disease risk factors in children and adults. *American Journal Epidemiology* 127(5):933-41, 1988.

Not Enough Fruits and Vegetables

Numerous studies have documented the association between cardiovascular disease and diet. Statewide surveillance is limited to fruit and vegetable consumption. An association has been shown for diets rich in fruits and vegetables and a reduction in cardiovascular disease. As reported in **figure 41**, in 1990, only 23% of the adult population were consuming five servings of fruits and vegetables per day. By 2000, this increased only to 28%. Healthy People 2010 objectives are established for the nation regarding a minimum of two servings of fruit and three servings of vegetables per day (75% and 50% of the population, respectively). Approximately 49.5% of New York adults consumed two or more fruits per day and 27.8% consumed at least three vegetables in 1999 (**table 17**). The rates for fruit and vegetable consumption separately suggest how adults tend to achieve the 5-A-Day criteria. About half of adult population eat two or more fruits per day, but much fewer eat enough fruit combined with vegetables to total to five of either. Both measures are well below the Healthy People 2010 objectives. The most pronounced differences in rates for demographic groupings were observed for gender. Women reported substantially higher rates of consumption of both fruits and vegetables than men. Only measures of five servings of fruits and vegetables per day are available for counties (**table 23**). Thirty-four counties were at or below the overall 1996 state rate of 25.4%.

Table 18 displays estimates of fruit and vegetable consumption for adolescents. The percent of adolescents (26%) consuming five fruits and vegetables a day is very similar to the percent for adults (28%) in New York. However, the percent for eating at least two servings of fruits and eating at least three servings of vegetables are very different. Approximately 39.3% of New York adolescents eat two or more fruits per day and 15.3% consume at least three portions of vegetables. This apparent inconsistency is explained by the composition of fruit and vegetable consumption for adults compared to youth[*]. Consumption of fruits and vegetables diminishes with grade. Differences by race and gender were small.

Overweight and Obesity

The association between obesity and CVD has been well documented. The New York adult population estimated to be obese has increased from 10% in 1990 to 18% in 2000 (**figure 42**)[†]. In 2000, age differences in obesity rates are most pronounced between the younger age groups (18-24 and 25-34) and the middle age groups. Obesity drops substantially for ages 65 and over. Obesity rates are also quite pronounced for African Americans and for lower income groups (see **table 19**). Obesity estimates for New York State counties are reported in **table 23.** Thirty-nine counties exceeded the 1998 state rate (16.3%). As with tobacco use, their low population density may explain why the number of counties exceeding the state rate is high.

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[*] There is a higher likelihood of meeting one criteria and not the other for adults than for youth. For example, 30% of adults who eat 3 or more servings of vegetables do not eat 2 servings of fruit. Only 13% of adolescents who eat 3 servings of vegetables do not eat at least 2 servings of fruit. Similar differences were observed for meeting the fruit criteria and not meeting that for vegetables (42% and 15% for adults and youth respectively).

[†] See the glossary for definitions of overweight and obesity.

There is a known association between obesity in childhood and adult on-set CVD. Approximately 8% of New York adolescents are overweight (BMI ≥ 95th percentile[*]). This exceeds the Healthy People 2010 objective of 5%. The largest differences in rate are by gender, with males exhibiting a substantially higher rate than females. Notable differences also exist by race: whites have a significantly lower rate of overweight than African Americans (see **table 20**).

High Blood Pressure

High blood pressure (hypertension) increases the risk for a number of diseases, including congestive heart failure, kidney failure, heart attack, and stroke. It is known that high blood pressure is associated with other well-known risk factors such as, poor diet, high cholesterol, overweight, smoking, diabetes, and physical inactivity. When other risk factors are present, the risk from high blood pressure increases several times over. Almost 43,000 Americans had high blood pressure listed on their death certificates as the primary cause of death in 1999. It is estimated that approximately 50,000,000 Americans have high blood pressure. The New York adult population estimated to be suffering from high blood pressure has not changed substantially since 1990: from 21% in 1990 to 23% in 1999 (**figure 43**). **Table 21** presents estimates for self-reported high blood pressure and blood pressure screening for the New York adults in 1999. Nearly 23% of the population was estimated to have high blood pressure, exceeding the HP2010 objective (16%). The rate of screening for high blood pressure among New York adults was estimated at 93.6%, which is just below its corresponding HP2010 objective (95%). The most notable rates of high blood pressure were for African Americans and for those in the highest income and education categories. African Americans had significantly higher rates than their counterparts, while the highest income and education groupings had significantly lower rates. High blood pressure was also observed to increase with age. Forty-two percent of people 65 and over were estimated to suffer from this condition. The most prominent difference observed in rates of screening was between Whites and Hispanics. County estimates for blood pressure screening are presented in **table 23**. Rates for counties range from 87.6% to 98.8%. This is a small level of variation, indicating that screening occurs at a consistent rate across New York State.

High Blood Cholesterol

High blood cholesterol is a major risk factor for heart disease. It has been demonstrated that lowering rates of high cholesterol will decrease the incidence of coronary heart disease and decrease mortality. Approximately 41 million Americans have high blood cholesterol. The New York adult population estimated to be suffering from high blood cholesterol has not increased substantially since 1990: from 25% in 1990 to 29% in 1999 (**figure 43**). Approximately 72% of New York adults were screened for cholesterol in 1999 (**table 21)**. As expected, screening demonstrated a strong positive relationship with age. Screening was significantly lower for the Hispanic population than for Whites. African Americans are screened at a rate similar to the White population. The most substantial differences were between the highest income and the highest education categories

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[*] Children with BMI values at or above the 95th percentile of the sex-specific BMI growth charts are categorized as overweight. These growth charts consist of a series of percentile curves that illustrate the distribution of selected body measurements in U.S. children.

compared to their counterparts. Actually having high cholesterol does not show the same patterns. Except for age, rates for each demographic break down are not substantially different from each other*. County estimates for cholesterol screening are presented in **table 23**. Rates for counties range from 60.3% to 88.0%. Forty-five counties had a cholesterol-screening rate below the 1999 state level (72.4%). As with other risk factors, this large number of counties below the state level is explained by their tendency to be rural or low population counties.

Diabetes Mellitus

The risk of CVD is much higher among men and women with diabetes mellitus. Recent studies have indicated that the prevalence of diabetes in the United States has increased 33% between 1990 and 1998 and there is evidence that the trend is continuing. In 1999, diabetes killed 68,399 Americans and about 11,000,000 Americans have physician-diagnosed diabetes. Estimates from the 2000 BRFSS indicated that 6.3% of the adult population has diagnosed diabetes (**table 22**), well in excess of the HP2010 objective (2.5%). Diabetes was observed to increase most dramatically in the oldest age group, among African Americans, as well as in the lower income and education groups.

* The reader should note that although the rate for the race group of 'Other' is markedly higher than for other race/ethnicity groups, its confidence interval is very large.

Economic Cost of Cardiovascular Diseases

The American Heart Association (AHA) estimates that the cost of cardiovascular diseases in the United States in 2002 will be at least $329.2 billion. This estimate considers both direct costs (hospitalizations, costs of professionals and the use of pharmaceuticals) and indirect costs (lost productivity resulting from morbidity and mortality). Estimates for New York costs due to CVD hospitalizations are reported in **table 24**. The total direct and indirect expenditures for New York can also be estimated, based on an extrapolation of the AHA national model. These modeled estimates were established by dividing the identified national expenditures by the proportion of 1999 CVD deaths for the nation that occurred in New York.

CVD hospitalizations in 2000 were in excess of 6.8 billion dollars (**table 24**). Sixty-one percent of these monies were spent on people under 75 years of age and 75% of all CVD hospitalizations were paid for with public funds[*]. Medicare alone accounted for 63% of these expenses. Thirty-three percent of these costs were related to coronary heart disease. Costs for congestive heart disease were comparable to that of stroke hospitalizations. The cost for hospitalizations provides a different representation of burden for congestive heart failure than does mortality. Congestive heart failure represents only 4% of all CVD related deaths, while accounting for 15% of all CVD related hospitalizations.

Based on the model of direct and indirect expenses, CVD cost New York approximately 16 billion dollars in 2002 (**table 25**). Total indirect expenses for CVD are comparable to the expenses estimated for hospitalizations alone. The modeling of total expenses suggests that CHD will be responsible for most CVD related expenses in 2002.

[*] Includes the following sources of (primary) reimbursement: Medicaid , Medicare, workers compensation, federal, state, and local corrections, and other government sources

Special Populations

This section of the report provides extra attention to populations known to experience higher rates of CVD and in need of special attention. These groupings of the population are not intended to be exhaustive. As the New York State population changes, the need will arise to assess CVD burden for other groups of people in New York. This section will cover the following populations: People of lower socio-economic status, African Americans, people ages 65 and over, and youth.

People Of Lower Socio-economic Status

Socioeconomic status (SES) is not fully understood as a risk factor for CVD. However, research has shown a relationship between health outcomes and SES. CHD and stroke (both incidence and mortality) are known to be higher among people and communities of lower SES. Furthermore, the higher CVD risk factor prevalence found in low SES populations does not fully explain why they experience higher CVD mortality. Higher CVD mortality would continue to exist for people of lower SES even if their health behaviors were improved.

It is difficult to directly measure the impact of SES on CVD. However, two analyses are presented below that suggest the role of SES. First, from the 1999 BRFSS, an analysis of the relationship between self-reported cardiovascular diseases with income and education is described. In addition, the results of analyzing the relationship between CHD mortality rates for New York State counties and a set of their social and demographic characteristics is reviewed.

The 1999 BRFSS included a set of questions that asked respondents if their doctor ever told them that they had a heart attack, angina, or a stroke. CVD rates for income and education groupings are presented in **table 26**. The estimated prevalence rate of CVD for New York residents with an income lower than $25,000 was twice as high as the rate for New York residents with income greater than $25,000 (11% and 5%, respectively). The same pattern was observed for education. People with less than a college education had an estimated CVD prevalence rate of 9.0%. People with at least some college education had a rate of self-reported CVD of 5.4%.

To gain an understanding of how SES influences CVD while controlling for other important factors, a regression analysis predicting 1995-1999 crude CHD rates by a number of social and demographic variables for New York counties was conducted. This analysis attempted to explain the distribution of crude CHD rates across New York counties, based on their social and demographic characteristics. Variables used to predict CHD in this analysis included average age, median household income, percent non-Hispanic White, and percent of the population living in an urbanized area. Percent urban is included because it has been observed that urban areas in New York have higher rates of CHD. As reported in **table 27**, the analyses indicated that a large portion of the variation in county CHD rates was explained by these factors[*]. According to these results, as median household income increases, the county CHD rate decreases. This significant relationship holds while taking into account the county's average age, percent non-Hispanic White, and percent living in urban areas. This analysis provided a way to compare the relative importance of each factor

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[*] The R^2 (explained variance) for the model was .71,

in explaining the variation of CHD across counties. Median household income is exceeded only by average age in its ability to account for the variation in crude CHD rates across New York counties.

Risk factors for CVD are also known to increase as SES decreases. It is well documented that people of lower SES are more likely to be physically inactive, overweight, and smoke cigarettes. Many of the risk factors reported above for New York show a strong association with education and income. The BRFSS indicated that New York adults with the lowest income and education have the highest rates of physical inactivity, overweight or obesity, and diabetes. They also have the lowest rates of screening for high blood pressure and cholesterol.

African Americans

Nationally, African Americans exceeded the CVD mortality rate for White men and women by 35% and 66%, respectively. It is also well known that African Americans have an excess of stroke mortality. This excess is especially acute for premature mortality. Part of the reason for this excess is the high prevalence of CVD related risk factors among African Americans. African Americans are more likely to be overweight, to be less active, to have hypertension, and to have diabetes. And as with CVD mortality, African Americans are more likely to experience hypertension before the age of 60 than Whites

The age-adjusted 1999 CHD death rate in New York for African Americans (274.2 per 100,000) exceeds that of Whites (256.5) by 7%. Differences in mortality among women accounts for most of this excess. The rate for African-American women was 247.5, compared to 215.8 for White women. It was in CHD death rates for ages under 65 that African Americans had the most pronounced excess. African Americans had a death rate for ages under 65 that exceeded Whites by 35% (53.1 and 39.3, respectively). Unlike the national profile, there was no appreciable difference in age-adjusted stroke mortality between African Americans and Whites in 1999. However between the ages of 35 and 64, the stroke mortality rate for African Americans exceeded that of Whites by 48% (36.0 and 24.3, respectively).

According to estimates based on the BRFSS, African-American adults were similar in tobacco use, high cholesterol, and fruit and vegetable consumption to Whites. On the other hand, their rates for physical inactivity, overweight and obesity, high blood pressure and diabetes all exceeded that estimated for Whites. Estimates from the YRBSS of risk factors for youth suggested that African Americans had similar levels of moderate physical activity, and fruit and vegetable consumption, and substantially lower rates of tobacco use compared to Whites. However, African-American youth had much higher rates of overweight and lower rates of vigorous physical activity than their White counterparts.

People ages 65 and older[*]

It is well documented that the risk of CHD and stroke increases with age, and that this increase is independent of known risk factors. In 1999, about 84 percent of all cardiovascular disease deaths in the U.S. occurred in people age 65 and older. People aged 65-74, an age group where prevention efforts might play an important role in increasing the length and quality of life, account for 19% of these deaths. About 58% of all first listed diagnosis of CHD and 72% of the people suffering from stroke in the U.S. were ages 65 and older. New York experiences an unusually high rate of increase in CVD mortality beginning with age groups 65 and older. In 1999, the death rate for this age group was 42 times higher for CVD generally, and more than 44 times higher for CHD and stroke specifically than for younger age groups. Hospitalization rates also showed a dramatic increase with age. In 2000, hospitalizations for CVD, CHD, and stroke were respectively 13, 10, and 18 times higher for people 65 and older. The problem of excess CHD deaths is particularly acute for New York. New York's death rate for CHD, ages 65 and older, was 88% higher than the national rate in 1999.

Older people have the same risk factors as younger individuals. Hypertension and cigarette smoking and the benefits of their modification in older populations have also been well documented. Regular physical activity has also been shown to be of benefit to older people. High blood pressure is a major cause of congestive heart failure and coronary heart disease in older people, and treatments in this age group have proven to be very effective. There is an upward trend nationally in obesity among older persons. This is especially troubling, since obesity in older people has been shown to increase cardiovascular risk even when accounting for other known risk factors. The New York BRFSS indicates that people ages 65 and over had the lowest rates (9.4%) of current smokers of any age group in 2000 (**table 13)**. They were the only age group below the HP2010 objective (12%). However, they do not fair as well in terms of physical inactivity. Over 40% of older New York residents were physically inactive in 2000 (**table 15)**, higher than any other age group and twice as high as the HP2010 objective. One area where older New Yorkers do comparatively well is in the consumption of fruits and vegetables. Sixty-three percent of people age 65 and over consumed at least two fruits per day and 33% consumed three vegetables per day in 1999 (**table 17)**. However, both of these measures are below their respective HP2010 objectives (75% and 50%, respectively). The 2000 BRFSS measurements for overweight and obesity suggested that overweight and obesity increase with age, but that the largest increases were between the age groups of 18-24 and 25-34 (**table 19**). Both elevated blood pressure and diabetes increase significantly with age **(table 21 and table 22)** and the increase was especially notable in the 65 and over age group. Finally, high cholesterol was estimated at 34.6% among older New Yorkers in 1999 (**table 21**).

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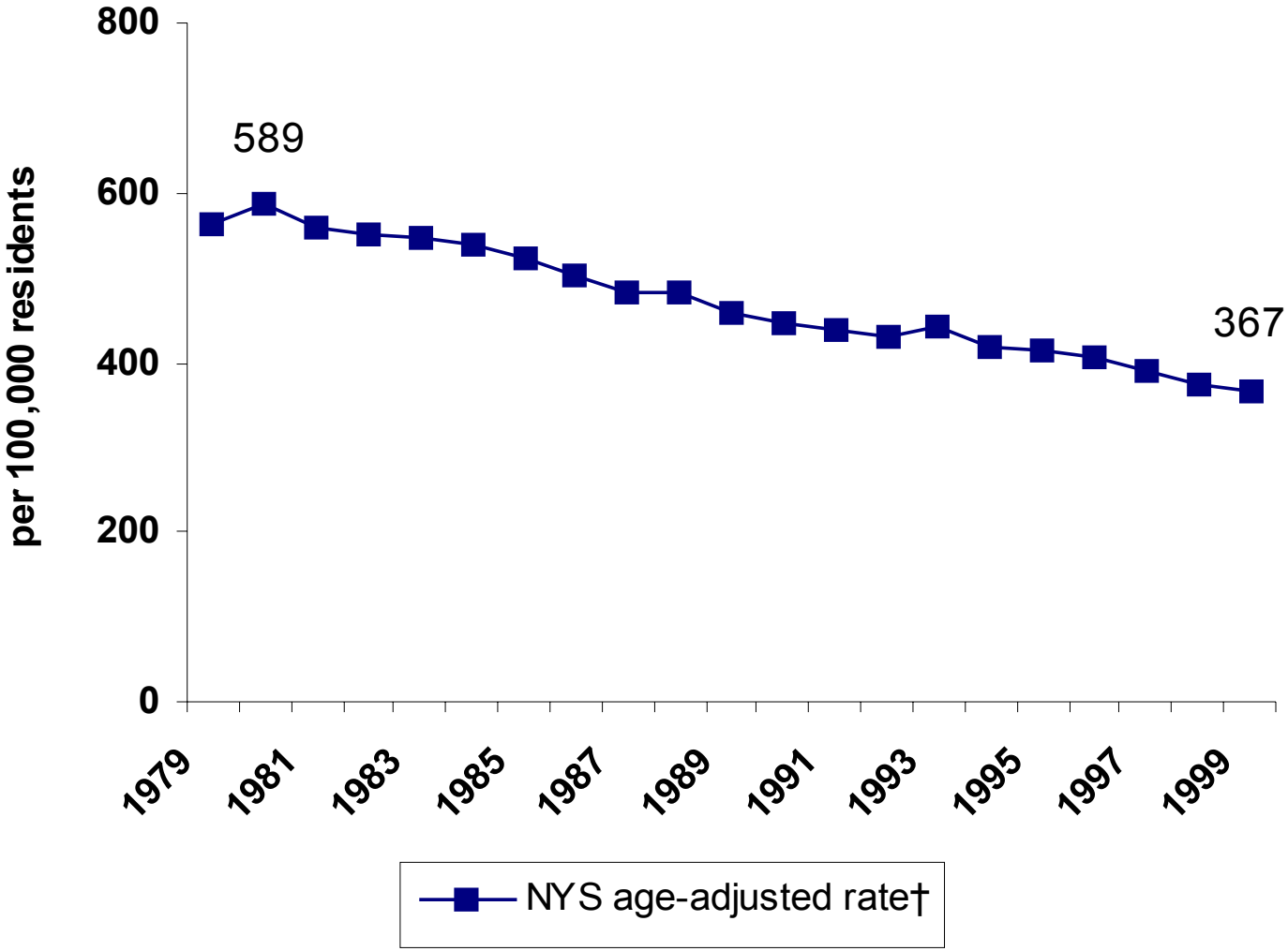
[*] When describing the CVD mortality and hospitalization rates, an age cut-off of 74 years was used to define premature mortality and hospitalizations. This definition is not aligned with the age group of focus in this section, but each criterion is defensible. The definition of premature mortality is defined based on the life expectancy of the US general population: 74 years. Focus in this section on ages 65 and older is based on the similarities in prevention efforts appropriate for this age group.

Youth and Adolescents

Chronic CVD is very rare in young people. However, atherosclerosis, hypertension, high cholesterol, obesity, and diabetes can all begin in adolescence and result in CVD morbidity and mortality in adulthood. Furthermore, people who establish risky behaviors in childhood are likely to carry them into adulthood. Among public school students nationwide in 1999, 33% were currently using tobacco, 10% were overweight (i.e., having a BMI $\geq 95^{th}$ percentile by age and sex), 76% ate less then five servings per day of fruits and vegetables, and only 27% participated in moderate levels of physical activity. Estimates from the 1999 YRBSS for New York provided comparable numbers. A more detailed description of findings from the New York YRBSS appear above in the individual sections for each risk factor.

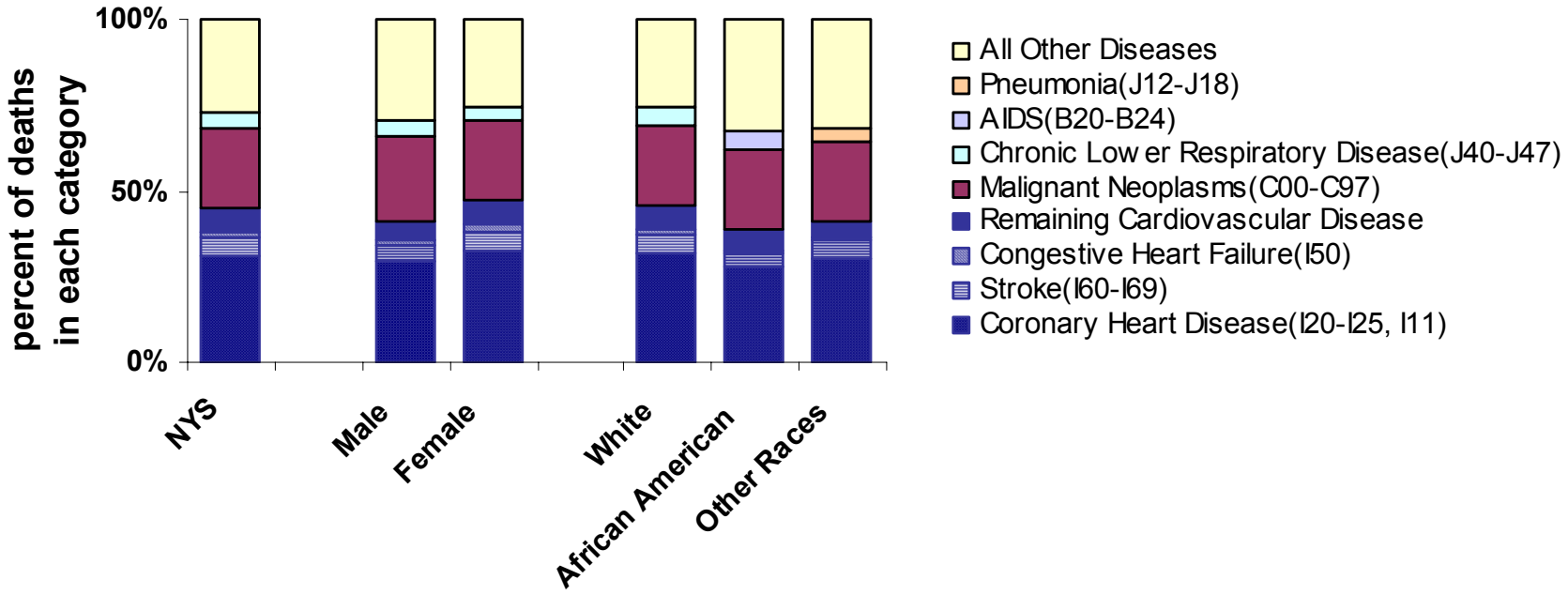
Figures and Tables

Figure 1. Trends in Cardiovascular Disease Mortality, 1979-1999.*



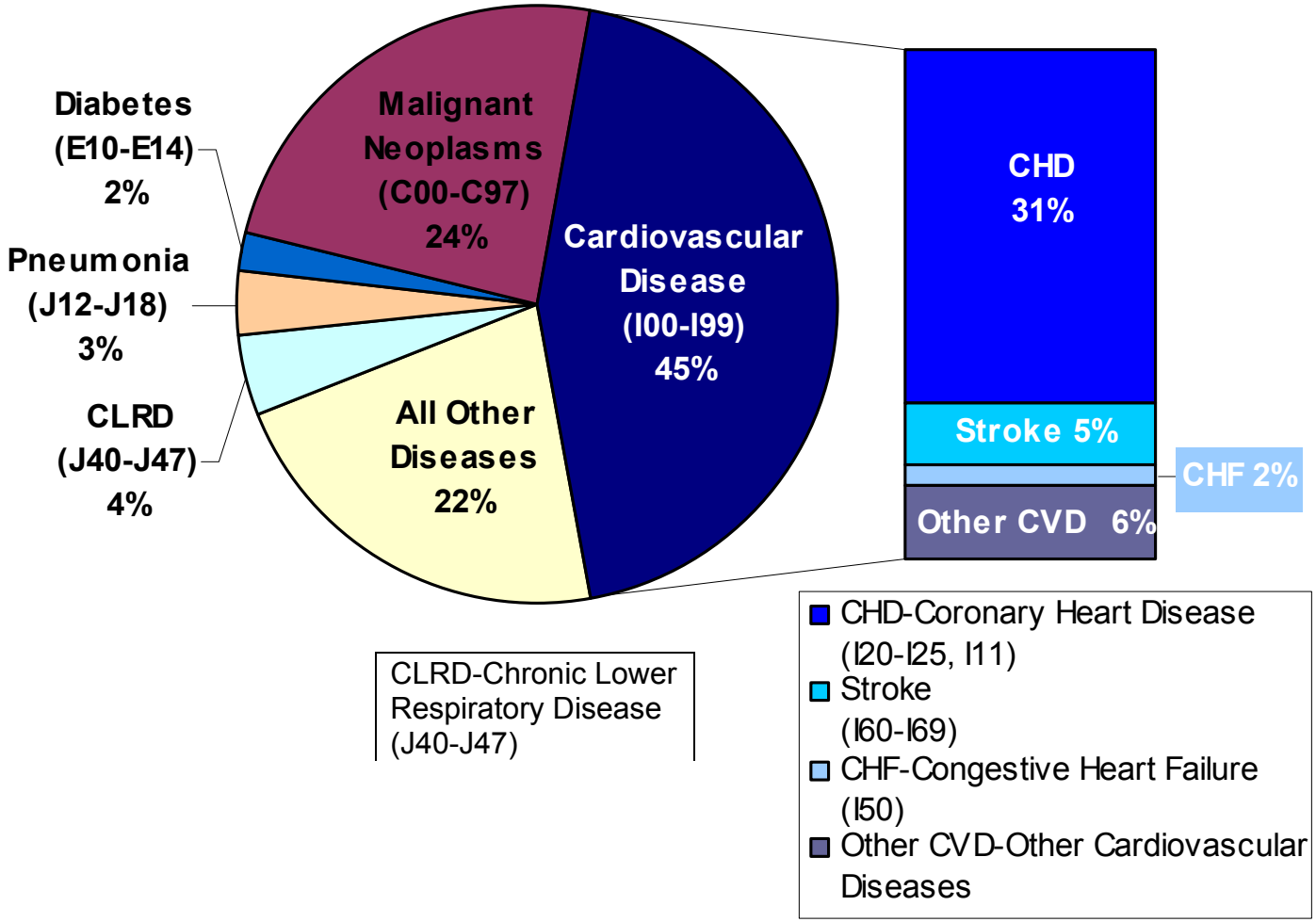
Notes: * Source: CDC Compressed Mortality File, 1979-1999
† Standard population: US 2000.

Figure 2. Three Leading Causes of Death in NYS, Gender and Race Profile, 1999.*



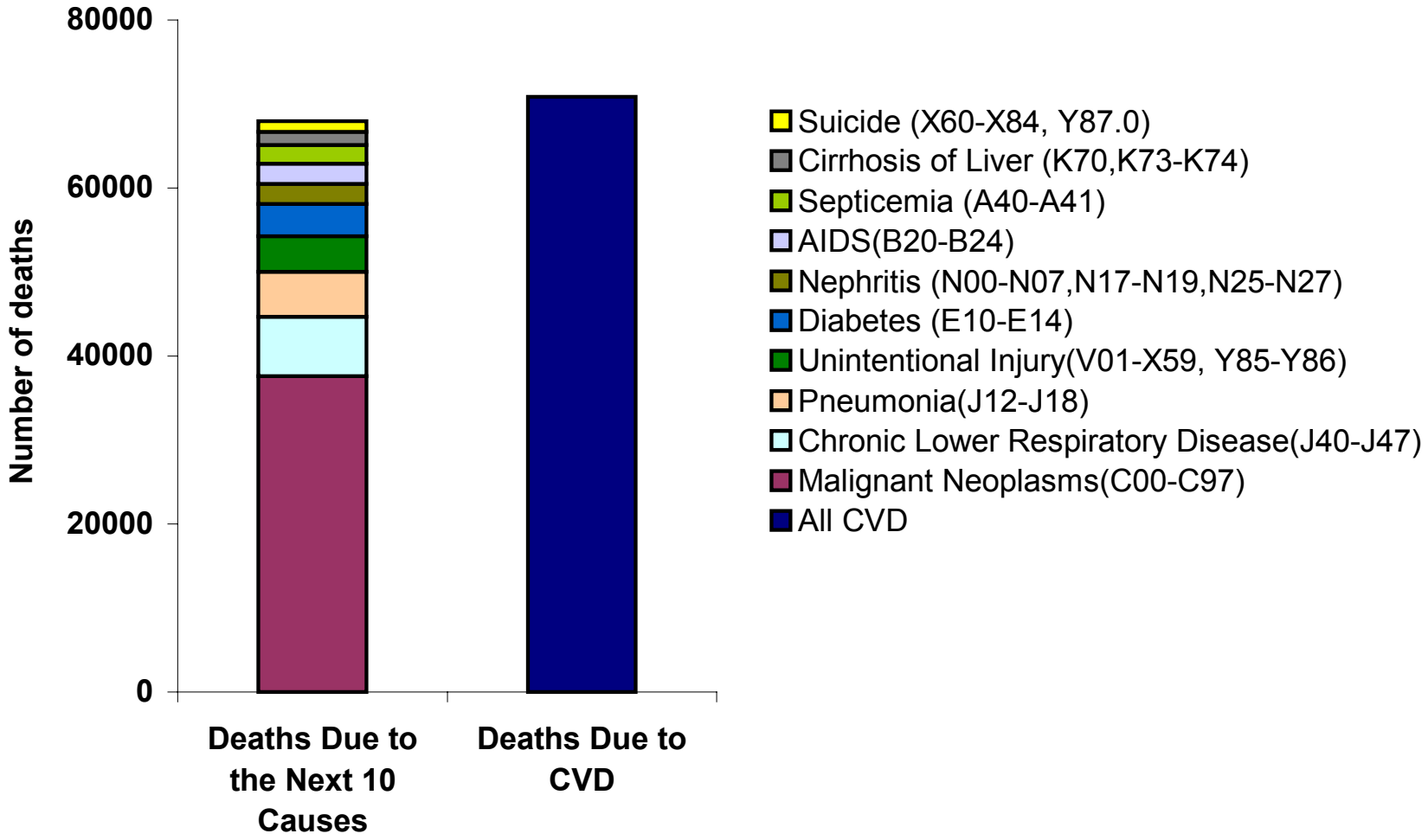
Notes: * Source: NYS Vital Statistics, 1999

Figure 3. Causes of Death in NYS, 1999.*



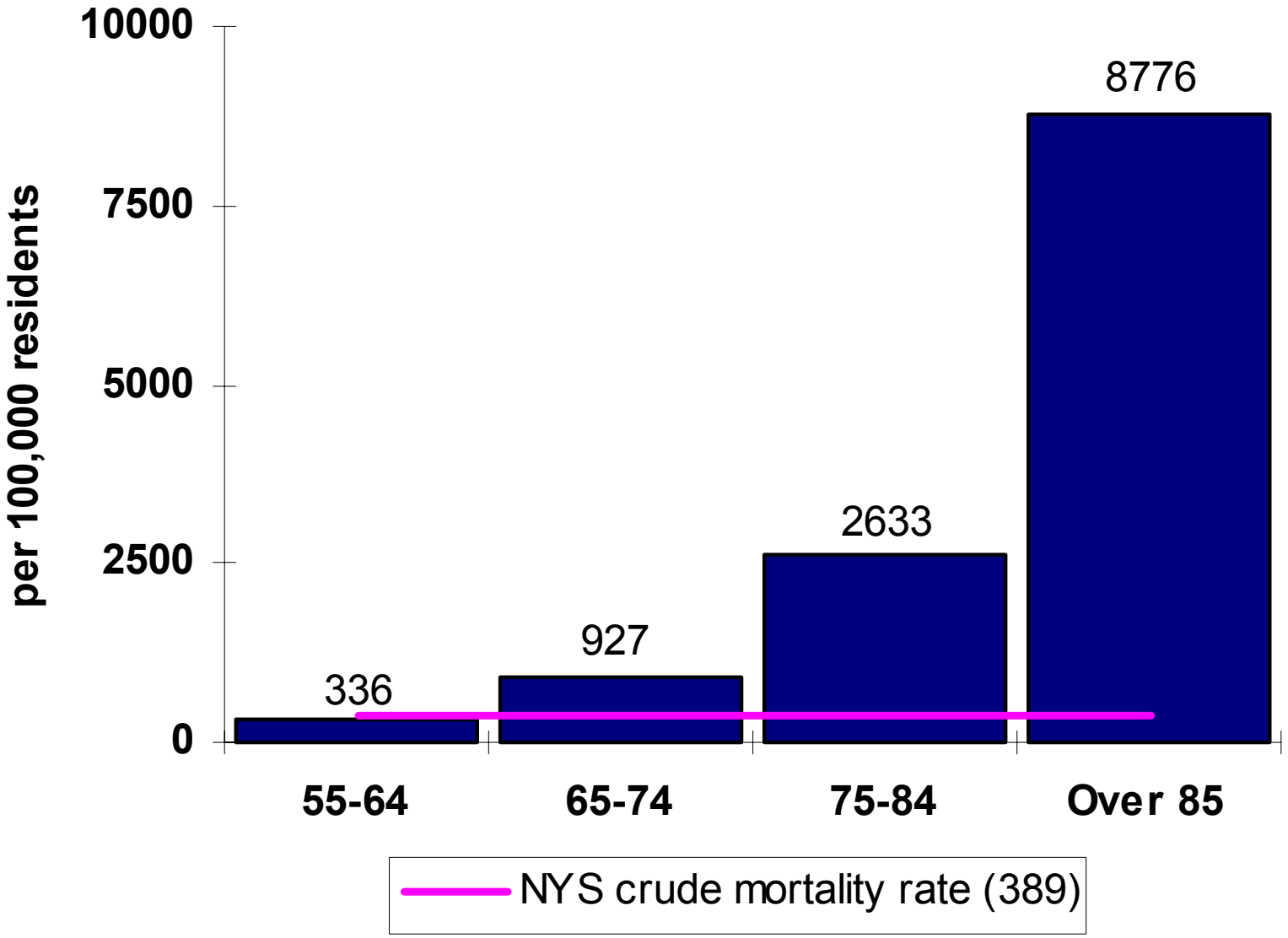
Notes: * Source: NYS Vital Statistics, 1999

Figure 4. The Burden of Cardiovascular Disease (CVD) Compared to Other Diseases, 1999.*



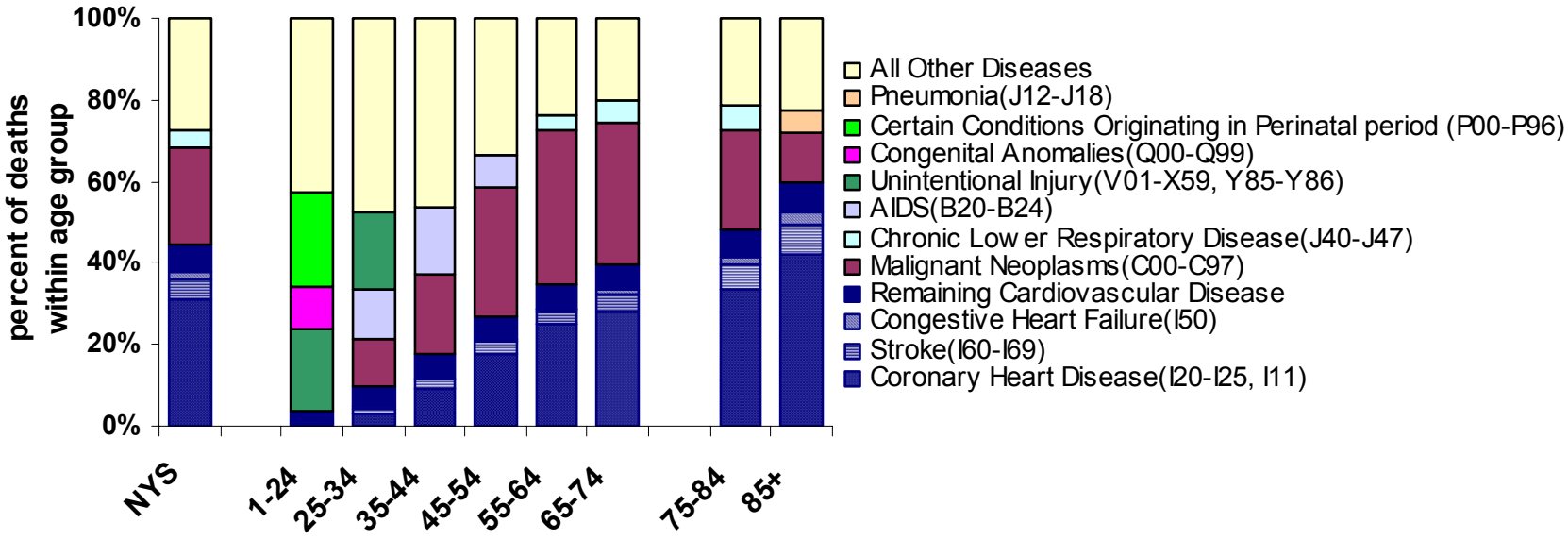
Notes: * Source: NYS Vital Statistics, 1999

Figure 5. Cardiovascular Disease Mortality by Age, 1999.*



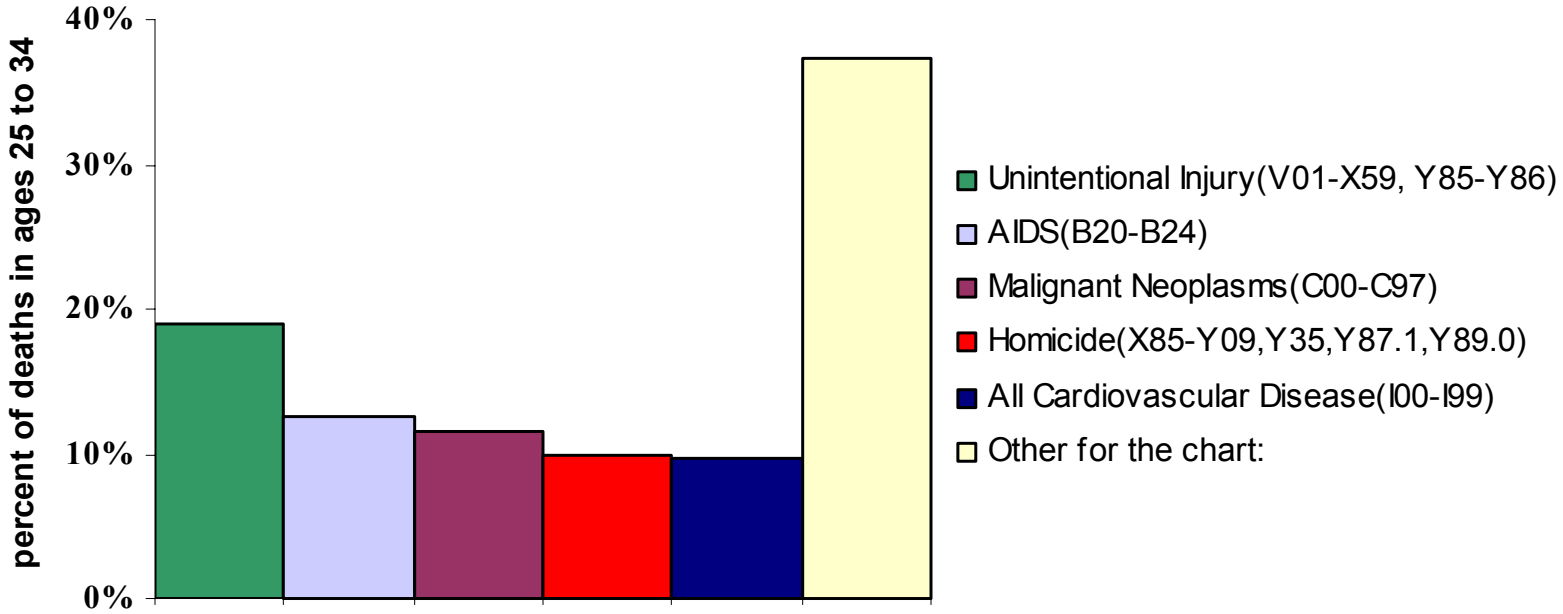
Notes: * Source: CDC Compressed Mortality File, 1999

