

Burden of Diabetes in Connecticut



April 2015

What is Diabetes?

- Diabetes is a disease in which blood glucose levels are above normal
- Blood glucose levels are elevated in diabetes because either
 - The body does not make enough insulin; or
 - The body does not use insulin as well as it should

What is Diabetes?

- There are 2 main classifications of diabetes
 - Type 1 diabetes is caused by the destruction of pancreatic beta cells by the body's immune system, leading to insulin deficiency and making insulin treatment necessary
 - Type 2 diabetes is characterized by insulin resistance, a disorder in which the cells do not use insulin properly

What is Diabetes?

- Heart disease, blindness, kidney failure, and lower-extremity amputation can all be caused by diabetes



Diabetes Mortality Statistics

Leading Causes of Death, Connecticut Residents, 2011

- Diabetes is the seventh leading cause of death in the United States with 73,831 deaths with diabetes as the underlying cause (2.9% of deaths)
- Diabetes is the eighth leading cause of death in Connecticut with 690 deaths with diabetes as the underlying cause (2.3% of deaths)

(Data are presented on the following slide)

Leading Causes of Death, 2011

United States Total deaths: 2,513,171	Connecticut Total deaths: 29,527
1. Diseases of the heart: 596,577	1. Diseases of the heart: 7,178
2. All cancers: 576,691	2. All cancers: 6,789
3. Chronic lower respiratory diseases: 142,943	3. Chronic lower respiratory diseases: 1,410
4. Stroke: 128,932	4. Unintentional injuries: 1,317
5. Unintentional injuries: 126,438	5. Stroke: 1,305
6. Alzheimer's disease: 84,974	6. Alzheimer's disease: 811
7. Diabetes mellitus: 73,831	7. Pneumonia and Influenza: 698
8. Influenza and Pneumonia: 53,826	8. Diabetes mellitus: 690
9. Nephritis, nephrotic syndrome, and nephrosis: 45,591	9. Nephritis, nephrotic syndrome, and nephrosis: 599
10. Intentional self-harm (suicide): 39,518	10. Septicemia: 564

Sources: National Center for Health Statistics: www.cdc.gov/nchs/fastats/leading-causes-of-death.htm
 CT DPH, Vital Records Mortality Files, 2011 data.

Age-Adjusted Diabetes and Diabetes-related Mortality Rates, CT, 1999-2011

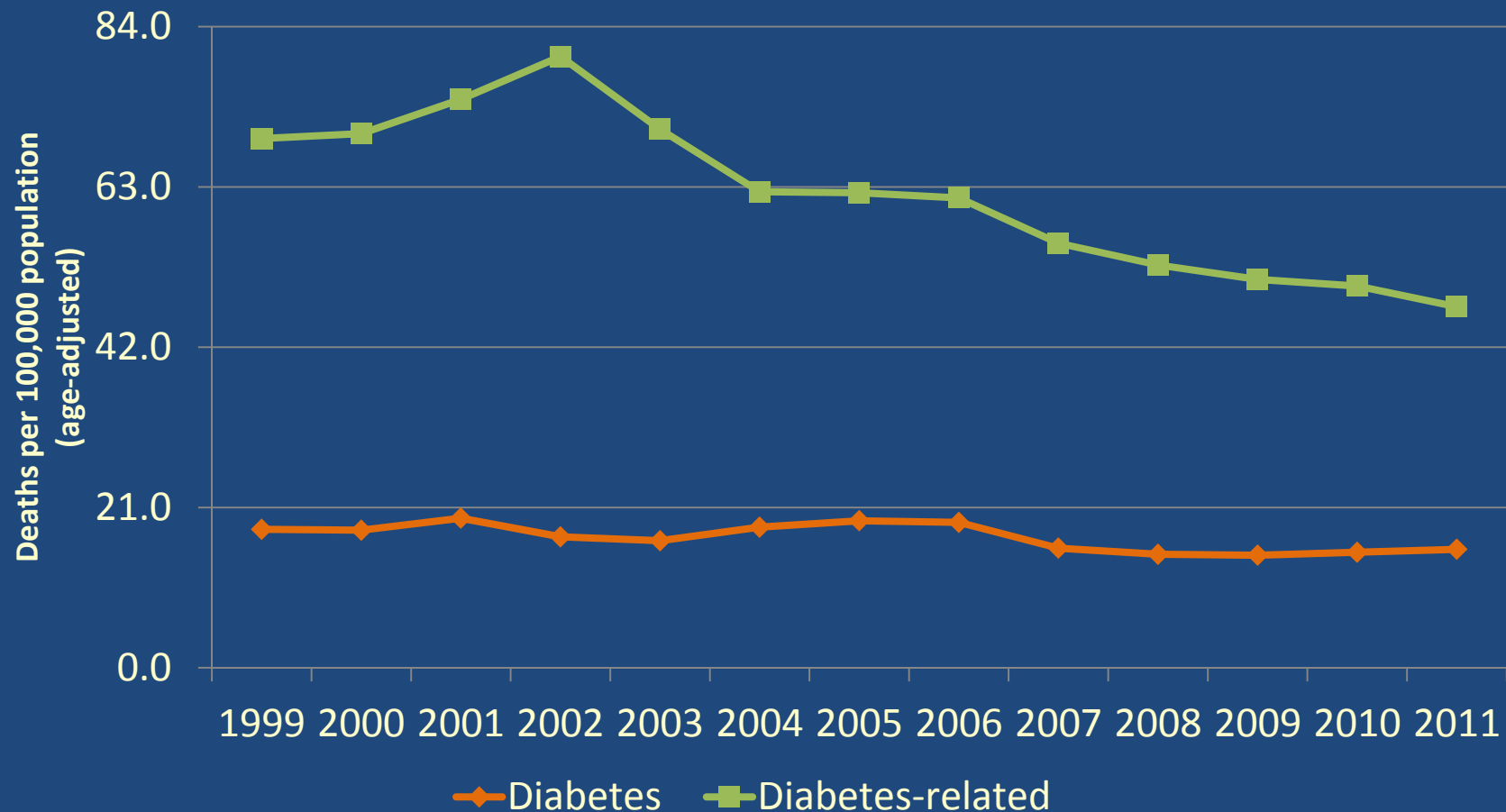
- People with diabetes often die from the complications of diabetes rather than the disease itself; therefore, diabetes is underreported as the underlying or principal cause of death
- *Diabetes-related* mortality is defined as deaths with diabetes as the contributing (or secondary) cause of death among residents
- Diabetes is three times as likely to be listed as a contributing cause of death than as the underlying cause of death

Age-Adjusted Diabetes and Diabetes-related Mortality Rates, CT, 1999-2011

- A trend analysis using data from 1999-2008 showed that *diabetes-related* age-adjusted mortality rates (AAMRs) decreased significantly in that timeframe
- The change in AAMRs with diabetes as the underlying cause of death was not significant in the 1999-2008 timeframe
- Note: A trend analysis of the data through 2011 has not yet been performed.

(Data are presented on the following slide)

Age-Adjusted Diabetes and *Diabetes-related* Mortality Rates, CT, 1999-2011



Source: CT DPH, Vital Records Mortality Files, 1999-2011 data.

Notes about Race and Ethnicity

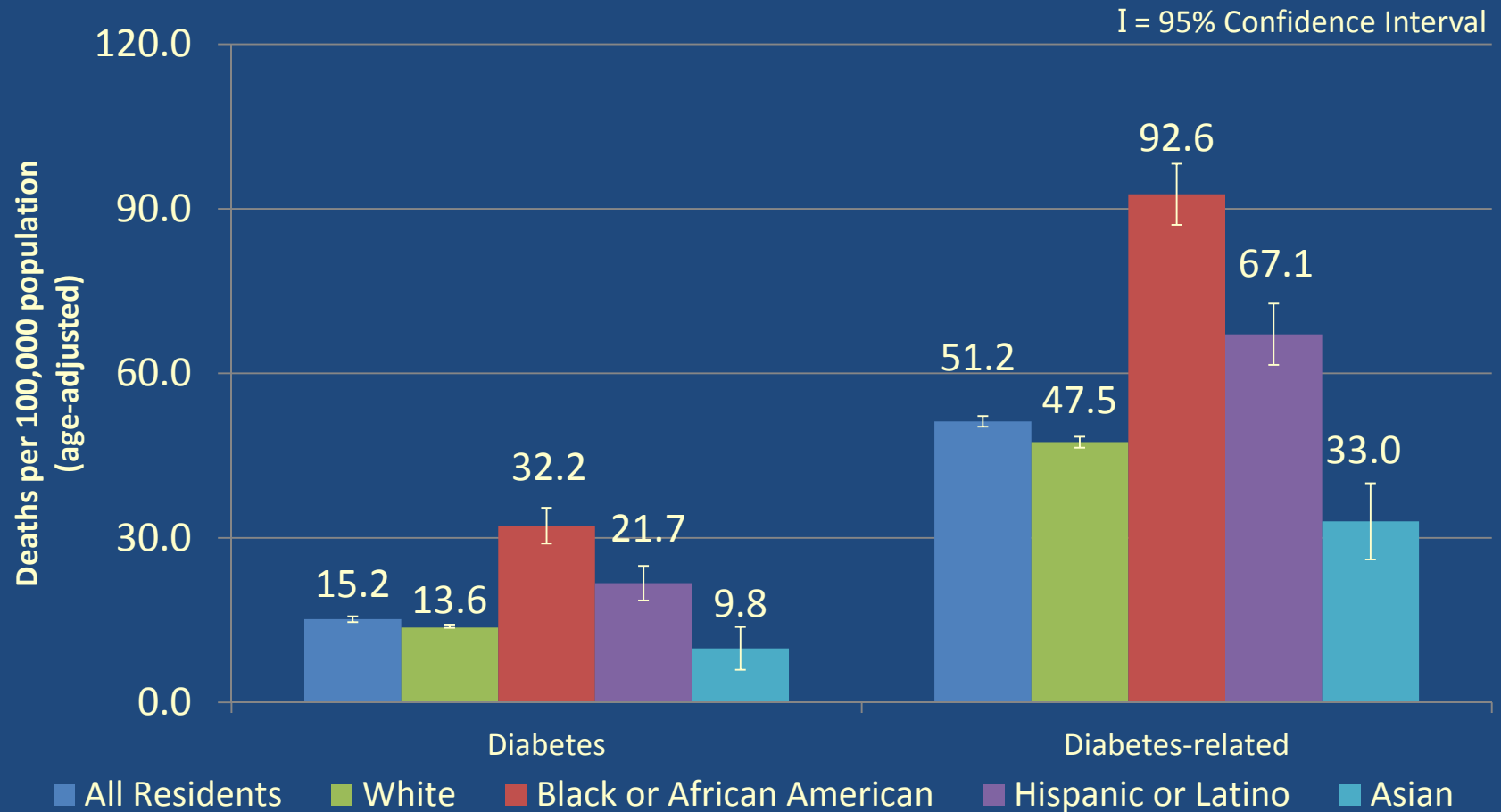
- All racial groupings (e.g., Black or African American, White, Asian) in these slides exclude persons of Hispanic ethnicity
 - A Hispanic or Latino ethnicity category is included in figures and tables reflecting data separate from race categories
 - Therefore, the modifier “Non-Hispanic or Latino” is assumed
- In some instances Asian, Pacific Islander, American Indian or Alaskan Native, other race, and multiracial adults are reported as “other” or are not reported due to the small number of respondents

Age-Adjusted Mortality Rates (AAMRs) by Race & Ethnicity, CT Residents, 2007-2011

- Black or African American residents have the highest diabetes and *diabetes-related* AAMRs (statistically significant)
- Hispanic or Latino residents have significantly higher diabetes and *diabetes-related* AAMRs compared with White and Asian residents
- Asian residents have the lowest *diabetes-related* AAMRs (statistically significant)
- The diabetes AAMR of Asian residents are significantly lower than the rates among Black or African American and Hispanic or Latino residents