Figure 6. The Leading Causes of Death in NYS, Age Distribution, 1999.*



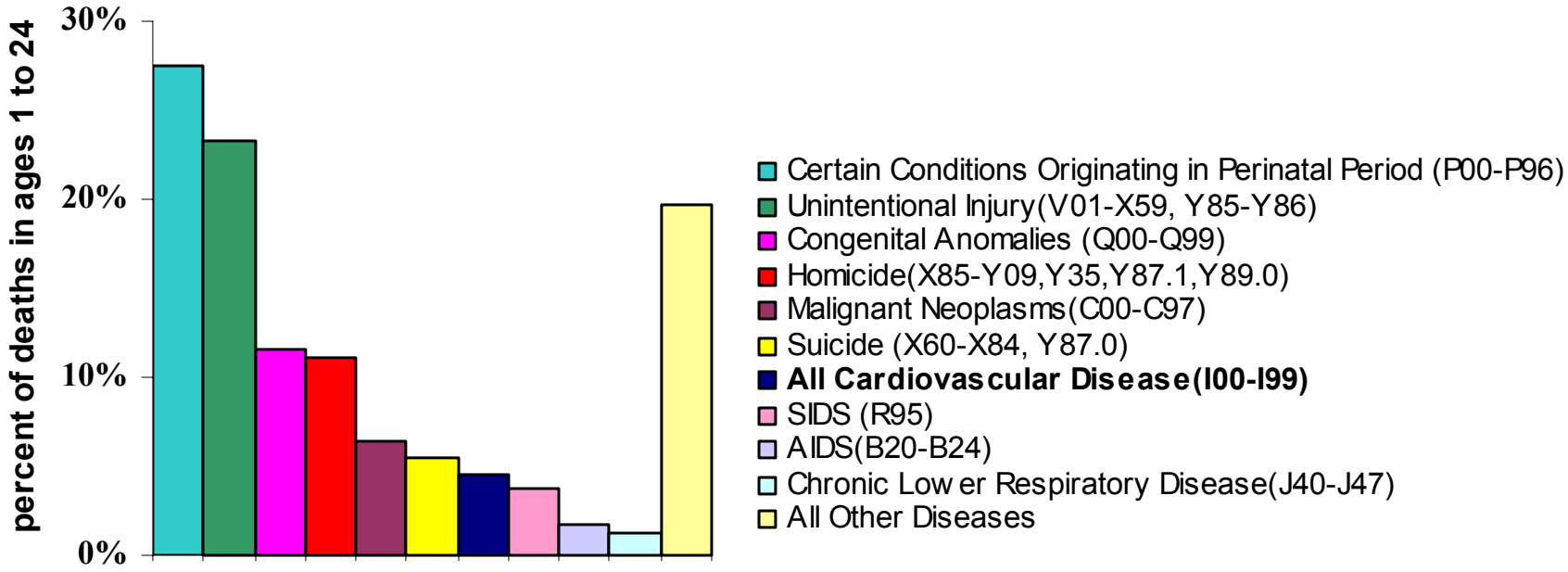
Notes: * Source: NYS Vital Statistics, 1999

Figure 7. Leading Causes of Death Among New Yorkers Ages 25-34, 1999.*



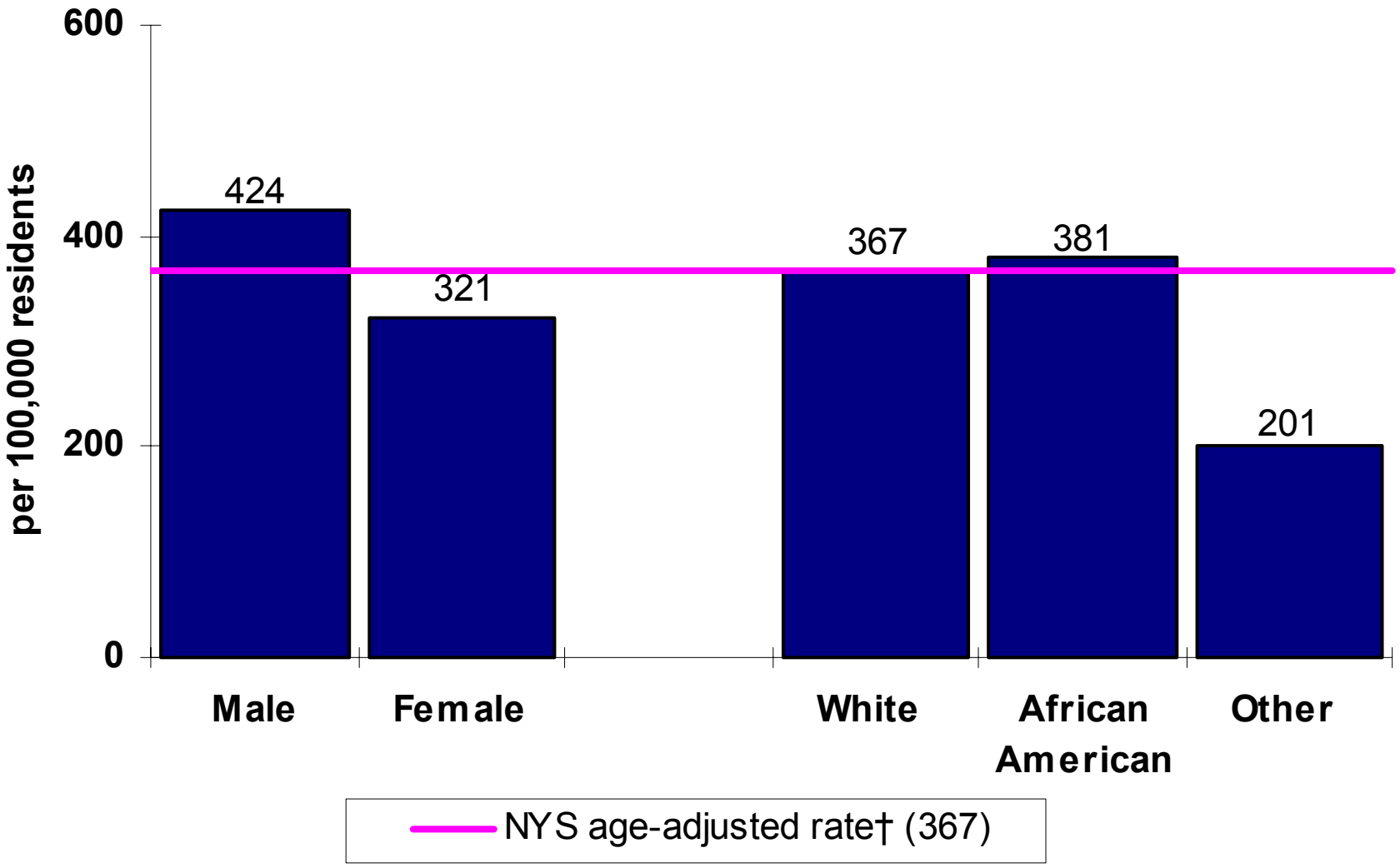
Notes: * Source: NYS Vital Statistics, 1999

Figure 8. Leading Causes of Death Among the Youngest New Yorkers (Ages 1-24), 1999.*



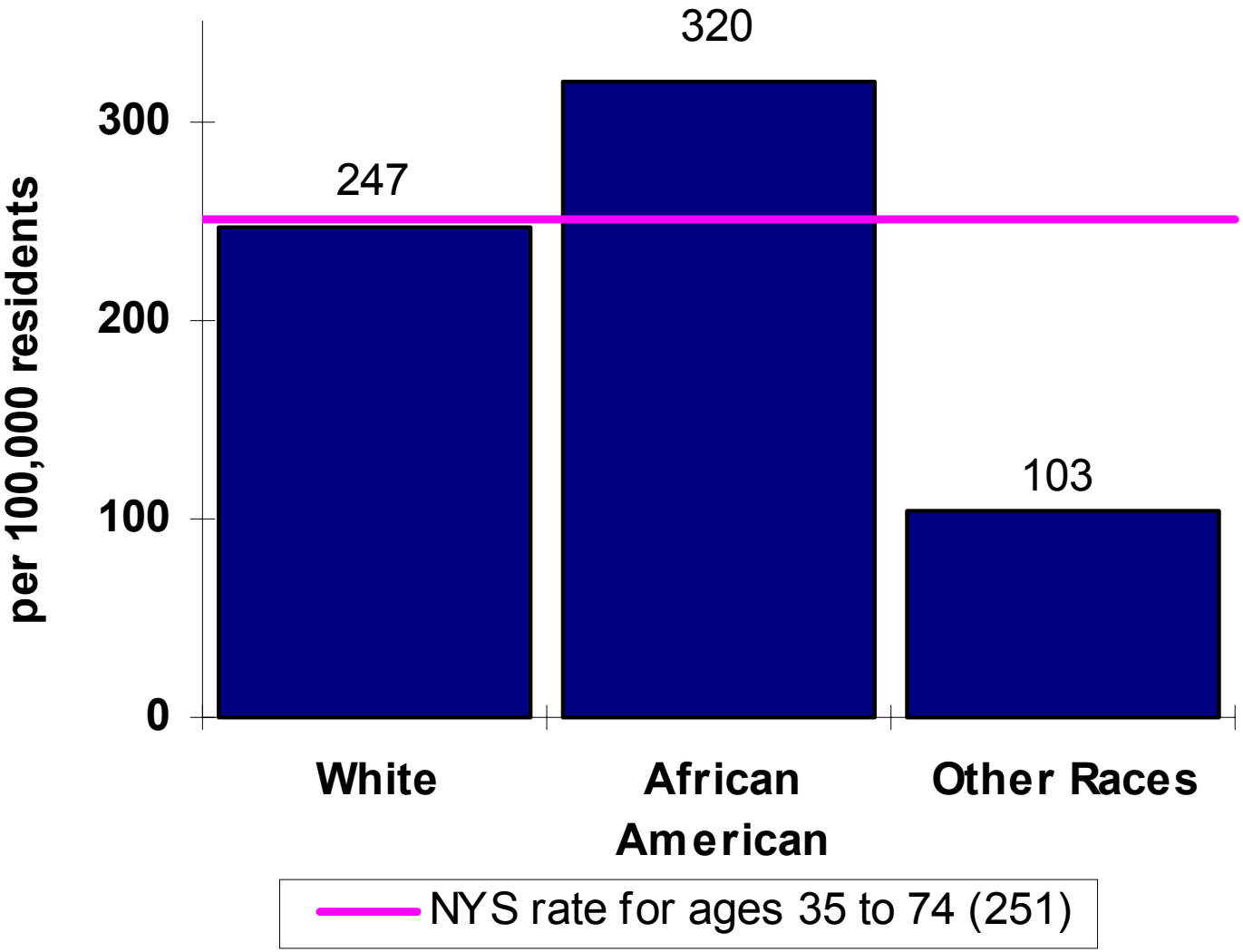
Notes: * Source: NYS Vital Statistics, 1999

Figure 9. Cardiovascular Disease Mortality Rates, 1999.*



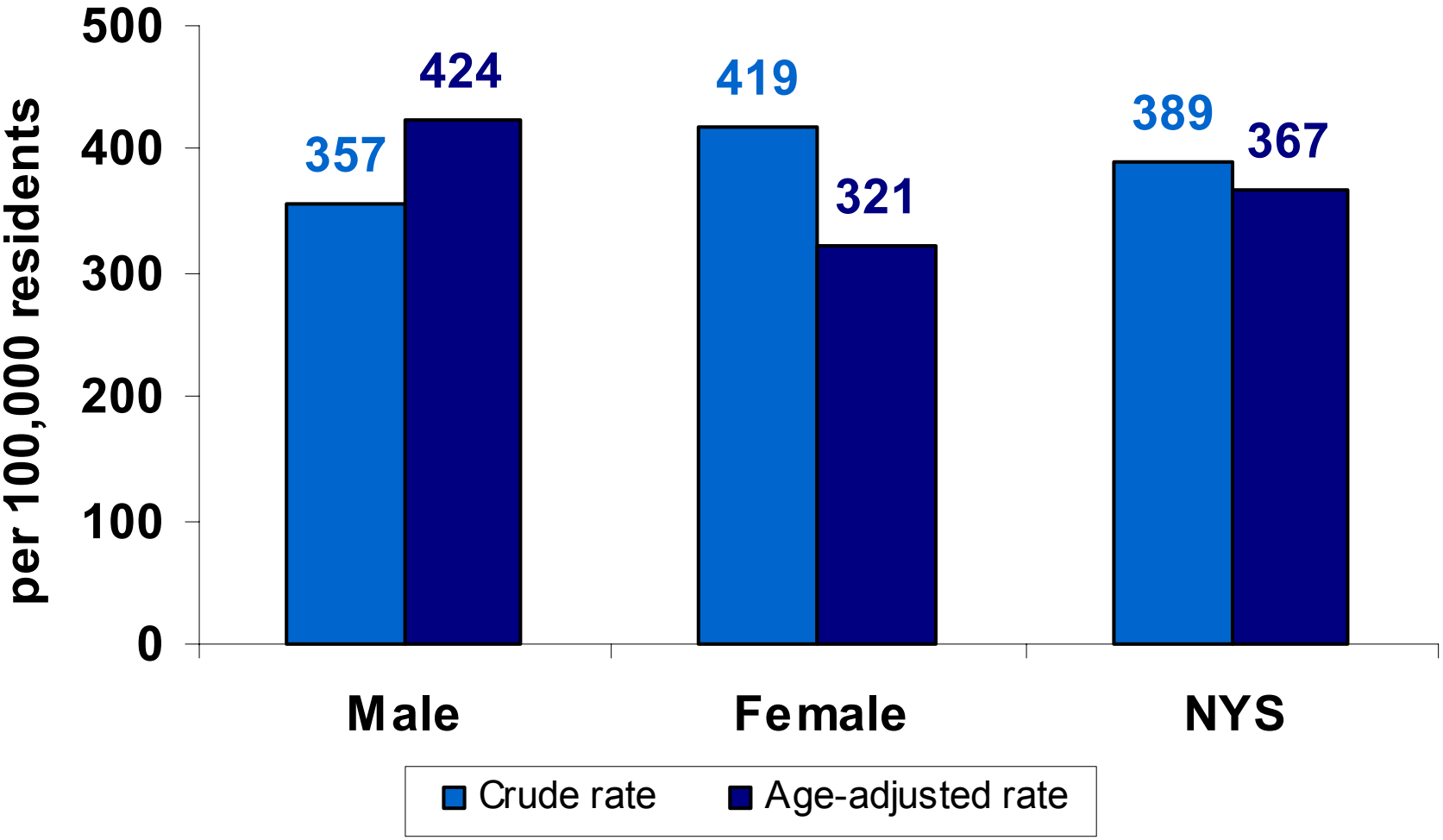
Notes: * Source: CDC Compressed Mortality File, 1999
† Standard population: US 2000.

Figure 10. Premature Cardiovascular Disease Death (in ages 35-74), Crude Mortality Rates by Race, 1999.*



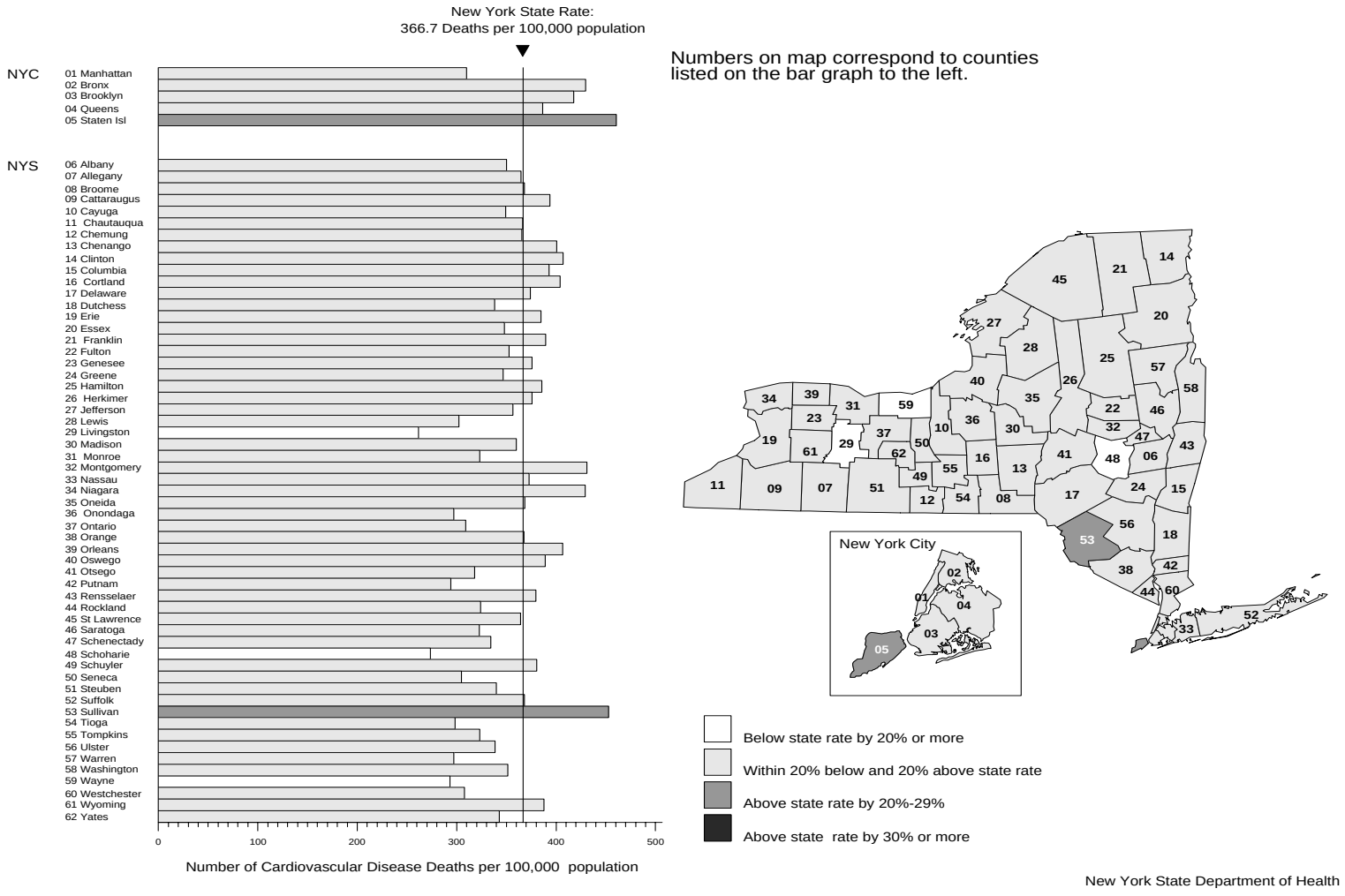
Notes: * Source: CDC Compressed Mortality File, 1999

Figure 11. Age-adjusted† Verses Crude Mortality Rates for Cardiovascular Disease, 1999.*



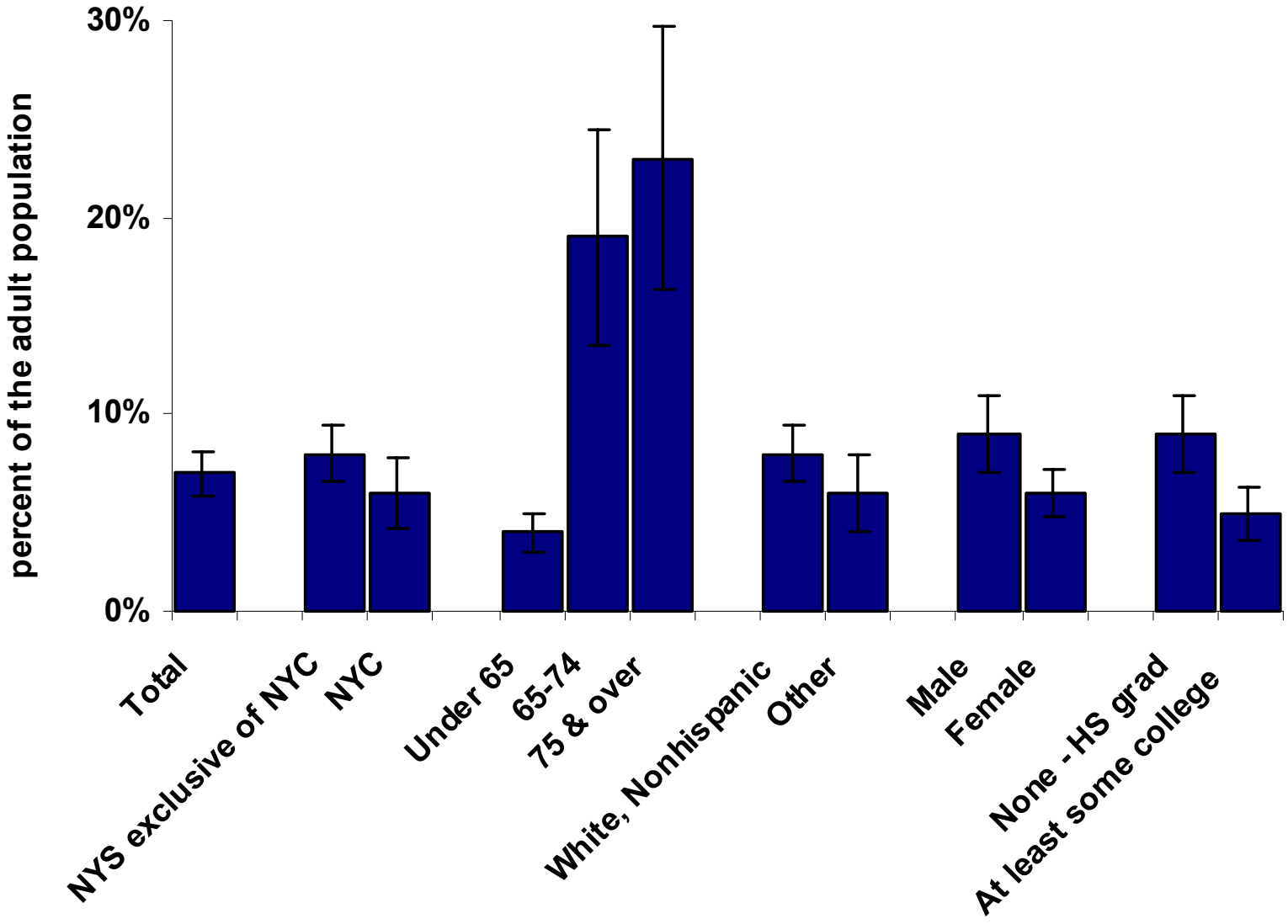
Notes: * Source: CDC Compressed Mortality File, 1999
† Standard population: US 2000.

Figure 12. Cardiovascular Disease Mortality† by County, 1999.*



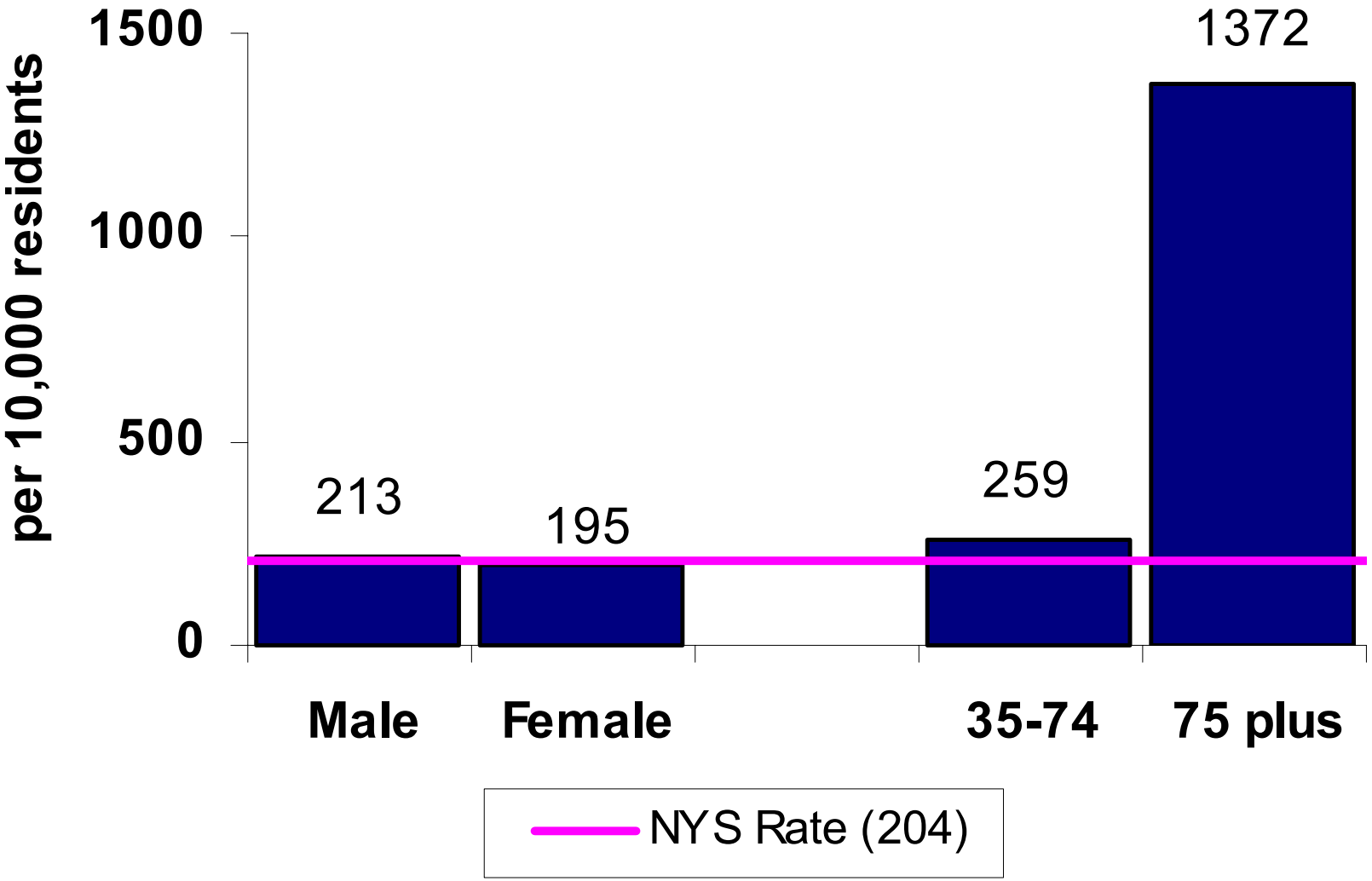
Notes: * Source: CDC Compressed Mortality File, 1999
† Standard population: US 2000.

Figure 13. Self-Reported Prevalence of Cardiovascular Disease† in New York State Adults, (Ages 18 & over): 1999.*



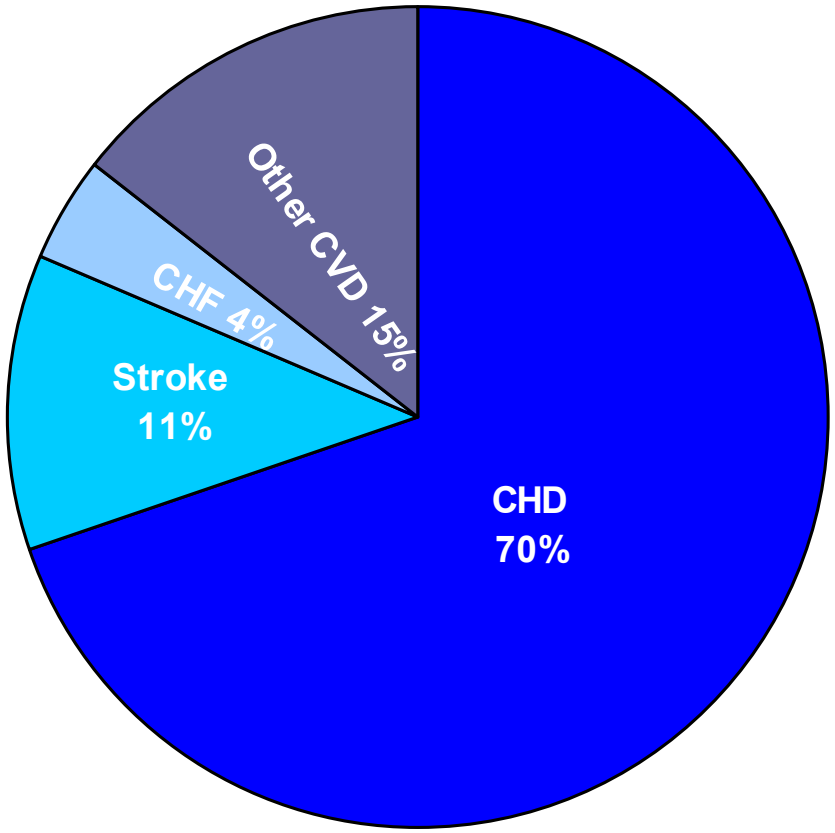
Notes: * Source: New York State BRFSS, 1999
† BRFSS questions only included myocardial infarction, angina, and stroke

Figure 14. Crude Cardiovascular Disease Hospitalization Rates, 2000.*



Notes: * Source: New York State Statewide Planning & Research Cooperative System: 2000

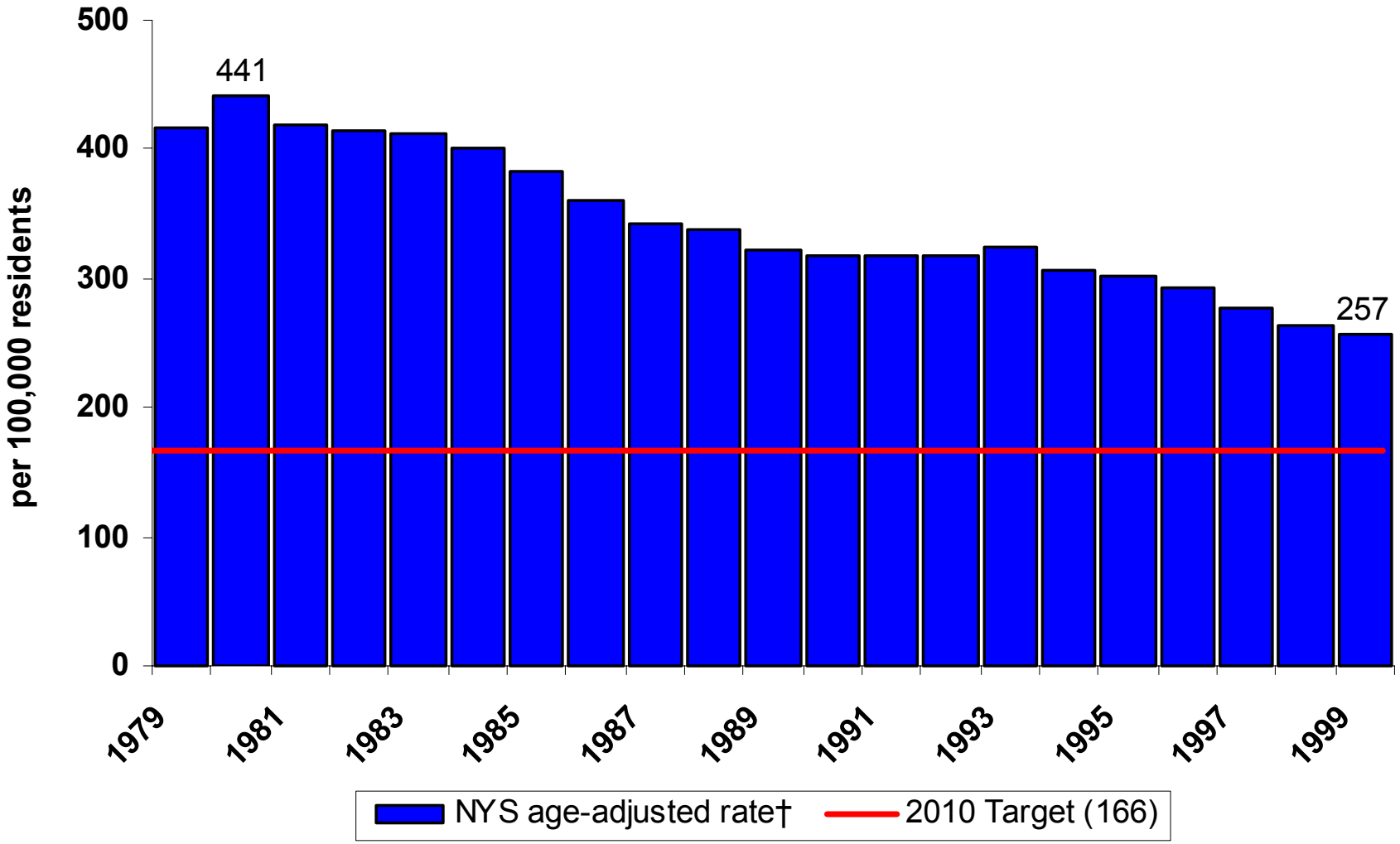
Figure 15. Deaths In NYS Due to Cardiovascular Disease, 1999.*



CHD=Coronary Heart Disease
CHF=Congestive Heart Failure
CVD=Cardiovascular Disease

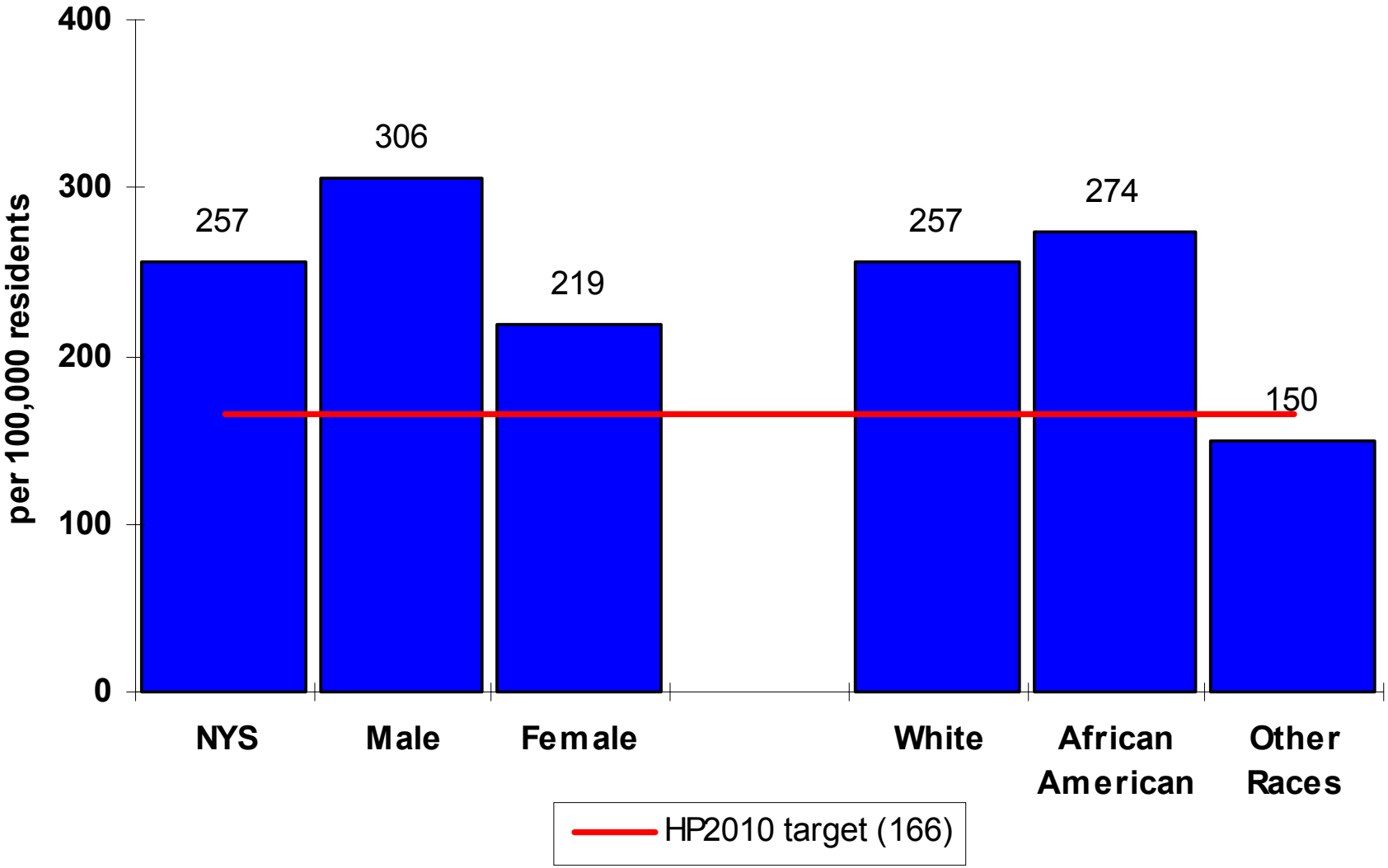
Notes: * Source: NYS Vital Statistics, 1999

Figure 16. Trends in Coronary Heart Disease Mortality, 1979-1999.*



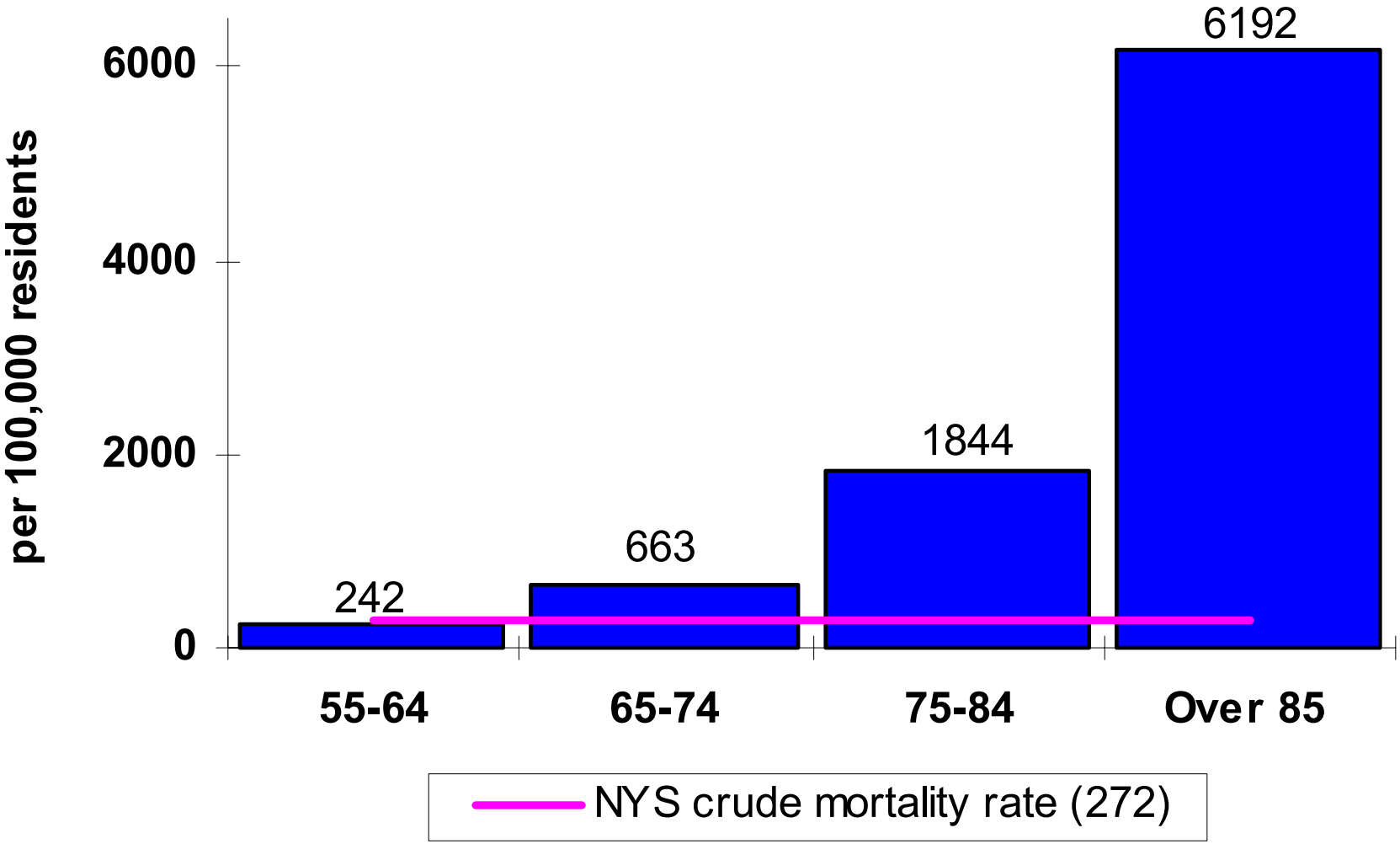
Notes: * Source: CDC Compressed Mortality File, 1979-1999
† Standard population: US 2000.

Figure 17. Coronary Heart Disease Age-adjusted Mortality Rates[†], 1999.*



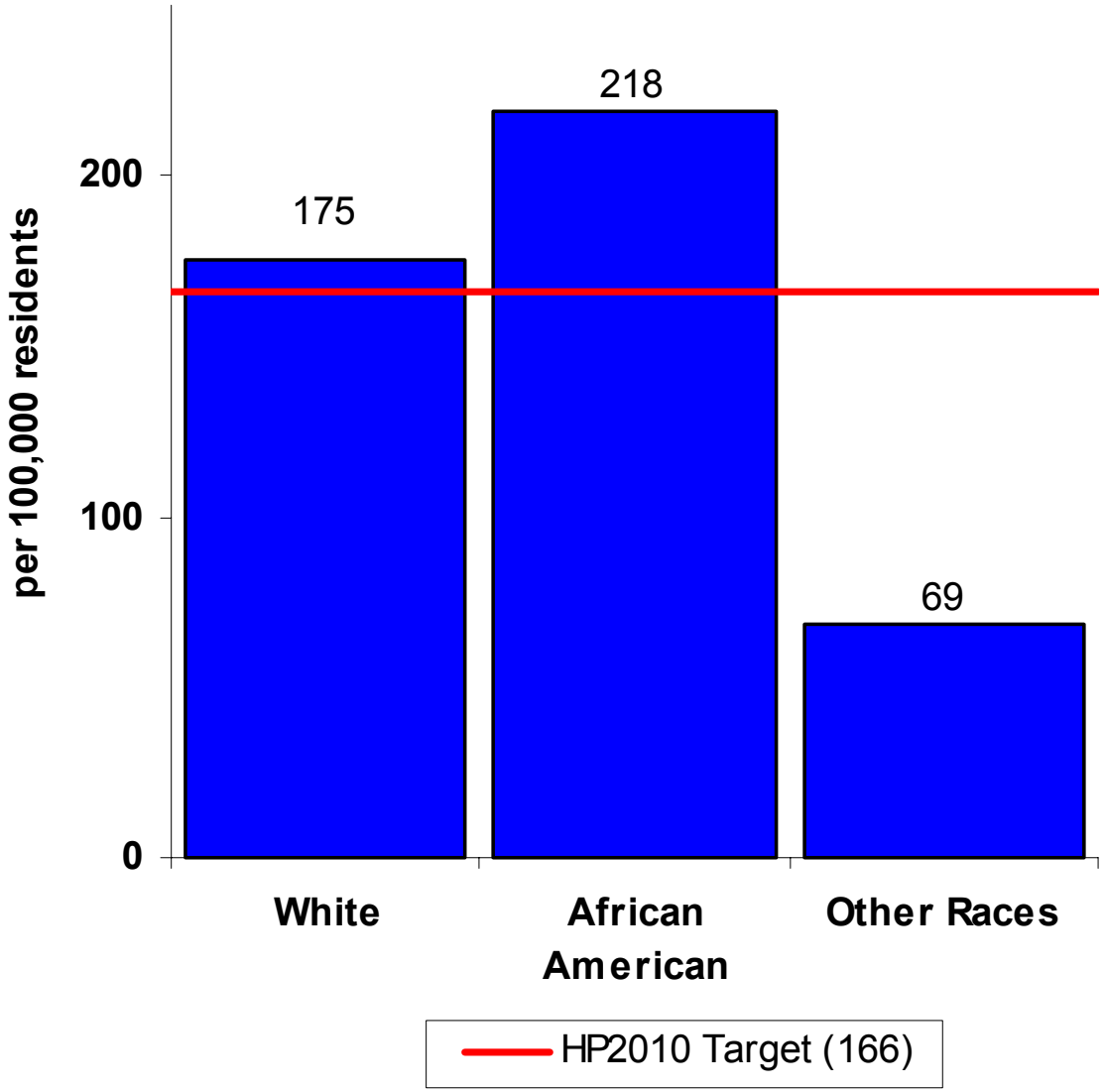
Notes: * Source: CDC Compressed Mortality File, 1999
† Standard population: US 2000.

Figure 18. Coronary Heart Disease Mortality by Age, 1999.*



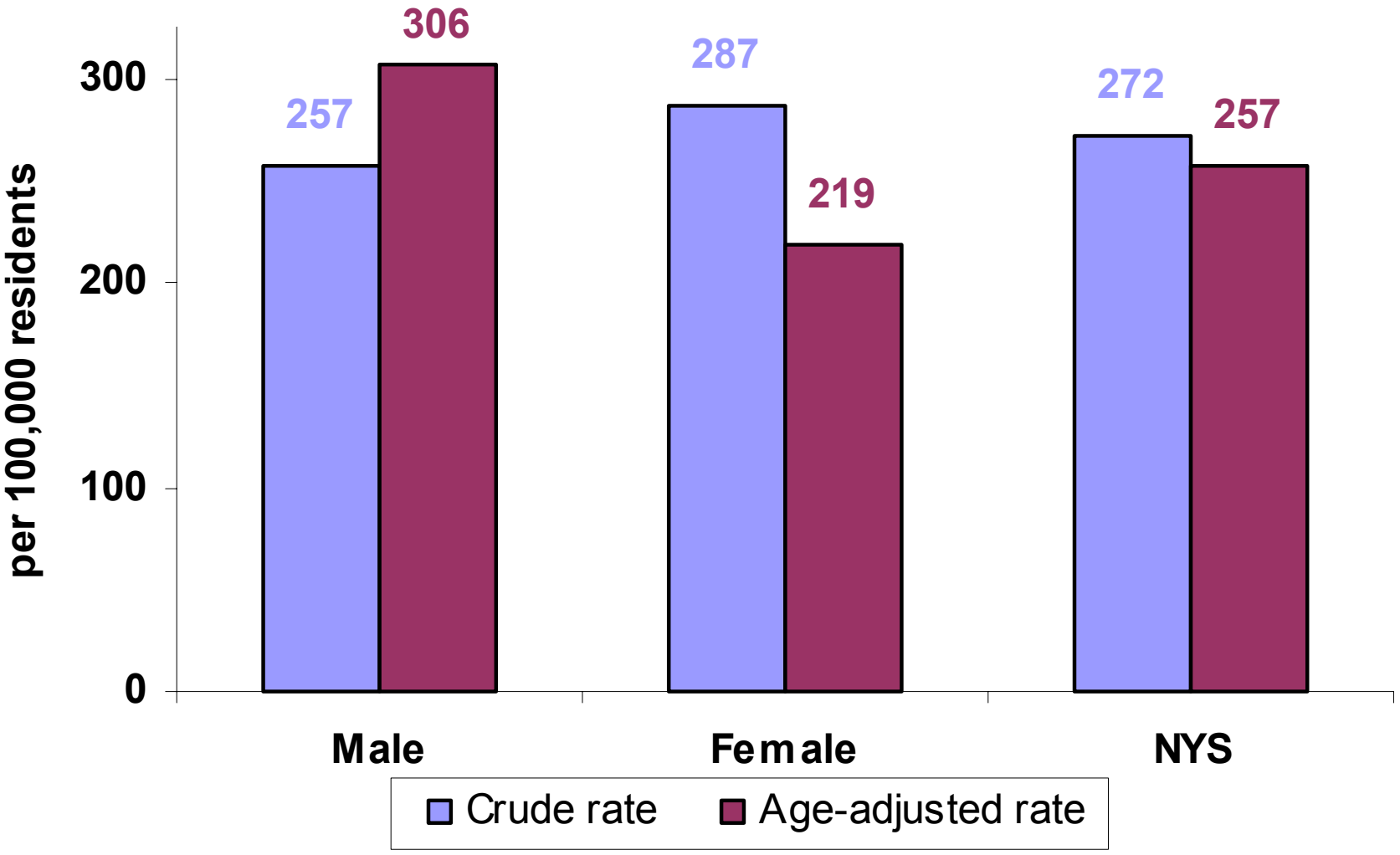
Notes: * Source: CDC Compressed Mortality File, 1999

Figure 19. Premature Coronary Heart Disease Crude Mortality Rates (ages 35-74) by Race, 1999.*



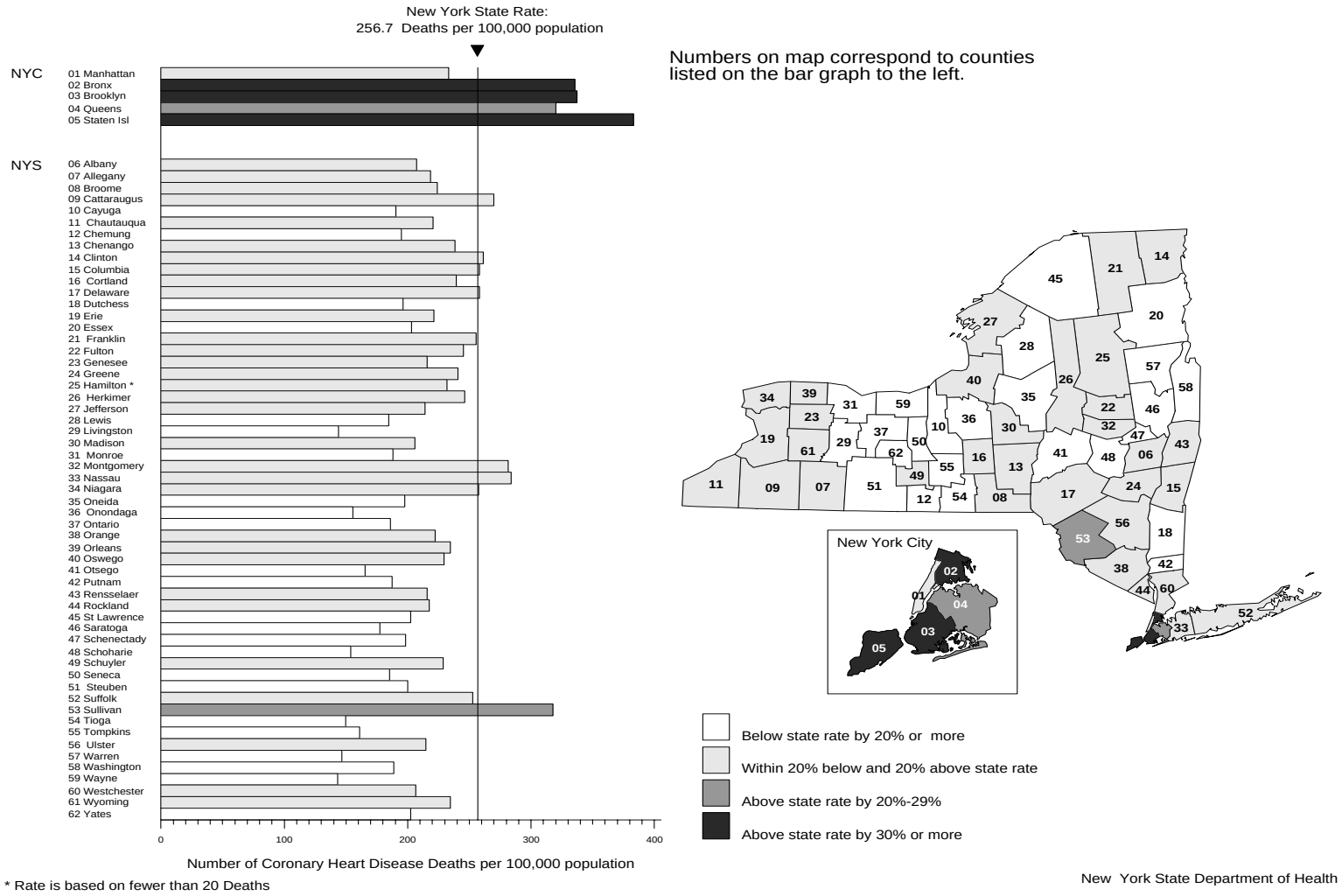
Notes: * Source: CDC Compressed Mortality File, 1999

Figure 20. Age-adjusted† verses Crude Mortality Rates for Coronary Heart Disease, 1999.*



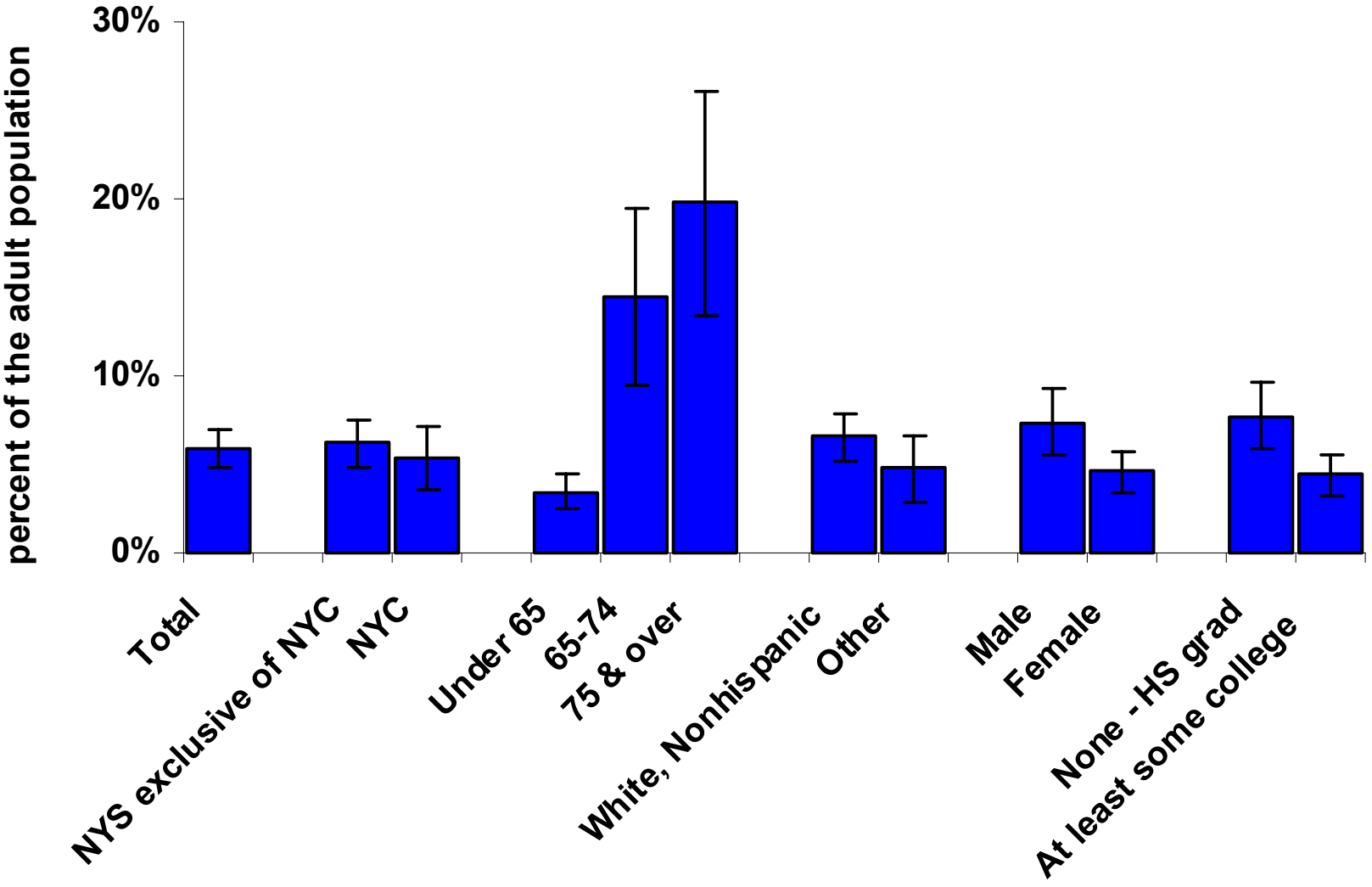
Notes: * Source: CDC Compressed Mortality File, 1999
† Standard population: US 2000

Figure 21. Coronary Heart Disease Mortality by County†, 1999.*



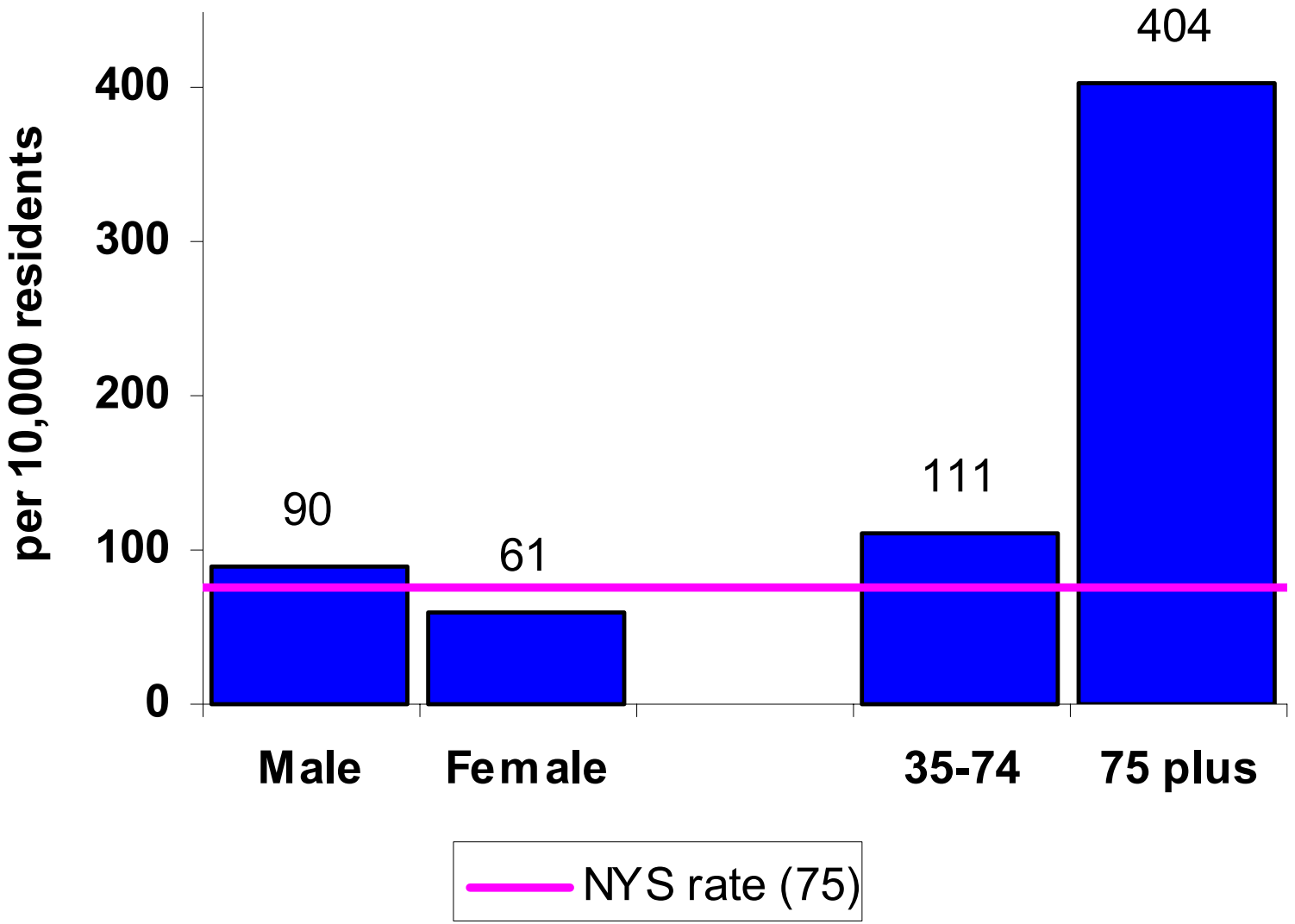
Notes: * Source: CDC Compressed Mortality File, 1999
† Standard population: US 2000.

Figure 22. Self-Reported Prevalence of Heart Attack and/or Angina (Ischemic Heart Disease), New York State Adults, (Ages 18 & over): 1999.*



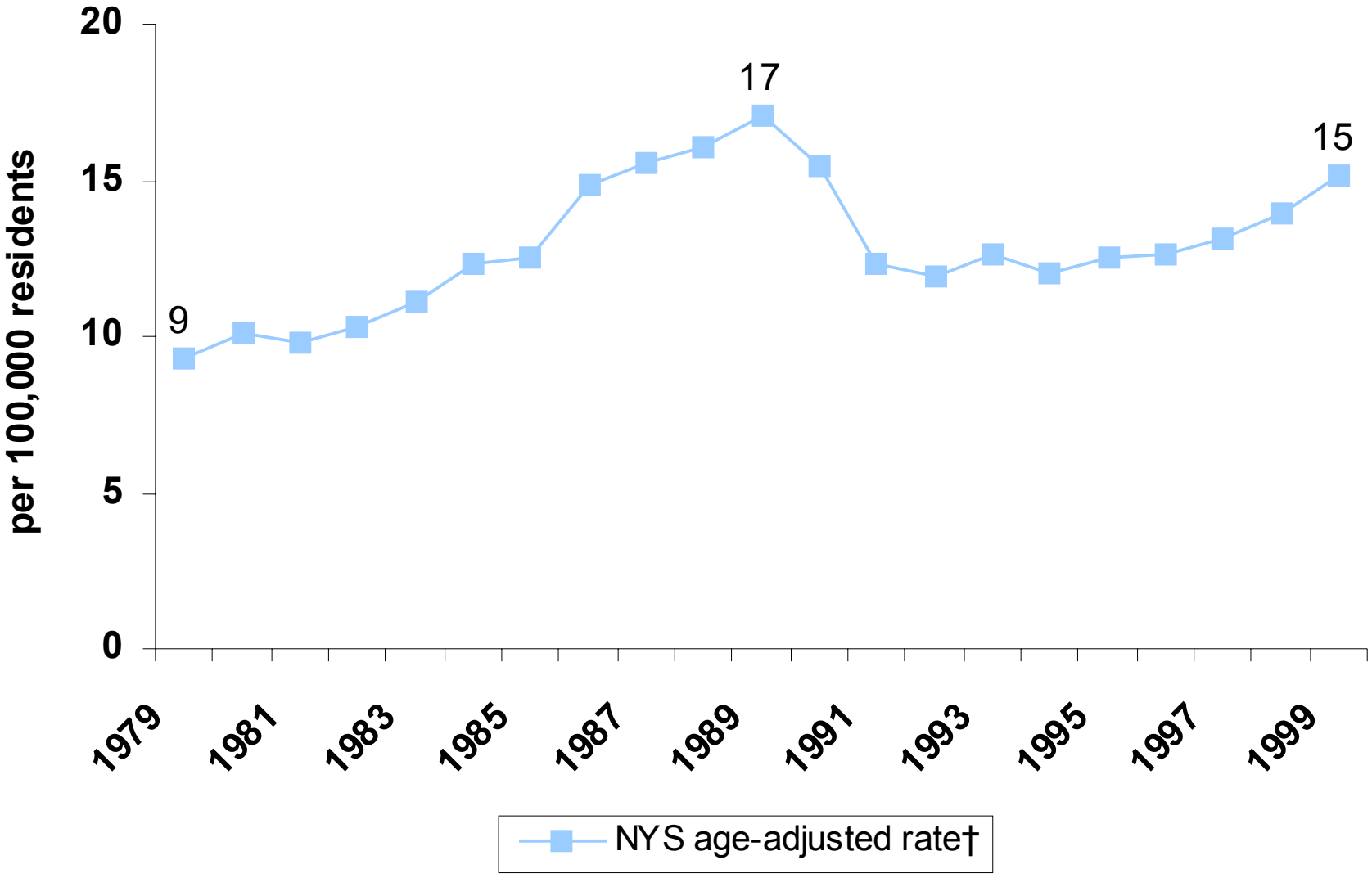
Notes: * Source: New York State BRFSS, 1999

Figure 23. Coronary Heart Disease Crude Hospitalization Rates, 2000.*



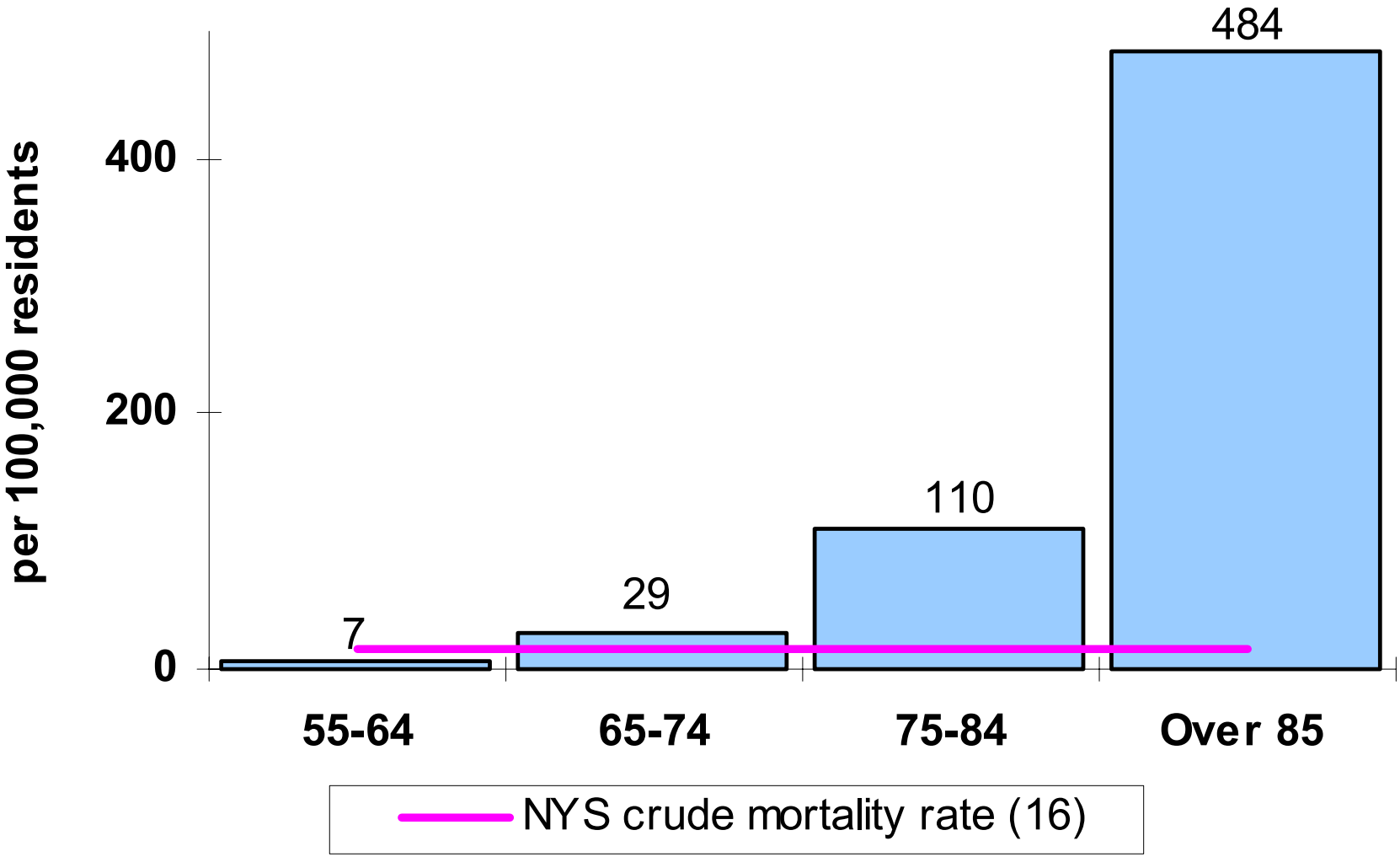
Notes: * Source: New York State Statewide Planning & Research Cooperative System: 2000

Figure 24. Trends in Congestive Heart Failure Mortality, 1979-1999.*



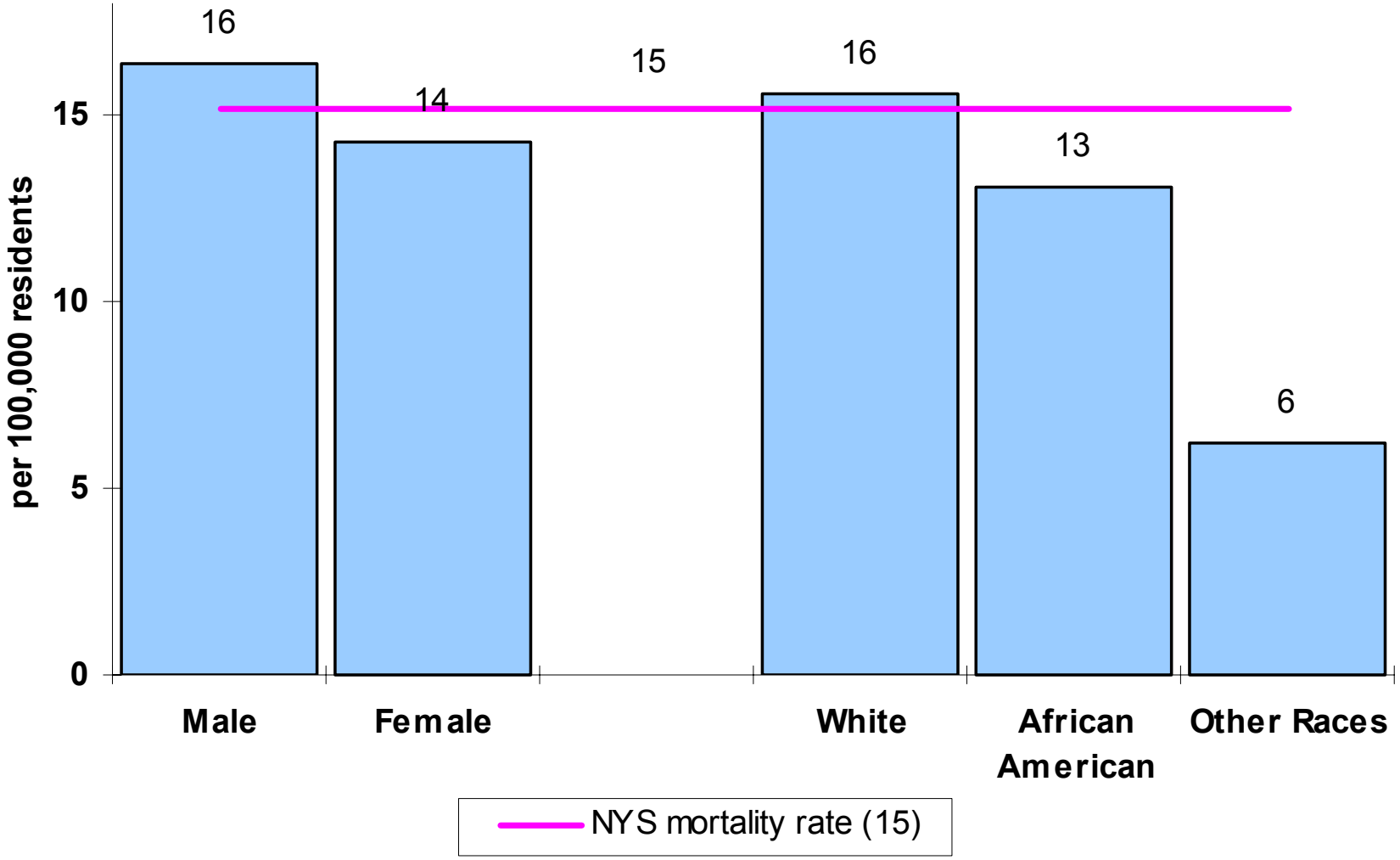
Notes: * Source: CDC Compressed Mortality File, 1979-1999
† Standard population: US 2000.

Figure 25. Congestive Heart Failure Mortality by Age, 1999.*



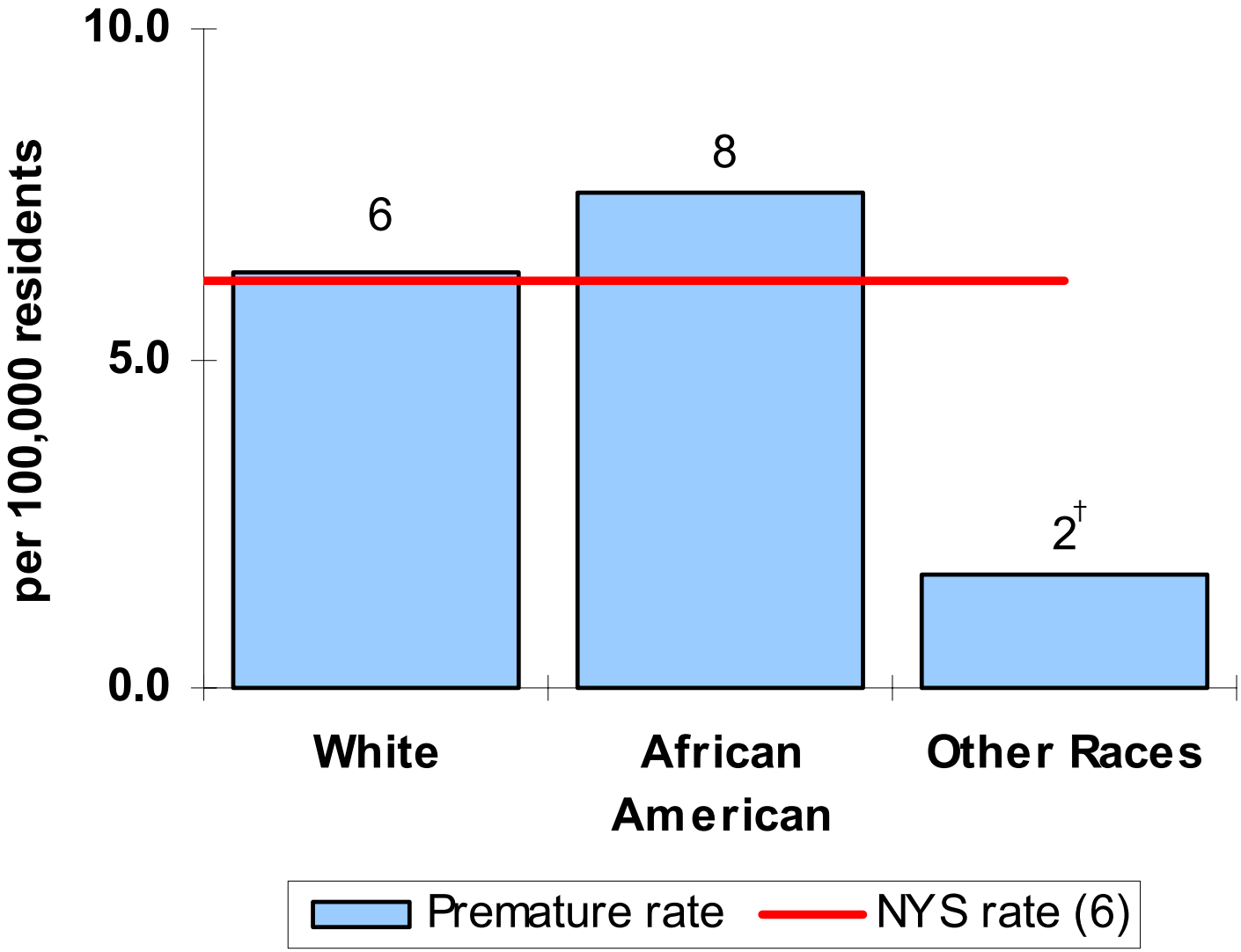
Notes: * Source: CDC Compressed Mortality File, 1999

Figure 26. Age-adjusted Mortality Rates† for Congestive Heart Failure, 1999.*



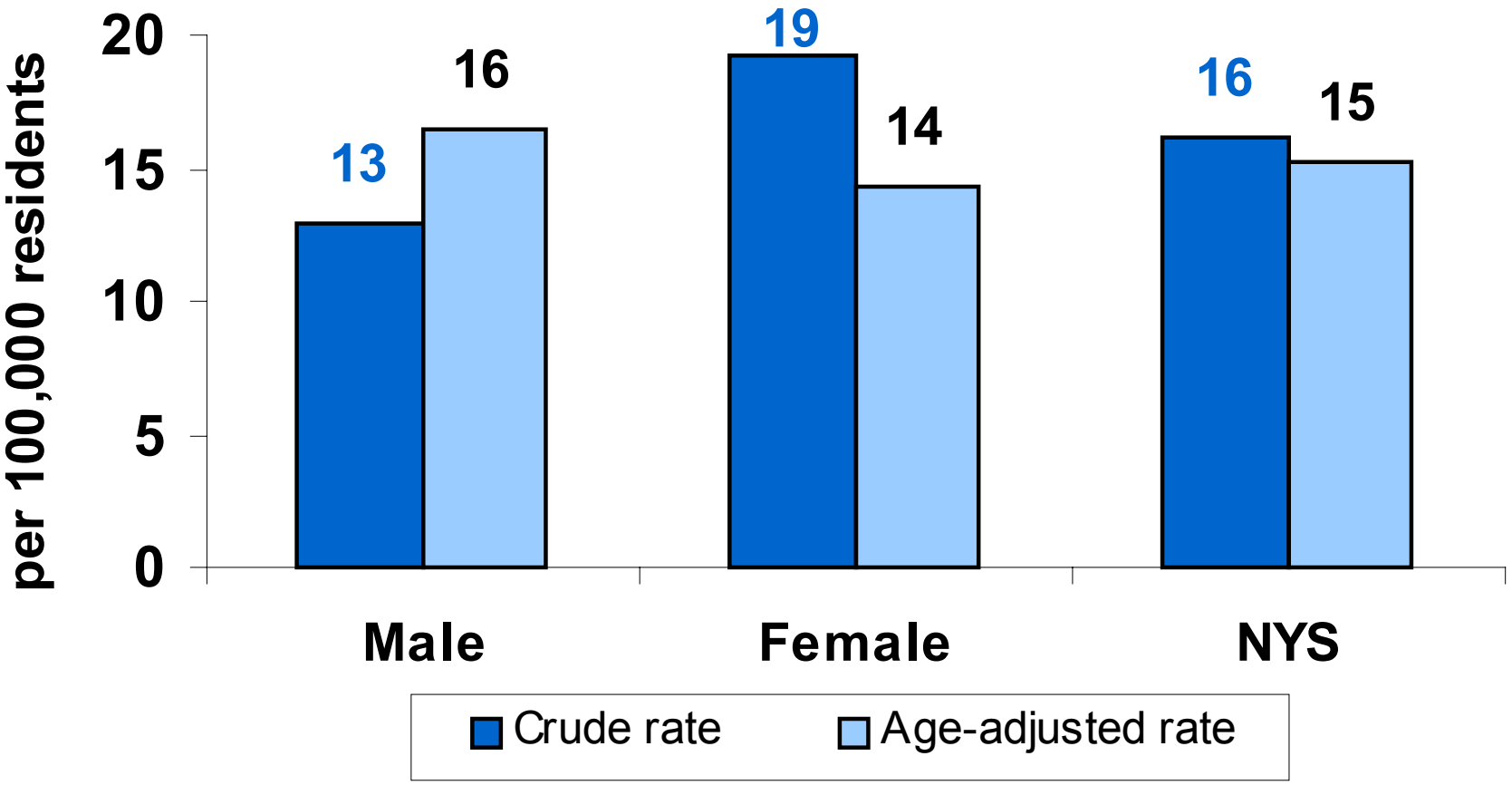
Notes: * Source: CDC Compressed Mortality File, 1999
† Standard population: US 2000.

Figure 27. Premature Death (ages 35 to 74) Due to Congestive Heart Failure, Crude Mortality Rates by Race, 1999.*



Notes: * Source: CDC Compressed Mortality File, 1999
† Rate is based on a count of less than 10, so it is unreliable.