(Data are presented on the following slide)

Age-Adjusted Mortality Rates by Race & Ethnicity, CT Residents, 2007-2011



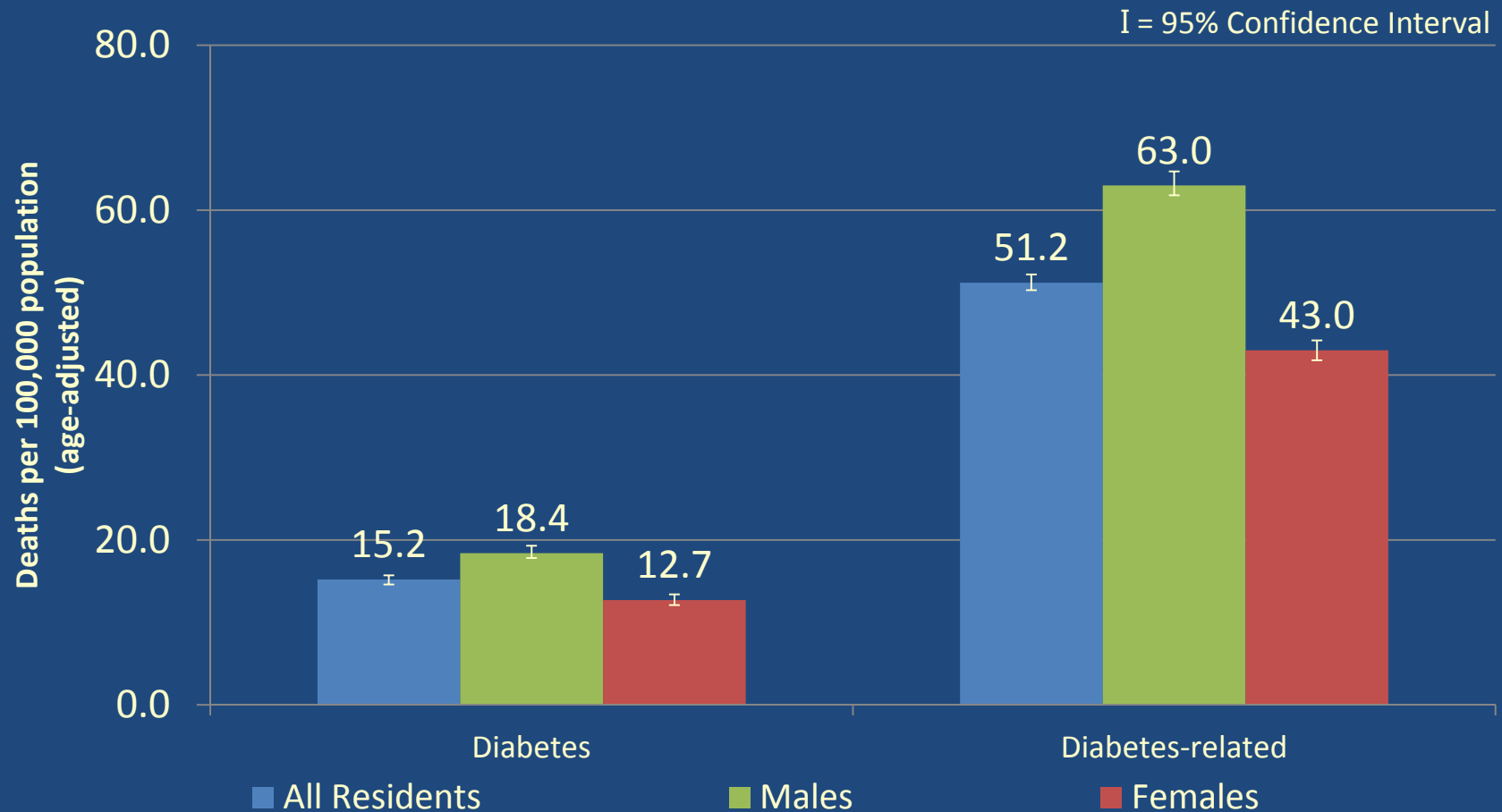
Source: CT DPH, Vital Records Mortality Files, 2007-2011 data.

Age-Adjusted Mortality Rates by Gender, CT Residents, 2007-2011

- Male Connecticut residents have significantly higher age-adjusted diabetes and *diabetes-related* mortality rates compared with females

(Data are presented on the following slide)

Age-Adjusted Mortality Rates by Gender, CT Residents, 2007-2011



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

Age-Adjusted Years of Potential Life Lost (<75y)

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

Age-Adjusted Years of Potential Life Lost (<75y)

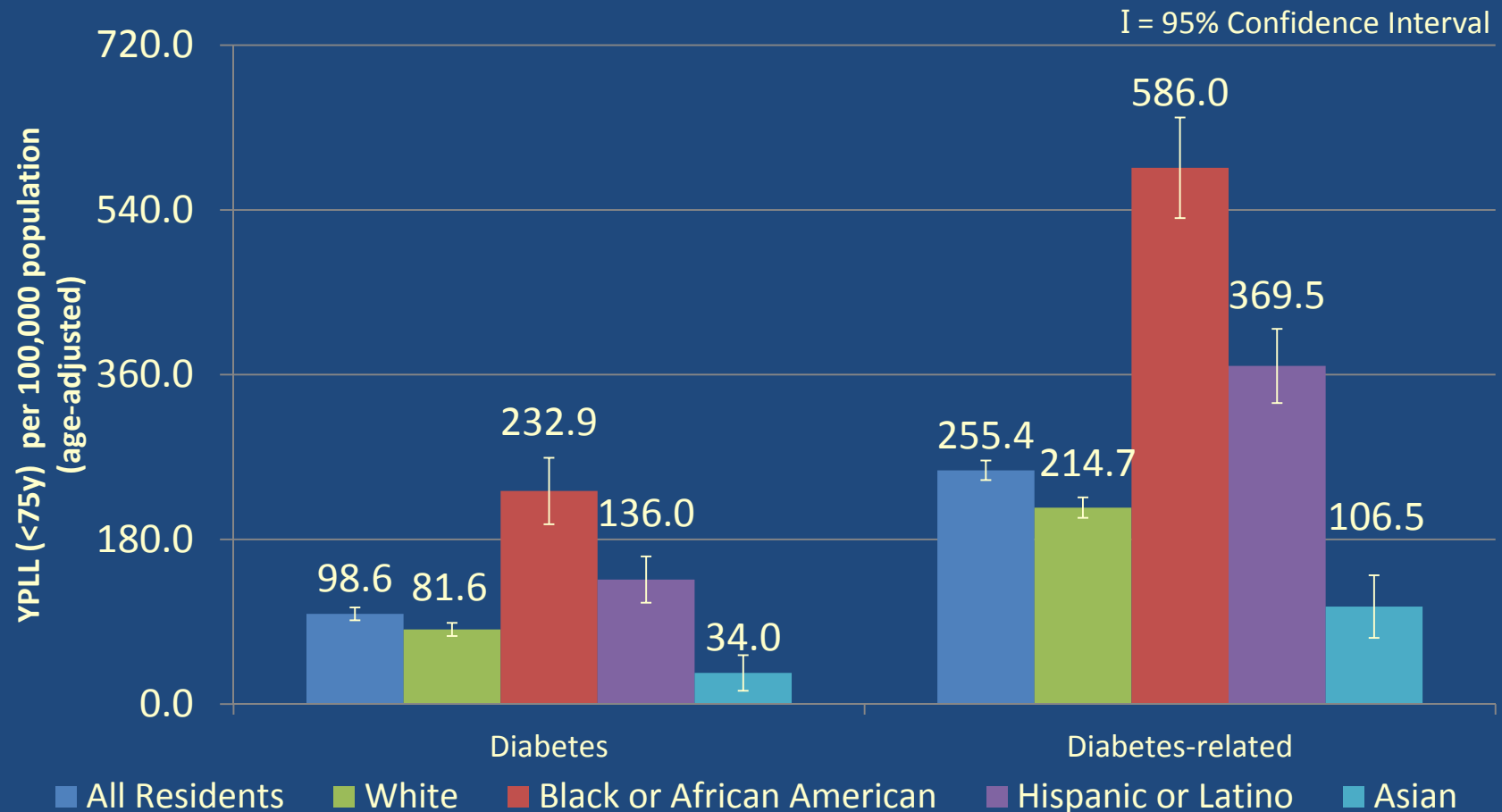
- Physical activity, healthy eating, self-management education, and appropriate medications can prevent type 2 diabetes and its complications and are key components in the effort to reduce premature death from diabetes

Age-Adjusted Years of Potential Life Lost <75 years (YPLL) by Race & Ethnicity, CT Residents, 2007-2011

- Black or African American residents have significantly higher diabetes and *diabetes-related* YPLL compared with the three other racial and ethnic groups
- Hispanic or Latino residents have significantly higher diabetes and *diabetes-related* YPLL compared with White and Asian residents
- Asian residents have significantly lower diabetes and *diabetes-related* YPLL compared with the three other racial and ethnic groups

(Data are presented on the following slide)

Age-Adjusted Years of Potential Life Lost (<75y) by Race & Ethnicity, CT Residents, 2007-2011



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



Diabetes Hospital Discharge Data

Acute Care Hospital Inpatient Discharge Database (HIDD)

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

Diabetes Hospitalizations

- Diabetes can lead to variety of disabling complications and life-threatening events and the economic burden of diabetes is great
- Diabetes hospitalization can be prevented through appropriate care and management of diabetes in the outpatient and community setting, including:
 - Diabetes self-management education,
 - Regular foot examinations,
 - Blood pressure control,
 - Regular eye examinations, and
 - Smoking cessation

Age-adjusted Diabetes Hospital Discharge Rates and Total Charges, CT Residents, 2001-2012

- In 2012, there were 5,298 hospital discharges with diabetes as the primary diagnosis (1.6% of all hospital discharges, excluding pregnancy and newborn hospitalizations)
- 1.3% of all hospital charges (\$170 million) were for hospitalizations with diabetes as the primary diagnosis in 2012