Figure 28. Age-adjusted† verses Crude Mortality Rates for Congestive Heart Failure, 1999.*

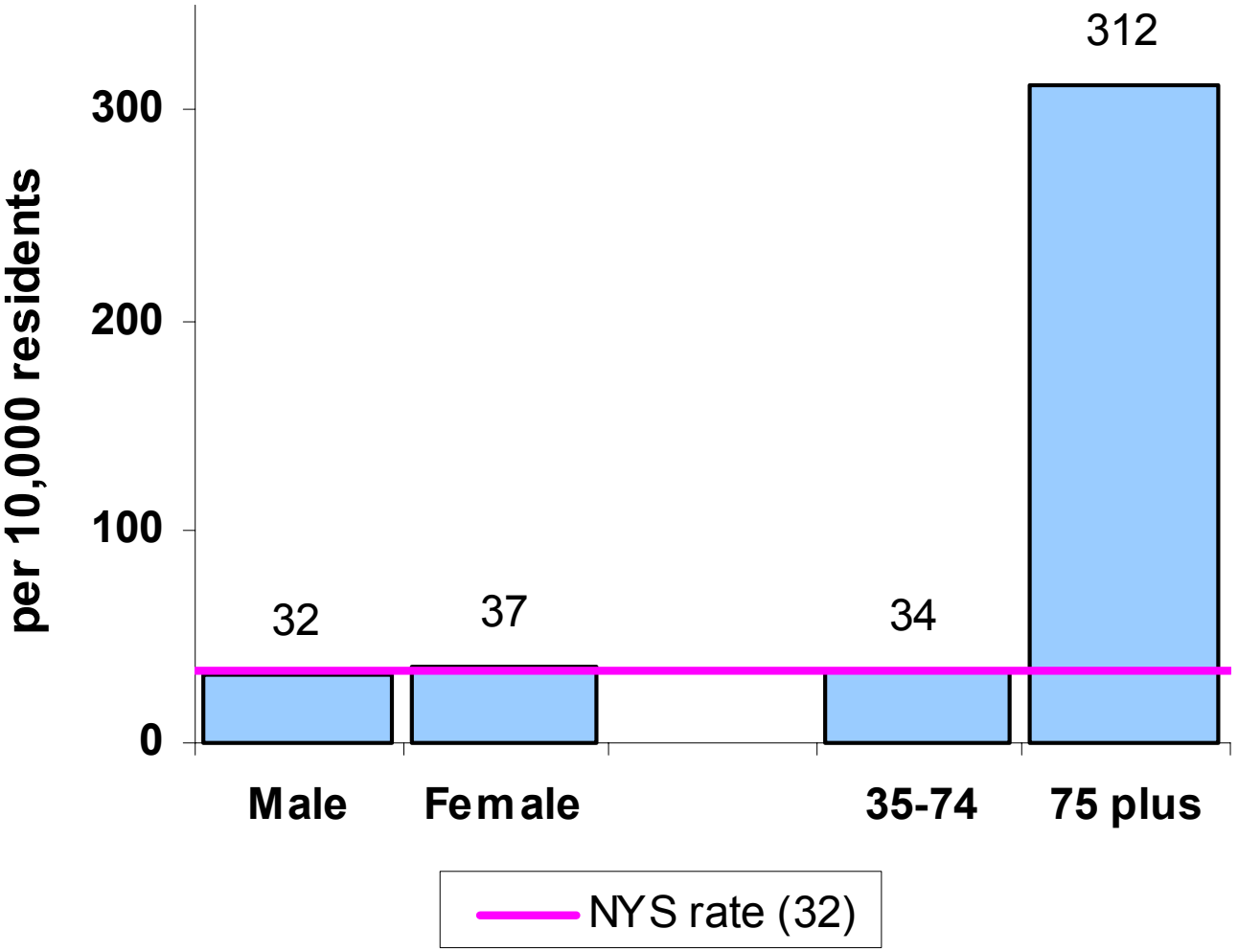


Notes: * Source: CDC Compressed Mortality File, 1999
† Standard population: US 2000.

Figure 29. Congestive Heart Failure Mortality† by County, 1999.*

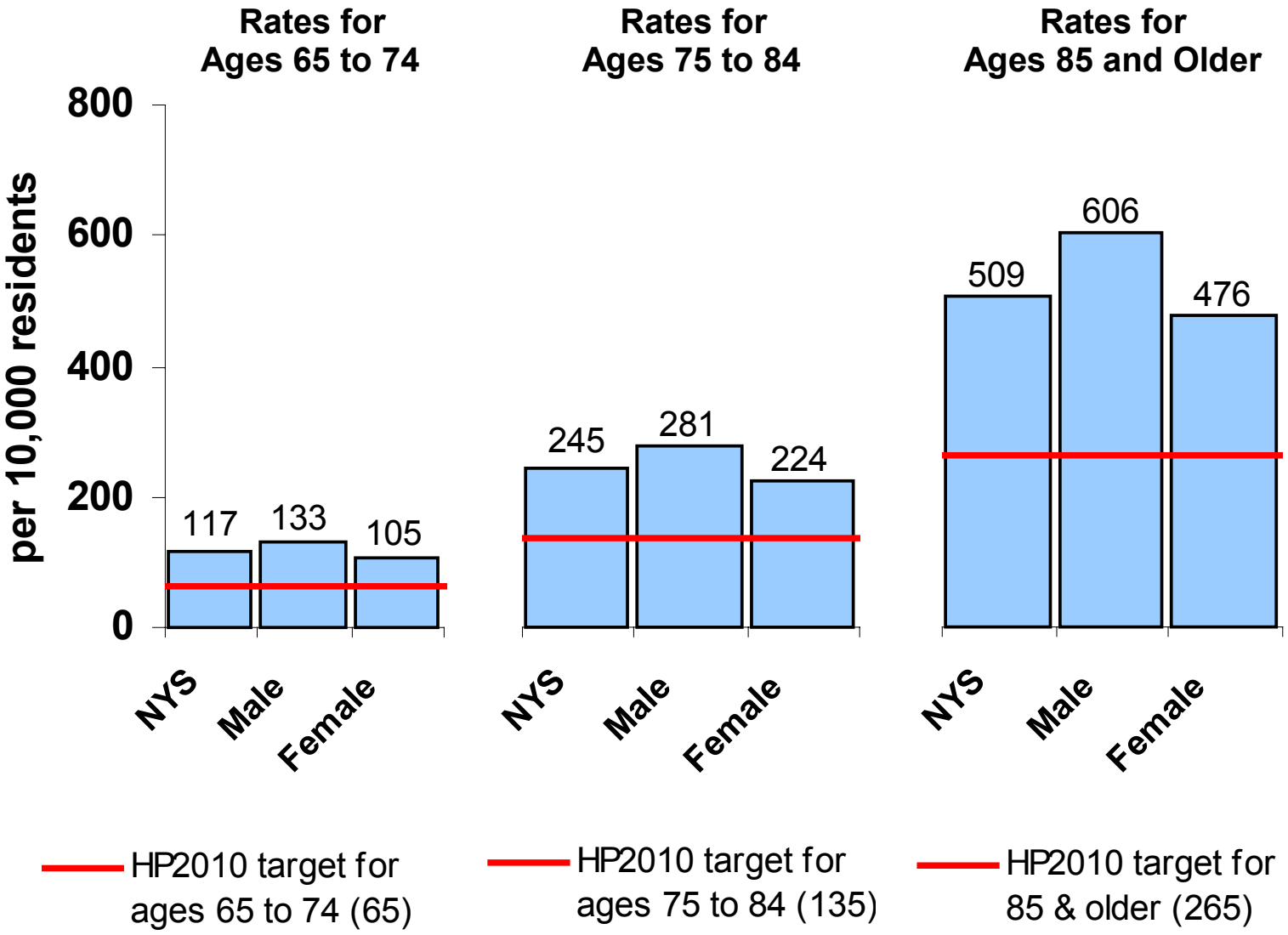
Notes: * Source: CDC Compressed Mortality File, 1999
† Standard population: US 2000.

Figure 30. Crude Congestive Heart Failure Hospitalization Rates, 2000.*



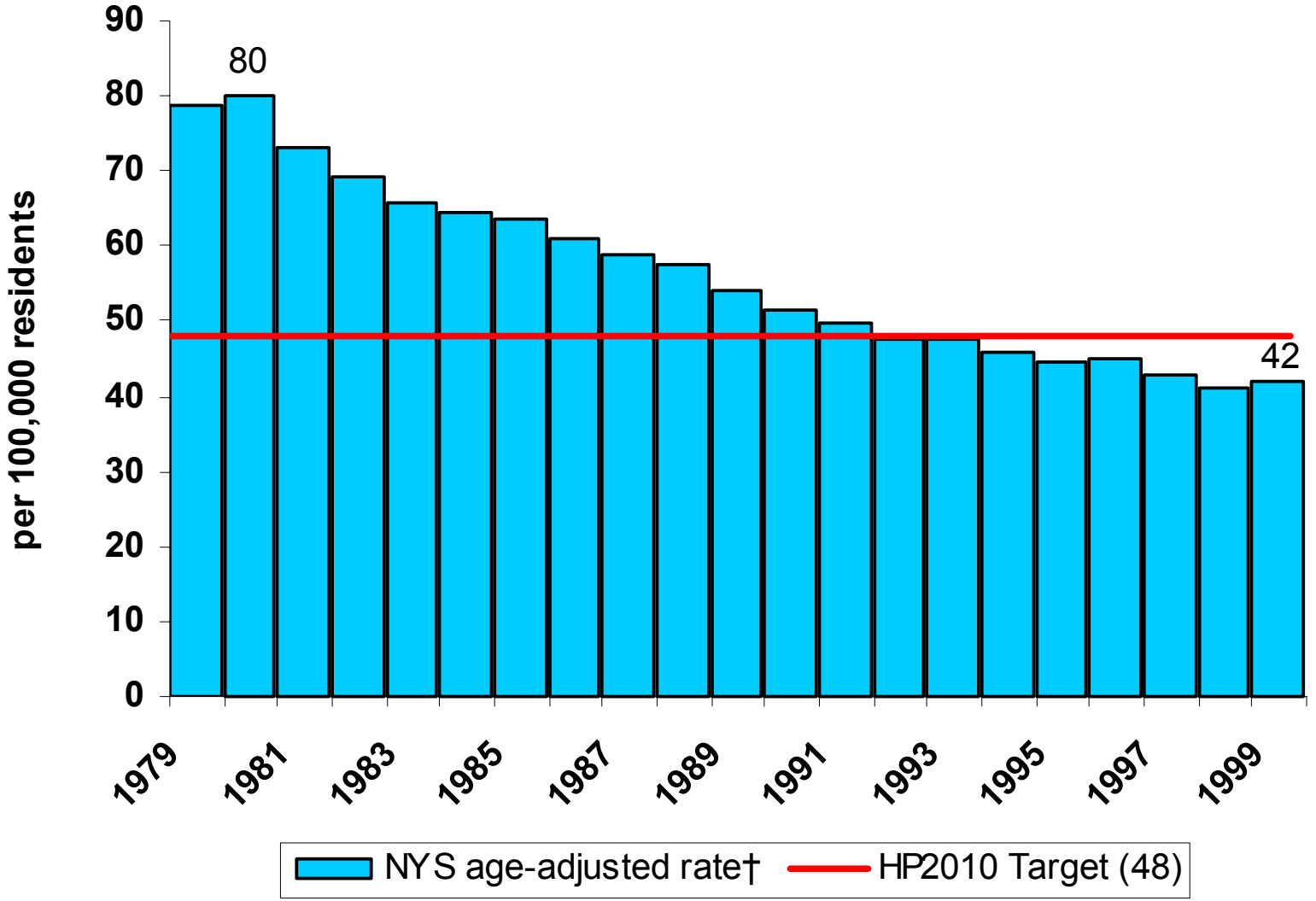
Notes: * Source: New York State Statewide Planning & Research Cooperative System: 2000

Figure 31. Crude Congestive Heart Failure Hospitalization Rates by Age and Gender, 2000.*



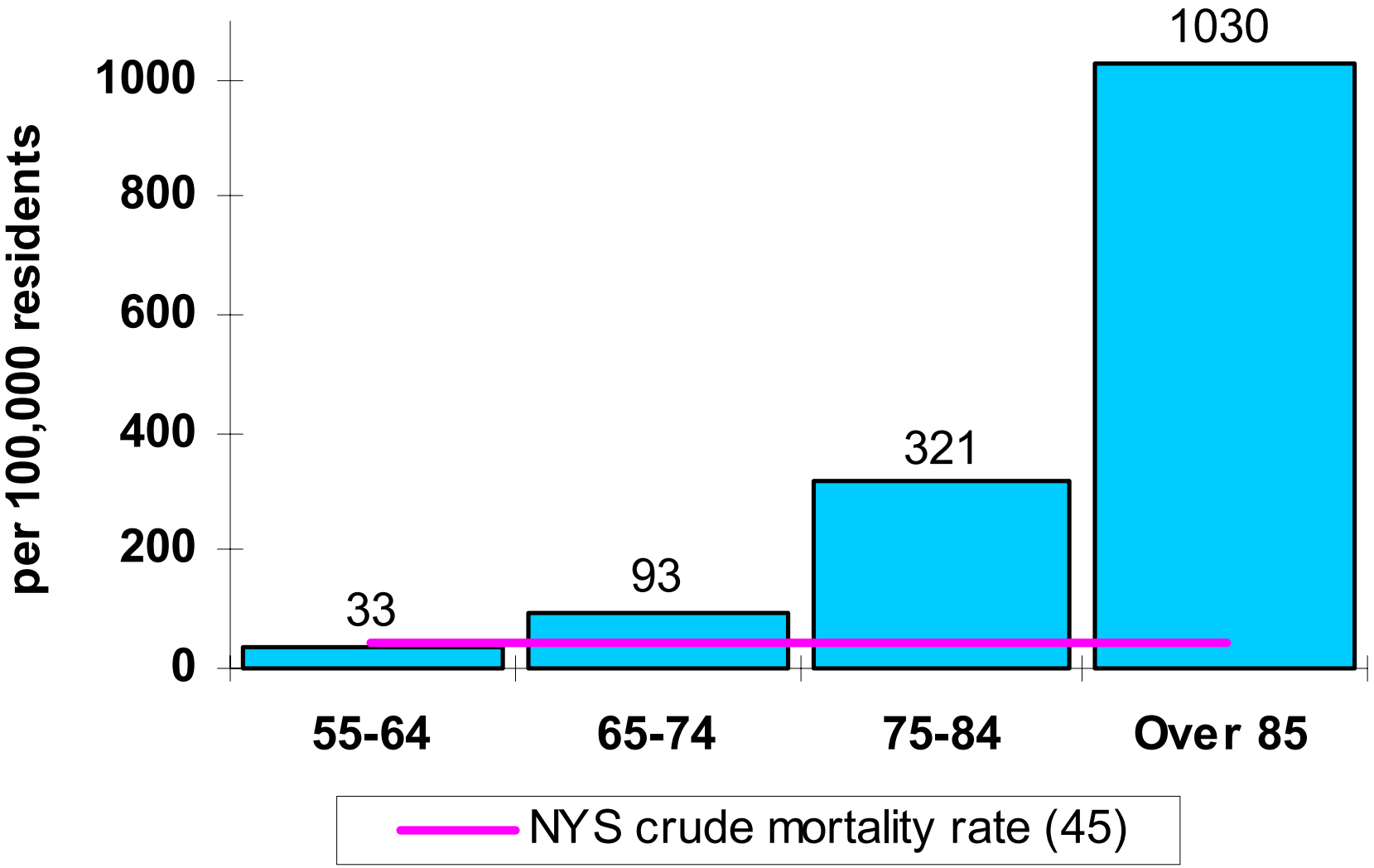
Notes: * Source: New York State Statewide Planning & Research Cooperative System: 2000

Figure 32. Trends in Stroke Mortality, 1979-1999.*



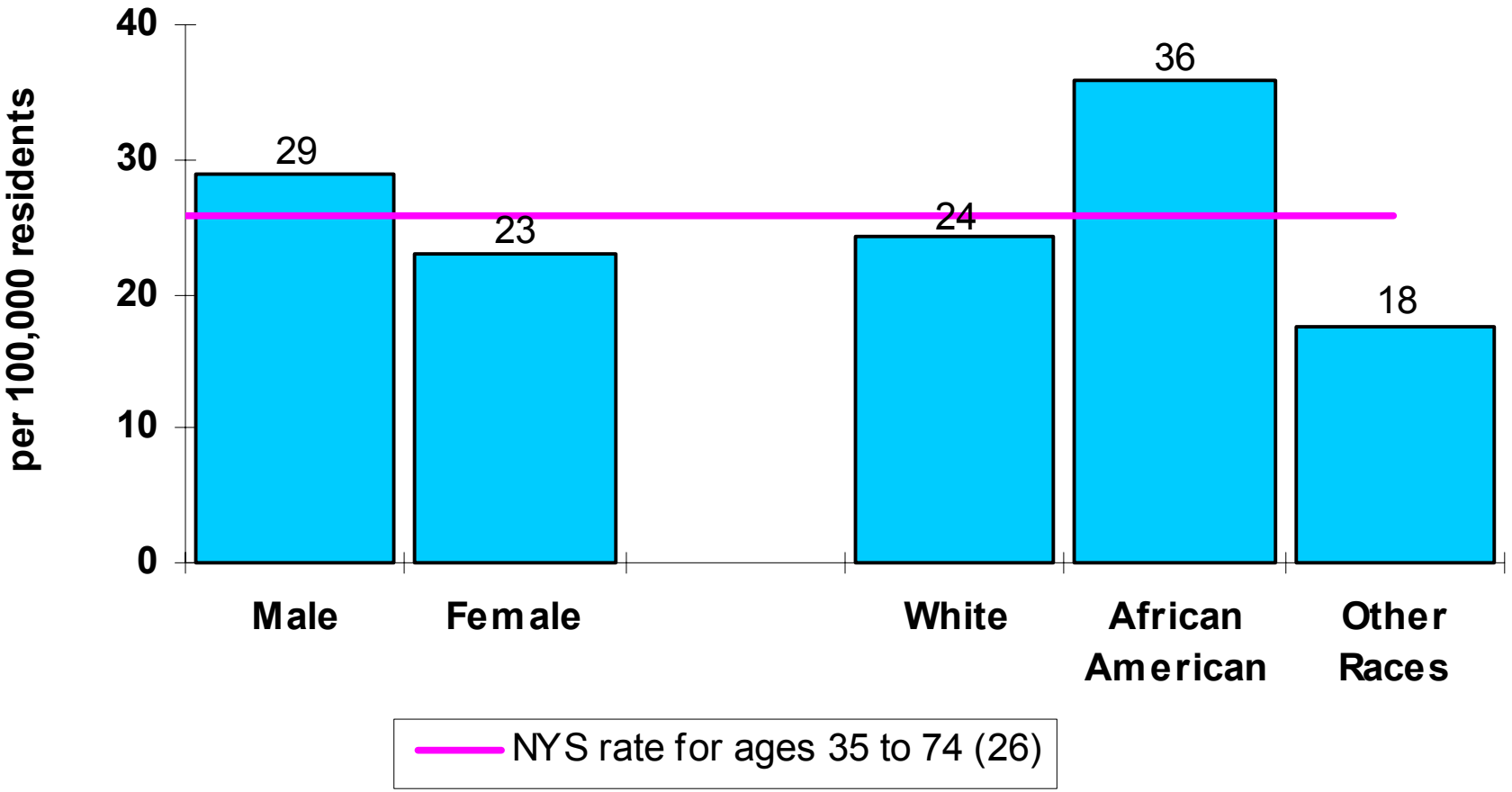
Notes: * Source: CDC Compressed Mortality File, 1979-1999
† Standard population: US 2000.

Figure 33. Stroke Mortality by Age, 1999.*



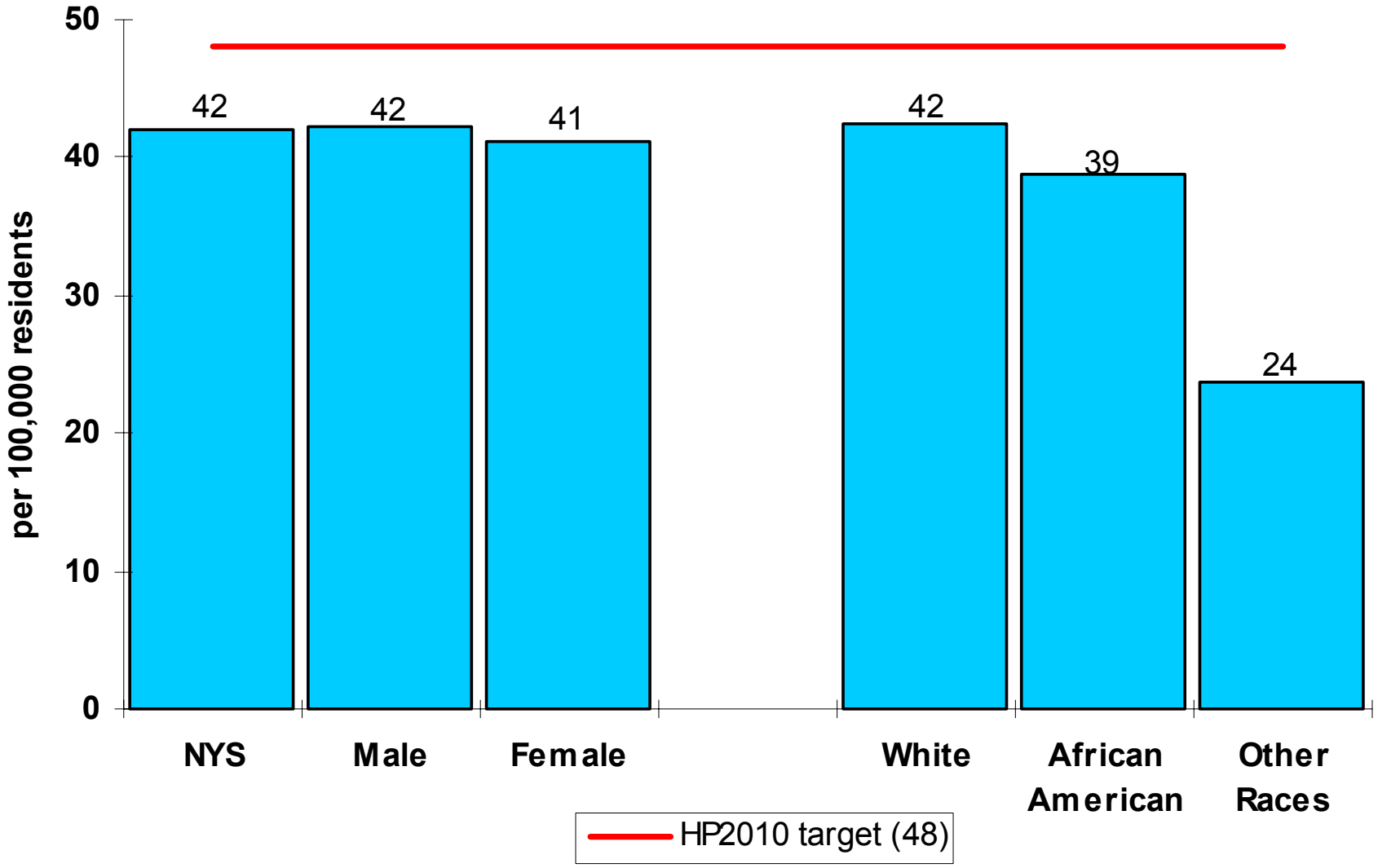
Notes: * Source: CDC Compressed Mortality File, 1999

Figure 34. Premature Death (ages 35-74) Due to Stroke, Crude Mortality Rates by Race, 1999.*



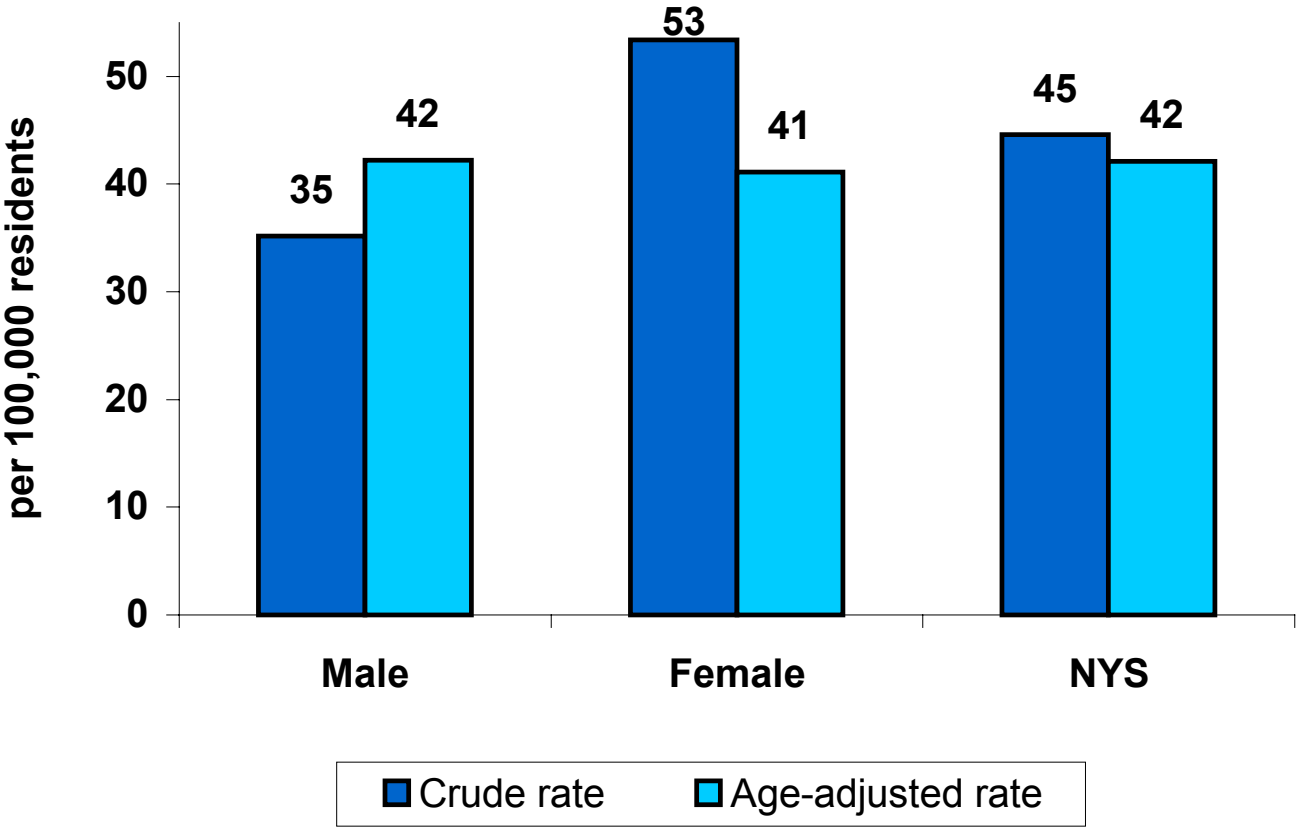
Notes: * Source: CDC Compressed Mortality File, 1999

Figure 35. Stroke Mortality Rates†, 1999.*



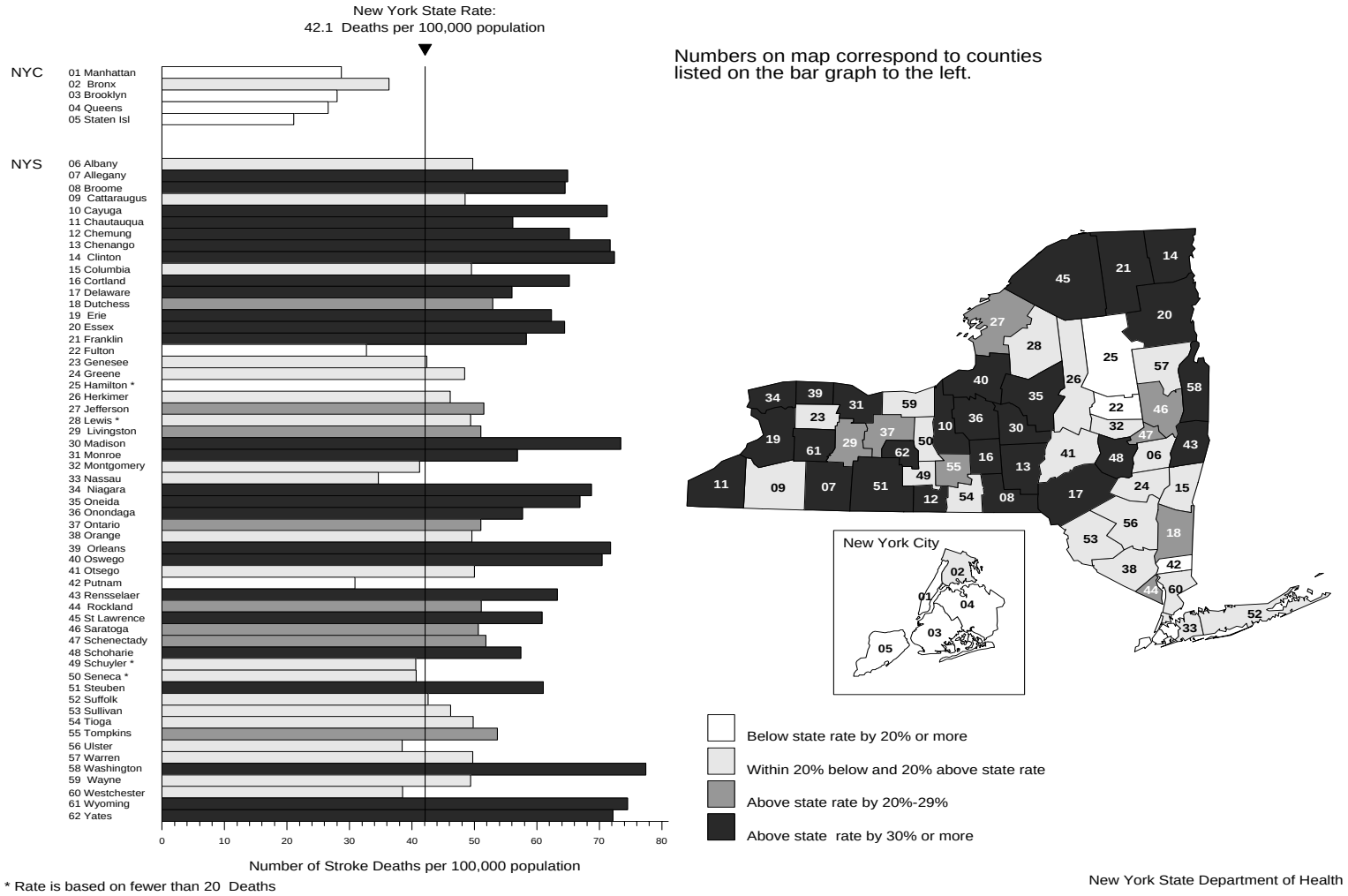
Notes: * Source: CDC Compressed Mortality File, 1999
† Standard population: US 2000.

Figure 36. Age-adjusted† Verses Crude Mortality Rates for Stroke, 1999.*



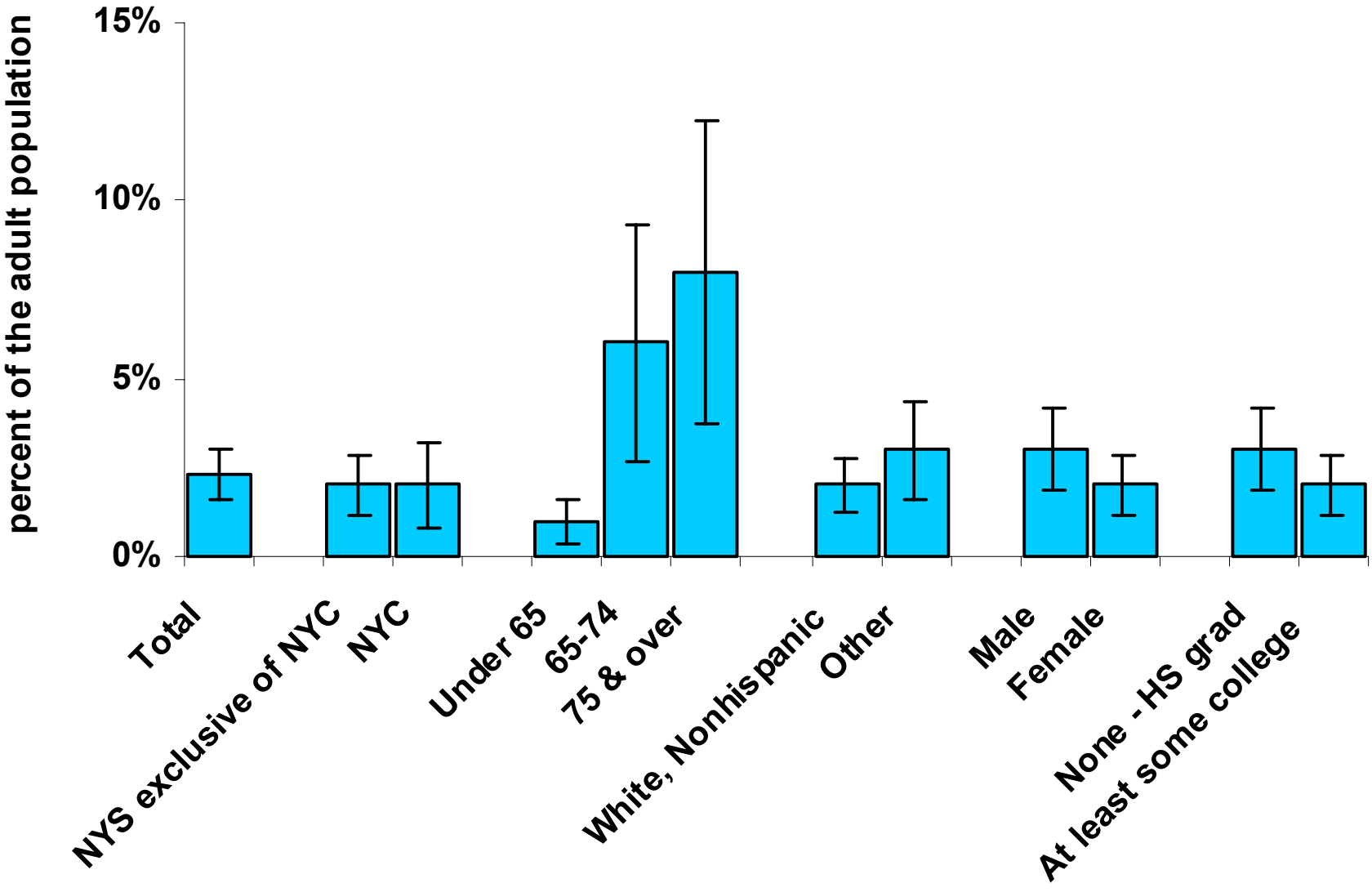
Notes: * Source: CDC Compressed Mortality File, 1999
† Standard population for age-adjusting: US 2000.

Figure 37.Stroke Mortality† by County, 1999.*



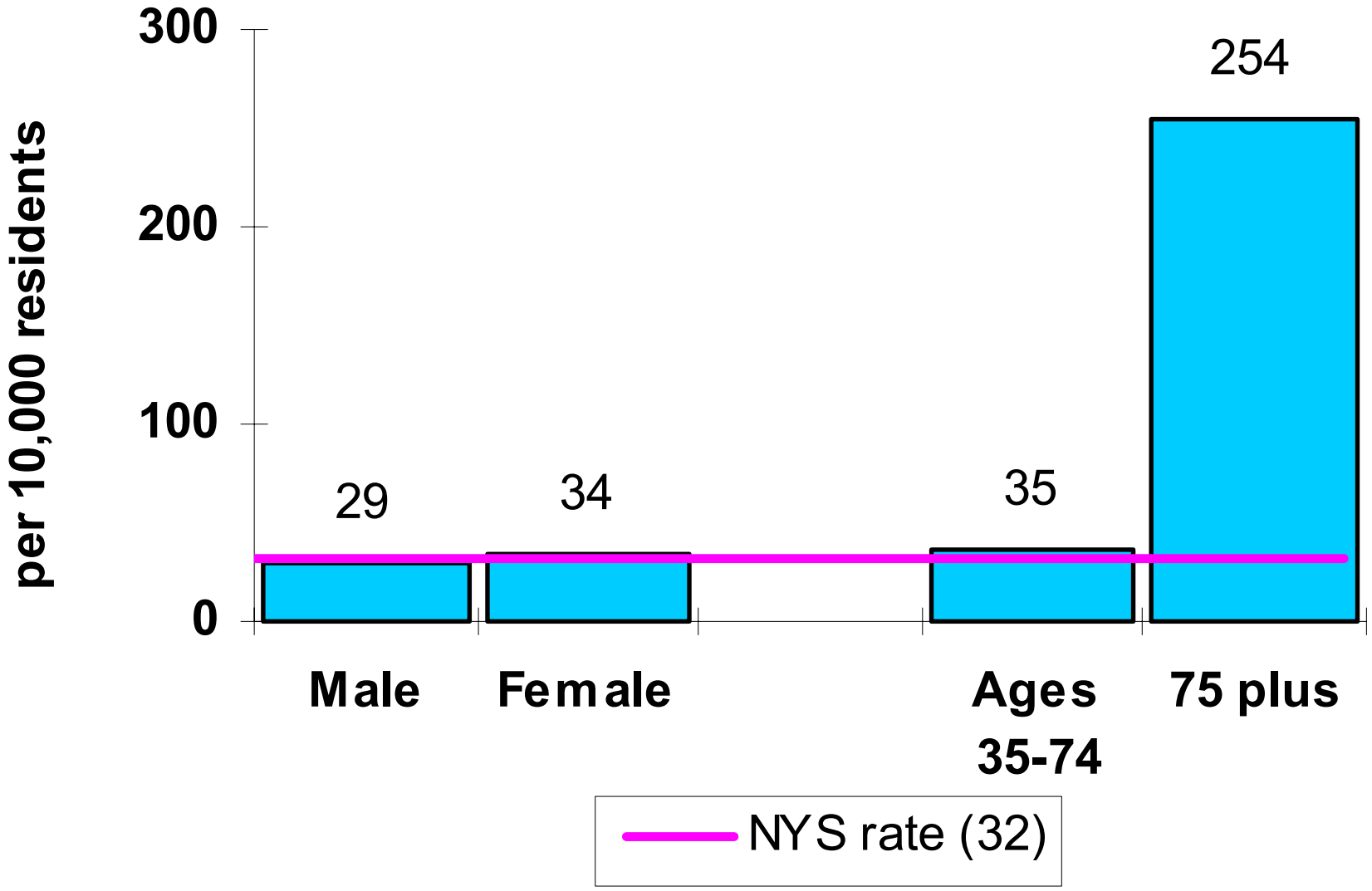
Notes: * Source: CDC Compressed Mortality File, 1999
† Standard population for age-adjusting: US 2000.