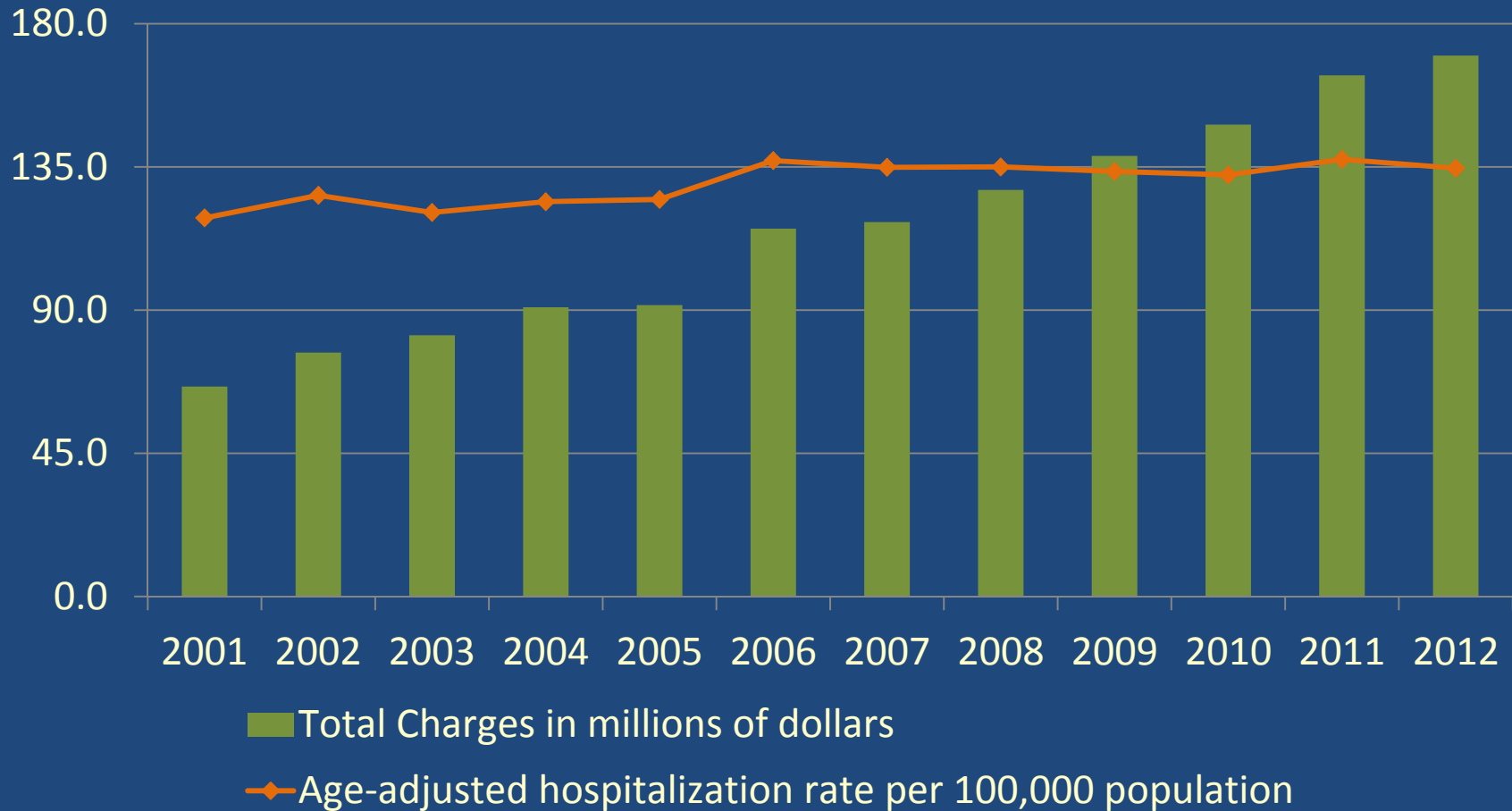
(Data are presented on slides 24 and 25)

Connecticut Resident Hospitalizations, 2012

Principal Diagnosis	Number of Discharges	Total Charges (in millions)
All discharges excluding newborn & pregnancy	327,848	\$12,708
Cardiovascular Diseases	55,248	\$2,670
CHD	11,913	\$710
Congestive Heart Failure	10,269	\$424
Stroke	7,345	\$357
Diabetes	5,298	\$170
Chronic Obstructive Pulmonary Disease	10,836	\$254
Unintentional Injuries	13,832	\$536

Source: CT DPH. CT Acute Care Hospital Inpatient Discharge Database, 2012 data.

Age-adjusted Diabetes Hospital Discharge Rates and Total Charges, CT Residents, 2001-2012



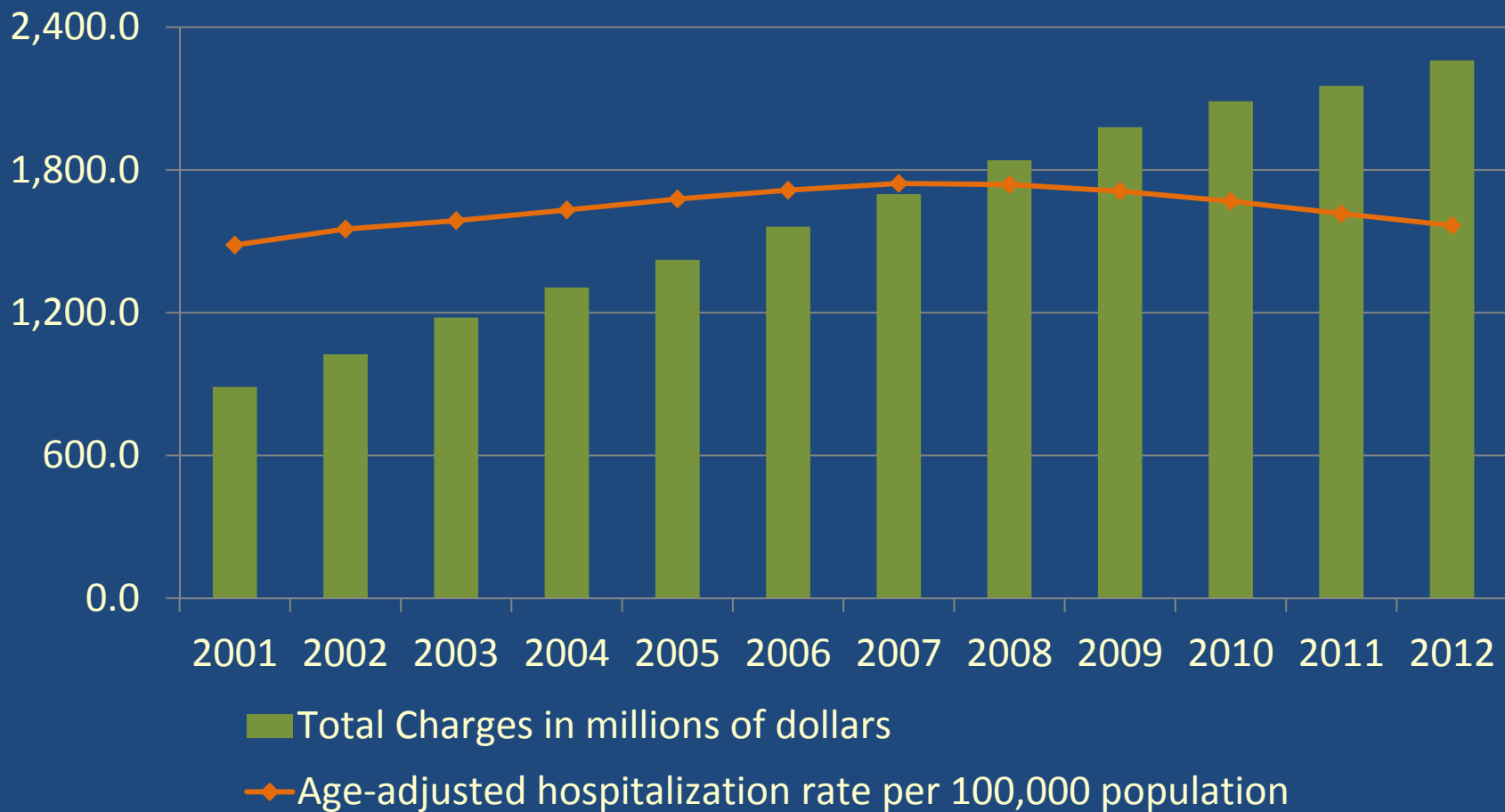
Source: CT DPH. CT Acute Care Hospital Inpatient Discharge Database, 2001-2012 data.

Age-adjusted *Diabetes-related* Hospital Discharge Rates and Total Charges, CT Residents, 2001-2012

- *Diabetes-related* hospitalizations are defined as hospitalizations with diabetes as any listed diagnosis
- In 2012, 20.2% of all hospital discharges excluding pregnancy and newborn hospitalizations (66,249 discharges) were *diabetes-related*
- 17.7% of all hospital charges (\$2.3 billion) were for *diabetes-related* hospitalizations in 2012

(Data are presented on the following slide)

Age-adjusted *Diabetes-related* Hospital Discharge Rates and Total Charges, CT Residents, 2001-2012



Source: CT DPH. CT Acute Care Hospital Inpatient Discharge Database, 2001-2012 data.

Age-adjusted *Diabetes-related* Nontraumatic Lower-extremity Amputation Hospital Discharge Rates and Total Charges, CT Residents, 2001-2012

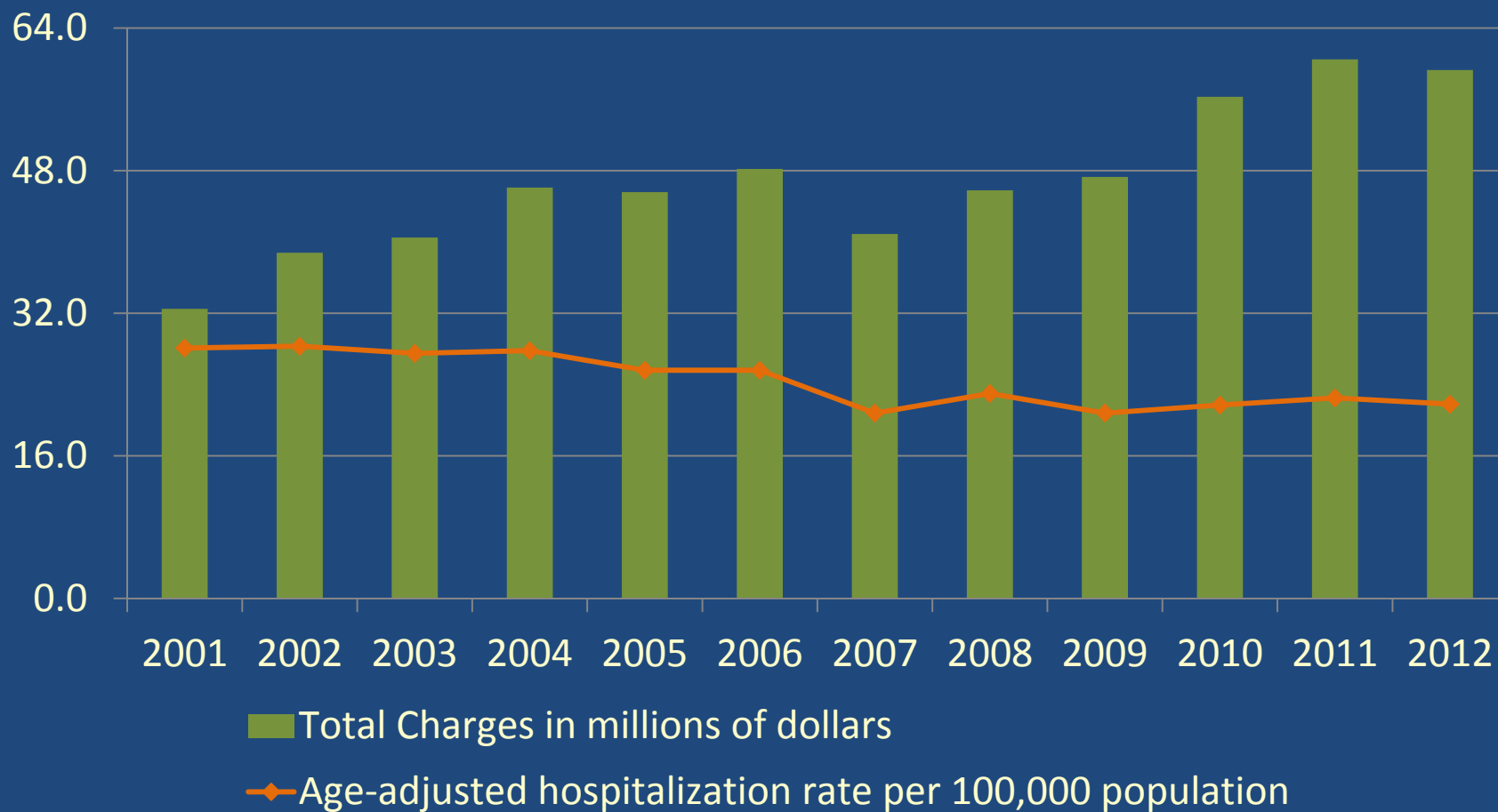
- Nationally, about 60% of nontraumatic lower-extremity amputations (NLEA) among people aged 20 years or older occur in people with diabetes ([National Diabetes Statistics Report, 2014](#))
- Age-adjusted *diabetes-related* NLEA hospitalization rates decreased about 22% in Connecticut between 2001 and 2012 (Connecticut Acute Care Hospital Inpatient Discharge Database).
- The total charge of *diabetes-related* NLEA hospitalizations increased almost 83% in Connecticut between 2001 and 2012 – from \$32.3 million to \$59.3 million

(Data are presented on slide 30)

Age-adjusted *Diabetes-related* Nontraumatic Lower-extremity Amputation Hospital Discharge Rates and Total Charges, CT Residents, 2001-2012

- According to the American Diabetes Association, most amputations are preventable with regular care and proper footwear. Regular foot care includes:
 - Checking feet every day for sores, blisters, or swelling and seeing a health care provider if foot problems are identified;
 - Keeping the feet clean;
 - Keeping the blood flowing to the feet (e.g., raising feet when sitting and quitting smoking); and
 - Visiting a health care professional for regular foot examinations

Age-adjusted *Diabetes-related* Nontraumatic Lower-extremity Amputation Hospital Discharge Rates and Total Charges, CT Residents, 2001-2012



Source: CT DPH. CT Acute Care Hospital Inpatient Discharge Database, 2001-2012 data.