Figure 38. Self-Reported Prevalence of Stroke, New York State Adults, (Ages 18 & over): 1999.*



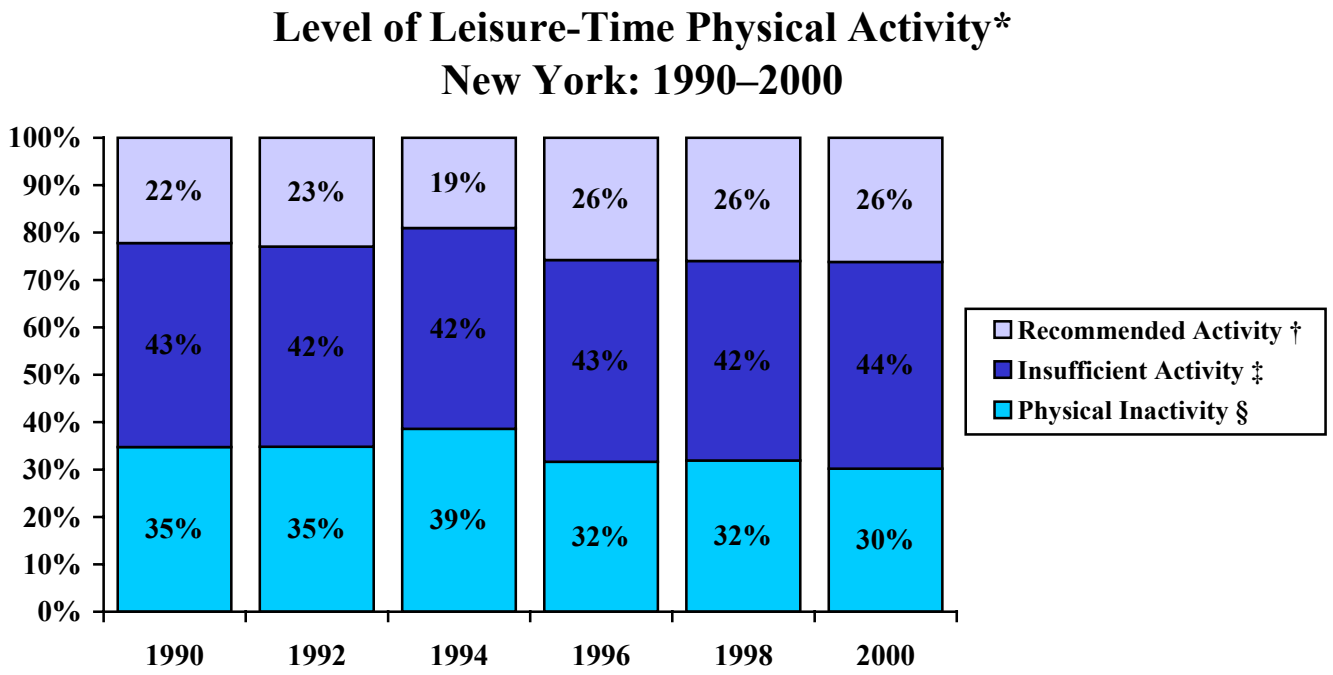
Notes: * Source: New York State BRFSS, 1999

Figure 39. Crude Stroke Hospitalization Rates, 2000.*



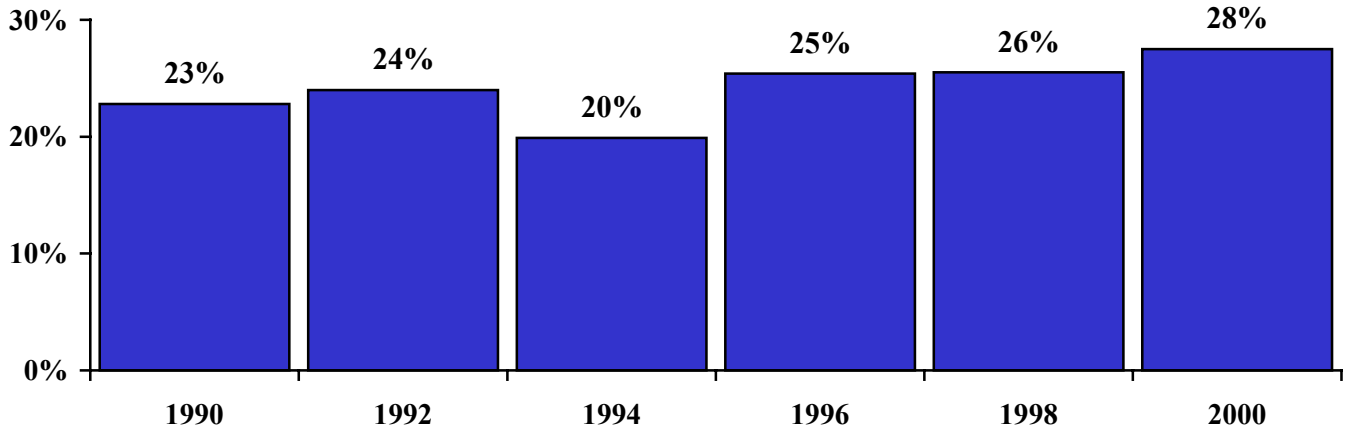
Notes: * Source: New York State Statewide Planning & Research Cooperative System: 2000

Figure 40. Leisure-Time Physical Activity, New York State Adults (Ages 18 & over): 1990-2000.*



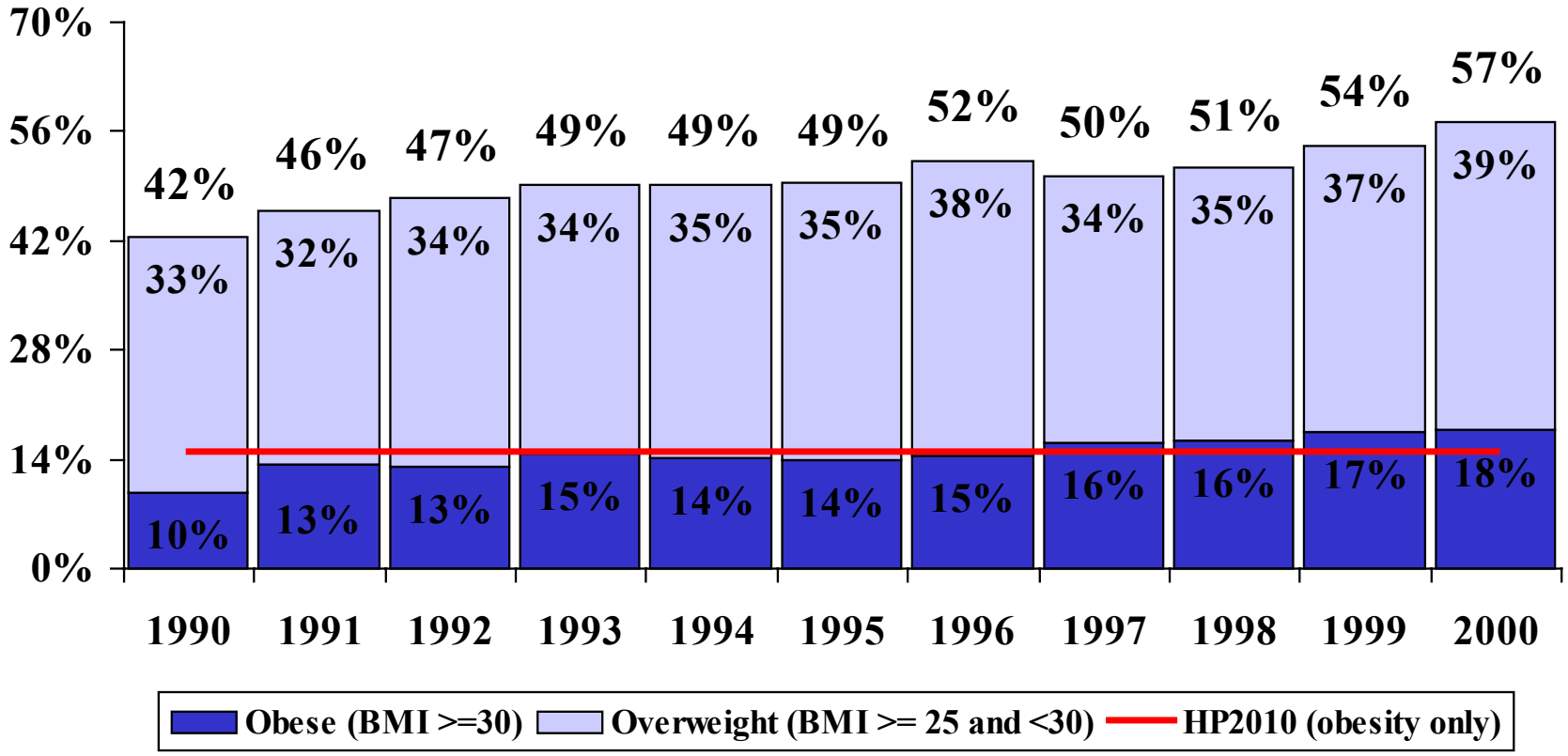
Notes: * Source: New York State BRFSS, 1990-2000
† Meeting the moderate and/or vigorous criteria:
Moderate- ≥5 times per week for ≥30 minutes each time
Vigorous-. ≥3 times per week for ≥20 minutes each time.
‡ Some leisure-time physical activity, but doesn't meet moderate or vigorous criteria.
§ No leisure-time physical activity reported during the past month

Figure 41. Fruits and Vegetables Consumption†, New York State Adults (Ages 18 & over): 1990-2000.*



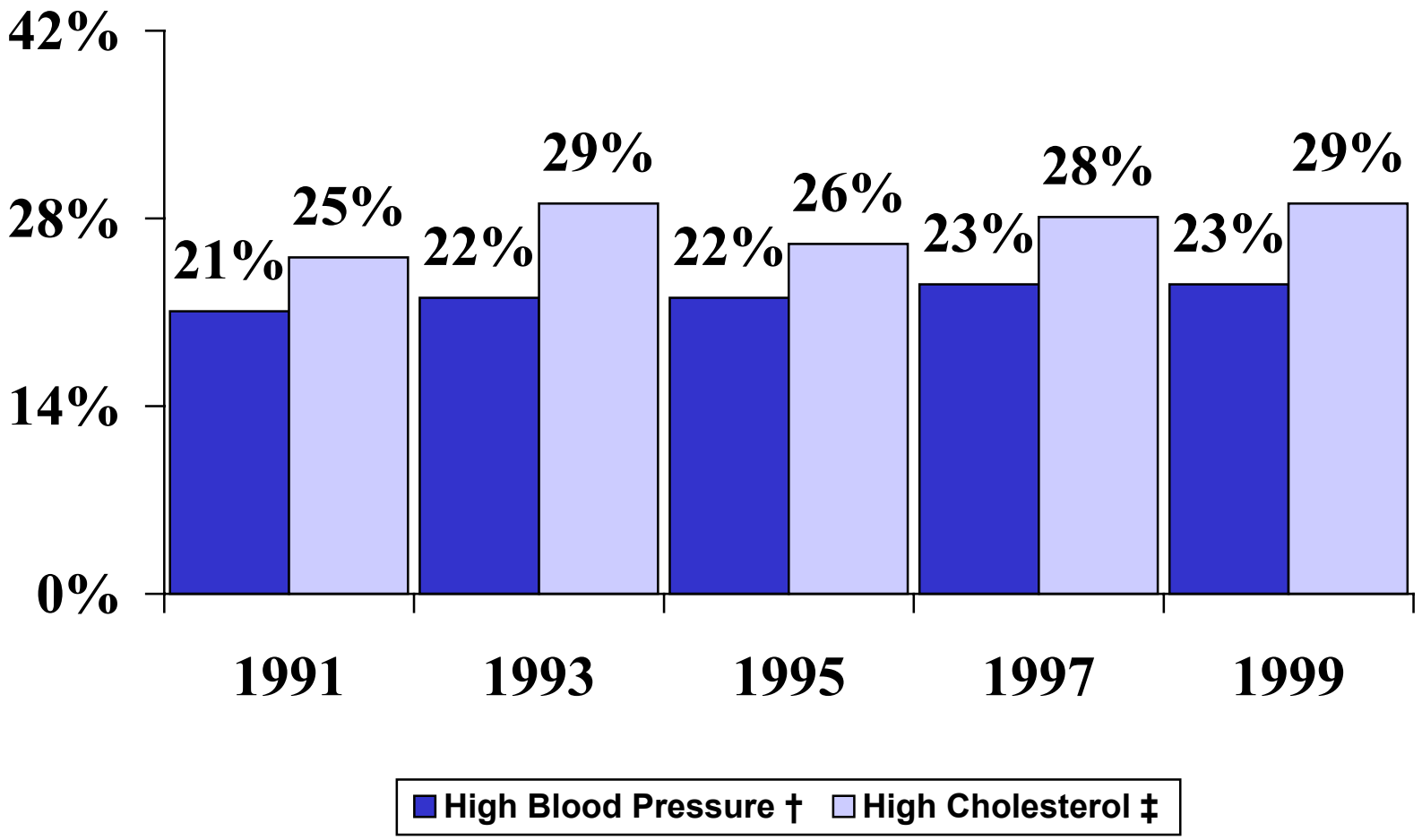
Notes: * Source: New York State BRFSS, 1990-2000.
† Eat five or more servings of fruits and vegetables per day.

Figure 42. Weight Status, New York State Adults (Ages 18 & over): 1990-2000.*



Notes: * Source: New York State BRFSS, 1990-2000

Figure 43. Blood Pressure & Cholesterol, New York State Adults(Ages 18 & over): 1991-1999.*



Notes: * Source: New York State BRFSS, 1991-1999.
† Told by a doctor, nurse, or other health professional that they have high blood pressure.
‡ Told by a doctor, nurse, or other health professional that they have high blood cholesterol.

Table 1. Cardiovascular Disease Mortality by Age, 1999.[*]

Age	Number of Deaths	Population	Crude Death Rate (per 100,000)
NYS Total	*70,771*	*18,196,601*	*388.9*
0-24	136	6,059,686	2.2
25-34	222	2,622,029	8.5
35-44	948	3,022,344	31.4
45-54	2,704	2,431,527	111.2
55-64	5,488	1,631,383	336.4
65-74	11,812	1,274,753	926.6
75-84	22,240	844,712	2,632.9
Over 85	27,221	310,167	8,776.2

Notes: * CDC Compressed Mortality File, 1999

Table 2. NYS Cardiovascular Disease Mortality, 1999.*

	Total		Male		Female		White		Black		Other		Ages 35 to 74		Ages 75 and Older	
County	Count	Rate†	Count	Rate†	Count	Rate†	Count	Rate†	Count	Rate†	Count	Rate†	Count	Rate†	Count	Rate†
NYS Total	*70,771*	*366.7*	*31,285*	*424.2*	*39,486*	*320.9*	*60,996*	*367.3*	*8,616*	*380.9*	*1,159*	*201.1*	*20,952*	*245.5*	*49,461*	*4,211.5*
Albany	1,234	350.3	541	434.2	693	295.4	1,165	349.0	66	369.1	3	84.8‡	332	239.9	895	3,974.9
Allegany	206	364.7	94	408.1	112	327.7	204	362.6	-	-	-	-	76	334.8	129	3,500.5
Broome	929	367.9	436	473.2	493	292.4	916	367.1	11	509.2‡	2	155.4‡	257	254.2	669	4,179.8
Cattaraugus	379	393.8	169	467.0	210	346.6	366	390.8	-	-	12	617.7‡	99	245.2	280	4,694.5
Cayuga	317	349.2	126	366.7	191	320.5	313	348.6	-	-	-	-	72	190.0	245	4,367.1
Chautauqua	654	366.3	271	392.9	383	331.8	639	361.7	11	662.2‡	4	540.7‡	183	269.3	470	4,047.2
Chemung	399	365.6	188	453.1	211	299.3	384	364.1	15	404.5‡	-	-	132	288.1	266	3,886.0
Chenango	236	400.6	115	470.5	121	332.0	236	405.5	-	-	-	-	71	299.1	165	4,403.8
Clinton	298	407.1	131	461.6	167	357.4	294	406.0	-	-	-	-	83	259.6	214	4,789.2
Columbia	330	393.0	150	453.1	180	352.2	317	390.0	13	527.9‡	-	-	69	213.5	259	4,860.0
Cortland	198	404.1	91	500.8	107	335.1	197	404.0	-	-	-	-	49	247.8	148	4,818.7
Delaware	254	374.2	116	460.7	138	306.0	252	375.0	-	-	-	-	50	191.4	204	4,771.1
Dutchess	882	338.0	377	359.9	505	309.8	823	338.0	56	383.4	3	82.3‡	272	235.2	601	3,790.1
Erie	4,289	384.9	1,962	462.5	2,328	325.5	3,874	383.6	396	384.7	20	229.3	1,267	254.4	3,005	4,448.5
Essex	169	348.2	78	410.6	91	298.4	167	346.8	-	-	-	-	49	255.3	119	3,814.5
Franklin	180	389.6	87	454.3	93	325.3	174	398.7	-	-	-	-	75	364.0	105	3,736.6
Fulton	226	352.8	109	469.9	117	276.6	225	355.7	-	-	-	-	64	247.9	161	3,959.7
Genesee	255	376.0	111	414.7	144	335.2	248	375.7	-	-	-	-	62	217.9	192	4,570.4
Greene	206	346.8	96	391.5	110	305.8	202	348.0	-	-	-	-	55	232.5	150	3,976.4
Hamilton	30	385.5	13	354.4‡	17	384.9‡	30	390.9	-	-	-	-	16	447.0‡	14	3052.0‡
Herkimer	308	375.6	121	392.8	187	344.9	307	376.3	-	-	-	-	66	199.5	242	4,734.0
Jefferson	348	356.4	168	457.5	180	285.1	344	356.1	3	824.3‡	1	161.1‡	105	263.0	241	3,916.9
Lewis	89	302.2	47	386.8	42	235.7	89	304.7	-	-	-	-	20	163.4	68	3,725.2
Livingston	163	261.6	77	318.2	86	217.0	160	261.7	-	-	-	-	45	166.9	118	3,088.4
Madison	245	360.1	102	377.5	143	334.1	242	360.5	-	-	-	-	75	248.1	170	4,114.1
Monroe	2,440	323.3	1,072	383.7	1,368	276.8	2,229	315.6	195	403.4	16	220.4‡	695	218.9	1,738	3,706.1
Montgomery	329	431.1	146	529.8	183	366.6	326	428.9	-	-	-	-	79	278.4	249	5,022.7
Nassau	5,365	372.8	2,408	432.6	2,957	326.1	4,930	369.7	382	449.7	53	172.6	1,348	182.1	3,995	4,789.4
Niagara	1,098	429.3	490	485.2	608	378.7	1,061	431.0	28	325.2	9	371.8‡	304	265.2	792	5,116.9
Oneida	1,082	368.5	459	419.5	623	320.8	1,065	370.8	15	256.5‡	2	101.7‡	268	227.7	811	4,383.2
Onondaga	1,490	297.1	635	338.4	855	262.8	1,392	292.3	90	374.3	8	167.5‡	435	202.8	1,047	3,378.9
Ontario	325	309.0	151	354.3	174	269.1	318	306.6	7	515.8‡	-	-	93	203.5	232	3,600.1
Orange	1,018	367.7	488	442.2	531	306.9	959	367.9	55	368.2	5	222.2‡	364	284.4	648	3,942.8
Orleans	179	406.7	91	512.0	88	329.5	172	403.8	7	546.1‡	-	-	55	289.4	123	4,543.8

Table 2. NYS Cardiovascular Disease Mortality, 1999.*

	Total		Male		Female		White		Black		Other		Ages 35 to 74		Ages 75 and Older	
County	**Count**	**Rate†**	**Count**	**Rate†**	**Count**	**Rate†**	**Count**	**Rate†**	**Count**	**Rate†**	**Count**	**Rate†**	**Count**	**Rate†**	**Count**	**Rate†**
NYS Total	*70,771*	*366.7*	*31,285*	*424.2*	*39,486*	*320.9*	*60,996*	*367.3*	*8,616*	*380.9*	*1,159*	*201.1*	*20,952*	*245.5*	*49,461*	*4,211.5*
Oswego	417	388.9	204	477.2	213	326.5	417	390.8	0	0.0‡	0	0.0‡	135	271.6	279	4,378.1
Otsego	236	318.0	103	353.6	133	289.8	236	320.6	-	-	-	-	67	232.4	169	3,533.5
Putnam	223	293.9	112	357.8	111	247.8	221	294.8	-	-	-	-	73	202.3	149	3,342.1
Rensselaer	633	379.7	291	464.3	342	318.3	621	381.6	12	324.5‡	0	0.0‡	167	241.5	462	4,442.7
Rockland	912	323.9	400	389.8	512	276.3	852	332.2	56	301.6	4	54.4‡	231	180.4	677	3,993.9
Saratoga	566	322.7	273	380.3	293	273.3	562	327.6	2	70.4‡	2	92.2‡	179	208.1	382	3,751.9
Schenectady	648	334.1	283	394.5	365	285.9	619	329.4	26	566.0	3	182.8‡	153	204.1	489	3,938.3
Schoharie	99	273.4	52	344.5	47	210.8	99	277.3	-	-	-	-	31	204.8	67	2,942.5
Schuyler	88	380.6	50	522.7	38	277.3	87	382.9	-	-	-	-	26	281.0	62	4,207.9
Seneca	115	305.0	53	361.9	62	261.1	112	298.9	-	-	-	-	30	188.6	85	3,646.0
St Lawrence	411	364.1	179	398.6	232	328.9	408	366.1	3	992.6‡	0	0.0‡	122	249.3	286	4,133.6
Steuben	389	339.7	197	413.2	192	275.5	386	342.3	-	-	-	-	139	281.9	249	3,505.1
Suffolk	4,748	368.3	2,058	411.7	2,690	331.0	4,485	371.6	244	353.9	19	95.3‡	1,339	217.1	3,384	4,451.1
Sullivan	331	452.9	155	480.1	176	419.1	317	457.1	13	378.3‡	-	-	100	298.0	230	5,255.7
Tioga	155	298.2	84	386.9	71	222.7	154	299.9	-	-	-	-	56	235.7	96	3,085.9
Tompkins	250	323.0	96	329.5	154	312.4	244	330.4	-	-	-	-	67	207.9	183	3,798.4
Ulster	621	338.5	300	402.2	321	282.1	600	340.5	19	340.5‡	2	128.1‡	208	267.1	413	3,613.7
Warren	215	297.3	101	362.5	114	240.3	215	300.4	-	-	-	-	65	221.6	148	3,214.1
Washington	232	351.6	98	373.1	134	322.9	230	350.7	-	-	-	-	72	255.0	160	3,920.6
Wayne	267	293.3	127	333.8	140	250.2	261	293.2	6	225.2‡	-	-	83	204.7	181	3,279.2
Westchester	3,338	308.0	1,405	353.3	1,933	272.1	2,946	308.6	369	317.0	23	126.4	788	174.8	2,538	3,775.0
Wyoming	171	387.8	85	495.2	86	304.2	171	391.7	-	-	-	-	34	183.6	136	5,022.9
Yates	105	343.0	54	449.2	51	258.4	105	345.6	-	-	-	-	35	297.1	70	3,464.1
Bronx	4,737	429.8	2,021	504.9	2,716	374.6	3,384	446.2	1,305	407.7	48	189.5	1,687	361.3	3,007	4,369.0
Kings	9,159	417.6	4,020	473.0	5,140	374.9	6,591	428.2	2,368	392.5	201	244.9	3,113	312.5	5,985	4,543.2
New York	5,091	309.8	2,200	356.9	2,892	273.7	3,582	323.5	1,245	315.6	265	180.9	1,577	219.9	3,487	3,466.0
Queens	8,728	386.6	3,798	446.0	4,930	341.0	6,829	386.8	1,485	433.6	414	257.9	2,548	255.4	6,136	4,463.4
Richmond	1,736	460.6	772	523.9	964	407.9	1,642	483.6	72	372.6	22	112.8	542	296.7	1,186	5,384.4

Notes: * CDC Compressed Mortality File, 1999

† Age adjusted rates per 100,000. Standard Population: US 2000

‡ Rates based on less than 20 deaths are unreliable.

- Rates based on fewer than 5 deaths over a 3 year period are not reported.

Table 3. Cardiovascular Disease Hospitalization Counts and Rates, (per 10,000 residents), 2000.*

	NYS			Male			Female			Ages 35 to 74			Ages 75 & older		
County	Counts	Rate	Std. Dev. from State Avg.	Counts	Rate	Std. Dev. from State Avg.	Counts	Rate	Std. Dev. from State Avg.	Counts	Rate	Std. Dev. from State Avg.	Counts	Rate	Std. Dev. from State Avg.
NYS Total	*381,634*	*204.0*		*193,523*	*213.3*		*188,103*	*195.3*		*218,538*	*258.9*		*154,778*	*1,371.9*	
Albany	5,133	167.3	-0.90	2,554	174.0	-0.90	2,579	161.2	-0.85	2,688	193.6	-1.33	2,350	1,022.5	-1.40
Allegany	1,055	207.7	0.09	554	218.3	0.12	501	197.1	0.04	632	296.1	0.76	413	1,157.5	-0.86
Broome	4,487	209.7	0.14	2,222	213.1	0.00	2,265	206.4	0.27	2,280	234.7	-0.49	2,148	1,357.9	-0.06
Cattaraugus	2,201	263.3	1.46	1,129	275.7	1.44	1,072	251.4	1.39	1,291	349.4	1.85	875	1,561.7	0.76
Cayuga	2,003	233.7	0.73	970	224.6	0.26	1,033	243.0	1.18	1,055	281.3	0.46	922	1,580.1	0.84
Chautauqua	2,813	199.7	-0.11	1,370	199.7	-0.31	1,443	199.6	0.11	1,345	213.3	-0.93	1,421	1,249.5	-0.49
Chemung	1,660	163.1	-1.01	802	161.2	-1.20	858	164.9	-0.75	882	190.2	-1.40	749	1,032.1	-1.37
Chenango	1,237	229.5	0.63	672	252.0	0.89	565	207.5	0.30	741	305.5	0.95	486	1,311.4	-0.24
Clinton	1,494	162.8	-1.02	761	160.7	-1.21	733	164.9	-0.75	898	243.3	-0.32	572	1,287.1	-0.34
Columbia	1,259	192.2	-0.29	650	200.0	-0.31	609	184.6	-0.27	693	220.5	-0.79	550	1,019.8	-1.42
Cortland	1,034	200.0	-0.10	557	223.0	0.23	477	178.5	-0.42	606	284.1	0.52	415	1,293.6	-0.31
Delaware	1,259	268.4	1.59	653	280.7	1.55	606	256.4	1.51	641	292.7	0.69	608	1,624.4	1.01
Dutchess	4,645	171.0	-0.81	2,534	184.0	-0.67	2,111	157.7	-0.93	2,708	217.3	-0.85	1,859	1,219.1	-0.61
Erie	20,999	214.2	0.25	10,255	217.6	0.10	10,743	210.9	0.39	11,181	244.8	-0.29	9,490	1,386.6	0.06
Essex	698	182.3	-0.54	388	195.9	-0.40	310	167.7	-0.68	382	213.0	-0.94	306	1,109.9	-1.05
Franklin	1,033	202.1	-0.05	535	202.5	-0.25	498	201.7	0.16	598	267.2	0.17	411	1,303.1	-0.28
Fulton	1,300	239.0	0.86	656	247.6	0.79	644	230.7	0.88	709	284.2	0.52	580	1,301.9	-0.28
Genesee	1,630	261.6	1.42	826	269.5	1.30	804	254.1	1.45	861	310.8	1.06	741	1,775.7	1.62
Greene	991	205.2	0.03	530	215.4	0.05	461	194.6	-0.02	592	261.9	0.06	386	986.7	-1.55
Hamilton	149	266.2	1.53	82	290.1	1.77	67	241.8	1.15	90	298.4	0.81	56	1,410.6	0.16
Herkimer	1,812	281.4	1.90	919	292.3	1.82	893	270.9	1.87	940	315.4	1.16	855	1,673.8	1.21
Jefferson	1,930	167.5	-0.90	993	167.9	-1.05	937	167.2	-0.70	1,168	263.2	0.09	731	1,138.8	-0.94
Lewis	656	228.6	0.61	325	224.8	0.27	331	232.4	0.92	373	310.5	1.05	278	1,646.9	1.11
Livingston	1,152	168.2	-0.88	646	192.4	-0.48	506	144.9	-1.25	641	219.8	-0.80	480	1,245.1	-0.51
Madison	1,248	170.0	-0.84	649	178.1	-0.81	599	162.1	-0.82	754	241.1	-0.36	470	1,167.7	-0.82
Monroe	13,357	179.5	-0.60	6,918	191.8	-0.50	6,439	168.0	-0.68	7,154	215.4	-0.89	5,947	1,300.5	-0.29
Montgomery	1,502	290.5	2.13	743	299.1	1.98	759	282.6	2.16	713	298.7	0.81	766	1,530.2	0.64
Nassau	30,412	237.8	0.83	16,272	261.2	1.10	14,140	215.6	0.50	16,210	250.6	-0.17	13,640	1,815.6	1.78
Niagara	6,463	284.6	1.98	3,280	298.1	1.96	3,183	271.9	1.90	3,668	349.3	1.85	2,696	1,725.0	1.42
Oneida	6,278	245.3	1.02	3,261	256.0	0.98	3,017	234.8	0.98	3,301	288.4	0.60	2,883	1,508.8	0.55
Onondaga	8,620	177.7	-0.65	4,288	183.0	-0.70	4,331	172.7	-0.56	4,657	217.4	-0.85	3,814	1,266.1	-0.43
Ontario	1,771	177.1	-0.66	979	197.4	-0.37	792	157.1	-0.95	1,057	228.6	-0.62	686	1,079.5	-1.18

Table 3. Cardiovascular Disease Hospitalization Counts and Rates, (per 10,000 residents), 2000.*

	NYS			Male			Female			Ages 35 to 74			Ages 75 & older		
County	Counts	Rate	Std. Dev. from State Avg.	Counts	Rate	Std. Dev. from State Avg.	Counts	Rate	Std. Dev. from State Avg.	Counts	Rate	Std. Dev. from State Avg.	Counts	Rate	Std. Dev. from State Avg.
NYS Total	*381,634*	*204.0*		*193,523*	*213.3*		*188,103*	*195.3*		*218,538*	*258.9*		*154,778*	*1,371.9*	
Orange	6,751	191.3	-0.31	3,367	188.2	-0.58	3,384	194.4	-0.02	3,979	260.1	0.02	2,616	1,464.2	0.37
Orleans	1,027	220.9	0.41	555	236.4	0.53	472	205.0	0.24	620	306.1	0.97	389	1,381.9	0.04
Oswego	2,757	217.8	0.34	1,371	217.8	0.11	1,386	217.7	0.55	1,644	313.2	1.11	1,073	1,674.5	1.22
Otsego	1,611	259.4	1.36	844	280.7	1.55	767	239.5	1.09	802	293.5	0.71	781	1,618.0	0.99
Putnam	1,424	157.2	-1.15	807	176.4	-0.85	617	137.6	-1.43	877	203.8	-1.13	524	1,302.8	-0.28
Rensselaer	2,890	180.9	-0.57	1,408	178.3	-0.81	1,482	183.4	-0.30	1,585	224.4	-0.70	1,259	1,210.9	-0.65
Rockland	4,174	150.7	-1.31	2,223	164.1	-1.13	1,951	137.9	-1.42	2,260	170.6	-1.80	1,817	1,341.5	-0.12
Saratoga	3,405	228.5	0.60	1,791	249.7	0.84	1,614	208.9	0.34	1,644	236.2	-0.46	1,723	1,394.2	0.09
Schenectady	580	165.7	-0.94	290	167.8	-1.05	290	163.7	-0.78	345	218.6	-0.82	219	907.2	-1.87
Schoharie	298	146.8	-1.41	156	153.4	-1.38	142	140.2	-1.37	160	169.4	-1.83	134	970.3	-1.61
Schuyler	584	165.4	-0.95	355	202.6	-0.25	229	128.8	-1.65	388	237.9	-0.43	189	747.9	-2.51
Seneca	2,427	215.4	0.28	1,235	217.0	0.09	1,192	213.7	0.46	1,388	292.5	0.69	1,004	1,510.0	0.56
St Lawrence	3,303	159.0	-1.11	1,745	168.3	-1.04	1,557	149.6	-1.13	1,861	196.2	-1.28	1,379	1,427.0	0.22
Steuben	2,267	221.6	0.43	1,130	222.5	0.21	1,137	220.7	0.63	1,202	255.7	-0.06	1,033	1,471.9	0.40
Suffolk	31,288	226.6	0.56	16,728	245.5	0.74	14,560	208.1	0.32	18,981	294.5	0.73	11,614	1,682.2	1.25
Sullivan	1,553	221.9	0.44	852	235.2	0.50	701	207.6	0.30	915	280.1	0.43	616	1,288.4	-0.34
Tioga	477	87.5	-2.87	250	91.9	-2.80	227	83.1	-2.78	289	117.4	-2.89	182	659.2	-2.86
Tompkins	1,226	118.3	-2.11	620	119.9	-2.15	606	116.8	-1.95	688	176.0	-1.69	511	1,034.8	-1.35
Ulster	3,341	198.9	-0.13	1,729	205.6	-0.18	1,612	192.1	-0.08	1,964	250.3	-0.17	1,319	1,223.6	-0.6
Warren	1,681	262.3	1.43	927	297.2	1.93	754	229.1	0.84	991	336.2	1.58	654	1,430.1	0.23
Washington	1,271	203.7	-0.01	707	219.6	0.15	564	186.7	-0.21	766	275.8	0.35	488	1,245.9	-0.51
Wayne	1,648	177.0	-0.67	933	201.2	-0.28	715	153.0	-1.05	1,004	242.1	-0.34	615	1,173.9	-0.80
Westchester	17,970	195.6	-0.21	9,568	217.4	0.09	8,399	175.5	-0.49	9,646	214.5	-0.91	7,992	1,212.6	-0.64
Wyoming	1,019	227.5	0.58	521	217.5	0.10	498	239.0	1.08	579	298.0	0.80	406	1,537.9	0.67
Yates	529	210.8	0.17	290	235.6	0.52	238	186.0	-0.23	300	262.4	0.07	223	1,137.2	-0.94
Bronx	25,445	205.9	0.05	11,516	199.3	-0.32	13,929	211.6	0.40	16,270	335.3	1.56	8,315	1,247.7	-0.50
Kings	48,952	204.6	0.01	22,906	202.5	-0.25	26,046	206.5	0.28	29,596	298.0	0.80	18,000	1,427.5	0.22
New York	25,040	164.8	-0.97	12,719	174.5	-0.89	12,321	155.8	-0.98	14,669	201.9	-1.17	9,662	1,051.7	-1.29
Queens	40,919	197.1	-0.17	20,602	205.6	-0.18	20,317	189.1	-0.15	23,043	243.5	-0.31	16,869	1,272.4	-0.40
Richmond	9,397	224.4	0.50	4,950	240.8	0.64	4,446	208.6	0.33	5,877	315.3	1.15	3,348	1,768.1	1.59

Notes: * Source: New York State Statewide Planning & Research Cooperative System: 2000

Table 4. Coronary Heart Disease Mortality by Age, 1999.[*]

Age	Number of Deaths	Population	Crude Death Rate (per 100,000)
NYS Total	*49,570*	*18,196,601*	*272.4*
0-24	12	6,059,686	0.2[†]
25-34	66	2,622,029	2.5
35-44	492	3,022,344	16.3
45-54	1,820	2,431,527	74.9
55-64	3,946	1,631,383	241.9
65-74	8,452	1,274,753	663.0
75-84	15,573	844,712	1,843.6
Over 85	19,206	310,167	6,192.1

Notes: * CDC Compressed Mortality File, 1999

† Rates based on less than 20 deaths are unreliable.

Table 5. NYS Coronary Heart Disease Mortality, 1999.*

HP2010	*166 per 100,000*															
	Total		**Male**		**Female**		**White**		**Black**		**Other**		**Ages 35 to 74**		**Ages 75 and Older**	
County	**Count**	**Rate†**	**Count**	**Rate†**	**Count**	**Rate†**	**Count**	**Rate†**	**Count**	**Rate†**	**Count**	**Rate†**	**Count**	**Rate†**	**Count**	**Rate†**
NYS Total	*49,570*	*256.7*	*22,549*	*305.9*	*27,021*	*218.6*	*42,623*	*256.5*	*6,109*	*274.2*	*838*	*149.9*	*14,710*	*172.2*	*34,779*	*2,961.0*
Albany	727	207.1	350	280.6	377	160.8	689	207.7	35	205.9	3	84.8‡	205	148.3	521	2,319.6
Allegany	123	218.4	67	289.1	56	164.5	121	215.5	-	-	-	-	49	215.4	74	2,009.2
Broome	566	224.0	296	320.1	270	158.0	556	222.8	8	415.8‡	2	155.4‡	152	150.7	413	2,585.2
Cattaraugus	259	269.9	119	323.7	140	228.9	249	266.5	-	-	9	458.6‡	71	176.5	188	3,153.8
Cayuga	172	190.5	75	211.4	97	163.2	171	191.9	-	-	-	-	48	125.9	124	2,215.9
Chautauqua	393	220.7	169	244.2	224	194.0	382	216.7	8	477.2‡	3	435.6‡	115	168.7	278	2,397.0
Chemung	215	194.8	105	255.9	110	152.1	207	194.2	8	235.2‡	-	-	68	145.5	147	2,140.2
Chenango	140	238.2	78	317.1	62	169.7	140	241.1	-	-	-	-	46	191.9	94	2,513.9
Clinton	191	261.3	95	331.1	96	206.3	190	263.1	-	-	-	-	58	182.1	132	2,952.4
Columbia	217	258.1	103	307.6	114	219.8	208	255.6	9	373.4‡	-	-	48	148.1	169	3,170.3
Cortland	116	239.5	61	337.5	55	175.4	116	241.0	-	-	-	-	37	187.3	79	2,569.5
Delaware	175	258.2	83	333.6	92	199.9	173	257.7	-	-	-	-	36	139.4	139	3,236.7
Dutchess	512	196.3	234	222.6	278	170.0	484	198.8	27	183.9	1	28.7‡	168	145.0	344	2,169.4
Erie	2,468	221.1	1,196	277.7	1,272	177.5	2,238	221.3	221	213.9	9	118.2‡	789	157.9	1,675	2,478.3
Essex	97	203.0	51	264.4	46	146.5	95	200.3	-	-	-	-	34	177.4	63	2,038.4
Franklin	118	255.6	58	303.6	60	209.4	114	261.4	-	-	-	-	47	228.5	71	2,528.6
Fulton	157	245.1	81	351.2	76	183.4	156	246.5	-	-	-	-	46	176.4	110	2,708.7
Genesee	147	215.9	58	220.1	89	204.7	144	217.5	-	-	-	-	35	122.8	112	2,660.8
Greene	144	240.8	71	289.9	73	195.3	142	242.4	-	-	-	-	37	155.4	107	2,828.5
Hamilton	18	232.0‡	10	264.5‡	8	190.9‡	18	234.9‡	-	-	-	-	12	339.5‡	6	1308.2‡
Herkimer	201	246.4	84	271.2	117	218.0	200	246.4	-	-	-	-	48	145.5	153	2,996.1
Jefferson	207	214.0	109	287.7	98	155.0	204	213.4	2	263.8‡	1	161.1‡	69	172.5	136	2,231.3
Lewis	54	184.7	33	275.6	21	125.2	54	186.1	-	-	-	-	15	122.3‡	38	2,083.9
Livingston	89	143.9	48	194.1	41	105.3	89	146.8	-	-	-	-	32	119.2	57	1,493.5
Madison	140	206.0	56	206.0	84	197.1	139	207.3	-	-	-	-	41	135.8	99	2,399.7
Monroe	1,415	188.1	672	238.7	743	150.4	1,301	185.2	108	229.8	6	85.7‡	427	134.5	987	2,109.7
Montgomery	219	281.5	100	358.3	119	231.5	218	281.8	-	-	-	-	46	158.4	173	3,482.3
Nassau	4,088	283.9	1,846	331.7	2,242	245.8	3,775	282.8	273	331.9	40	132.5	1,011	136.2	3,073	3,682.6
Niagara	656	257.4	306	304.9	350	218.1	637	259.7	15	162.6‡	4	179.5‡	185	163.7	471	3,042.7
Oneida	574	197.5	263	238.0	311	162.2	565	199.1	9	163.1‡	0	0.0‡	162	139.2	411	2,225.4
Onondaga	777	155.7	384	203.0	393	121.7	733	154.8	38	162.0	6	138.4‡	246	114.9	531	1,722.3
Ontario	195	186.0	96	221.8	99	153.2	193	186.8	-	-	-	-	64	140.4	131	2,032.8
Orange	616	222.4	332	298.8	284	165.8	577	221.7	37	248.7	2	141.4‡	253	198.3	360	2,190.4
Orleans	103	234.7	60	335.6	43	160.5	100	236.0	-	-	-	-	36	190.4	67	2,467.6
Oswego	246	229.5	127	291.8	119	182.2	246	230.7	0	0.0‡	0	0.0‡	88	177.2	158	2,479.7

Table 5. NYS Coronary Heart Disease Mortality, 1999.*

HP2010	*166 per 100,000*															
	Total		**Male**		**Female**		**White**		**Black**		**Other**		**Ages 35 to 74**		**Ages 75 and Older**	
County	**Count**	**Rate†**	**Count**	**Rate†**	**Count**	**Rate†**	**Count**	**Rate†**	**Count**	**Rate†**	**Count**	**Rate†**	**Count**	**Rate†**	**Count**	**Rate†**
NYS Total	*49,570*	*256.7*	*22,549*	*305.9*	*27,021*	*218.6*	*42,623*	*256.5*	*6,109*	*274.2*	*838*	*149.9*	*14,710*	*172.2*	*34,779*	*2,961.0*
Otsego	120	165.4	61	209.4	59	134.6	120	166.9	-	-	-	-	45	156.7	75	1,570.1
Putnam	143	187.5	79	249.8	64	141.4	142	188.4	-	-	-	-	46	124.6	96	2,159.5
Rensselaer	357	215.7	185	292.7	172	160.9	350	217.0	7	205.8‡	0	0.0‡	108	156.7	247	2,381.8
Rockland	614	217.5	276	269.8	338	181.0	579	225.0	33	180.0	2	19.0‡	158	123.2	455	2,677.5
Saratoga	310	177.4	157	220.0	153	142.5	308	180.1	1	22.9‡	1	62.8‡	100	117.5	209	2,053.7
Schenectady	387	198.2	176	245.4	211	162.2	375	198.3	10	224.0‡	2	153.7‡	90	119.6	297	2,390.6
Schoharie	56	153.8	28	189.0	28	125.0	56	155.9	-	-	-	-	17	112.3‡	39	1,710.4
Schuyler	52	228.8	30	311.1	22	168.9	51	228.1	-	-	-	-	20	216.1	32	2,176.9
Seneca	70	185.3	33	229.5	37	153.1	67	178.1	-	-	-	-	20	127.2	50	2,120.6
St Lawrence	228	202.6	105	233.7	123	174.0	226	203.3	2	818.1‡	0	0.0‡	70	143.2	158	2,287.0
Steuben	228	200.2	125	258.6	103	147.5	226	201.5	-	-	-	-	88	179.0	139	1,961.4
Suffolk	3,258	252.8	1,462	291.5	1,796	220.1	3,081	255.2	163	241.3	14	78.3‡	929	150.7	2,327	3,060.7
Sullivan	232	317.6	115	358.5	117	279.3	223	322.1	9	268.9‡	-	-	77	229.6	155	3,548.0
Tioga	78	149.8	44	199.2	34	107.8	77	149.6	-	-	-	-	32	134.0	46	1,480.7
Tompkins	123	161.1	54	185.8	69	146.0	119	163.3	-	-	-	-	42	131.6	81	1,686.4
Ulster	392	214.7	210	278.9	182	162.6	380	216.7	11	203.3‡	1	54.6‡	144	185.4	248	2,172.8
Warren	105	146.8	56	201.4	49	106.2	105	148.3	-	-	-	-	38	129.3	66	1,437.9
Washington	125	188.7	53	202.4	72	168.9	125	190.1	-	-	-	-	38	134.7	87	2,121.2
Wayne	130	143.1	76	198.9	54	96.1	129	145.3	-	-	-	-	43	106.9	87	1,573.4
Westchester	2,242	206.6	961	241.1	1,281	179.2	1,999	209.2	231	199.5	12	67.5‡	530	117.4	1,710	2,543.1
Wyoming	103	234.5	54	305.5	49	170.8	103	236.7	-	-	-	-	23	123.4	80	2,964.0
Yates	62	202.6	37	308.3	25	122.5	62	204.1	-	-	-	-	21	177.5	41	2,030.6
Bronx	3,708	335.4	1,568	394.5	2,140	292.5	2,700	352.4	971	306.6	37	150.2	1,254	269.0	2,435	3,524.9
Kings	7,396	337.3	3,237	383.6	4,159	302.0	5,545	358.5	1,704	289.2	147	181.5	2,379	238.6	5,006	3,800.6
New York	3,835	233.4	1,670	272.4	2,165	203.6	2,741	247.0	913	232.0	181	124.8	1,124	157.0	2,706	2,689.6
Queens	7,240	320.1	3,165	373.4	4,075	279.7	5,739	323.5	1,176	348.3	325	210.2	2,015	201.4	5,210	3,788.7
Richmond	1,441	383.2	656	448.9	785	331.5	1,371	404.1	52	276.0	18	96.3‡	435	238.7	1,006	4,566.9

Notes: * CDC Compressed Mortality File, 1999

† Age adjusted rates per 100,000. Standard Population: US 2000

‡ Rates based on less than 20 deaths are unreliable.