Age-adjusted Hospital Discharge Rates (AAHR) by Race and Ethnicity, CT Residents, 2012

- Black or African American residents have significantly higher diabetes, *diabetes-related*, and *diabetes-related* nontraumatic lower extremity amputation AAHRs compared with White and Hispanic or Latino residents
- Hispanic or Latino residents have significantly higher diabetes, *diabetes-related*, and *diabetes-related* nontraumatic lower extremity amputation AAHRs compared with White residents

(Data are presented on the following slide)

Age-adjusted Hospital Discharge Rates (AAHR) by Race and Ethnicity, CT Residents, 2012

	Connecticut AAHR (95% CI)	White AAHR (95% CI)	Hispanic or Latino AAHR (95% CI)	Black or African American AAHR (95% CI)
Diabetes	134.6 (131-138)	95.5 (92-99)	207.8 (192-224)	398.0 (376-420)
<i>Diabetes- related</i>	1,566.8 (1,555-1,579)	1,275.9 (1,264-1,288)	2,591.3 (2,528-2,655)	3,302.2 (3,237-3,368)
<i>Diabetes- related nontraumatic lower extremity amputation</i>	21.8 (20-23)	16.5 (15-18)	30.6 (24-37)	65.6 (56-75)

Source: CT DPH. CT Acute Care Hospital Inpatient Discharge Database, 2012 data



Diabetes Prevalence

Behavioral Risk Factor Surveillance Systems (BRFSS)

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

Diabetes Prevalence from the BRFSS

- BRFSS respondents are asked if they have ever been told by a doctor, nurse, or other health professional that they have diabetes
- Female respondents indicating that they were only told that they had diabetes during pregnancy are classified as not having diabetes
- Respondents reporting prediabetes are also classified as not having diabetes

Prevalence of Diagnosed Diabetes, Adults (18+y), Connecticut, 2011-2013

- An estimated 8.9% of Connecticut adults have diagnosed diabetes (not age-adjusted)
 - Approximately 250,000 adults
- In addition to those with diagnosed diabetes, an estimated 83,000 adults have diabetes and do not know they have the condition (undiagnosed diabetes)
- These estimated include types 1 and 2 diabetes

Prevalence of Diagnosed Diabetes, Adults (18+y), Connecticut, 2011-2013

- Age-adjusted rates of diagnosed diabetes vary by gender, race and ethnicity, and age
 - Males have higher rates than females
 - Black or African American and Hispanic or Latino adults have nearly twice the diabetes rates of White adults
 - Rates of diabetes increase with increasing age

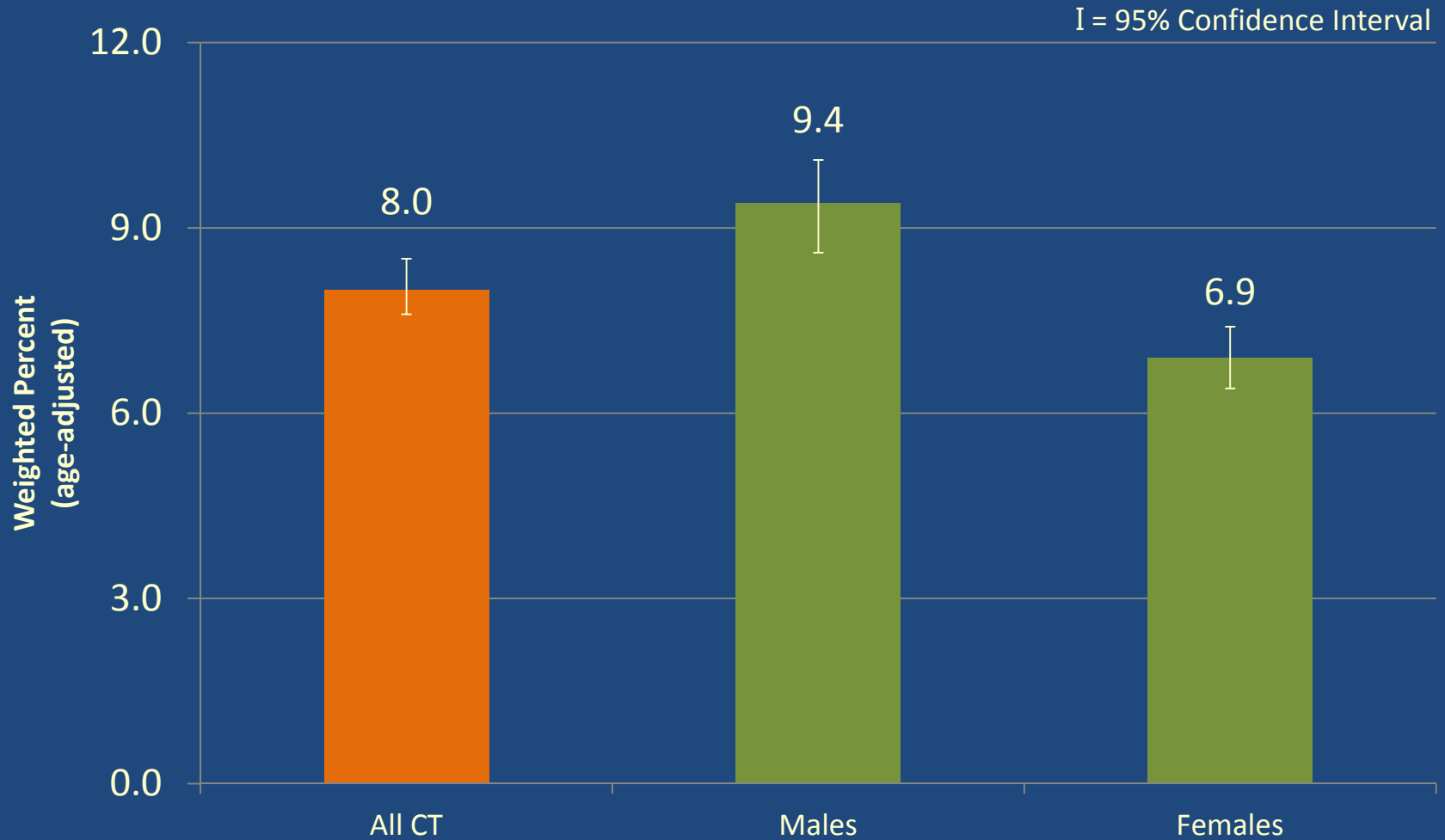
(Data are presented on slides 39 to 41)

Prevalence of Diagnosed Diabetes, Adults (18+y), Connecticut, 2011-2013

- Age-adjusted rates of diagnosed diabetes vary by socioeconomic status
 - In terms of educational attainment, adults who are less than high school graduates have the highest rates
 - In terms of income, adults with annual household incomes of <\$25,000 have the highest rates

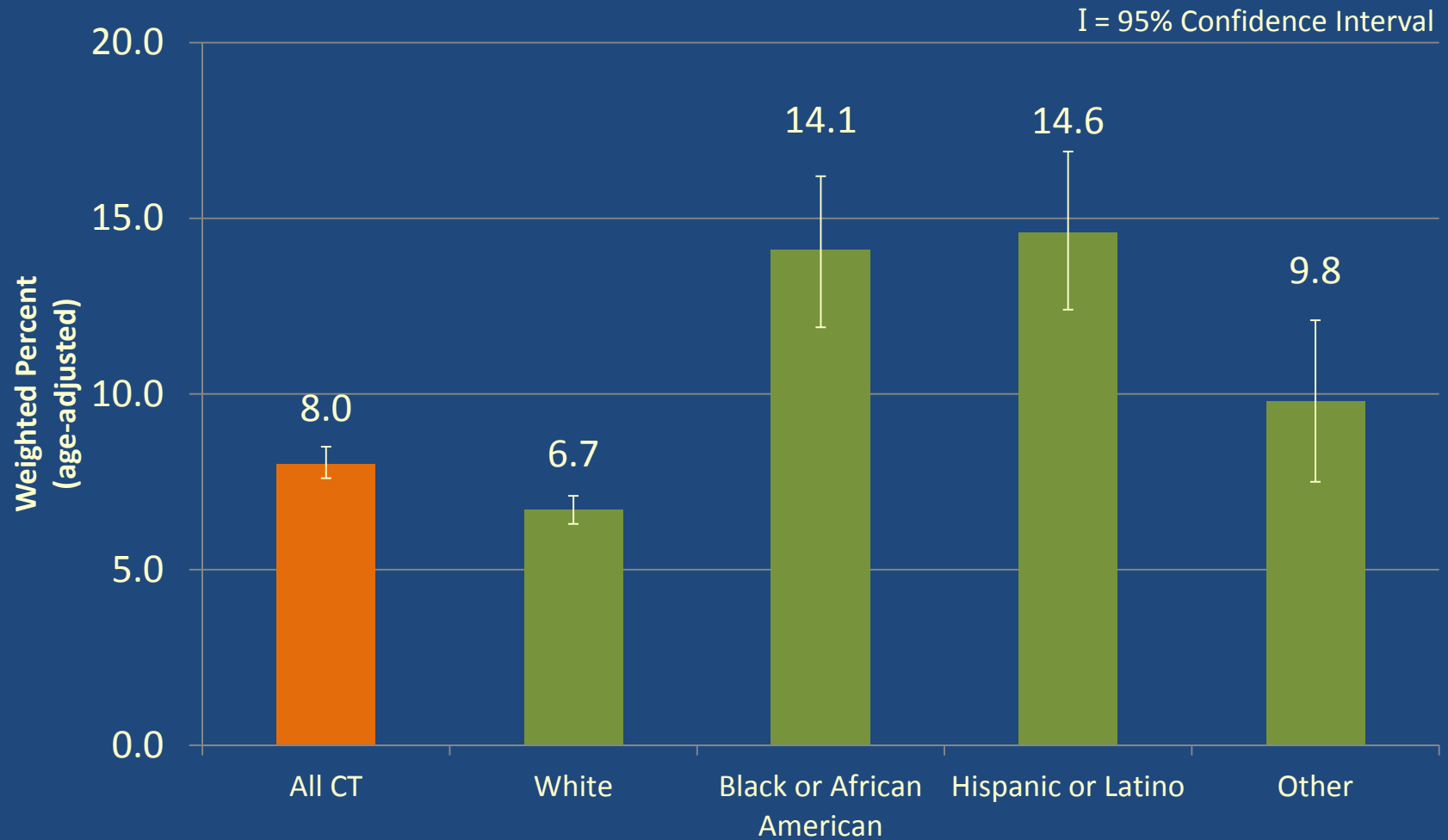
(Data are presented on slides 42 and 43)