\- Rates based on fewer than 5 deaths over a 3 year period are not reported.

Table 6. Coronary Heart Disease Hospitalization Counts and Rates, (per 10,000 residents), 2000.*

	NYS			Male			Female			Ages 35 to 74			Ages 75 & older		
County	Counts	Rate	Std. Dev. From State Avg.	Counts	Rate	Std. Dev. From State Avg.	Counts	Rate	Std. Dev. From State Avg.	Counts	Rate	Std. Dev. From State Avg.	Counts	Rate	Std. Dev. From State Avg.
NYS Total	*139,994*	*74.8*		*81,611*	*89.9*		*58,378*	*60.6*		*93,644*	*110.9*		*45,528*	*403.6*	
Albany	1,555	50.7	-1.22	888	60.5	-1.22	667	41.7	-1.10	990	71.3	-1.31	558	242.8	-1.63
Allegany	449	88.4	0.68	256	100.9	0.46	193	75.9	0.89	304	142.4	1.04	144	403.6	0.00
Broome	1,669	78.0	0.16	941	90.3	0.01	728	66.3	0.33	1,004	103.4	-0.25	659	416.6	0.13
Cattaraugus	972	116.3	2.09	556	135.8	1.91	416	97.5	2.14	656	177.5	2.21	313	558.6	1.57
Cayuga	815	95.1	1.02	440	101.9	0.50	375	88.2	1.60	508	135.5	0.81	301	515.9	1.14
Chautauqua	989	70.2	-0.23	531	77.4	-0.52	458	63.4	0.16	554	87.9	-0.76	432	379.9	-0.24
Chemung	627	61.6	-0.67	335	67.3	-0.94	292	56.1	-0.26	240	63.5	-0.63	219	301.8	-1.03
Chenango	510	94.6	1.00	299	112.1	0.92	211	77.5	0.98	363	149.7	1.28	147	396.7	-0.07
Clinton	528	57.5	-0.88	313	66.1	-0.99	215	48.4	-0.71	343	92.9	-0.60	182	409.5	0.06
Columbia	459	70.1	-0.24	242	74.5	-0.64	217	65.8	0.30	308	98.0	-0.43	150	278.1	-1.27
Cortland	439	84.9	0.51	268	107.3	0.72	171	64.0	0.20	301	141.1	1.00	136	423.9	0.21
Delaware	468	99.8	1.26	261	112.2	0.93	207	87.6	1.57	283	129.2	0.61	184	491.6	0.89
Dutchess	1,735	63.9	-0.55	1,041	75.6	-0.60	694	51.8	-0.51	1,180	94.7	-0.54	549	360.0	-0.44
Erie	7,374	75.2	0.02	4,095	86.9	-0.13	3,279	64.4	0.22	4,668	102.2	-0.29	2,667	389.7	-0.14
Essex	237	61.9	-0.65	150	75.7	-0.59	87	47.1	-0.79	163	90.9	-0.66	72	261.2	-1.44
Franklin	331	64.8	-0.51	190	71.9	-0.75	141	57.1	-0.20	239	106.8	-0.14	91	288.5	-1.16
Fulton	528	97.1	1.12	288	108.7	0.78	240	86.0	1.47	347	139.1	0.93	181	406.3	0.03
Genesee	736	118.1	2.19	398	129.8	1.66	338	106.8	2.68	483	174.4	2.10	247	591.9	1.90
Greene	348	72.1	-0.14	200	81.3	-0.36	148	62.5	0.11	240	106.2	-0.16	105	268.4	-1.37
Hamilton	48	85.7	0.55	31	109.7	0.82	17	61.4	0.04	33	109.4	-0.05	15	377.8	-0.26
Herkimer	686	106.5	1.60	413	131.4	1.72	273	82.8	1.29	439	147.3	1.21	243	475.7	0.73
Jefferson	842	73.1	-0.09	486	82.2	-0.32	356	63.5	0.17	577	130.0	0.63	258	401.9	-0.02
Lewis	293	102.1	1.38	169	116.9	1.12	124	87.1	1.54	194	161.5	1.67	98	580.6	1.79
Livingston	490	71.5	-0.17	314	93.5	0.15	176	50.4	-0.59	315	108.0	-0.10	172	446.2	0.43
Madison	513	69.9	-0.25	301	82.6	-0.31	212	57.4	-0.19	341	109.0	-0.06	166	412.4	0.09
Monroe	5,286	71.0	-0.19	3,126	86.7	-0.14	2,160	56.4	-0.25	3,317	99.9	-0.37	1,948	426.0	0.23
Montgomery	573	110.8	1.82	338	136.1	1.92	235	87.5	1.56	352	147.4	1.21	220	439.5	0.36
Nassau	11,037	86.3	0.58	6,988	112.2	0.92	4,049	61.8	0.07	7,093	109.7	-0.04	3,909	520.3	1.18
Niagara	2,909	128.1	2.69	1,667	151.5	2.56	1,242	106.1	2.64	1,928	183.6	2.41	961	614.9	2.14
Oneida	2,440	95.4	1.04	1,446	113.5	0.98	994	77.4	0.97	1,536	134.2	0.77	884	462.6	0.60
Onondaga	2,910	60.0	-0.75	1,649	70.4	-0.81	1,261	50.3	-0.60	1,817	84.8	-0.86	1,080	358.5	-0.46
Ontario	795	79.5	0.24	522	105.3	0.64	273	54.2	-0.38	568	122.8	0.39	224	352.5	-0.52
Orange	2,544	72.1	-0.14	1,398	78.1	-0.49	1,146	65.8	0.30	1,739	113.7	0.09	790	442.2	0.39

Table 6. Coronary Heart Disease Hospitalization Counts and Rates, (per 10,000 residents), 2000.*

	NYS			Male			Female			Ages 35 to 74			Ages 75 & older		
County	Counts	Rate	Std. Dev. From State Avg.	Counts	Rate	Std. Dev. From State Avg.	Counts	Rate	Std. Dev. From State Avg.	Counts	Rate	Std. Dev. From State Avg.	Counts	Rate	Std. Dev. From State Avg.
NYS Total	*139,994*	*74.8*		*81,611*	*89.9*		*58,378*	*60.6*		*93,644*	*110.9*		*45,528*	*403.6*	
Orleans	451	97.0	1.12	299	127.4	1.56	152	66.0	0.31	324	160.0	1.62	125	444.1	0.41
Oswego	1,170	92.4	0.89	648	103.0	0.54	522	82.0	1.24	793	151.1	1.33	371	579.0	1.77
Otsego	602	97.0	1.12	336	111.8	0.91	266	83.0	1.30	344	125.9	0.50	256	530.4	1.28
Putnam	529	58.4	-0.83	351	76.7	-0.55	178	39.7	-1.22	377	87.6	-0.77	152	377.9	-0.26
Rensselaer	952	59.6	-0.77	553	70.0	-0.83	399	49.4	-0.65	663	93.9	-0.56	283	272.2	-1.33
Rockland	1,365	49.3	-1.29	816	60.2	-1.23	549	38.8	-1.27	867	65.5	-1.51	492	363.2	-0.41
Saratoga	1,134	76.1	0.06	668	93.1	0.13	466	60.3	-0.02	658	94.5	-0.54	473	382.8	-0.21
Schenectady	202	57.7	-0.87	115	66.5	-0.97	87	49.1	-0.67	144	91.2	-0.65	58	240.3	-1.65
Schoharie	109	53.7	-1.07	66	64.9	-1.04	43	42.5	-1.06	72	76.2	-1.15	37	267.9	-1.37
Schuyler	276	78.2	0.17	178	101.6	0.48	98	55.1	-0.32	217	133.0	0.73	59	233.5	-1.72
Seneca	1,076	95.5	1.04	631	110.9	0.87	445	79.8	1.11	714	150.5	1.31	355	533.9	1.32
St Lawrence	1,199	57.7	-0.87	750	72.3	-0.73	449	43.1	-1.02	789	83.2	-0.92	404	418.1	0.15
Steuben	905	88.5	0.69	511	100.6	0.44	394	76.5	0.92	573	121.9	0.36	329	468.8	0.66
Suffolk	13,231	95.8	1.06	8,027	117.8	1.16	5,204	74.4	0.80	9,285	144.1	1.10	3,852	557.9	1.56
Sullivan	609	87.0	0.61	393	108.5	0.77	216	64.0	0.19	421	128.9	0.59	184	384.9	-0.19
Tioga	218	40.0	-1.76	135	49.6	-1.68	83	30.4	-1.76	158	64.2	-1.55	60	217.3	-1.88
Tompkins	464	44.8	-1.52	244	47.2	-1.78	220	42.4	-1.06	311	79.5	-1.04	151	305.8	-0.99
Ulster	1,294	77.0	0.11	750	89.2	-0.03	544	64.8	0.24	892	113.7	0.09	394	365.5	-0.38
Warren	745	116.2	2.09	452	144.9	2.29	293	89.0	1.65	513	174.1	2.09	224	489.8	0.87
Washington	562	90.1	0.77	326	101.3	0.47	236	78.1	1.02	396	142.6	1.05	165	421.2	0.18
Wayne	807	86.7	0.60	515	111.1	0.88	292	62.5	0.11	558	134.5	0.78	243	463.8	0.61
Westchester	6,510	70.9	-0.20	4,026	91.5	0.06	2,481	51.8	-0.51	4,147	92.2	-0.62	2,330	353.5	-0.51
Wyoming	447	99.8	1.26	266	111.0	0.88	181	86.9	1.52	305	157.0	1.52	132	500.0	0.98
Yates	251	100.0	1.27	149	121.1	1.30	101	79.0	1.06	172	150.4	1.31	78	397.8	-0.06
Bronx	7,839	63.4	-0.58	3,954	68.4	-0.89	3,885	59.0	-0.09	5,645	116.3	0.18	2,142	321.4	-0.83
Kings	17,267	72.2	-0.14	9,265	81.9	-0.33	8,002	63.4	0.16	12,007	120.9	0.33	5,129	406.8	0.03
New York	7,326	48.2	-1.35	4,368	59.9	-1.25	2,958	37.4	-1.35	4,930	67.8	-1.43	2,347	255.5	-1.50
Queens	14,814	71.3	-0.18	8,802	87.8	-0.09	6,012	56.0	-0.27	9,761	103.2	-0.26	4,945	373.0	-0.31
Richmond	3,756	89.7	0.75	2,305	112.1	0.92	1,450	68.0	0.43	2,744	147.2	1.20	991	523.3	1.21

Notes: * Source: New York State Statewide Planning & Research Cooperative System: 2000

Table 7. Congestive Heart Failure Mortality by Age, 1999.*

Age	Number of Deaths	Population	Crude Death Rate (per 100,000)
NYS Total	*2,953*	*18,196,601*	*16.2*
0-24	4	6,059,686	0.0†
25-34	1	2,622,029	0.0†
35-44	10	3,022,344	0.3
45-54	33	2,431,527	1.4
55-64	109	1,631,383	6.7
65-74	368	1,274,753	28.9
75-84	926	844,712	109.6
Over 85	1,502	310,167	484.3

Notes: * CDC Compressed Mortality File, 1999
† Rates based on less than 20 deaths are unreliable.

Table 8. NYS Congestive Heart Failure Mortality, 1999.*

	Total		Male		Female		White		Black		Other		Ages 35 to 74		Ages 75 and Older	
County	Count	Rate†	Count	Rate†	Count	Rate†	Count	Rate†	Count	Rate†	Count	Rate†	Count	Rate†	Count	Rate†
NYS Total	*2,953*	*15.2*	*1137*	*16.4*	*1,816*	*14.3*	*2,643*	*15.6*	*278*	*13.1*	*32*	*6.2*	*520*	*6.0*	*2428*	*205.9*
Albany	85	23.6	26	21.0	59	24.3	80	23.2	5	26.6‡	0	0.0‡	19	13.6‡	66	289.9
Allegany	10	17.0‡	-	-	7	18.2‡	10	17.1‡	-	-	-	-	-	-	8	216.1‡
Broome	46	17.6	15	16.2‡	31	17.7	46	17.8	0	0.0‡	0	0.0‡	11	10.0‡	35	217.1
Cattaraugus	24	24.2	11	32.7‡	13	19.7‡	24	24.9	-	-	-	-	-	-	22	363.6
Cayuga	27	29.2	10	35.0‡	17	27.9‡	26	28.2	-	-	-	-	-	-	23	406.5
Chautauqua	42	22.2	14	21.5‡	28	21.0	41	21.8	1	59.0‡	0	0.0‡	6	9.0‡	36	301.6
Chemung	22	20.1	8	19.8‡	14	21.8‡	22	20.9	-	-	-	-	9	19.0‡	13	190.9‡
Chenango	12	19.9‡	-	-	7	19.2‡	12	20.1‡	-	-	-	-	-	-	10	265.7‡
Clinton	10	13.6‡	-	-	8	17.0‡	10	13.7‡	-	-	-	-	-	-	8	178.7‡
Columbia	16	18.0‡	6	18.9‡	10	17.3‡	15	17.5‡	-	-	-	-	-	-	15	276.9‡
Cortland	12	23.6‡	-	-	7	21.5‡	12	23.7‡	-	-	-	-	-	-	12	391.9‡
Delaware	15	22.1‡	6	22.3‡	9	19.2‡	15	22.3‡	-	-	-	-	-	-	12	281.4‡
Dutchess	48	18.5	15	13.8‡	33	19.7	45	18.4	3	23.5‡	0	0.0‡	11	9.7‡	37	233.5
Erie	181	16.1	83	21.5	98	13.2	159	15.6	20	19.8	2	26.2‡	28	5.4	153	227.2
Essex	6	12.3‡	-	-	-	-	6	12.4‡	-	-	-	-	-	-	-	-
Franklin	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fulton	9	13.9‡	-	-	7	17.4‡	9	14.1‡	-	-	-	-	-	-	7	170.8‡
Genesee	19	28.2‡	9	33.3‡	10	24.3‡	19	9.0‡	-	-	-	-	6	21.0‡	13	310.2‡
Greene	12	20.3‡	-	-	7	20.1‡	12	20.8‡	-	-	-	-	-	-	9	238.2‡
Hamilton	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Herkimer	18	20.8‡	7	27.5‡	11	18.6‡	18	20.9‡	-	-	-	-	-	-	18	345.4‡
Jefferson	15	14.9‡	5	15.4‡	10	15.6‡	15	15.0‡	0	0.0‡	0	0.0‡	3	7.6‡	12	189.2‡
Lewis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Livingston	11	17.4‡	-	-	9	21.8‡	11	17.7‡	-	-	-	-	-	-	10	260.6‡
Madison	10	14.5‡	-	-	7	14.7‡	9	13.3‡	-	-	-	-	-	-	8	192.5‡
Monroe	140	18.1	56	21.5	84	16.2	132	18.1	8	17.2‡	0	0.0‡	23	7.2	117	246.7
Montgomery	24	29.7	9	34.0‡	15	29.6‡	24	29.8	-	-	-	-	-	-	21	423.3
Nassau	182	12.9	70	14.1	112	12.4	172	13.0	8	11.3‡	2	8.0‡	22	2.9	159	190.4
Niagara	78	30.2	33	34.7	45	27.3	74	29.7	3	38.2‡	1	47.9‡	16	13.2‡	62	402.1
Oneida	73	23.9	26	24.8	47	22.4	73	24.4	0	0.0*‡	0	0.0‡	6	5.0‡	67	359.2
Onondaga	81	15.8	26	14.8	55	15.9	75	15.3	6	27.5‡	0	0.0‡	15	6.8‡	66	210.2
Ontario	23	21.6	13	32.4‡	10	15.1‡	22	20.9	-	-	-	-	-	-	20	310.4
Orange	70	25.7	24	25.4	46	25.6	67	25.8	3	19.9‡	0	0.0‡	9	7.2‡	61	371.4
Orleans	19	43.3‡	8	46.8‡	11	40.8‡	19	44.3‡	-	-	-	-	-	-	17	639.2‡

Table 8. NYS Congestive Heart Failure Mortality, 1999.*

	Total		Male		Female		White		Black		Other		Ages 35 to 74		Ages 75 and Older	
County	**Count**	**Rate†**	**Count**	**Rate†**	**Count**	**Rate†**	**Count**	**Rate†**	**Count**	**Rate†**	**Count**	**Rate†**	**Count**	**Rate†**	**Count**	**Rate†**
NYS Total	*2,953*	*15.2*	*1137*	*16.4*	*1,816*	*14.3*	*2,643*	*15.6*	*278*	*13.1*	*32*	*6.2*	*520*	*6.0*	*2428*	*205.9*
Oswego	13	12.2‡	8	20.3‡	5	7.2‡	13	12.3‡	0	0.0‡	0	0.0‡	3	6.1‡	10	156.7‡
Otsego	19	25.0‡	8	25.9‡	11	24.0‡	19	25.2‡	-	-	-	-	-	-	17	362.4‡
Putnam	10	13.4‡	-	-	7	14.9‡	10	13.5‡	-	-	-	-	-	-	9	199.0‡
Rensselaer	35	20.5	15	24.4‡	20	17.6	35	20.9	0	0.0‡	0	0.0‡	6	8.4‡	29	276.4
Rockland	35	12.6	11	12.2‡	24	13.0	32	12.4	3	17.3‡	0	0.0‡	3	2.5‡	32	189.6
Saratoga	34	20.0	15	23.9‡	19	17.0‡	34	20.5	0	0.0‡	0	0.0‡	5	5.9‡	29	287.1
Schenectady	35	17.7	14	20.1‡	21	16.3	33	17.3	2	48.7‡	0	0.0‡	5	6.9‡	30	242.3
Schoharie	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Schuyler	7	29.6‡	-	-	-	-	7	30.2‡	-	-	-	-	-	-	7	490.9‡
Seneca	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
St Lawrence	25	22.0	10	23.6‡	15	21.0‡	25	22.2	0	0.0‡	0	0.0‡	6	12.2‡	19	273.1‡
Steuben	15	12.6‡	10	23.5‡	-	-	15	12.8‡	-	-	-	-	-	-	11	150.2‡
Suffolk	193	15.2	73	16.6	120	14.4	188	15.7	5	8.1‡	0	0.0‡	27	4.5	166	218.2
Sullivan	12	16.4‡	-	-	9	20.9‡	12	17.2‡	-	-	-	-	-	-	11	250.8‡
Tioga	6	11.6‡	-	-	-	-	6	11.8‡	-	-	-	-	-	-	-	-
Tompkins	20	25.1	7	26.4‡	13	24.7‡	20	26.3	-	-	-	-	-	-	18	367.2‡
Ulster	51	27.4	18	26.4‡	33	28.1	50	27.9	0	0.0‡	1	73.5‡	11	14.0‡	40	348.9
Warren	14	18.5‡	-	-	11	21.6‡	14	18.7‡	-	-	-	-	-	-	14	306.7‡
Washington	12	17.7‡	-	-	7	14.7‡	12	17.8‡	-	-	-	-	-	-	10	239.9‡
Wayne	16	17.6‡	8	21.4‡	8	13.2‡	16	17.9‡	-	-	-	-	-	-	11	200.8‡
Westchester	172	15.6	61	16.0	111	15.2	154	15.8	18	16.0‡	0	0.0‡	28	6.2	144	212.3
Wyoming	12	27.2‡	8	49.6‡	-	-	12	27.4‡	-	-	-	-	-	-	10	369.8‡
Yates	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bronx	128	11.6	56	14.4	72	9.7	99	12.7	27	9.5	2	8.7‡	32	6.9	95	138.9
Kings	281	12.8	109	13.3	172	12.4	191	12.0	84	15.0	6	8.8‡	67	6.7	212	161.1
New York	160	9.6	61	10.4	99	9.0	109	9.5	44	11.4	7	5.1‡	31	4.4	129	126.0
Queens	239	10.5	92	11.4	147	9.8	197	10.7	33	9.9	9	5.6‡	41	4.0	198	143.7
Richmond	55	14.7	18	12.6‡	37	15.6	52	15.4	2	11.5‡	1	4.9‡	14	7.7‡	41	186.2

Notes:
- * CDC Compressed Mortality File, 1999
- † Age adjusted rates per 100,000. Standard Population: US 2000
- ‡ Rates based on less than 20 deaths are unreliable.
- \- Rates based on fewer than 5 deaths over a 3 year period are not reported.

Table 9. Congestive Heart Failure Hospitalization Counts and Rates, (per 10,000 residents), 2000.

	NYS			Male			Female			Ages 35 to 74			Ages 75 & older			Ages 65 to 74			Ages 75 to 84			Ages 85 & older		
HP2010	*NA*			*NA*			*NA*			*NA*			*NA*			*65 per 10,000*			*135 per 10,000*			*265 per 10,000*		
County	**Counts**	**Rate**	**Std. Dev. From State**	**Counts**	**Rate**	**Std. Dev. From State**	**Counts**	**Rate**	**Std. Dev. From State**	**Counts**	**Rate**	**Std. Dev. From State**	**Counts**	**Rate**	**Std. Dev. From State**	**Counts**	**Rate**	**Std. Dev. From State**	**Counts**	**Rate**	**Std. Dev. From State**	**Counts**	**Rate**	**Std. Dev. From State**
NYS Total	*64434*	*34.5*		*28712*	*31.6*		*35722*	*37.1*		*28547*	*33.8*		*35242*	*312.4*		*14963*	*117.2*		*20653*	*245.4*		*14589*	*509.1*	
Albany	929	30.3	-0.52	412	28.1	-0.44	517	32.3	-0.52	363	26.1	-0.94	560	243.7	-1.01	192	79.7	-1.32	319	187.6	-0.99	241	403.2	-0.80
Allegany	167	32.9	-0.19	78	30.7	-0.11	89	35.0	-0.23	77	36.1	0.28	89	249.4	-0.93	36	100.2	-0.60	59	217.1	-0.49	30	352.9	-1.18
Broome	809	37.8	0.42	361	34.6	0.37	448	40.8	0.41	316	32.5	-0.16	484	306.0	-0.09	181	102.5	-0.52	298	251.8	0.11	186	466.8	-0.32
Cattaraugus	339	40.6	0.75	147	35.9	0.53	192	45.0	0.86	127	34.4	0.07	212	378.4	0.97	85	130.8	0.48	131	314.8	1.19	81	562.1	0.40
Cayuga	251	29.3	-0.64	111	25.7	-0.74	140	32.9	-0.45	87	23.2	-1.30	164	281.1	-0.46	44	66.0	-1.80	88	199.0	-0.80	76	538.2	0.22
Chautauqua	486	34.5	0.01	240	35.0	0.42	246	34.0	-0.33	172	27.3	-0.80	312	274.3	-0.56	96	82.6	-1.21	183	216.5	-0.50	129	441.6	-0.51
Chemung	241	23.7	-1.33	105	21.1	-1.31	136	26.1	-1.19	89	19.2	-1.79	152	209.5	-1.51	56	65.3	-1.82	104	193.3	-0.90	48	255.9	-1.91
Chenango	196	36.4	0.24	93	34.9	0.40	103	37.8	0.08	82	33.8	0.00	113	304.9	-0.11	43	106.8	-0.37	65	233.6	-0.20	48	520.0	0.08
Clinton	195	21.2	-1.63	95	20.1	-1.44	100	22.5	-1.58	96	26.0	-0.95	99	222.8	-1.32	48	97.5	-0.69	66	192.4	-0.91	33	325.8	-1.38
Columbia	207	31.6	-0.35	96	29.5	-0.26	111	33.6	-0.37	77	24.5	-1.14	130	241.1	-1.05	44	78.6	-1.36	74	182.4	-1.08	56	419.5	-0.67
Cortland	145	28.1	-0.79	80	32.0	0.05	65	24.3	-1.39	62	29.1	-0.58	83	258.7	-0.79	41	120.6	0.12	59	241.8	-0.06	24	312.5	-1.48
Delaware	235	50.1	1.94	98	42.1	1.30	137	58.0	2.26	88	40.2	0.78	147	392.7	1.18	60	144.0	0.94	80	284.8	0.68	67	717.3	1.57
Dutchess	714	26.3	-1.01	353	25.6	-0.75	361	27.0	-1.10	307	24.6	-1.12	406	266.3	-0.68	152	90.0	-0.96	211	182.3	-1.08	195	530.5	0.16
Erie	3747	38.2	0.47	1638	34.8	0.39	2109	41.4	0.47	1483	32.5	-0.17	2232	326.1	0.20	870	101.9	-0.54	1356	257.1	0.20	876	558.0	0.37
Essex	125	32.6	-0.22	56	28.3	-0.42	69	37.3	0.02	57	31.8	-0.25	68	246.6	-0.97	31	101.2	-0.56	41	205.9	-0.68	27	352.5	-1.18
Franklin	192	37.6	0.39	104	39.4	0.96	88	35.7	-0.16	84	37.5	0.45	107	339.3	0.40	61	166.3	1.72	66	275.3	0.51	41	541.6	0.24
Fulton	190	34.9	0.06	68	25.7	-0.74	122	43.7	0.72	59	23.7	-1.24	130	291.8	-0.30	27	55.9	-2.15	66	193.6	-0.89	64	612.4	0.78
Genesee	254	40.8	0.78	120	39.2	0.93	134	42.3	0.57	70	25.3	-1.04	183	438.5	1.85	53	113.9	-0.12	117	369.9	2.14	66	653.5	1.09
Greene	149	30.9	-0.45	72	29.3	-0.30	77	32.5	-0.50	71	31.4	-0.29	78	199.4	-1.66	40	98.5	-0.66	43	146.5	-1.70	35	358.2	-1.14
Hamilton	18	32.2	-0.28	5	**	-1.73	13	46.9	1.07	12	39.8	0.73	6	**	-2.37	8	**	0.77	4	**	-1.97	2	**	-2.18
Herkimer	305	47.4	1.60	132	42.0	1.28	173	52.5	1.67	114	38.3	0.54	190	372.0	0.88	68	112.6	-0.16	108	281.3	0.62	82	646.7	1.04
Jefferson	223	19.4	-1.87	107	18.1	-1.68	116	20.7	-1.78	118	26.6	-0.88	105	163.6	-2.19	65	93.4	-0.84	67	142.3	-1.77	38	222.2	-2.16
Lewis	76	26.5	-0.98	32	22.1	-1.18	44	30.9	-0.67	31	25.8	-0.98	45	266.6	-0.67	18	96.5	-0.73	18	141.2	-1.79	27	653.8	1.09
Livingston	155	22.6	-1.46	65	19.4	-1.53	90	25.8	-1.23	57	19.5	-1.74	97	251.6	-0.89	37	88.4	-1.01	42	144.2	-1.74	55	583.2	0.56
Madison	162	22.1	-1.53	69	18.9	-1.58	93	25.2	-1.29	73	23.3	-1.28	86	213.7	-1.45	45	94.2	-0.81	48	157.6	-1.51	38	387.8	-0.91
Monroe	2174	29.2	-0.65	949	26.3	-0.66	1225	32.0	-0.56	834	25.1	-1.06	1317	288.0	-0.36	491	96.3	-0.73	809	240.4	-0.09	508	420.9	-0.66
Montgomery	267	51.6	2.13	121	48.7	2.12	146	54.4	1.87	93	39.0	0.63	174	347.6	0.52	57	106.1	-0.39	100	267.0	0.37	74	587.3	0.59
Nassau	4842	37.9	0.42	2200	35.3	0.46	2642	40.3	0.35	1744	27.0	-0.84	3062	407.6	1.40	1061	97.2	-0.70	1785	313.8	1.18	1277	699.9	1.44
Niagara	980	43.2	1.08	419	38.1	0.80	561	47.9	1.17	385	36.7	0.35	592	378.8	0.98	233	117.8	0.02	361	298.9	0.92	231	650.5	1.06
Oneida	982	38.4	0.49	433	34.0	0.29	549	42.7	0.61	399	34.9	0.13	570	298.3	-0.21	234	106.7	-0.37	332	231.3	-0.24	238	500.8	-0.06
Onondaga	1263	26.0	-1.04	543	23.2	-1.05	720	28.7	-0.91	519	24.2	-1.17	734	243.7	-1.01	292	82.7	-1.21	447	198.8	-0.80	287	375.5	-1.01
Ontario	252	25.2	-1.14	108	21.8	-1.22	144	28.6	-0.92	102	22.1	-1.44	150	236.0	-1.12	62	85.7	-1.11	90	186.5	-1.01	60	392.2	-0.88
Orange	1188	33.7	-0.10	549	30.7	-0.12	639	36.7	-0.04	541	35.4	0.19	640	358.2	0.67	284	141.1	0.84	383	280.5	0.60	257	610.2	0.76
Orleans	165	35.5	0.13	61	26.0	-0.70	104	45.2	0.88	74	36.5	0.33	91	323.3	0.16	40	123.3	0.21	54	258.9	0.23	37	507.5	-0.01

Table 9. Congestive Heart Failure Hospitalization Counts and Rates, (per 10,000 residents), 2000.

	NYS			Male			Female			Ages 35 to 74			Ages 75 & older			Ages 65 to 74			Ages 75 to 84			Ages 85 & older		
HP2010	*NA*			*NA*			*NA*			*NA*			*NA*			*65 per 10,000*			*135 per 10,000*			*265 per 10,000*		
County	**Counts**	**Rate**	**Std. Dev. From State**	**Counts**	**Rate**	**Std. Dev. From State**	**Counts**	**Rate**	**Std. Dev. From State**	**Counts**	**Rate**	**Std. Dev. From State**	**Counts**	**Rate**	**Std. Dev. From State**	**Counts**	**Rate**	**Std. Dev. From State**	**Counts**	**Rate**	**Std. Dev. From State**	**Counts**	**Rate**	**Std. Dev. From State**
NYS Total	*64434*	*34.5*		*28712*	*31.6*		*35722*	*37.1*		*28547*	*33.8*		*35242*	*312.4*		*14963*	*117.2*		*20653*	*245.4*		*14589*	*509.1*	
Oswego	388	30.7	-0.47	171	27.2	-0.55	217	34.1	-0.33	191	36.4	0.31	196	305.9	-0.10	118	152.0	1.22	129	264.2	0.32	67	439.1	-0.53
Otsego	290	46.7	1.52	154	51.2	2.43	136	42.5	0.58	104	38.1	0.52	184	381.2	1.01	66	132.4	0.53	113	309.8	1.11	71	601.7	0.70
Putnam	201	22.2	-1.52	109	23.8	-0.97	92	20.5	-1.80	91	21.2	-1.55	110	273.5	-0.57	48	111.3	-0.21	57	181.2	-1.10	53	605.0	0.72
Rensselaer	560	35.0	0.07	219	27.7	-0.49	341	42.2	0.55	213	30.2	-0.45	343	329.9	0.26	133	114.0	-0.11	220	283.7	0.66	123	465.6	-0.33
Rockland	699	25.2	-1.14	323	23.8	-0.97	376	26.6	-1.14	282	21.3	-1.53	410	302.7	-0.14	153	102.7	-0.51	221	222.7	-0.39	189	521.7	0.09
Saratoga	448	21.6	-1.59	189	18.2	-1.67	259	24.9	-1.32	161	17.0	-2.06	278	287.7	-0.36	101	81.4	-1.26	160	215.0	-0.52	118	531.3	0.17
Schenectady	588	39.5	0.62	291	40.6	1.11	297	38.4	0.15	202	29.0	-0.59	384	310.7	-0.02	122	91.7	-0.90	223	239.1	-0.11	161	530.8	0.16
Schoharie	94	26.9	-0.94	34	19.7	-1.49	60	33.9	-0.35	47	29.8	-0.49	47	194.7	-1.73	37	135.5	0.64	31	171.4	-1.27	16	264.5	-1.84
Schuyler	58	28.6	-0.73	29	28.5	-0.39	29	28.6	-0.92	26	27.5	-0.77	32	231.7	-1.19	18	114.5	-0.10	17	166.0	-1.36	15	420.2	-0.67
Seneca	73	20.7	-1.70	43	24.5	-0.88	30	16.9	-2.19	36	22.1	-1.43	37	146.4	-2.44	20	70.3	-1.65	25	135.5	-1.89	12	176.0	-2.51
St. Lawrence	325	28.8	-0.69	139	24.4	-0.90	186	33.4	-0.41	131	27.6	-0.76	191	287.3	-0.37	76	100.3	-0.60	117	235.3	-0.17	74	441.3	-0.51
Steuben	363	35.5	0.13	152	29.9	-0.21	211	41.0	0.42	134	28.5	-0.65	228	324.9	0.18	81	98.0	-0.67	125	237.5	-0.14	103	587.2	0.59
Suffolk	4143	30.0	-0.55	1914	28.1	-0.44	2229	31.9	-0.57	1789	27.8	-0.74	2320	336.0	0.35	1018	123.3	0.21	1342	256.0	0.18	978	588.7	0.60
Sullivan	278	39.7	0.65	130	35.9	0.53	148	43.8	0.73	131	40.1	0.77	145	303.3	-0.13	72	125.2	0.28	81	215.3	-0.52	64	628.7	0.90
Tioga	60	11.0	-2.90	18	6.6	-3.11	42	15.4	-2.36	25	10.2	-2.89	34	123.1	-2.78	16	48.3	-2.42	16	77.0	-2.89	18	263.9	-1.85
Tompkins	163	15.7	-2.31	84	16.3	-1.91	79	15.2	-2.37	70	17.9	-1.94	89	180.2	-1.94	33	63.3	-1.89	53	145.4	-1.72	36	278.2	-1.74
Ulster	545	32.4	-0.25	262	31.2	-0.06	283	33.7	-0.37	226	28.8	-0.61	316	293.1	-0.28	100	84.9	-1.14	169	205.8	-0.68	147	572.2	0.47
Warren	231	36.0	0.20	105	33.7	0.25	126	38.3	0.13	94	31.9	-0.23	137	299.6	-0.19	41	82.5	-1.22	80	236.6	-0.15	57	478.6	-0.23
Washington	190	30.5	-0.49	92	28.6	-0.38	98	32.5	-0.50	89	32.0	-0.22	101	257.9	-0.80	43	94.1	-0.81	58	198.8	-0.80	43	430.4	-0.59
Wayne	223	24.0	-1.30	100	21.6	-1.25	123	26.3	-1.17	94	22.7	-1.36	127	242.4	-1.03	50	85.6	-1.11	60	149.4	-1.65	67	547.8	0.29
Westchester	2973	32.4	-0.26	1376	31.3	-0.05	1597	33.4	-0.40	1120	24.9	-1.09	1831	277.8	-0.51	640	91.5	-0.90	1015	206.0	-0.68	816	490.6	-0.14
Wyoming	145	32.4	-0.26	65	27.1	-0.56	80	38.4	0.14	55	28.3	-0.67	88	333.3	0.31	30	101.4	-0.56	59	297.2	0.89	29	442.8	-0.50
Yates	66	26.3	-1.01	33	26.8	-0.60	33	25.8	-1.23	24	21.0	-1.57	42	214.2	-1.44	17	85.3	-1.12	31	216.6	-0.49	11	207.6	-2.27
Bronx	5405	43.7	1.15	2245	38.9	0.90	3160	48.0	1.18	3067	63.2	3.59	2240	336.1	0.35	1371	213.2	3.37	1360	289.9	0.76	880	445.9	-0.48
Kings	9611	40.2	0.71	4117	36.4	0.59	5494	43.6	0.70	4830	48.6	1.81	4638	367.8	0.82	2172	155.0	1.32	2786	294.2	0.84	1852	590.1	0.61
New York	4766	31.4	-0.38	2209	30.3	-0.17	2557	32.3	-0.52	2399	33.0	-0.10	2297	250.0	-0.92	1108	121.5	0.15	1280	194.1	-0.88	1017	392.6	-0.88
Queens	7101	34.2	-0.03	3119	31.1	-0.06	3982	37.1	0.00	3205	33.9	0.01	3830	288.9	-0.35	1654	113.6	-0.13	2130	217.1	-0.49	1700	493.4	-0.12
Richmond	1448	34.6	0.02	659	32.1	0.05	789	37.0	-0.01	655	35.1	0.16	787	415.6	1.52	359	155.8	1.35	492	346.2	1.73	295	624.3	0.87

Notes: * Source: New York State Statewide Planning & Research Cooperative System: 2000

** Rates generated from counts of 10 or less should be interpreted with caution.

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Table 9. Congestive Heart Failure Hospitalization Counts and Rates, (per 10,000 residents), 2000.