Prevalence of Diagnosed Diabetes by Gender, Adults (18+y), CT, 2011-2013



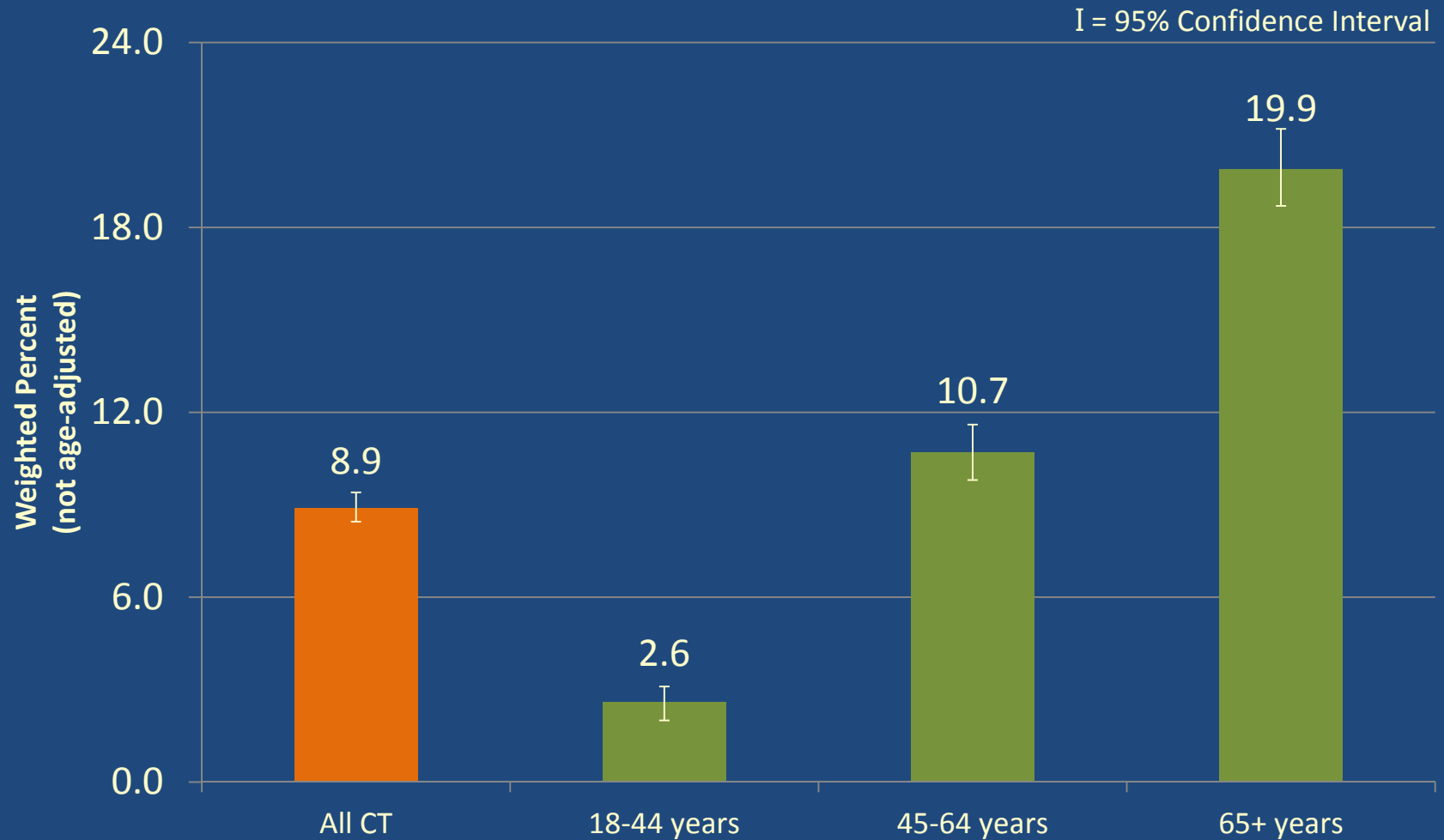
Source: CT DPH. BRFSS, 2011-2013 data.

Prevalence of Diagnosed Diabetes by Race & Ethnicity, Adults (18+y), CT, 2011-2013



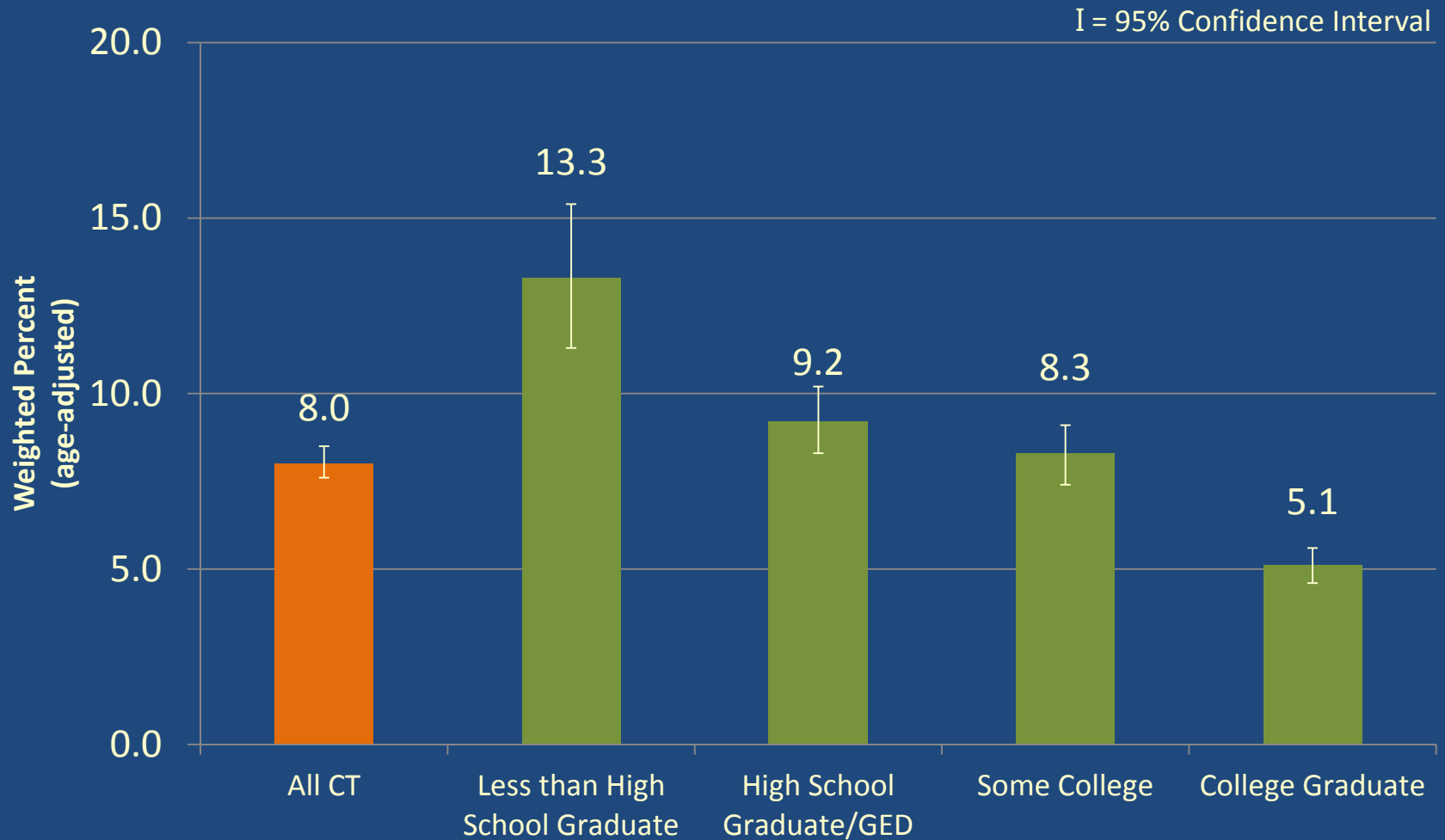
Source: CT DPH. BRFSS, 2011-2013 data.

Prevalence of Diagnosed Diabetes by Age, Adults (18+y), CT, 2011-2013



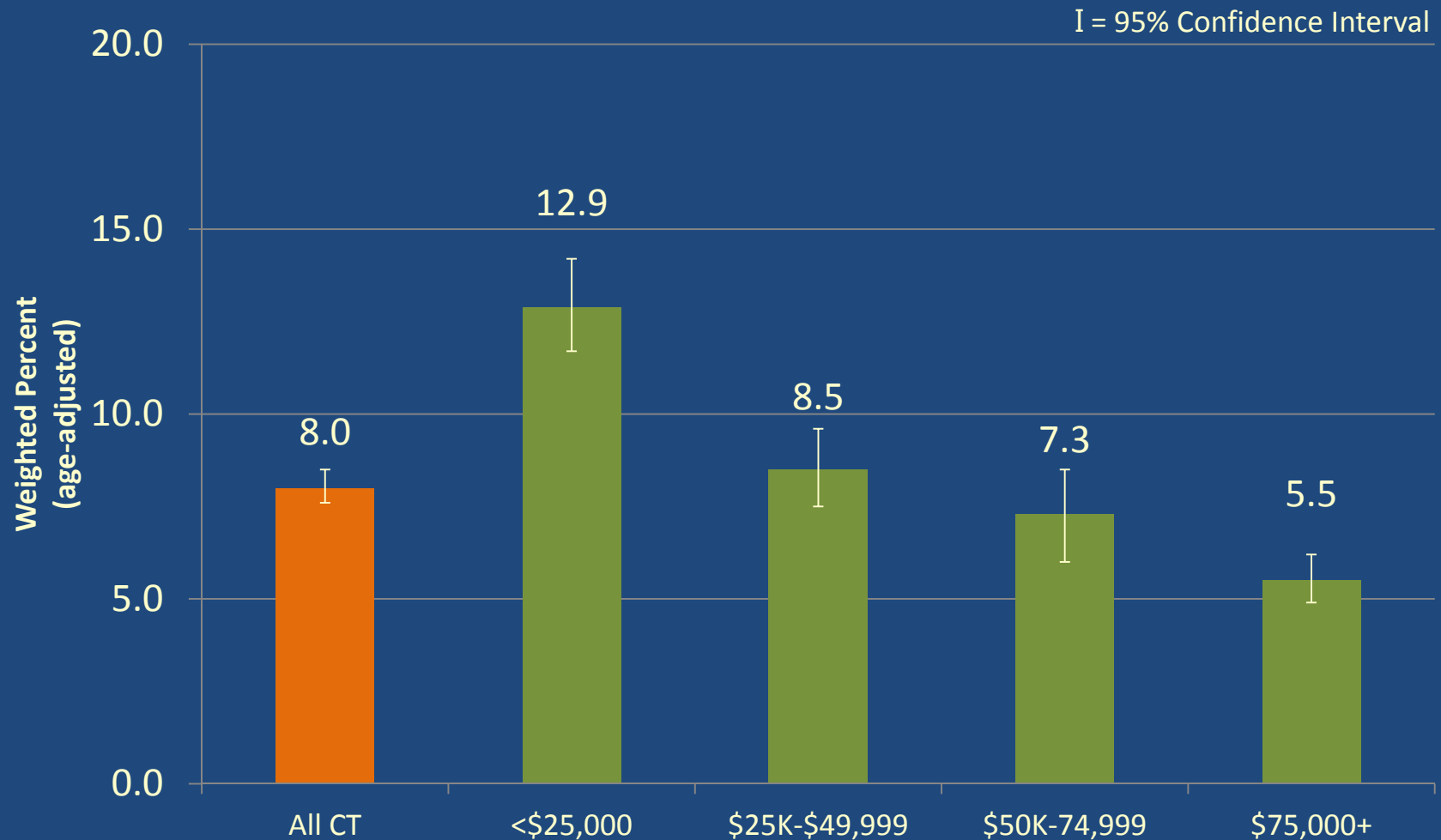
Source: CT DPH. BRFSS, 2011-2013 data.

Prevalence of Diagnosed Diabetes by Education, Adults (18+y), CT, 2011-2013



Source: CT DPH. BRFSS, 2011-2013 data.

Prevalence of Diagnosed Diabetes by Annual Household Income (18+y), CT, 2011-2013



Source: CT DPH. BRFSS, 2011-2013 data.



Diabetes Preventive Care Practices

Diabetes Preventive Care Practices

- Diabetes preventive care can reduce the microvascular (i.e., eye, kidney, and nerve diseases) and macrovascular (e.g., heart attack and stroke) complications of diabetes
- Preventive care practices are practices that include receiving eye and foot examinations, routinely having A1c tests to monitor blood glucose levels, attending diabetes self-management classes, receiving appropriate immunizations, checking glucose levels daily, and performing self-examinations of the feet daily

Preventive Care Practices, Connecticut Adults with Diagnosed Diabetes, 2011-2013

- Healthy People (HP) 2020 has national goals for diabetes preventive care practices
- BRFSS data show low rates of preventive care practices among Connecticut adults with diagnosed diabetes
- Possible reasons for the low rates include lack of awareness of the need for multiple preventive care services, inadequate health insurance coverage, and inability to make co-payments or visit specialists

(Data are presented on the following slide)

Preventive Care Practices, Connecticut Adults with Diagnosed Diabetes, 2011-2013

Preventive Care Practice	Healthy People 2020 Target (%)	Age-adjusted %, Connecticut*
2+ A1c tests in past year	71.1	70.3
Annual dilated eye exam†	58.7	68.8
Annual foot exam	74.8	74.3
Attended diabetes self-management class	62.5	46.7
Annual influenza immunization‡	70.0	51.4
Ever had pneumococcal immunization (18-64 years of age)^	90.0	40.3
Ever had pneumococcal immunization (65+ years of age)^	90.0	73.8

*Data source: CT DPH. BRFSS, 2011-2013 data. †The HP 2020 target and Connecticut estimates for annual dilated eye exam have different data sources and are not comparable. ‡The HP 2020 target for influenza immunization is for all adults not specifically those with diabetes. ^The HP 2020 targets for pneumococcal immunizations are for high-risk noninstitutionalized adults.

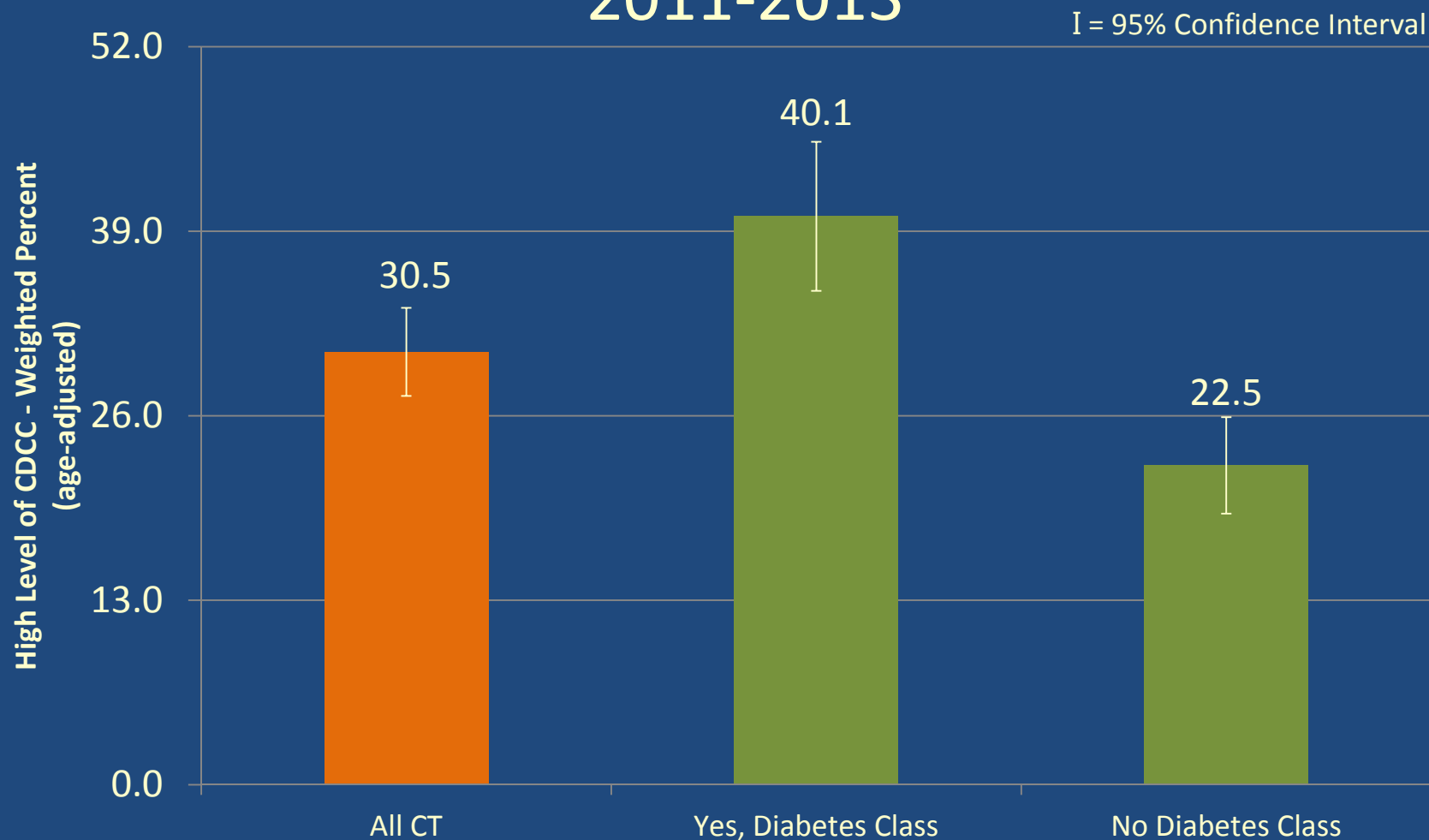
Diabetes Self-Management Education and Comprehensive Diabetes Clinical Care (CDCC), 2011-2013

- BRFSS variables are available for the following ADA-recommended clinical services: annual dilated retinal examination, annual foot examination by a health care professional, at least one A1c test every 6 months, annual flu vaccination, and ever having had the pneumococcal vaccination
 - High comprehensive diabetes clinical care (CDCC) includes respondents reporting having received four or more of the ADA recommended clinical services

Diabetes Self-Management Education and Comprehensive Diabetes Clinical Care (CDCC), 2011-2013

- Adults reporting having ever taken a class on how to self-manage diabetes were more likely than those who did not take a class to have higher levels of CDCC (data shown on next slide)
 - Diabetes self-management education (DSME) is a key step in preventing diabetes complications
 - DSME is a collaborative process in which diabetes educators help people with or at risk for diabetes gain the knowledge, problem-solving, and coping skills needed to successfully self-manage the disease and its related conditions
- Older adults and adults with insurance are also more likely to have high levels of CDCC (data not shown)

Diabetes Self-Management Education and Comprehensive Diabetes Clinical Care (CDCC), 2011-2013



Source: CT DPH. BRFSS, 2011-2013 data.



Prediabetes

Prediabetes

- Prediabetes is a strong risk factor for type 2 diabetes
- Prediabetes is a condition in which a person's blood glucose levels are higher than normal, but are not high enough to be considered diabetes
- Research shows that modest weight loss (5% to 7% of body weight) and regular physical activity (at least 150 minutes each week of physical activity, such as brisk walking) can help people with prediabetes prevent or delay type 2 diabetes

Prediabetes among Connecticut Adults without Diagnosed Diabetes, 2011-2013

- National statistics, based on fasting glucose or A1C levels, indicate that about 37% of US adults (20+y) have prediabetes (National Diabetes Statistics Report, 2014)
 - However, according to the CDC, 9 out of 10 people who have prediabetes do not know that they have it
- It is estimated that only 6.4% of Connecticut adults report having been told that they have prediabetes (2011-2013 BRFSS data; not shown)

Prediabetes/Diabetes Testing

- Fasting blood glucose, glucose tolerance, or hemoglobin A1C tests can be used to diagnose prediabetes and diabetes
 - People whose test results indicate they have prediabetes should have their blood glucose levels checked again in six months to one year. People with blood glucose levels that are in the normal range should get tested every three years, or as recommended by a doctor

Diabetes Testing among Connecticut Adults without Diagnosed Diabetes, 2011-2013

- Only 56.2% of Connecticut adults without diagnosed diabetes report having been tested for diabetes in the past 3 years
- Rates of diabetes testing among adults (18+y) vary by gender, race and ethnicity, and age
- The differences in the rates of diabetes testing among adults (18+y) within the categories of educational attainment and annual household income did not reach statistical significance

(Data are presented on next slide)

Connecticut Adults without Diagnosed Diabetes Who Report Having Been Tested for Diabetes in the Last 3 Years, 2011-2013

Characteristic	Unadjusted Percent (95% CI)	Age-adjusted Percent (95% CI)
All Adults	56.2 (55.1-57.2)	55.2 (54.1-56.2)
Male	53.4 (51.8-55.0)	52.8 (51.3-54.4)
Female	58.6 (57.3-60.0)	57.6 (56.2-59.0)
White	57.5 (56.3-58.7)	54.8 (53.6-56.0)
Black or African American	55.6 (51.8-59.4)	56.5 (53.0-60.1)
Hispanic or Latino	54.0 (50.4-57.6)	57.7 (54.1-61.3)
Other	43.6 (38.6-48.6)	47.2 (42.5-51.8)
18-44 Years Old	44.5 (42.7-46.3)	NA
45-64 Years Old	65.7 (64.3-67.1)	NA
65+ Year Old	67.7 (66.0-69.4)	NA

Source: CT DPH. BRFSS, 2011-2013 data



Modifiable Risk Factors

Risk Factors for Type 2 Diabetes

- Risk factors for type 2 diabetes may be non-modifiable or modifiable
- Non-modifiable risk factors include increasing age, family history of diabetes, history of gestational diabetes, and having given birth to a baby weighing more than nine pounds
 - Collecting and sharing one's family health history can help health care professionals assess a person's risk of developing type 2 diabetes and recommend actions to lower that risk
 - For more information, visit the [Department of Public Health's Genomics web page](#)

Risk Factors for Type 2 Diabetes

- Modifiable risk factors include being overweight or obese; having hypertension; having high LDL cholesterol or high triglycerides along with low HDL cholesterol; and being physically inactive
 - For more information on hypertension and high blood cholesterol, visit www.ct.gov/dph/HeartStrokeData