	NYS			Male			Female			Ages 35 to 74			Ages 75 & older			Ages 65 to 74			Ages 75 to 84			Ages 85 & older		
HP2010	*NA*			*NA*			*NA*			*NA*			*NA*			*65 per 10,000*			*135 per 10,000*			*265 per 10,000*		
County	**Counts**	**Rate**	**Std. Dev. From State**	**Counts**	**Rate**	**Std. Dev. From State**	**Counts**	**Rate**	**Std. Dev. From State**	**Counts**	**Rate**	**Std. Dev. From State**	**Counts**	**Rate**	**Std. Dev. From State**	**Counts**	**Rate**	**Std. Dev. From State**	**Counts**	**Rate**	**Std. Dev. From State**	**Counts**	**Rate**	**Std. Dev. From State**
NYS Total	*64434*	*34.5*		*28712*	*31.6*		*35722*	*37.1*		*28547*	*33.8*		*35242*	*312.4*		*14963*	*117.2*		*20653*	*245.4*		*14589*	*509.1*	
Oswego	388	30.7	-0.47	171	27.2	-0.55	217	34.1	-0.33	191	36.4	0.31	196	305.9	-0.10	118	152.0	1.22	129	264.2	0.32	67	439.1	-0.53
Otsego	290	46.7	1.52	154	51.2	2.43	136	42.5	0.58	104	38.1	0.52	184	381.2	1.01	66	132.4	0.53	113	309.8	1.11	71	601.7	0.70
Putnam	201	22.2	-1.52	109	23.8	-0.97	92	20.5	-1.80	91	21.2	-1.55	110	273.5	-0.57	48	111.3	-0.21	57	181.2	-1.10	53	605.0	0.72
Rensselaer	560	35.0	0.07	219	27.7	-0.49	341	42.2	0.55	213	30.2	-0.45	343	329.9	0.26	133	114.0	-0.11	220	283.7	0.66	123	465.6	-0.33
Rockland	699	25.2	-1.14	323	23.8	-0.97	376	26.6	-1.14	282	21.3	-1.53	410	302.7	-0.14	153	102.7	-0.51	221	222.7	-0.39	189	521.7	0.09
Saratoga	448	21.6	-1.59	189	18.2	-1.67	259	24.9	-1.32	161	17.0	-2.06	278	287.7	-0.36	101	81.4	-1.26	160	215.0	-0.52	118	531.3	0.17
Schenectady	588	39.5	0.62	291	40.6	1.11	297	38.4	0.15	202	29.0	-0.59	384	310.7	-0.02	122	91.7	-0.90	223	239.1	-0.11	161	530.8	0.16
Schoharie	94	26.9	-0.94	34	19.7	-1.49	60	33.9	-0.35	47	29.8	-0.49	47	194.7	-1.73	37	135.5	0.64	31	171.4	-1.27	16	264.5	-1.84
Schuyler	58	28.6	-0.73	29	28.5	-0.39	29	28.6	-0.92	26	27.5	-0.77	32	231.7	-1.19	18	114.5	-0.10	17	166.0	-1.36	15	420.2	-0.67
Seneca	73	20.7	-1.70	43	24.5	-0.88	30	16.9	-2.19	36	22.1	-1.43	37	146.4	-2.44	20	70.3	-1.65	25	135.5	-1.89	12	176.0	-2.51
St. Lawrence	325	28.8	-0.69	139	24.4	-0.90	186	33.4	-0.41	131	27.6	-0.76	191	287.3	-0.37	76	100.3	-0.60	117	235.3	-0.17	74	441.3	-0.51
Steuben	363	35.5	0.13	152	29.9	-0.21	211	41.0	0.42	134	28.5	-0.65	228	324.9	0.18	81	98.0	-0.67	125	237.5	-0.14	103	587.2	0.59
Suffolk	4143	30.0	-0.55	1914	28.1	-0.44	2229	31.9	-0.57	1789	27.8	-0.74	2320	336.0	0.35	1018	123.3	0.21	1342	256.0	0.18	978	588.7	0.60
Sullivan	278	39.7	0.65	130	35.9	0.53	148	43.8	0.73	131	40.1	0.77	145	303.3	-0.13	72	125.2	0.28	81	215.3	-0.52	64	628.7	0.90
Tioga	60	11.0	-2.90	18	6.6	-3.11	42	15.4	-2.36	25	10.2	-2.89	34	123.1	-2.78	16	48.3	-2.42	16	77.0	-2.89	18	263.9	-1.85
Tompkins	163	15.7	-2.31	84	16.3	-1.91	79	15.2	-2.37	70	17.9	-1.94	89	180.2	-1.94	33	63.3	-1.89	53	145.4	-1.72	36	278.2	-1.74
Ulster	545	32.4	-0.25	262	31.2	-0.06	283	33.7	-0.37	226	28.8	-0.61	316	293.1	-0.28	100	84.9	-1.14	169	205.8	-0.68	147	572.2	0.47
Warren	231	36.0	0.20	105	33.7	0.25	126	38.3	0.13	94	31.9	-0.23	137	299.6	-0.19	41	82.5	-1.22	80	236.6	-0.15	57	478.6	-0.23
Washington	190	30.5	-0.49	92	28.6	-0.38	98	32.5	-0.50	89	32.0	-0.22	101	257.9	-0.80	43	94.1	-0.81	58	198.8	-0.80	43	430.4	-0.59
Wayne	223	24.0	-1.30	100	21.6	-1.25	123	26.3	-1.17	94	22.7	-1.36	127	242.4	-1.03	50	85.6	-1.11	60	149.4	-1.65	67	547.8	0.29
Westchester	2973	32.4	-0.26	1376	31.3	-0.05	1597	33.4	-0.40	1120	24.9	-1.09	1831	277.8	-0.51	640	91.5	-0.90	1015	206.0	-0.68	816	490.6	-0.14
Wyoming	145	32.4	-0.26	65	27.1	-0.56	80	38.4	0.14	55	28.3	-0.67	88	333.3	0.31	30	101.4	-0.56	59	297.2	0.89	29	442.8	-0.50
Yates	66	26.3	-1.01	33	26.8	-0.60	33	25.8	-1.23	24	21.0	-1.57	42	214.2	-1.44	17	85.3	-1.12	31	216.6	-0.49	11	207.6	-2.27
Bronx	5405	43.7	1.15	2245	38.9	0.90	3160	48.0	1.18	3067	63.2	3.59	2240	336.1	0.35	1371	213.2	3.37	1360	289.9	0.76	880	445.9	-0.48
Kings	9611	40.2	0.71	4117	36.4	0.59	5494	43.6	0.70	4830	48.6	1.81	4638	367.8	0.82	2172	155.0	1.32	2786	294.2	0.84	1852	590.1	0.61
New York	4766	31.4	-0.38	2209	30.3	-0.17	2557	32.3	-0.52	2399	33.0	-0.10	2297	250.0	-0.92	1108	121.5	0.15	1280	194.1	-0.88	1017	392.6	-0.88
Queens	7101	34.2	-0.03	3119	31.1	-0.06	3982	37.1	0.00	3205	33.9	0.01	3830	288.9	-0.35	1654	113.6	-0.13	2130	217.1	-0.49	1700	493.4	-0.12
Richmond	1448	34.6	0.02	659	32.1	0.05	789	37.0	-0.01	655	35.1	0.16	787	415.6	1.52	359	155.8	1.35	492	346.2	1.73	295	624.3	0.87

Notes: * Source: New York State Statewide Planning & Research Cooperative System: 2000

** Rates generated from counts of 10 or less should be interpreted with caution.

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Table 11. NYS Stroke Mortality, 1999.*

HP2010	*40 per 100,000*															
	Total		**Male**		**Female**		**White**		**Black**		**Other**		**Ages 35 to 74**		**75 and Older**	
County	**Count**	**Rate†**	**Count**	**Rate†**	**Count**	**Rate†**	**Count**	**Rate†**	**Count**	**Rate†**	**Count**	**Rate†**	**Count**	**Rate†**	**Count**	**Rate†**
NYS Total	*8,124*	*42.1*	*3,090*	*42.2*	*5,034*	*41.1*	*7,071*	*42.4*	*902*	*38.9*	*151*	*23.8*	*2,157*	*25.3*	*5,906*	*503.2*
Albany	179	49.7	62	50.9	117	48.3	169	49.3	10	55.2‡	0	0.0‡	31	22.3	147	651.1
Allegany	37	64.9	12	55.9‡	25	75.9	37	65.2	-	-	-	-	13	56.9‡	24	650.1
Broome	164	64.5	60	68.1	104	61.8	163	64.8	1	34.8‡	0	0.0‡	39	39.0	125	777.6
Cattaraugus	47	48.5	18	52.4‡	29	50.4	46	48.8	-	-	-	-	14	33.9‡	33	551.2
Cayuga	65	71.2	20	56.8	45	73.5	65	72.1	-	-	-	-	10	27.1‡	55	978.1
Chautauqua	100	56.1	41	57.7	59	53.1	97	55.1	2	126.0‡	1	105.1‡	24	35.2	76	666.5
Chemung	71	65.2	36	86.9	35	47.5	69	65.6	-	-	-	-	18	40.5‡	53	777.4
Chenango	42	71.7	13	53.6‡	29	78.2	42	72.6	-	-	-	-	12	52.6‡	30	794.8
Clinton	53	72.4	17	58.2‡	36	75.1	51	70.2	-	-	-	-	11	34.4‡	42	943.1
Columbia	41	49.5	20	61.9	21	42.1	39	48.4	-	-	-	-	8	25.1‡	32	605.8
Cortland	32	65.2	15	79.2‡	17	51.8‡	31	63.2	-	-	-	-	7	35.4‡	25	815.4
Delaware	39	56.0	15	57.5‡	24	54.4	39	56.6	-	-	-	-	-	-	36	851.1
Dutchess	138	52.9	49	48.8	89	55.5	125	51.3	12	78.2‡	1	28.7‡	37	32.3	99	624.4
Erie	695	62.3	266	64.0	429	59.3	637	63.0	55	53.9	3	36.1‡	156	31.1	535	792.2
Essex	33	64.4	12	66.5‡	21	67.0	33	64.9	-	-	-	-	-	-	28	866.1
Franklin	27	58.3	13	74.7‡	14	50.0‡	27	61.7	-	-	-	-	10	48.4‡	17	604.7‡
Fulton	21	32.7	7	30.1‡	14	30.8‡	21	33.1	-	-	-	-	6	23.4‡	15	366.8‡
Genesee	29	42.4	14	52.0‡	15	33.5‡	28	42.1	-	-	-	-	-	-	24	571.1
Greene	28	48.4	12	48.2‡	16	49.8‡	27	48.4	-	-	-	-	9	38.2‡	18	483.9‡
Hamilton	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Herkimer	38	46.1	12	36.6‡	26	46.6	38	46.4	-	-	-	-	9	26.6‡	29	565.6
Jefferson	51	51.5	19	55.2‡	32	51.7	51	51.9	0	0.0‡	0	0.0‡	13	32.4‡	38	611.0
Lewis	15	49.4‡	-	-	11	56.4‡	15	49.9‡	-	-	-	-	-	-	14	759.9‡
Livingston	32	51.0	13	55.5‡	19	47.8‡	30	48.6	-	-	-	-	-	-	27	707.2
Madison	50	73.4	16	62.0‡	34	78.3	49	72.8	-	-	-	-	10	33.3‡	40	967.3
Monroe	436	56.9	155	57.1	281	55.4	404	56.0	26	54.4	6	83.0‡	84	26.2	350	743.1
Montgomery	31	41.2	11	37.9‡	20	44.1	31	41.4	-	-	-	-	11	36.3‡	20	410.8
Nassau	497	34.6	211	38.4	286	32.1	450	33.9	42	47.6	5	20.5‡	125	16.9	368	442.1
Niagara	176	68.7	71	71.6	105	65.3	171	69.2	4	49.8‡	1	32.2‡	31	27.1	145	935.7
Oneida	199	66.9	74	69.6	125	64.5	195	66.7	3	39.6‡	1	75.0‡	40	33.5	159	858.4
Onondaga	292	57.7	82	43.8	210	63.5	276	57.3	16	65.4‡	0	0.0‡	66	30.8	226	726.0
Ontario	54	51.0	16	38.5‡	38	57.8	53	50.7	-	-	-	-	9	19.7‡	45	698.1
Orange	136	49.6	46	45.5	90	50.1	131	50.3	4	32.1‡	1	22.1‡	21	16.4	114	693.8
Orleans	32	71.8	14	77.9‡	18	64.8‡	30	69.4	-	-	-	-	7	36.2‡	24	887.0
Oswego	75	70.4	29	78.5	46	69.1	75	70.7	0	0.0‡	0	0.0‡	14	28.2‡	61	955.8

Table 11. NYS Stroke Mortality, 1999.*

HP2010	*40 per 100,000*															
	Total		Male		Female		White		Black		Other		Ages 35 to 74		Ages 75 and Older	
County	**Count**	**Rate†**	**Count**	**Rate†**	**Count**	**Rate†**	**Count**	**Rate†**	**Count**	**Rate†**	**Count**	**Rate†**	**Count**	**Rate†**	**Count**	**Rate†**
NYS Total	*8,124*	*42.1*	*3,090*	*42.2*	*5,034*	*41.1*	*7,071*	*42.4*	*902*	*38.9*	*151*	*23.8*	*2,157*	*25.3*	*5,906*	*503.2*
Otsego	38	50.0	13	43.5‡	25	51.5	38	50.3	-	-	-	-	8	27.1‡	30	626.1
Putnam	23	30.9	8	26.1‡	15	34.2‡	22	30.0	-	-	-	-	7	21.1‡	16	353.5‡
Rensselaer	107	63.3	36	59.0	71	65.9	105	63.6	2	64.1‡	0	0.0‡	18	25.9‡	89	856.4
Rockland	143	51.1	54	55.7	89	48.0	131	51.1	11	60.7	1	27.7‡	23	18.2	119	704.7
Saratoga	88	50.6	35	49.4	53	50.2	88	51.7	0	0.0	0	0.0‡	23	27.1	65	636.4
Schenectady	102	51.8	32	45.2	70	54.2	98	51.4	4	83.2	0	0.0‡	16	21.1‡	84	675.7
Schoharie	21	57.4	9	59.7‡	12	54.4‡	21	58.2	-	-	-	-	-	-	16	700.7‡
Schuyler	10	40.6‡	7	75.1‡	-	-	10	41.4‡	-	-	-	-	-	-	8	524.7‡
Seneca	15	40.7‡	-	-	10	45.9‡	15	41.0‡	-	-	-	-	-	-	11	482.8‡
St Lawrence	69	60.8	25	57.6	44	61.6	68	60.5	1	174.5	0	0.0‡	18	36.5‡	51	734.5
Steuben	71	61.0	26	56.5	45	62.5	71	61.8	-	-	-	-	14	28.1‡	57	800.0
Suffolk	547	42.6	202	41.6	345	42.5	516	42.9	29	40.8	2	4.6‡	137	22.3	406	534.0
Sullivan	34	46.2	12	34.5‡	22	51.5	33	46.9	-	-	-	-	8	23.1‡	26	592.3
Tioga	26	49.8	12	59.0‡	14	42.9‡	26	50.4	-	-	-	-	8	33.7‡	18	573.9‡
Tompkins	42	53.7	16	57.2‡	26	51.3	40	53.6	-	-	-	-	6	18.9‡	36	748.6
Ulster	71	38.4	32	42.0	39	31.7	66	37.0	5	79.8‡	0	0.0‡	17	21.9‡	54	471.7
Warren	37	49.7	17	63.4‡	20	41.4	37	50.2	-	-	-	-	7	23.1‡	30	650.9
Washington	51	77.4	16	61.3‡	35	88.5	51	77.9	-	-	-	-	13	45.4‡	38	943.3
Wayne	45	49.4	14	37.5‡	31	54.5	42	46.9	-	-	-	-	8	20.2‡	36	652.1
Westchester	419	38.5	151	38.8	268	37.7	362	37.5	51	44.0	6	29.4‡	80	17.8	338	502.5
Wyoming	33	74.5	12	73.7‡	21	74.7	33	75.1	-	-	-	-	-	-	28	1,029.5
Yates	23	72.2	7	59.9‡	16	81.8‡	23	72.8	-	-	-	-	6	49.5‡	17	827.4‡
Bronx	393	36.3	167	40.8	226	32.7	263	36.6	126	39.0	4	14.1‡	172	36.6	218	324.7
Kings	614	28.0	256	29.2	358	26.7	359	24.2	226	34.8	29	33.1	274	27.7	328	248.7
New York	469	28.7	185	29.6	284	27.4	312	28.5	119	30.0	38	25.4	166	23.2	299	298.2
Queens	595	26.6	233	26.6	362	26.2	421	24.6	126	35.4	48	24.5	223	22.6	360	262.4
Richmond	80	21.1	32	20.5	48	20.3	72	21.2	7	34.4‡	1	3.0‡	26	14.1	51	232.6

Notes: * CDC Compressed Mortality File, 1999

† Age adjusted rates per 100,000. Standard Population: US 2000

‡ Rates based on less than 20 deaths are unreliable.

- Rates based on fewer than 5 deaths over a 3 year period are not reported.

Table 12. Stroke Hospitalization Counts and Rates, (per 10,000 residents), 2000.*

	NYS			Male			Female			Ages 35 to 74			Ages 75 & older		
County	Counts	Rate	SD from State Avg.	Counts	Rate	SD from State Avg.	Counts	Rate	SD from State Avg.	Counts	Rate	SD from State Avg.	Counts	Rate	SD from State Avg.
NYS Total	*59,326*	*31.7*		*26,407*	*29.1*		*32,916*	*34.2*		*29,781*	*35.3*		*28,640*	*253.9*	
Albany	865	28.2	-0.61	381	26.0	-0.57	484	30.3	-0.56	407	29.3	-0.89	452	196.7	-1.27
Allegany	152	29.9	-0.31	74	29.2	0.01	78	30.7	-0.50	81	37.9	0.40	69	193.4	-1.35
Broome	716	33.5	0.30	303	29.1	-0.01	413	37.6	0.50	301	31.0	-0.64	409	258.6	0.10
Cattaraugus	317	37.9	1.08	149	36.4	1.32	168	39.4	0.75	171	46.3	1.65	141	251.7	-0.05
Cayuga	256	29.9	-0.32	121	28.0	-0.20	135	31.8	-0.35	120	32.0	-0.49	134	229.7	-0.54
Chautauqua	460	32.7	0.16	204	29.7	0.12	256	35.4	0.18	209	33.2	-0.32	244	214.5	-0.88
Chemung	249	24.5	-1.27	112	22.5	-1.20	137	26.3	-1.13	115	24.8	-1.57	134	184.7	-1.54
Chenango	167	31.0	-0.13	83	31.1	0.37	84	30.9	-0.48	83	34.2	-0.16	82	221.3	-0.73
Clinton	245	26.7	-0.88	116	24.5	-0.84	129	29.0	-0.74	122	33.1	-0.33	123	276.8	0.51
Columbia	193	29.5	-0.39	89	27.4	-0.31	104	31.5	-0.38	90	28.6	-0.99	102	189.1	-1.44
Cortland	149	28.8	-0.51	61	24.4	-0.85	88	32.9	-0.18	74	34.7	-0.09	74	230.7	-0.52
Delaware	171	36.5	0.83	85	36.5	1.35	86	36.4	0.32	68	31.1	-0.63	103	275.2	0.48
Dutchess	732	27.0	-0.83	359	26.1	-0.55	373	27.9	-0.91	387	31.1	-0.63	335	219.7	-0.76
Erie	3,859	39.4	1.33	1,710	36.3	1.31	2,148	42.2	1.15	1,868	40.9	0.84	1,958	286.1	0.72
Essex	102	26.6	-0.89	54	27.3	-0.33	48	26.0	-1.18	37	20.6	-2.19	62	224.9	-0.65
Franklin	173	33.9	0.37	76	28.8	-0.06	97	39.3	0.73	83	37.1	0.27	87	275.8	0.49
Fulton	184	33.8	0.37	93	35.1	1.09	91	32.6	-0.23	88	35.3	0.00	96	215.5	-0.85
Genesee	204	32.8	0.18	92	30.0	0.17	112	35.4	0.17	93	33.6	-0.26	111	266.0	0.27
Greene	146	30.2	-0.26	85	34.5	0.99	61	25.8	-1.21	78	34.5	-0.11	68	173.8	-1.78
Hamilton	21	37.5	1.01	8	28†	-0.15	13	46.9	1.83	10	33.0†	-0.32	11	277.1	0.52
Herkimer	249	38.7	1.21	105	33.4	0.78	144	43.7	1.36	93	31.2	-0.61	155	303.5	1.10
Jefferson	268	23.3	-1.47	117	19.8	-1.69	151	26.9	-1.04	137	30.9	-0.66	126	196.3	-1.28
Lewis	83	28.9	-0.49	36	24.9	-0.76	47	33.0	-0.17	51	42.5	1.07	32	189.6	-1.43
Livingston	168	24.5	-1.25	84	25.0	-0.74	84	24.1	-1.45	80	27.4	-1.17	87	225.7	-0.63
Madison	169	23.0	-1.52	74	20.3	-1.60	95	25.7	-1.21	93	29.7	-0.83	76	188.8	-1.45
Monroe	2,169	29.2	-0.45	1,011	28.0	-0.20	1,158	30.2	-0.57	1,032	31.1	-0.63	1,116	244.1	-0.22
Montgomery	216	41.8	1.76	92	37.0	1.44	124	46.2	1.72	85	35.6	0.05	127	253.7	0.00
Nassau	4,652	36.4	0.81	2,124	34.1	0.91	2,528	38.6	0.63	2,106	32.6	-0.41	2,482	330.4	1.70
Niagara	996	43.9	2.12	437	39.7	1.93	559	47.8	1.95	509	48.5	1.98	475	303.9	1.12
Oneida	1,002	39.2	1.30	452	35.5	1.16	550	42.8	1.24	444	38.8	0.53	549	287.3	0.75
Onondaga	1,403	28.9	-0.49	610	26.0	-0.56	792	31.6	-0.37	659	30.8	-0.68	726	241.0	-0.29
Ontario	247	24.7	-1.22	105	21.2	-1.44	142	28.2	-0.86	131	28.3	-1.04	108	169.9	-1.87
Orange	1,055	29.9	-0.32	454	25.4	-0.68	601	34.5	0.05	544	35.6	0.04	492	275.4	0.48
Orleans	162	34.8	0.54	77	32.8	0.67	85	36.9	0.39	82	40.5	0.78	76	270.0	0.36

Table 12. Stroke Hospitalization Counts and Rates, (per 10,000 residents), 2000.*

	NYS			Male			Female			Ages 35 to 74			Ages 75 & older		
County	Counts	Rate	SD from State Avg.	Counts	Rate	SD from State Avg.	Counts	Rate	SD from State Avg.	Counts	Rate	SD from State Avg.	Counts	Rate	SD from State Avg.
NYS Total	*59,326*	*31.7*		*26,407*	*29.1*		*32,916*	*34.2*		*29,781*	*35.3*		*28,640*	*253.9*	
Oswego	411	32.5	0.13	180	28.6	-0.09	231	36.3	0.30	212	40.4	0.77	194	302.8	1.09
Otsego	216	34.8	0.54	108	35.9	1.24	108	33.7	-0.07	95	34.8	-0.08	118	244.5	-0.21
Putnam	246	27.2	-0.80	122	26.7	-0.44	124	27.7	-0.94	138	32.1	-0.48	102	253.6	-0.01
Rensselaer	501	31.4	-0.06	226	28.6	-0.09	275	34.0	-0.02	221	31.3	-0.60	278	267.4	0.30
Rockland	796	28.8	-0.52	388	28.6	-0.08	408	28.9	-0.76	401	30.3	-0.75	375	276.9	0.51
Saratoga	568	38.1	1.12	268	37.4	1.50	300	38.8	0.67	257	36.9	0.25	308	249.2	-0.10
Schenectady	97	27.7	-0.70	42	24.3	-0.87	55	31.1	-0.45	44	27.9	-1.11	49	203.0	-1.13
Schoharie	46	22.7	-1.58	25	24.6	-0.82	21	20.7	-1.93	19	20.1	-2.27	26	188.3	-1.46
Schuyler	84	23.8	-1.38	43	24.5	-0.83	41	23.1	-1.59	38	23.3	-1.79	44	174.1	-1.78
Seneca	341	30.3	-0.25	145	25.5	-0.66	196	35.1	0.14	134	28.2	-1.05	204	306.8	1.18
St Lawrence	480	23.1	-1.50	212	20.4	-1.57	267	25.7	-1.22	247	26.0	-1.38	231	239.0	-0.33
Steuben	320	31.3	-0.08	142	28.0	-0.21	178	34.6	0.05	139	29.6	-0.85	175	249.4	-0.10
Suffolk	4,675	33.9	0.37	2,047	30.1	0.17	2,628	37.6	0.48	2,325	36.1	0.12	2,275	329.5	1.69
Sullivan	234	33.4	0.30	110	30.4	0.23	124	36.7	0.36	114	34.9	-0.06	119	248.9	-0.11
Tioga	77	14.1	-3.07	28	10.3	-3.42	49	17.9	-2.33	37	15.0	-3.03	40	144.9	-2.43
Tompkins	179	17.3	-2.52	91	17.6	-2.09	88	17.0	-2.47	85	21.7	-2.03	90	182.3	-1.60
Ulster	509	30.3	-0.25	232	27.6	-0.27	277	33.0	-0.17	256	32.6	-0.40	244	226.4	-0.61
Warren	218	34.0	0.40	115	36.9	1.41	103	31.3	-0.41	95	32.2	-0.46	118	258.0	0.09
Washington	138	22.1	-1.68	75	23.3	-1.06	63	20.9	-1.91	81	29.2	-0.92	57	145.5	-2.41
Wayne	212	22.8	-1.56	104	22.4	-1.21	108	23.1	-1.59	105	25.3	-1.49	106	202.3	-1.15
Westchester	3,017	32.8	0.19	1,417	32.2	0.56	1,600	33.4	-0.11	1,388	30.9	-0.66	1,578	239.4	-0.32
Wyoming	146	32.6	0.15	56	23.4	-1.04	90	43.2	1.29	72	37.1	0.27	71	268.9	0.34
Yates	58	23.1	-1.50	34	27.6	-0.27	24	18.8	-2.21	18	15.7	-2.92	38	193.8	-1.34
Bronx	3,854	31.2	-0.09	1,594	27.6	-0.27	2,260	34.3	0.02	2,341	48.2	1.94	1,412	211.9	-0.94
Kings	7,185	30.0	-0.29	2,995	26.5	-0.48	4,190	33.2	-0.14	3,882	39.1	0.57	3,169	251.3	-0.06
New York	3,839	25.3	-1.13	1,707	23.4	-1.03	2,132	27.0	-1.03	2,049	28.2	-1.06	1,699	184.9	-1.54
Queens	6,664	32.1	0.07	2,913	29.1	-0.01	3,751	34.9	0.11	3,298	34.9	-0.06	3,273	246.9	-0.16
Richmond	1,401	33.5	0.30	640	31.1	0.37	761	35.7	0.22	771	41.4	0.91	618	326.4	1.62

Notes: * Source: New York State Statewide Planning & Research Cooperative System: 2000

† Rates based on less than 20 deaths are unreliable

Table 13. Current Smokers,[†] New York State Adults, (Ages 18 & over): 2000.*

HP2010 Goal	*12%*	
Sociodemographic Characteristic	**Percent**	**CI (95%)**
Total	21.6	±1.6
Age		
18-24	33.0	±6.1
25-34	27.1	±3.8
35-44	26.8	±3.6
45-54	19.5	±4.2
55-64	14.7	±3.8
65+	9.4	±2.6
Race		
White	22.6	±2.0
Black	21.6	±5.1
Hispanic	18.1	±4.4
Other	20.4[‡]	±7.5
Sex		
Male	22.6	±2.6
Female	20.7	±2.0
Income		
Less than $15,000	23.3	±6.7
$15,000- 24,999	28.5	±4.7
$25,000- 34,999	22.1	±4.4
$35,000- 49,999	25.7	±4.4
$50,000+	17.9	±2.6
Education		
Less than H.S.	23.9	±5.1
H.S. or G.E.D.	26.6	±3.4
Some post-H.S.	23.7	±3.4
College graduate	14.2	±2.2

Notes: * Source: New York State BRFSS, 2000
† Smoked 100 cigarettes in their lifetime and smoke every day or some days.
‡ Unreliable estimate due to small sample size.

Table 14. Tobacco Use, New York State Adolescents (Grades 9-12): 1999.*

	Current Cigarette Use†		Current Spit Tobacco Use‡		Current Cigar Use$^{\delta}$		Current Tobacco Use**	
HP2010 Goal	*16%*		*1%*		*8%*		*21%*	
Sociodemographic Characteristic	**Percent**	**CI (95%)**	**Percent**	**CI (95%)**	**Percent**	**CI (95%)**	**Percent**	**CI (95%)**
Total	31.8	±2.7	4.4	±0.9	13.6	±1.7	35.8	±2.9
Grade								
9th	25.7	±4.3	3.1††	±1.6	9.4	±2.5	28.6	±4.6
10th	30.7	±4.3	5.2††	±1.7	14.1	±2.7	34.1	±4.6
11th	34.2	±5.4	4.7††	±1.6	14.7	±3.3	38.9	±5.1
12th	39.7	±6.1	4.7††	±2.3	18.2	±4.5	45.3	±6.2
Race								
White	36.0	±3.6	5.6	±1.5	15.8	±2.4	40.9	±3.9
Black	19.2	±4.3	1.8††	±1.4	7.1††	±2.4	20.8	±4.3
Hispanic	27.6	±3.9	2.5††	±1.1	11.8	±3.0	30.9	±4.2
Other	27.6	±6.0	3.3††	±2.5	11.3††	±4.3	30.6	±6.5
Sex								
Male	29.5	±3.2	7.5	±1.7	20.5	±3.1	36.6	±3.6
Female	34.1	±3.3	1.2	±0.7††	6.6	±1.3	34.9	±3.2

Notes:
* Source: New York State YRBSS, 1999
† Smoked cigarettes on ≥ 1 of the 30 days preceding the survey.
‡ Used chewing tobacco or snuff on ≥1 of the 30 days preceding the survey.
δ Smoked cigars on ≥ 1 of the 30 days preceding the survey.
** Smoked cigarettes or cigars or used chewing tobacco or snuff on ≥1 of the 30 days preceding the survey.
†† Unreliable estimate due to small sample size

Table 15. Leisure-Time Physical Activity, New York State Adults (Ages 18 & over): 2000.*

	Physical Inactivity†		Moderate Activity‡		Vigorous Activityδ		Recommended**	
HP2010 Goal	*20%*		*30%*		*30%*		*NA*	
Sociodemographic Characteristic	**Percent**	**CI (95%)**	**Percent**	**CI (95%)**	**Percent**	**CI (95%)**	**Percent**	**CI (95%)**
Total	30.2	±1.94	21.2	±1.63	11.0	±1.22	26.2	±1.76
Age								
18-24	19.7	±5.06	29.8	±5.96	5.4††	±2.82	30.8	±6.00
25-34	26.5	±3.96	20.7	±3.53	7.4	±2.02	23.5	±3.67
35-44	31.0	±3.76	21.5	±3.16	9.1	±2.23	25.2	±3.35
45-54	30.1	±5.23	20.6	±4.00	12.9	±3.31	27.1	±4.45
55-64	29.9	±5.74	21.8	±4.63	13.0	±3.67	27.7	±5.06
65+	40.7	±4.90	14.9	±3.39	17.6	±3.70	25.1	±4.21
Race								
White	26.3	±2.18	22.9	±1.96	12.5	±1.53	28.9	±2.12
Black	38.9	±6.04	18.6	±4.55	7.7††	±3.27	21.8	±4.92
Hispanic	40.5	±6.08	16.2	±4.33	7.2††	±2.98	19.9	±4.78
Other	32.3	±8.27	18.1††	±7.21	9.3††	±5.70	20.9††	±7.60
Sex								
Male	27.5	±3.04	21.8	±2.49	10.7	±1.82	27.0	±2.70
Female	32.7	±2.45	20.6	±2.10	11.2	±1.65	25.5	±2.27
Income								
Less than $15,000	42.5	±7.53	14.6††	±5.64	8.8††	±4.33	19.1††	±6.17
$15,000- 24,999	38.4	±5.21	15.3	±3.63	9.2††	±2.98	21.1	±4.17
$25,000- 34,999	37.6	±5.59	22.7	±4.63	11.5††	±3.67	28.3	±5.06
$35,000- 49,999	29.1	±4.55	23.4	±4.29	8.3††	±2.59	27.1	±4.47
$50,000+	18.8	±2.84	24.7	±2.88	14.1	±2.27	30.4	±3.06
Education								
Less than H.S.	50.1	±6.66	10.9††	±4.00	6.8††	±2.88	15.3††	±4.57
H.S. or G.E.D.	37.3	±3.94	18.3	±2.98	7.8	±2.08	22.0	±3.19
Some post-H.S.	29.1	±3.55	21.7	±3.14	9.7	±2.25	25.8	±3.33
College graduate	17.9	±2.55	27.1	±2.94	16.4	±2.43	34.4	±3.14

Notes:
* Source: New York State BRFSS, 2000
† No leisure-time physical activity reported during the past month.
‡ moderate activity, ≥5 times per week for ≥30 minutes each time.
δ vigorous activity, ≥3 times per week for ≥20 minutes each time.
** Meeting the moderate and/or vigorous criteria
†† Unreliable estimate due to small sample size

Table 16. Leisure-time Physical Activity, New York State Adolescents (Grades 9-12): 1999.*

	Moderate Activity†		Vigorous Activity‡		Recommended§	
HP2010 Goal	*35%*		*85%*		*NA*	
Sociodemographic Characteristic	**Percent**	**CI (95%)**	**Percent**	**CI (95%)**	**Percent**	**CI (95%)**
Total	25.1	±1.7	71.1	±2.1	74.7	±2.1
Grade						
9th	23.5	±3.2	72.9	±4.2	77.2	±4.0
10th	25.8	±2.6	72.0	±3.0	74.1	±3.0
11th	26.6	±3.4	71.3	±4.3	75.1	±3.9
12th	24.9	±4.5	67.1	±5.3	71.6	±5.9
Race						
White	26.0	±2.3	74.5	±2.3	77.8	±2.2
Black	23.6	±3.1	64.0	±4.4	67.9	±4.8
Hispanic	22.6	±3.7	68.5	±3.7	71.7	±3.8
Other	25.5	±3.8	64.2	±6.4	69.6	±6.1
Sex						
Male	27.7	±2.6	78.1	±2.8	81.2	±2.7
Female	22.5	±2.7	64.1	±3.0	68.2	±3.1

Notes: * Source: New York State YRBSS, 1999
† Lightly participated in physical activity for at least 30 minutes on 5 or more of the past 7 days.
‡ Vigorously exercised or participated in physical activity for at least 20 minutes on 3 or more of the past 7 days
§ Meeting the moderate and/or vigorous criteria

Table 17. Fruits and Vegetables Consumption, New York State Adults (Ages 18 & over): 2000.*

	Fruits: 2-A-Day†		Vegetables: 3-A-Day‡		Fruits and Vegetables: 5-A-Day$^{\delta}$	
HP2010 Goal	*75%*		*50%*		*NA*	
Sociodemographic Characteristic	**Percent**	**CI (95%)**	**Percent**	**CI (95%)**	**Percent**	**CI (95%)**
Total	49.5	±2.0	27.8	±1.8	27.5	±1.8
Age						
18-24	43.3	±6.4	24.3	±5.8	26.9	±5.8
25-34	40.9	±4.4	19.8	±3.4	21.3	±3.7
35-44	47.2	±3.9	27.1	±3.5	25.2	±3.4
45-54	45.1	±5.1	30.1	±4.7	27.3	±4.5
55-64	58.0	±5.7	32.8	±5.4	31.4	±5.3
65+	63.0	±4.7	33.2	±4.4	34.6	±4.4
Race						
White	48.1	±2.3	27.9	±2.0	27.0	±2.0
Black	46.1	±5.9	24.5	±5.1	25.4	±5.0
Hispanic	54.6	±6.1	27.0	±5.4	28.7	±5.6
Other	57.8	±9.1	35.1**	±9.1	34.6**	±9.0
Sex						
Male	42.5	±3.1	23.1	±2.6	21.7	±2.6
Female	55.7	±2.5	31.8	±2.4	32.7	±2.4
Income						
Less than $15,000	51.0	±7.5	27.2	±6.9	30.9	±7.1
$15,000- 24,999	48.7	±5.2	23.7	±4.4	24.2	±4.4
$25,000- 34,999	50.7	±5.6	26.1	±4.9	27.4	±5.0
$35,000- 49,999	44.3	±4.9	28.3	±4.5	22.5	±4.0
$50,000+	47.7	±3.4	28.4	±3.0	28.1	±3.0
Education						
Less than H.S.	50.1	±6.5	23.7	±5.6	23.9	±5.7
H.S. or G.E.D.	47.2	±3.9	25.9	±3.3	23.4	±3.2
Some post-H.S.	48.6	±3.9	27.9	±3.4	29.3	±3.5
College graduate	52.0	±3.3	30.6	±3.0	31.2	±3.0

Notes: * Source: New York State BRFSS, 2000.
† Eat two servings of fruit or fruit juice per day.
‡ Eat three servings of green salad, potatoes, carrots, or some other vegetable per day.
δ Eat five or more servings of fruits and vegetables per day.
** Unreliable estimate due to small sample size

Table 18. Fruits & Vegetables Consumption, New York State Adolescents (Grades 9-12): 1999.*

	Fruits: 2-A-Day†		Vegetables: 3-A-Day‡		Fruits and Vegetables: 5-A-Dayδ	
HP2010 Goal	*75%*		*50%*		*NA*	
Sociodemographic Characteristic	**Percent**	**CI (95%)**	**Percent**	**CI (95%)**	**Percent**	**CI (95%)**
Total	39.3	±2.0	15.3	±1.5	26.0	±1.9
Grade						
9th	43.7	±3.2	17.2	±2.8	28.8	±3.3
10th	38.0	±3.6	16.0	±2.5	26.5	±2.9
11th	39.2	±4.3	15.1	±3.0	25.4	±4.0
12th	34.8	±3.7	11.7	±2.6	21.6	±3.4
Race						
White	38.8	±2.7	15.3	±2.1	25.8	±2.5
Black	39.6	±5.1	14.4	±2.1	27.4	±4.3
Hispanic	40.4	±3.5	13.9	±2.3	25.2	±3.2
Other	41.2	±4.5	17.9	±3.6	26.6	±3.8
Sex						
Male	41.5	±2.7	15.5	±1.9	27.1	±2.7
Female	37.1	±2.7	15.3	±2.1	24.8	±2.6

Notes: * Source: New York State YRBSS, 1999.
† Eat two servings of fruit or fruit juice per day.
‡ Eat three servings of green salad, potatoes, carrots, or some other vegetable per day.
δ Eating five or more servings of fruits and vegetables a day.

Table 19. Weight Status, New York State Adults (Ages 18 & over): 2000.*

	Healthy Weight (BMI >18.5 & <25)		Overweight (BMI ≥ 25 & <30)		Obese (BMI ≥ 30)		Overweight or Obese (BMI ≥ 25)	
HP2010 Goal	*60%*		*NA*		*15%*		*NA*	
Sociodemographic Characteristic	**Percent**	**CI (95%)**	**Percent**	**CI (95%)**	**Percent**	**CI (95%)**	**Percent**	**CI (95%)**
Total	40.6	±2.0	39.2	±2.1	17.7	±1.5	56.9	±2.0
Age								
18-24	58.0	±6.4	25.6	±5.7	9.1†	±4.0	34.6	±6.3
25-34	47.5	±4.6	34.2	±4.5	16.2	±3.4	50.3	±4.6
35-44	39.7	±3.8	38.2	±4.0	20.6	±3.2	58.8	±3.9
45-54	34.8	±4.9	43.8	±5.5	20.8	±3.9	64.6	±4.9
55-64	31.1	±5.4	46.3	±6.0	21.2	±4.5	67.5	±5.5
65+	34.0	±4.4	45.9	±4.9	16.7	±3.5	62.6	±4.5
Race								
White	42.3	±2.3	38.3	±2.4	16.8	±1.7	55.1	±2.3
Black	31.0	±5.6	38.3	±6.1	29.8	±5.4	68.1	±5.6
Hispanic	35.3	±5.9	45.8	±6.3	16.5	±4.4	62.2	±6.0
Other	54.4	±9.3	34.3†	±9.1	5.4†	±3.8	39.7	±9.2
Sex								
Male	33.9	±3.0	48.8	±3.2	16.3	±2.2	65.0	±3.0
Female	46.9	±2.6	30.1	±2.5	19.1	±2.1	49.2	±2.6
Income								
Less than $15,000	32.0	±7.1	40.3	±7.7	25.6	±6.1	65.9	±7.1
$15,000- 24,999	42.0	±5.2	35.1	±5.2	18.6	±3.8	53.6	±5.3
$25,000- 34,999	39.4	±5.6	34.7	±5.5	24.3	±4.9	58.9	±5.6
$35,000- 49,999	38.3	±4.8	38.9	±5.0	19.7	±4.0	58.5	±4.9
$50,000+	41.8	±3.4	42.6	±3.5	13.9	±2.4	56.5	±3.4
Education								
Less than H.S.	29.0	±6.1	45.9	±6.7	19.6	±4.5	65.4	±6.3
H.S. or G.E.D.	38.1	±3.8	42.5	±4.0	17.0	±2.8	59.5	±3.8
Some post-H.S.	39.1	±3.8	37.9	±3.9	20.7	±3.1	58.6	±3.9
College graduate	48.0	±3.3	35.2	±3.2	14.9	±2.5	50.2	±3.3

Notes: * Source: New York State BRFSS, 2000
† Unreliable estimate due to small sample size

Table 20. Overweight, New York State Adolescents (Grades 9-12): 1999.*

	At Risk for Overweight†		Overweight‡	
HP2010 Goal	*NA*		*5%*	
Sociodemographic Characteristic	**Percent**	**CI (95%)**	**Percent**	**CI (95%)**
Total	14.0	±1.3	8.3	±1.2
Grade				
9th	16.9	±2.8	9.3	±2.3
10th	12.8	±2.6	8.7	±2.2
11th	13.9	±2.5	8.4	±2.3
12th	11.4	±2.6	6.2δ	±2.0
Race				
White	13.0	±1.6	7.4	±1.5
Black	17.6	±3.7	12.2δ	±3.0
Hispanic	18.3	±3.1	10.0	±3.0
Other	10.4δ	±4.0	7.5δ	±2.6
Sex				
Male	15.4	±1.6	11.6	±1.8
Female	12.7	±2.0	5.1	±1.3

Notes: * Source: New York State YRBSS, 1999.
† Between the gender- and age-specific 85th and 95th percentile of BMI based on the revised CDC Growth Charts for the United States.
‡ At or above the gender- and age-specific 95th percentile of BMI based on the revised CDC Growth Charts for the United States.
δ Unreliable estimate due to small sample size.