Obesity

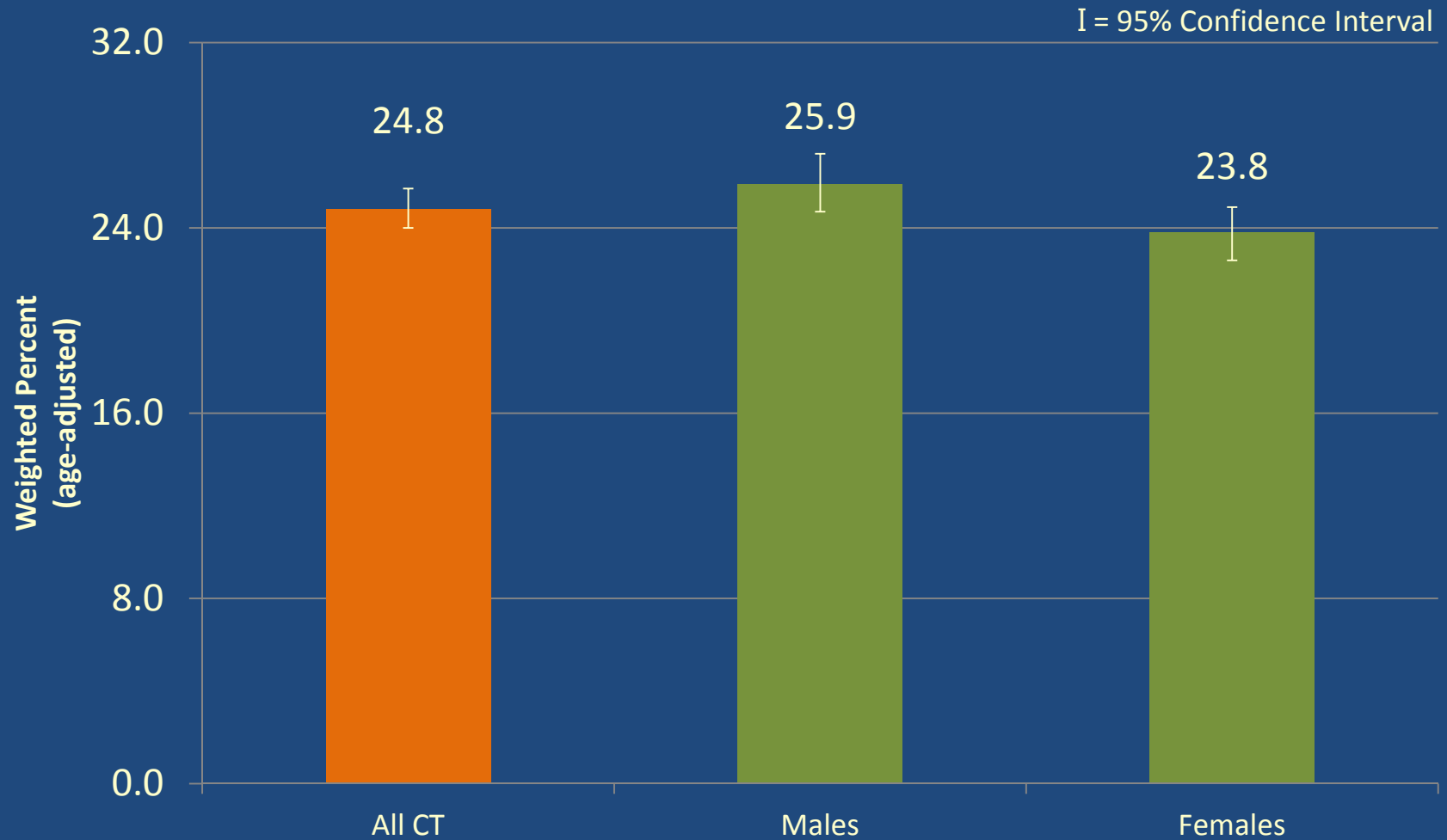
- Obesity is considered the chief modifiable risk factor for type 2 diabetes
 - Research has demonstrated an association between obesity and abnormal glucose tolerance
- An estimated 25.0% of Connecticut adults (18+y) are obese (not age-adjusted)

Obesity

- Rates of obesity among adults vary by age and race and ethnicity
 - Adults aged 18-44 years have the lowest rates of obesity compared with other age groups
 - White adults have significantly lower age-adjusted rates of obesity compared with Black or African American and Hispanic or Latino adults
 - The difference in obesity rates among males and females did not reach statistical significance
- Rates of obesity vary by socioeconomic status
 - In terms of educational attainment, adults who are college graduates have the lowest rates of obesity
 - In terms of income, adults with annual household incomes of <\$25,000 have the highest obesity rates

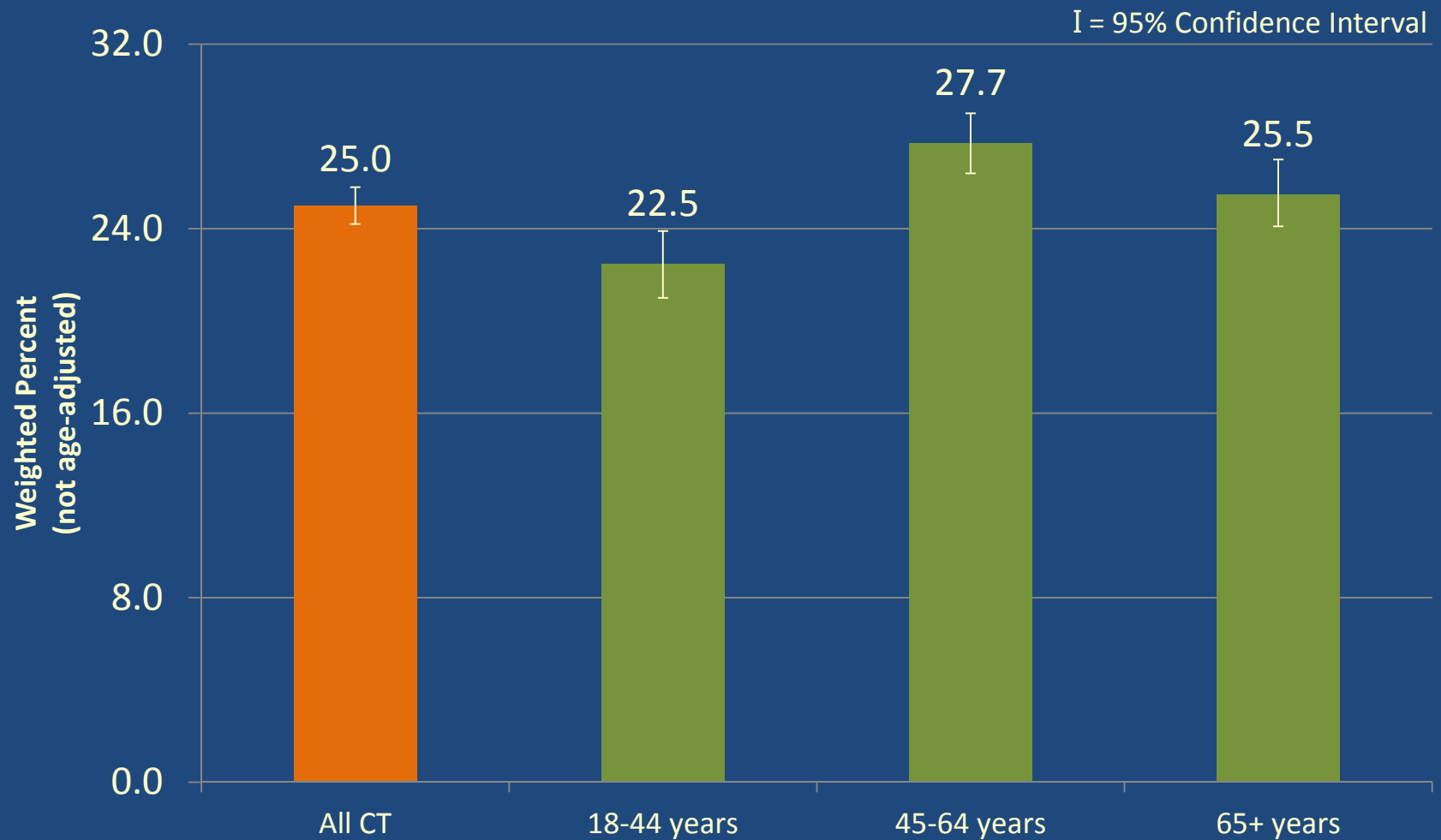
(Data are presented on the following 5 slides)

Prevalence of Obesity by Gender, Adults (18+y), CT, 2011-2013



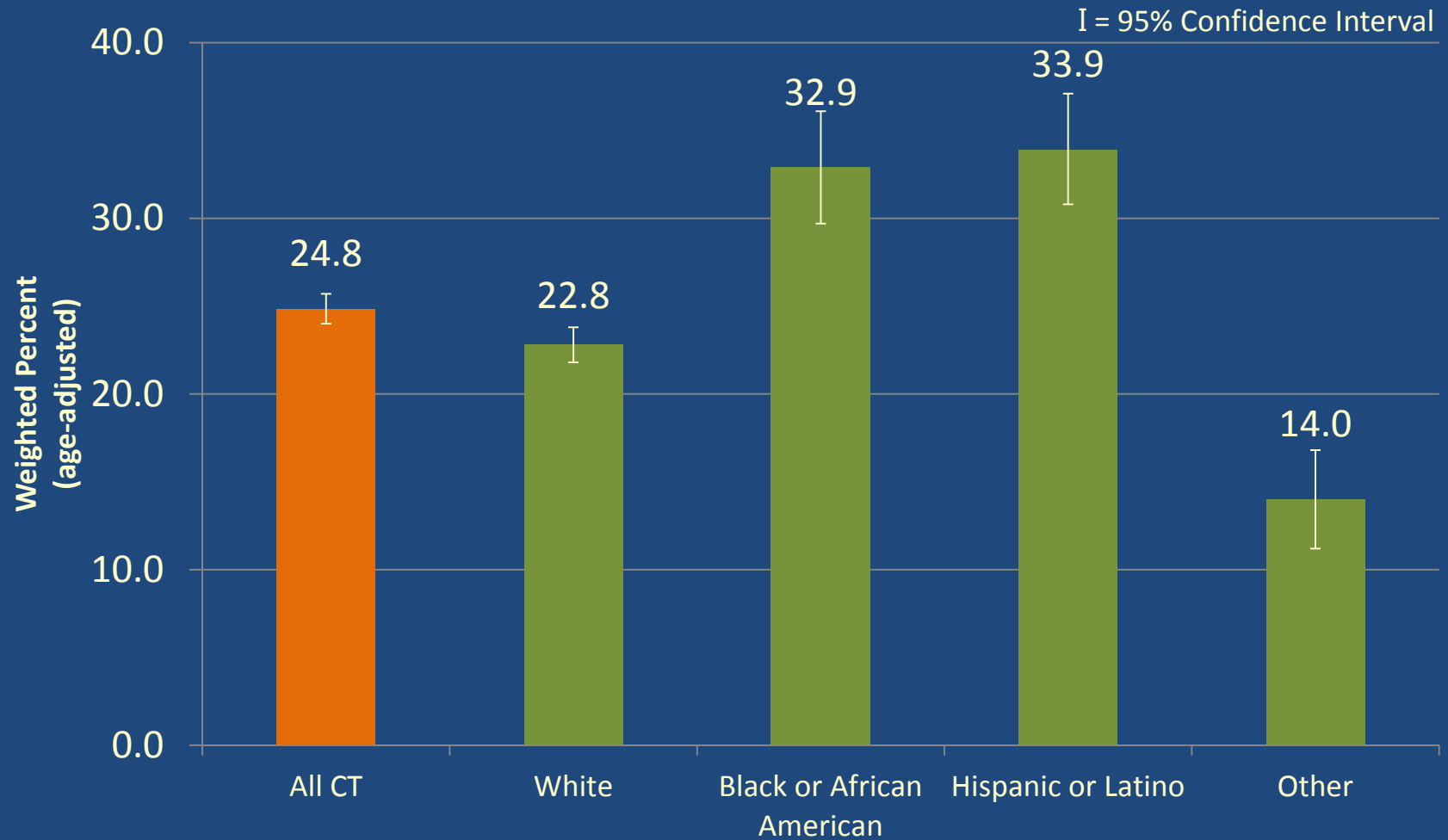
Source: CT DPH. BRFSS, 2011-2013 data.