Table 21. Blood Pressure & Cholesterol, New York State Adults (Ages 18 & over): 1999.*

	Blood Pressure Screening, within 2 years		High Blood Pressure†		Cholesterol Screening, within 5 years		High Cholesterol‡	
HP2010 Goal	*95%*		*16%*		*80%*		*17%*	
Sociodemographic Characteristic	**Percent**	**CI (95%)**	**Percent**	**CI (95%)**	**Percent**	**CI (95%)**	**Percent**	**CI (95%)**
Total	93.6	±1.3	22.9	±1.8	72.4	±2.1	28.6	±2.3
Age								
18-24	90.8	±5.0	5.1δ	±2.8	42.7	±7.5	12.8δ	±7.2
25-34	92.1	±2.9	11.8	±3.0	61.2	±4.8	16.4	±4.4
35-44	91.6	±2.9	14.2	±3.6	71.9	±4.2	26.6	±5.0
45-54	95.0	±2.4	26.2	±4.7	81.7	±4.5	33.2	±5.4
55-64	92.8	±4.6	36.6	±5.9	79.7	±5.8	38.5	±6.4
65+	98.5	±1.2	42.4	±5.1	88.5	±3.4	34.6	±5.1
Race								
White	95.3	±1.1	21.7	±2.1	74.9	±2.3	29.2	±2.6
Black	97.6	±2.3	30.0	±5.6	69.8	±6.1	25.0	±6.4
Hispanic	85.5	±5.9	23.9	±5.8	66.4	±6.6	24.6	±6.9
Other	86.7	±6.3	19.6δ	±7.8	67.8	±9.0δ	40.1δ	±11.3
Sex								
Male	90.4	±2.1	21.8	±2.8	70.6	±3.2	29.3	±3.6
Female	96.4	±1.4	23.8	±2.4	74.0	±2.6	28.0	±2.9
Income								
Less than $15,000	88.9	±5.5	27.8	±6.0	61.7	±7.6δ	26.9δ	±7.9
$15,000- 24,999	90.8	±3.8	27.9	±5.3	67.6	±5.7	31.3	±6.6
$25,000- 34,999	94.0	±3.0	23.0	±5.0	71.2	±5.8	31.3	±6.4
$35,000- 49,999	93.0	±2.9	21.7	±4.8	71.7	±5.1	25.0	±5.5
$50,000+	96.4	±1.5	18.1	±3.2	83.2	±3.0	29.0	±4.1
Education								
Less than H.S.	87.8	±5.2	31.1	±6.1	64.9	±6.8	27.9	±6.9
H.S. or G.E.D.	93.7	±2.4	25.1	±3.5	71.4	±3.8	29.9	±4.3
Some post-H.S.	94.4	±2.1	22.3	±3.5	70.2	±4.1	30.6	±4.5
College graduate	95.6	±1.6	17.4	±2.9	78.9	±3.1	26.2	±3.7

Notes: * Source: New York State BRFSS, 1999.
† Told by a doctor, nurse, or other health professional that they have high blood pressure.
‡ Told by a doctor, nurse, or other health professional that they have high blood cholesterol.
δ Unreliable estimate due to small sample size.

Table 22. Diabetes[†], New York State Adults (Ages 18 & over): 2000.*

HP2010 Goal	*2.5%*	
Sociodemographic Characteristic	**Percent**	**CI (95%)**
Total	6.3	±1.0
Age		
18-24	0.5[‡]	±0.7
25-34	1.6[‡]	±1.8
35-44	3.4[‡]	±1.4
45-54	7.1[‡]	±2.6
55-64	10.3[‡]	±3.5
65+	15.0	±3.3
Race		
White	5.6	±1.0
Black	11.4[‡]	±3.6
Hispanic	5.9[‡]	±3.5
Other	3.1[‡]	±2.7
Sex		
Male	6.6	±1.6
Female	6.0	±1.2
Income		
Less than $15,000	10.6[‡]	±4.2
$15,000- 24,999	9.8	±2.9
$25,000- 34,999	6.6[‡]	±2.7
$35,000- 49,999	3.9[‡]	±1.8
$50,000+	4.0[‡]	±1.4
Education		
Less than H.S.	10.4[‡]	±4.0
H.S. or G.E.D.	6.6	±1.7
Some post-H.S.	6.1	±1.8
College graduate	4.8	±1.6

Notes: * Source: New York State BRFSS, 2000.
† Reported that they have been diagnosed with diabetes.
‡ Unreliable estimate due to small sample size

Table 23. New York State County-Specific CVD Risk Factor Prevalence Rates.*

	Current Smokers†		Physical Inactivity‡		Fruits and Vegetables: 5 -A-Day§		Obesity**		Blood Pressure Screening, within 2 years		Cholesterol Screening, within 5 years		Diabetes††
HP2010 Goal	*12%*		*20%*		*NA*		*15%*		*95%*		*80%*		*2.5%*
County	%	CI (95%)	%	CI (95%)	%	CI (95%)	%	CI (95%)	%	CI (95%)	%	CI (95%)	%
Albany	22.2	±4.9	23.9	±5.6	33.4	±7.3	17.2	±4.5	94.9	±3.6	76.6	±9.3	6.1%
Allegany	27.9		33.6		24.5		19.5		94.4		61.3		4.7%
Broome	20.2	±6.4	25.2	±7.4	30.9	±10.7	17.7	±5.7	97.2	±3.2	77.0	±8.4	5.9%
Cattaraugus	25.6	±10.5	31.6	±11.4	26.8	±12.6	17.7	±6.7	95.7	±5.7	62.7		5.0%
Cayuga	35.7	±12.7	33.6		24.6		9.5	±9.8	94.4		61.7		5.3%
Chautauqua	24.5	±7.6	34.7	±9.9	23.5	±8.8	21.1	±6.8	96.7	±3.9	76.8	±12.2	5.5%
Chemung	31.1	±13.0	33.6	±12.2	12.9	±7.7	25.3	±12.4	94.5		70.3		5.6%
Chenango	17.0	±9.9	20.8	±12.3	24.9		32.3	±13.3	94.5		63.2		5.1%
Clinton	36.4	±13.1	28.4	±13.8	21.2	±10.4	12.4	±9.3	94.2		66.9		5.0%
Columbia	19.5	±9.6	33.3	±13.4	25.1		17.1	±9.6	94.5		64.1		5.8%
Cortland	26.9	±12.6	25.9	±13.4	25.9		10.7	±8.2	94.5		68.5		4.8%
Delaware	26.5		33.9		25.1		20.0		94.5		64.0		5.8%
Dutchess	26.1	±8.0	27.9	±7.6	24.1	±7.3	15.0	±5.4	98.8	±1.7	88.0	±8.2	5.5%
Erie	26.6	±3.3	31.2	±3.6	25.9	±3.9	19.7	±2.9	96.2	±1.8	74.3	±6.1	6.2%
Essex	26.0		30.4		25.8		17.9		94.4		70.0		5.9%
Franklin	32.9	±12.7	33.5		24.1		11.4	±8.7	94.2		60.4		5.4%
Fulton	32.1	±12.1	30.8		26.2		22.3	±12.8	94.7		71.3		5.3%
Genesee	27.9	±10.3	40.0	±14.8	20.8	±11.8	14.8	±9.6	93.0	±6.3	62.5		5.2%
Greene	34.4	±12.1	30.4		25.8		18.1	±10.6	94.4		70.1		5.9%
Hamilton	24.4	±0.0	31.2		26.3		18.5		94.7		72.9		6.7%
Herkimer	29.2	±13.4	33.9		25.1		20.8	±11.2	94.5		63.9		5.5%
Jefferson	30.4	±9.0	32.6	±11.4	18.9	±10.1	17.2	±8.5	89.4	±7.5	66.7		4.7%
Lewis	27.6	±0.0	33.6		24.5		19.6		94.5		62.0		4.6%
Livingston	37.4	±17.7	33.4		24.3		19.3		94.5		60.3		4.9%
Madison	31.4	±13.4	32.6	±13.2	24.3		25.2	±10.3	94.5		60.8		4.6%
Monroe	21.7	±3.6	27.4	±4.1	26.9	±4.5	17.5	±3.2	95.7	±2.2	72.7	±5.7	5.6%
Montgomery	30.9	±15.9	34.0		25.3		13.5	±9.0	94.6		64.5		6.2%
Nassau	19.3	±2.7	30.3	±3.5	27.1	±4.1	14.0	±2.3	95.7	±1.8	83.7	±3.9	6.5%
Niagara	30.1	±7.5	31.9	±7.3	26.7	±10.0	13.8	±5.2	98.4	±2.3	70.3	±12.4	5.7%
Oneida	24.8	±6.0	31.1	±7.2	22.5	±7.4	18.7	±5.5	95.2	±3.3	77.7	±10.5	5.9%
Onondaga	22.9	±4.4	33.4	±5.5	23.7	±5.6	18.9	±4.5	95.4	±2.6	67.6	±8.1	5.6%
Ontario	21.5	±8.9	21.3	±9.3	22.4	±10.6	18.8	±9.2	92.7	±11.7	70.0		5.2%
Orange	29.5	±7.0	25.6	±7.1	24.2	±7.8	11.6	±4.6	98.0	±2.4	74.9	±12.9	4.8%
Orleans	28.0		33.6		24.4		19.5		94.4		61.1		5.1%

Table 23. New York State CVD Risk Factor Prevalence Rates.*

	Current Smokers†		Physical Inactivity‡		Fruits and Vegetables: 5 -A-Day§		Obesity**		Blood Pressure Screening, within 2 years		Cholesterol Screening, within 5 years		Diabetes††
HP2010 Goal	*12%*		*20%*		*NA*		*15%*		*95%*		*80%*		*2.5%*
County	**%**	**CI (95%)**	**%**	**CI (95%)**	**%**	**CI (95%)**	**%**	**CI (95%)**	**%**	**CI (95%)**	**%**	**CI (95%)**	**%**
Oswego	26.9	±9.2	38.3	±12.6	15.2	±8.2	21.1	±8.6	94.5		68.7		4.4%
Otsego	27.2	±13.4	31.4	±13.5	24.7		21.1	±10.7	94.6		62.1		5.3%
Putnam	21.3	±9.6	24.0	±9.7	28.5	±12.2	4.5	±5.3	91.3	±7.1	77.4		4.8%
Rensselaer	23.2	±6.0	32.3	±7.4	23.2	±7.3	18.1	±5.2	94.8	±4.5	80.7	±8.8	5.4%
Rockland	24.7	±7.2	30.4	±8.0	25.9	±9.9	9.4	±4.4	97.2	±2.7	81.5	±8.1	5.6%
St Lawrence	24.9	±9.5	39.7	±11.1	34.5	±15.2	14.2	±6.5	87.6	±7.9	68.3		4.9%
Saratoga	28.8	±7.3	28.7	±7.5	33.5	±9.9	18.7	±6.4	97.2	±3.0	76.4	±11.4	4.9%
Schenectady	24.5	±7.2	35.0	±9.5	25.5	±9.8	13.9	±6.1	95.0	±5.2	61.3	±14.5	6.2%
Schoharie	34.9	±13.8	33.7		24.7		8.7	±9.9	94.5		62.4		5.1%
Schuyler	26.7		33.8		25.0		19.9		94.5		63.6		5.2%
Seneca	25.9	±14.7	33.8		24.9		19.8		94.5		63.3		5.3%
Steuben	20.6	±8.9	43.2	±12.8	23.8	±12.5	26.2	±10.4	90.1	±8.7	63.6		5.2%
Suffolk	23.7	±2.8	31.7	±3.9	21.9	±3.7	14.7	±2.5	95.0	±1.9	78.4	±4.5	5.4%
Sullivan	17.4	±9.2	17.5	±11.4	25.8		21.9	±10.2	94.4		69.9		5.7%
Tioga	22.8	±11.1	30.4		26.0		10.9	±11.0	94.6		70.2		4.8%
Tompkins	20.5	±7.6	14.7	±7.6	37.4	±15.9	13.0	±7.1	96.6	±5.1	60.3	±14.3	4.7%
Ulster	27.2	±6.3	31.7	±7.3	35.5	±9.4	15.6	±5.9	97.9	±1.9	67.6	±11.7	5.8%
Warren	21.7	±10.2	31.7	±14.1	27.3		19.4	±9.1	96.0		71.9		5.4%
Washington	28.4	±11.3	33.6		24.5		23.7	±12.3	94.3		61.6		5.3%
Wayne	30.3	±10.8	28.8	±11.5	24.7		21.9	±11.1	94.5		62.2		4.8%
Westchester	18.0	±3.2	29.1	±4.5	30.1	±5.2	11.2	±2.7	95.9	±1.8	81.4	±5.1	6.7%
Wyoming	27.0	±12.4	48.5	±13.1	24.0		21.0	±10.2	94.1		60.3		5.1%
Yates	26.7		33.8		25.0		19.9		94.6		63.6		5.2%
Bronx	21.8	±3.4	37.8	±4.4	27.9	±4.4	18.6	±3.1	95.1	±2.2	74.5	±6.2	6.6%
Kings	21.0	±3.1	39.4	±4.3	26.4	±4.4	18.4	±3.0	94.1	±2.5	68.7	±6.1	6.8%
New York	21.5	±1.8	35.7	±2.4	26.6	±2.5	13.6	±1.6	94.0	±1.4	72.2	±3.4	8.2%
Queens	18.4	±2.6	35.9	±3.7	27.0	±3.9	14.4	±2.5	94.2	±2.1	71.8	±5.0	7.8%
Richmond	23.4	±5.3	26.9	±6.1	27.5	±7.6	15.7	±4.6	95.0	±4.3	72.3	±9.4	5.6%

Notes:
* County-level rates for smoking, PA, F&V, overweight, obesity, hypertension, and cholesterol awareness in adults were derived from combined 1996-2000 BRFSS data. County diabetes rates were calculated for all ages by extrapolation from 1997-1999 national and statewide data.
† Smoked 100 cigarettes in their lifetime and smoke every day or some days.
‡ No leisure-time physical activity reported during the past month.
§ ≥5 servings of fruits and vegetables per day.
** Body Mass Index ≥30.0.
†† Reported that they have been diagnosed with diabetes.

Table 24. New York State Cardiovascular Diseases Related Hospitalization Costs: 2000.*

County	Coronary Heart Disease†		Stroke‡		Congestive Heart Failure§		Total Cardiovascular Disease**	
Charges:	**Total**	**Avg.**	**Total**	**Avg.**	**Total**	**Avg.**	**Total**	**Avg.**
NYS Total:	*$2,610,286,300*	*$19,022*	*$1,009,394,411*	*$17,266*	*$1,004,091,079*	*$15,723*	*$6,881,034,877*	*$18,321*
Albany	$29,250,318	$18,896	$9,593,744	$11,078	$9,674,285	$10,425	$76,028,000	$14,829
Allegany	$4,391,103	$9,802	$1,326,479	$8,785	$1,076,409	$6,484	$9,749,906	$9,268
Broome	$25,990,164	$15,572	$6,433,502	$9,036	$6,359,809	$7,871	$54,956,852	$12,264
Cattaraugus	$10,544,061	$10,870	$3,043,337	$9,723	$3,141,881	$9,351	$23,254,939	$10,619
Cayuga	$10,195,077	$12,525	$3,621,590	$14,258	$2,898,282	$11,640	$25,764,442	$12,895
Chautaqua	$8,498,700	$8,780	$4,151,415	$9,267	$3,572,795	$7,569	$24,954,553	$9,098
Chemung	$10,153,226	$16,219	$3,432,019	$13,783	$2,767,566	$11,532	$23,173,140	$13,977
Chenango	$6,379,809	$12,559	$1,301,354	$7,887	$1,543,000	$7,872	$13,610,270	$11,065
Clinton	$5,178,982	$9,809	$2,721,273	$11,245	$1,846,759	$9,519	$16,358,905	$10,979
Columbia	$6,858,592	$14,942	$1,740,763	$9,066	$1,615,437	$7,842	$15,734,833	$12,528
Cortland	$5,251,678	$11,963	$1,785,534	$12,146	$1,099,784	$7,585	$11,877,341	$11,498
Delaware	$5,504,675	$12,019	$1,814,528	$10,865	$1,498,916	$6,433	$13,084,597	$10,586
Dutchess	$32,845,306	$19,019	$10,618,144	$14,565	$10,705,335	$14,993	$79,493,191	$17,154
Erie	$94,822,602	$12,878	$41,748,956	$10,844	$34,932,025	$9,335	$248,221,789	$11,838
Essex	$2,463,517	$10,395	$1,022,083	$10,020	$1,153,848	$9,305	$7,192,404	$10,334
Franklin	$2,938,020	$8,876	$1,566,705	$9,109	$1,732,150	$9,022	$9,552,993	$9,257
Fulton	$7,184,932	$13,455	$1,771,507	$9,227	$1,703,308	$8,965	$17,185,165	$13,019
Genesee	$7,074,331	$9,678	$1,709,812	$8,381	$2,690,537	$10,593	$17,300,472	$10,646
Greene	$5,542,378	$15,972	$1,483,336	$10,091	$1,632,896	$10,959	$14,055,870	$14,169
Hamilton	$627,267	$13,068	$274,669	$12,485	$173,486	$9,638	$2,261,630	$15,078
Herkimer	$10,917,256	$15,914	$2,418,937	$9,715	$3,232,955	$10,600	$24,038,648	$13,274
Jefferson	$10,227,184	$12,175	$3,672,958	$13,756	$2,294,318	$10,288	$24,485,903	$12,713
Lewis	$3,631,154	$12,393	$720,371	$8,679	$495,184	$6,516	$7,075,860	$10,786
Livingston	$7,025,834	$14,397	$1,976,951	$11,838	$1,081,228	$6,976	$14,216,431	$12,373
Madison	$7,387,033	$14,456	$1,866,462	$11,044	$1,351,214	$8,341	$16,215,504	$13,025
Monroe	$68,297,250	$12,925	$19,994,181	$9,227	$18,303,790	$8,423	$157,706,253	$11,812
Montgomery	$7,084,581	$12,321	$2,342,173	$10,228	$2,230,680	$8,355	$17,290,582	$11,360
Nassau	$252,212,074	$22,987	$79,625,227	$17,183	$87,592,087	$18,154	$637,370,278	$21,052
Niagara	$33,957,428	$11,693	$10,937,158	$11,036	$10,827,195	$11,082	$79,023,049	$12,265
Oneida	$40,492,029	$16,609	$12,285,496	$12,273	$11,132,034	$11,336	$88,718,210	$14,138
Onondaga	$45,561,850	$15,668	$16,854,732	$12,056	$14,017,902	$11,108	$119,016,182	$13,818
Ontario	$8,390,384	$10,567	$2,158,783	$8,740	$1,781,604	$7,070	$18,501,034	$10,470
Orange	$46,764,660	$18,397	$19,815,170	$18,836	$21,666,047	$18,284	$127,835,717	$18,961
Orleans	$4,590,107	$10,223	$1,010,621	$6,238	$1,131,651	$6,858	$9,057,544	$8,837
Oswego	$13,778,426	$11,807	$3,861,510	$9,395	$3,324,373	$8,568	$32,456,443	$11,785

Table 24. New York State Cardiovascular Diseases Related Hospitalization Costs: 2000.*

County	Coronary Heart Disease†		Stroke‡		Congestive Heart Failure$^{\delta}$		Total Cardiovascular Disease**	
Charges:	**Total**	**Avg.**	**Total**	**Avg.**	**Total**	**Avg.**	**Total**	**Avg.**
NYS Total:	*$2,610,286,300*	*$19,022*	*$1,009,394,411*	*$17,266*	*$1,004,091,079*	*$15,723*	*$6,881,034,877*	*$18,321*
Otsego	$6,889,027	$11,520	$2,066,352	$9,701	$1,735,352	$6,047	$16,725,742	$10,460
Putnam	$8,633,296	$16,571	$4,823,903	$19,689	$2,610,532	$13,053	$24,314,980	$17,269
Rensselaer	$20,071,747	$21,106	$5,429,312	$10,837	$5,753,202	$10,274	$46,158,515	$15,983
Rockland	$25,602,512	$18,812	$15,987,816	$20,187	$12,288,644	$17,631	$83,654,965	$20,105
St Lawrence	$9,389,258	$8,767	$2,812,513	$8,248	$2,059,134	$6,336	$20,387,902	$8,411
Saratoga	$20,282,203	$16,776	$5,737,331	$11,854	$4,749,455	$10,554	$47,269,484	$14,212
Schenectady	$18,860,355	$16,443	$6,464,846	$10,957	$4,865,095	$8,149	$44,923,936	$12,891
Schoharie	$3,442,595	$17,299	$848,870	$8,751	$595,049	$6,330	$7,344,327	$12,706
Schuyler	$1,626,132	$15,057	$381,238	$8,288	$519,161	$9,108	$3,389,754	$11,452
Seneca	$3,629,744	$13,199	$708,480	$8,434	$614,550	$8,418	$7,184,451	$12,323
Stueben	$9,248,696	$10,265	$3,708,204	$11,588	$2,536,071	$6,986	$22,730,644	$10,058
Suffolk	$256,364,287	$20,351	$79,328,207	$17,408	$67,584,364	$16,557	$590,745,801	$19,536
Sullivan	$8,592,904	$14,298	$3,698,530	$16,011	$2,906,288	$10,607	$23,038,572	$15,048
Tioga	$3,153,170	$14,531	$784,908	$10,194	$388,122	$6,469	$6,028,867	$12,666
Tompkins	$4,322,783	$9,377	$1,556,265	$8,792	$1,107,193	$6,835	$11,768,850	$9,670
Ulster	$19,804,758	$14,670	$7,234,435	$12,942	$8,141,920	$14,014	$51,291,527	$14,530
Warren	$12,667,187	$17,026	$2,348,175	$10,821	$1,901,422	$8,231	$23,215,515	$13,843
Washington	$9,630,028	$17,196	$1,470,447	$10,655	$2,348,661	$12,361	$19,535,920	$15,358
Wayne	$7,889,491	$9,788	$2,048,981	$9,665	$1,777,842	$7,972	$17,151,024	$10,413
Westchester	$127,193,461	$19,735	$48,955,098	$16,511	$42,005,260	$14,297	$326,009,680	$18,401
Wyoming	$3,957,575	$8,893	$1,206,331	$8,377	$1,064,445	$7,496	$9,100,055	$9,010
Yates	$2,796,305	$11,141	$554,957	$9,736	$509,566	$7,839	$5,477,999	$10,395
Bronx	$207,775,107	$26,532	$99,248,825	$25,806	$117,497,119	$21,775	$644,999,432	$25,378
Kings	$359,144,580	$20,828	$163,824,407	$22,836	$176,406,465	$18,372	$1013598625	$20,735
Manhattan	$214,673,755	$29,432	$115,923,868	$30,275	$116,966,255	$24,573	$707,790,685	$28,337
Queens	$322,011,105	$21,926	$129,354,229	$19,546	$127,603,485	$18,087	$847,485,844	$20,866
Richmond	$80,622,250	$21,528	$22,186,402	$15,893	$25,275,655	$17,492	$182,892,853	$19,509

Notes: * Source: New York State Statewide Planning & Research Cooperative System: 2000
† ICD/10 codes I20-I25, I11
‡ ICD/10 codes I60-I69
$^{\delta}$ ICD/10 codes I50
** ICD/10 codes I00-I9

Table 25. New York State Estimated Direct and Indirect Costs for Cardiovascular Diseases: 2002 (in Millions of Dollars).*

	Coronary Heart Disease	Stroke	Congestive Heart Failure	Total Cardiovascular Disease
Direct Costs†				
Hospital/Nursing Home	$3,751.2	$1,189.2	$828.1	$6,120.9
Physicians/Other Professionals	$771.8	$116.5	$86.0	$1,451.4
Drugs/Other	$0.0	$0.0	$0.0	$0.0
Medical Durables	$556.4	$38.8	$107.6	$1,543.6
Home Health Care	$143.6	$150.5	$129.1	$567.9
Total direct expenditures	*$5,223.0*	*$1,495.0*	*$1,150.8*	*$9,683.8*
Indirect Costs†				
Lost Productivity/Morbidity	$753.8	$271.8	NA	$1,499.9
Lost Productivity/Mortality##	$4,056.3	$631.0	$96.8	$4,795.8
Total indirect expenditures	*$4,810.2*	*$902.9*	*$96.8*	*$6,295.7*
Grand Totals†	**$10,033.2**	**$2,397.9**	**$1,247.6**	**$15,979.5**
Counties‡				
Albany	$147.1	$52.8	$35.9	$278.6
Allegany	$24.9	$10.9	$4.2	$46.5
Broome	$114.6	$48.4	$19.4	$209.8
Cattaraugus	$52.4	$13.9	$10.1	$85.6
Cayuga	$34.8	$19.2	$11.4	$71.6
Chautauqua	$79.5	$29.5	$17.7	$147.7
Chemung	$43.5	$21.0	$9.3	$90.1
Chenango	$28.3	$12.4	$5.1	$53.3
Clinton	$38.7	$15.6	$4.2	$67.3
Columbia	$43.9	$12.1	$6.8	$74.5
Cortland	$23.5	$9.4	$5.1	$44.7
Delaware	$35.4	$11.5	$6.3	$57.4
Dutchess	$103.6	$40.7	$20.3	$199.1
Erie	$499.5	$205.1	$76.5	$968.4
Essex	$19.6	$9.7	$2.5	$38.2
Franklin	$23.9	$8.0	$0.0	$40.6
Fulton	$31.8	$6.2	$3.8	$51.0
Genesee	$29.8	$8.6	$8.0	$57.6
Greene	$29.1	$8.3	$5.1	$46.5
Hamilton	$3.6	$0.0	$0.0	$6.8
Herkimer	$40.7	$11.2	$7.6	$69.5
Jefferson	$41.9	$15.1	$6.3	$78.6
Lewis	$10.9	$4.4	$0.0	$20.1
Livingston	$18.0	$9.4	$4.6	$36.8
Madison	$28.3	$14.8	$4.2	$55.3
Monroe	$286.4	$128.7	$59.1	$550.9
Montgomery	$44.3	$9.2	$10.1	$74.3
Nassau	$827.4	$146.7	$76.9	$1,211.4
Niagara	$132.8	$51.9	$33.0	$247.9
Oneida	$116.2	$58.7	$30.8	$244.3
Onondaga	$157.3	$86.2	$34.2	$336.4
Ontario	$39.5	$15.9	$9.7	$73.4
Orange	$124.7	$40.1	$29.6	$229.9
Orleans	$20.8	$9.4	$8.0	$40.4
Oswego	$49.8	$22.1	$5.5	$94.2
Otsego	$24.3	$11.2	$8.0	$53.3

Table 25. New York State Estimated Direct and Indirect Costs for Cardiovascular Diseases: 2002 (in Millions of Dollars).*

	Coronary Heart Disease	Stroke	Congestive Heart Failure	Total Cardiovascular Disease
Putnam	$28.9	$6.8	$4.2	$50.4
Rensselaer	$72.3	$31.6	$14.8	$142.9
Rockland	$124.3	$42.2	$14.8	$205.9
St Lawrence	$46.1	$20.4	$10.6	$92.8
Saratoga	$62.7	$26.0	$14.4	$127.8
Schenectady	$78.3	$30.1	$14.8	$146.3
Schoharie	$11.3	$6.2	$0.0	$22.4
Schuyler	$10.5	$3.0	$3.0	$19.9
Seneca	$14.2	$4.4	$0.0	$26.0
Steuben	$46.1	$21.0	$6.3	$87.8
Suffolk	$659.4	$161.5	$81.5	$1,072.1
Sullivan	$47.0	$10.0	$5.1	$74.7
Tioga	$15.8	$7.7	$2.5	$35.0
Tompkins	$24.9	$12.4	$8.4	$56.4
Ulster	$79.3	$21.0	$21.5	$140.2
Warren	$21.3	$10.9	$5.9	$48.5
Washington	$25.3	$15.1	$5.1	$52.4
Wayne	$26.3	$13.3	$6.8	$60.3
Westchester	$453.8	$123.7	$72.7	$753.7
Wyoming	$20.8	$9.7	$5.1	$38.6
Yates	$12.5	$6.8	$0.0	$23.7
Bronx	$750.5	$116.0	$54.1	$1,069.6
Kings	$1,497.0	$181.2	$118.7	$2,068.0
New York	$776.2	$138.4	$67.6	$1,149.5
Queens	$1,465.4	$175.6	$101.0	$1,970.7
Richmond	$291.7	$23.6	$23.2	$392.0

Notes: * Source: American Heart Association. *2002 Heart and Stroke Statistical Update*. Dallas, Tex.: American Heart Association; 2001.

† Estimates for each grouping of CVD are established by dividing the national estimates for the disease grouping in the AHA model by the proportion of New York State deaths occurring in the disease group.

‡ Estimates for each grouping of CVD for New York State counties are established by dividing the national estimates for the disease grouping in the AHA model by the proportion of county deaths occurring in the disease group.

Lost future earnings of persons who will die in 2002, discounted at 4 percent.

Table 26. Self-Reported Heart Attack, Angina, or Stroke,† New York State Adults (Ages 18 & over): 2000.*

Sociodemographic Characteristic	Percent	CI (95%)
Total	7.0	1.2
Income	**	
<$2500	10.6	3.0
≥$2500	5.1	1.4
Education	**	
None - HS grad	9.0	2.0
At least some college	5.4	1.4

Notes: * Source: New York State BRFSS, 2000.
† Told by a doctor that they had a heart attack or myocardial infarction, angina or stroke
** chi-square probability ≥ .01

Table 27. Linear Regression Analysis Of New York State County Characteristics As Predictors Of CHD Mortality Rates, 1995-1998.*

	Unstandardized Coefficients		Standardized Coefficients	
	b	Std. Error	Std. Error	Sig.
Constant	-689.00	131.43		.000
Average age†	34.79	3.49	.78	.000
Median Household Income in $10,000s‡	-3.86	.75	-.46	.000
Percent Urbanδ	.66	.28	.27	.024
Percent Non-Hispanic White (only) **	-1.07	.46	-.24	.024
R^2	.71			

Notes: * Source: New York State Vital Statistics: 1995-1998
† Mean age of county inhabitants, 2000 US Census
‡ Median Household Income of county inhabitants, 1990 US Census.
δ Percent of county inhabitants living within urbanized areas, 1990 US Census.
** Percent of county inhabitants who are designated as being only of the White race, 2000 US Census

Glossary:
Concepts, terms, and operational definitions

Age-Adjusted Rates

Used mainly to compare the rates of two or more specific communities, or population groups. This document uses the US 2000 population as the standard population, so that rates can be compared for populations with differences in the age composition.

Blood Pressure Screening

From the BRFSS, all respondents 18 and older who report that they have had their blood pressure checked within 2 years.

Body Mass Index (BMI)

Weight (in kilograms) divided by the square of height (in meters), or weight (in pounds) divided by the square of height (in inches) times 704.5. Because it is readily calculated, BMI is the measurement of choice as an indicator of healthy weight, overweight, and obesity.

Cardiovascular Disease (ICD/10 code I00-I99)

Refers to a broad spectrum of heart and blood vessel diseases, including heart disease, stroke and peripheral vascular disease. Atherosclerosis is the underlying disease process of all major forms of Cardiovascular Disease (CVD).

Cerebrovascular Disease (ICD/10 codes I60-I69)

Affects the blood vessels supplying blood to the brain. Stroke occurs when a blood vessel bringing oxygen and nutrients to the brain bursts or is clogged by a blood clot. Because of this rupture or blockage, part of the brain does not get the flow of blood it needs, and nerve cells in the affected area die. Small stroke-like events, such as transient ischemic attacks (TIAs), which resolve in a day or less, are symptoms of cerebrovascular disease.

Cholesterol Screening

From the BRFSS, all respondents 18 and older who report that they have had a cholesterol check within five years.

Compressed Mortality File (CMF)

A county-level national mortality and population data base spanning the years 1968-1999, from the Centers for Disease Control and Prevention(CDC). Death rates are calculated as number of deaths per 100,000 population. Crude death rates and age-adjusted death rates can be calculated. Death rates based on counts of ≤20 are flagged as "Unreliable". Data is available by gender, and by three race categories - White, African American, and Other Races.

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Congestive Heart Failure (ICD/10 code I50)

Also known as heart failure, is a disorder where the heart loses its ability to pump blood efficiently. The result is that the body doesn't get as much oxygen and nutrients as it needs, leading to problems like fatigue and shortness of breath. Heart failure is almost always a chronic, long-term condition that is managed with medications and lifestyle changes. (Although it can sometimes develop suddenly.) The most common causes for heart failure are hypertension and coronary artery disease. The term "heart failure" should not be confused with cardiac arrest, which is when the heart actually stops beating*

Coronary Heart Disease (ICD/10 codes I20-I25, I11)

Sometimes called ischemic heart disease, this refers to a reduction of blood flow due to thickening and hardening of the arteries that supply the heart muscle. Heart cells are dependent on blood flow through these arteries to provide oxygen and to carry away metabolic products. If the supply is reduced, a person can experience angina. Complete cut off of the blood supply results in the death of heart cells, and a heart attack is experienced. Hypertensive heart disease (I11) is included for comparability with the HP2010 objective for CHD. This disease group is often included when reporting CHD to correct for suspected coding errors.

Crude Death Rate

The number of deaths for a specific condition in a given region, divided by the population of that region. Death rates in this report multiply this proportion by 100,000. This is a common practice in reporting CVD death rates.

Current Cigar Use

From the YRBSS, all students who have smoked cigars on ≥1 of the 30 days preceding the survey.

Current Cigarette Use

From the YRBSS, all students who have smoked cigarettes on ≥ 1 of the 30 days preceding the survey.

Current Smoker

From the BRFSS, all respondents 18 and older who have ever smoked 100 cigarettes in their lifetime and reported smoking every day or some days.

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* Medline plus health information web site: http://www.nlm.nih.gov/medlineplus/ency/article/000158.htm

Current Spit Tobacco Use

From the YRBSS, all students who have used chewing tobacco or snuff on ≥1 of the 30 days preceding the survey.

Current Tobacco Use

From the YRBSS, all students who have smoked cigarettes or cigars or used chewing tobacco or snuff on ≥1 of the 30 days preceding the survey.

Diabetes Mellitus

A variable disorder of carbohydrate metabolism caused by a combination of hereditary and environmental factors and usually characterized by inadequate secretion or utilization of insulin, by excessive urine production, by excessive amounts of sugar in the blood and urine, and by thirst, hunger, and loss of weight.

From the BRFSS, all respondents 18 and older who report that they have been diagnosed with diabetes.

Fruits and Vegetables: 5 –A-Day

From the BRFSS, all respondents 18 and older who report they are consuming five or more servings of fruits and vegetables per day.

From the YRBSS, all students who report they are eating five or more servings of fruits and vegetables a day.

Fruits: 2-A-Day: *From the BRFSS*, all respondents 18 and older who report that they eat two servings of fruit or fruit juice per day.

From the YRBSS, all students who report they eat two servings of fruit or fruit juice per day.

Vegetables: 3-A-Day: *From the BRFSS*, all respondents 18 and older who report that they eat three servings of green salad, potatoes, carrots, or some other vegetable per day.

From the YRBSS, all students who report they are eating three servings of green salad, potatoes, carrots, or some other vegetable per day.

Healthy People 2010 (HP2010)

Healthy People 2010, a document created by the US Department of Health and Human Services, with targets to move the US population towards greater health.

Healthy Weight

Maintenance of a healthy weight is a major goal in the effort to reduce the burden of illness and its consequent reduction in quality of life and life expectancy. The BMI cut-points for a healthy weight is defined as ?18.5 and <25. The selection of a BMI cut-point to establish the upper limit of the healthy weight range is based on the relationship of overweight or obesity to risk factors for chronic disease or premature death.

From the BRFSS, all respondents 18 and older who report that their Body Mass Index (BMI) is >18.5 and <25.

High Blood Pressure

Blood pressure is the force of the blood pushing against the walls of arteries. Blood pressure is given as two numbers that measure systolic pressure (the first number, which measures the pressure while the heart is contracting) and diastolic pressure (the second number, which measures the pressure when the heart is resting between beats). Blood pressures of 140/90 mmHg or above are considered high, while blood pressures in the range of 130–139/85–89 are high normal. Less than 130/85 mmHg is normal.

From the BRFSS, all respondents 18 and older who report they have been told by a doctor, nurse, or other health professional that they have high blood pressure.

High Cholesterol

Cholesterol is the waxy substance that circulates in the bloodstream. When the level of cholesterol in the blood is too high, some of the cholesterol is deposited in the walls of the blood vessels. Over time, these deposits can build up until they narrow the blood vessels, causing atherosclerosis, which reduces the blood flow. The higher the blood cholesterol level, the greater is the risk of getting heart disease. Blood cholesterol levels of less than 200 mg/dL are considered desirable. Levels of 240 mg/dL or above are considered high and require further testing and possible intervention. Levels of 200–239 mg/dL are considered borderline. Lowering blood cholesterol reduces the risk of heart disease.

From the BRFSS, all respondents 18 and older who report they have been told by a doctor, nurse, or other health professional that they have high blood cholesterol.

Hospital Discharges

The number of inpatients discharged from short-stay hospitals where some type of disease was the first listed diagnosis. Discharges include people both living and dead.

ICD9 and ICD10

International Classification of Diseases, 9th and 10th revisions, 'developed collaboratively between the World Health Organization (WHO) and 10 international centers, for purposes of ensuring that medical terms reported on death certificates are internationally comparable and lend themselves to statistical analysis. The ICD has been revised approximately every 10 years since 1900 in order to reflect changes in understanding of disease mechanisms and in disease terminology'[*].

The International Classification of Diseases (ICD) is designed for the classification of Morbidity and Mortality information for statistical purposes, and for the indexing of hospital records by disease and operations, for data storage and retrieval.

The International Classification of Disease is developed collaboratively between the World Health Organization (WHO) and 10 international centers, for purposes of ensuring that medical terms reported on death certificates are internationally comparable and lend themselves to statistical analysis. The ICD has been revised approximately every 10 years since 1900 in order to reflect changes in understanding of disease mechanisms and in disease terminology.

Incidence

An estimate of the number of new cases of a disease that develop in a population in a one-year period. For some statistics, new and recurrent attacks or cases are combined.

Ischemic Heart Disease (ICD/10 codes I20-I25)

This refers to a reduction of blood flow due to thickening and hardening of the arteries that supply the heart muscle. Heart cells are dependent on blood flow through these arteries to provide oxygen and to carry away metabolic products. If the supply is reduced, a person can experience angina. Complete cut off of the blood supply results in the death of heart cells, and a heart attack is experienced.

Morbidity

Incidence and prevalence rates are both measures of morbidity, that is, measures of illness in a population.

Mortality

The total number of deaths from a given disease in a population during a specific interval of time, usually a year.

Obesity

A condition characterized by excessive body fat.

From the BRFSS, all respondents 18 and older who report that their Body Mass Index (BMI) is 30.0 or more.

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[*] CDC Wonder on the Web, International Classification of Diseases http://wonder.cdc.gov/wonder/help/icd.html

Obesity

From the BRFSS, all respondents 18 and older who report that their Body Mass Index (BMI) is 30.0 or more.

Overweight

From the BRFSS, all respondents 18 and older who report that their Body Mass Index (BMI) is between 25.0 and 29.9.

From the YRBSS all students who reported that their Body Mass Index (BMI) at or above the gender- and age-specific 95th percentile of BMI based on the revised CDC Growth Charts for the United States.

Overweight, At Risk for:

From the YRBSS all students who reported that their Body Mass Index (BMI) between the gender- and age-specific 85th and 95th percentile of BMI based on the revised CDC Growth Charts for the United States.

Physical activity

Bodily movement that is produced by the contraction of skeletal muscle and that substantially increases energy expenditure.

Physical Inactivity: *From the BRFSS*, all respondents 18 and older who report no leisure-time physical activity during the past month.

Moderate physical activity: Activities that use large muscle groups and are at least equivalent to brisk walking. In addition to walking, activities may include swimming, cycling, dancing, gardening and yard work, and various domestic and occupational activities.

From the BRFSS, all respondents 18 and older who reported doing a leisure time physical activity ≥5 times per week for ≥30 minutes each time.

From the YRBSS all students who reported participating in physical activity for least 30 minutes on five or more of the past seven days that did not make you sweat or breathe hard?

Vigorous physical activity: Rhythmic, repetitive physical activities that use large muscle groups at 70 percent or more of maximum heart rate for age. An exercise heart rate of 70 percent of maximum heart rate for age is about 60 percent of maximal cardiorespiratory capacity and is sufficient for cardiorespiratory conditioning. Maximum heart rate equals roughly 220 beats per minute minus age. Examples of vigorous physical activities include jogging/running, lap swimming, cycling, aerobic dancing, skating, rowing, jumping rope, cross-country skiing, hiking/backpacking, racquet sports, and competitive group sports (for example, soccer and basketball).

From the BRFSS, all respondents 18 and older who reported doing a vigorous leisure time physical activity ≥3 times per week for ≥20 minutes each time. To qualify, the activity must be defined as aerobic (40 out of the 56 activities identified in the BRFSS) and classified as of vigorous-intensity for each respondent. Vigorous intensity is based on estimated metabolic expenditure (MET) for each respondent. This is determined by the type of activity conducted and the age and gender of the respondent.

From the YRBSS all students who reported participating in physical activities for at least 20 minutes on three or more of the past seven days that made them sweat and breathe hard.

Recommended Activity: *From the BRFSS*, all respondents 18 and older who reported doing leisure time physical activity to moderate or vigorous levels of intensity.

Premature Death

Death occurring in the ages of 35 to 74.

Prevalence

An estimate of the total number of cases of a disease existing in a population at a specific point in time. Prevalence is sometimes expressed as a percentage of population.

References

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