Prevalence of Obesity by Age, Adults (18+y), CT, 2011-2013



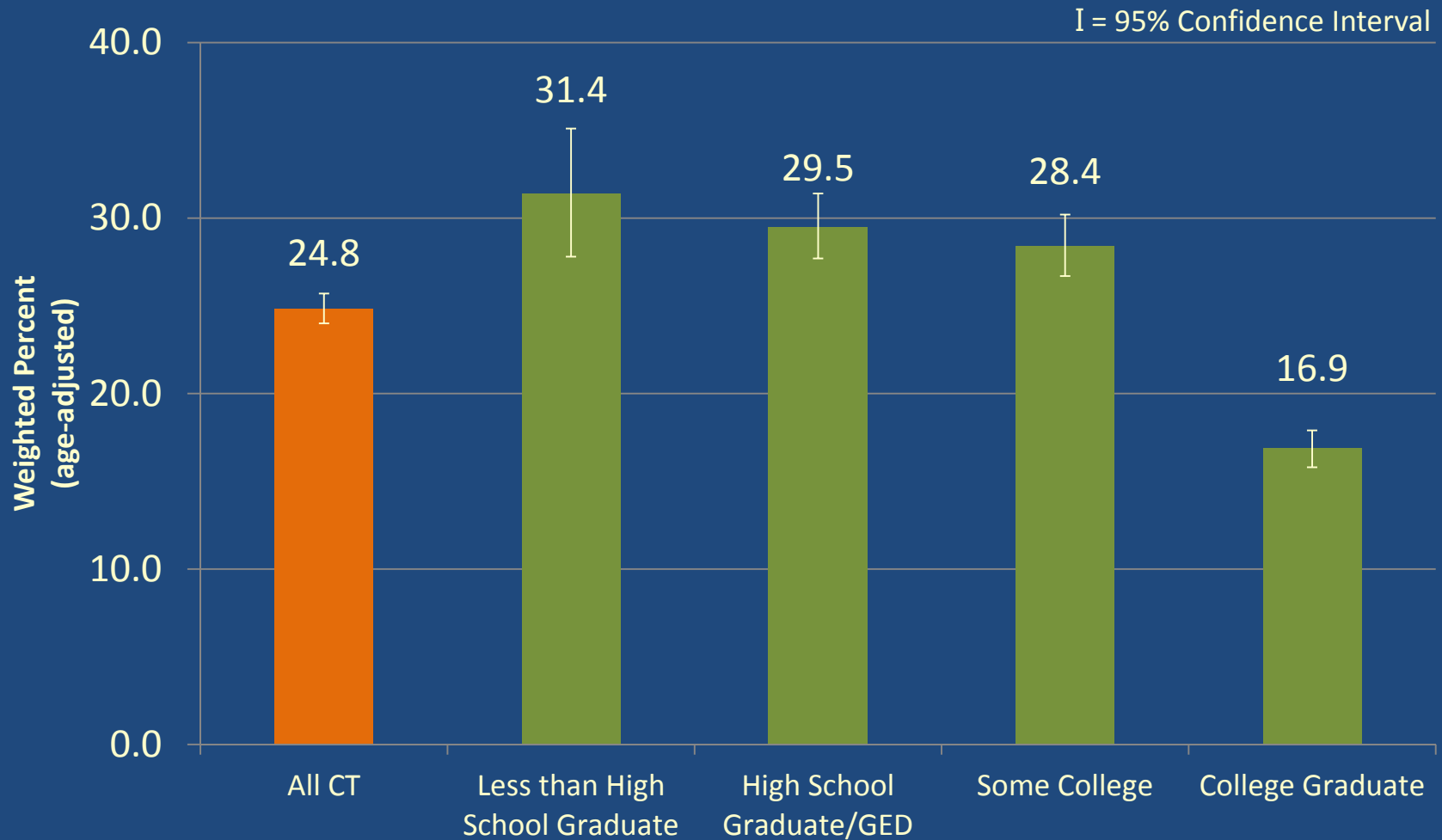
Source: CT DPH. BRFSS, 2011-2013 data.

Prevalence of Obesity by Race and Ethnicity, Adults (18+y), CT, 2011-2013



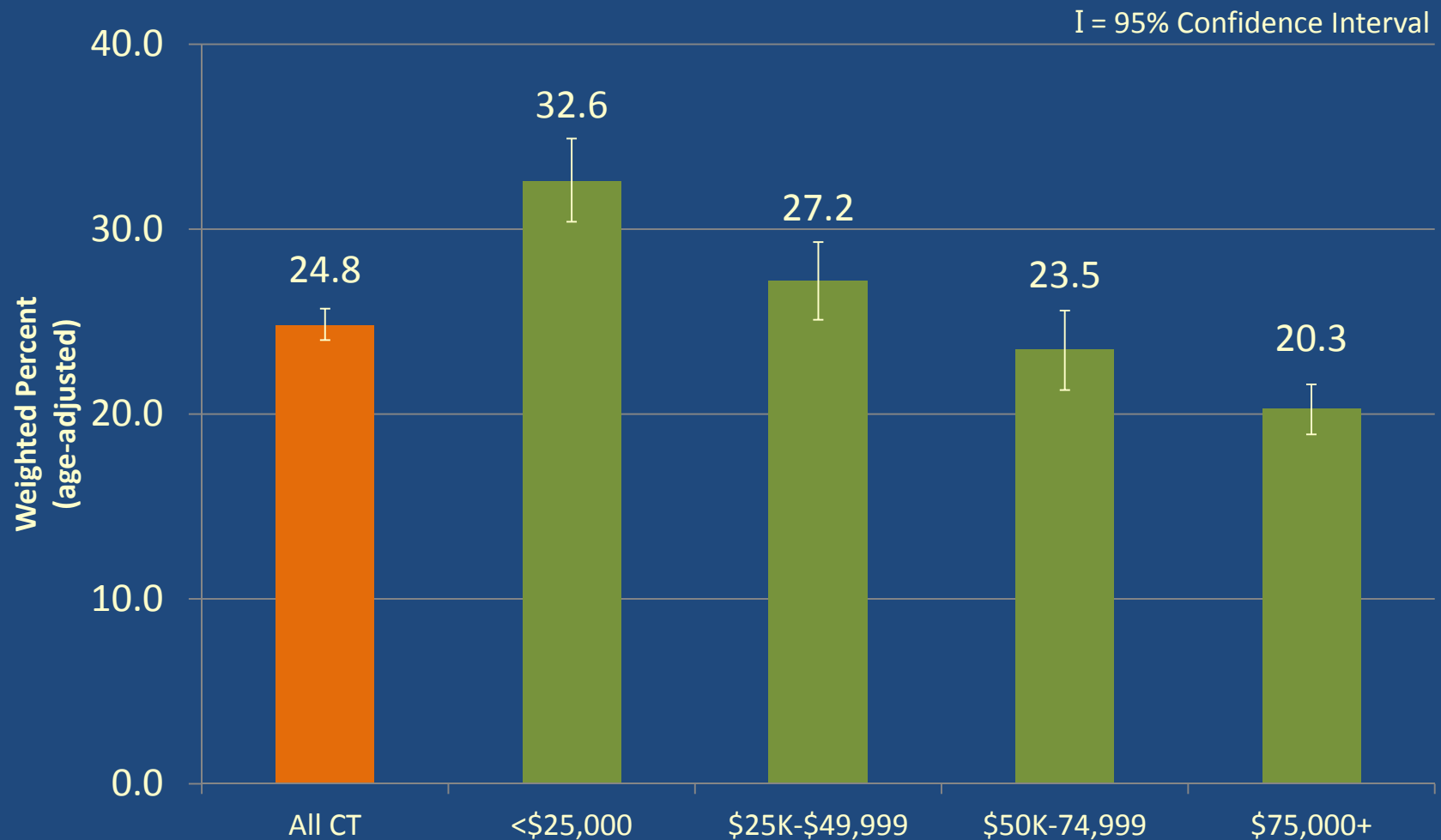
Source: CT DPH. BRFSS, 2011-2013 data.

Prevalence of Obesity by Education, Adults (18+y), CT, 2011-2013



Source: CT DPH. BRFSS, 2011-2013 data.

Prevalence of Obesity by Annual Household Income (18+y), CT, 2011-2013



Source: CT DPH. BRFSS, 2011-2013 data.

Physical Inactivity

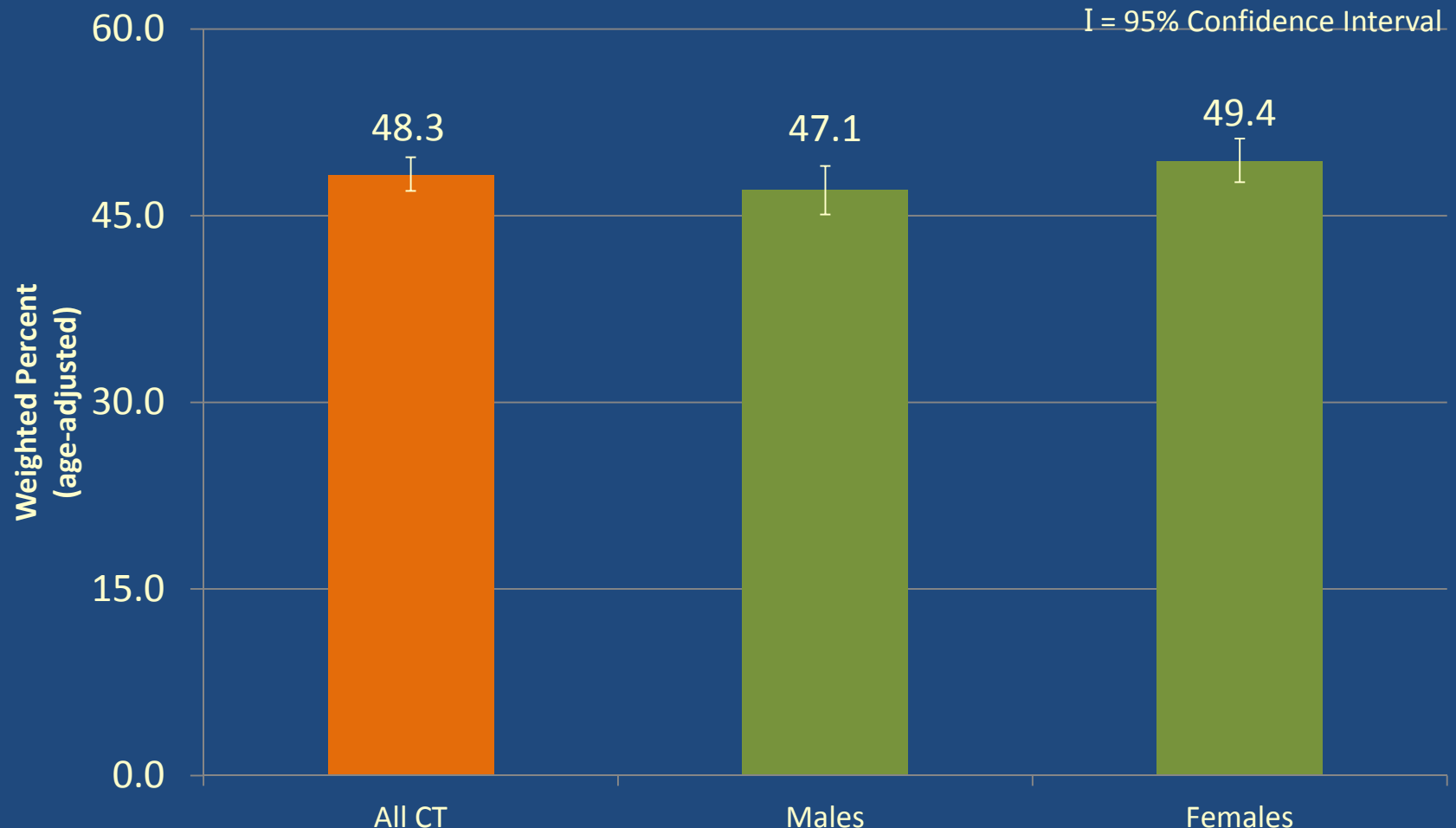
- For the next 7 slides, physical inactivity is defined as not meeting the recommendation of participating in 150 minutes or more of aerobic physical activity per week
- Physical inactivity, independent of obesity or diet, is a risk factor for type 2 diabetes.
- Research has shown that populations with higher rates of physical activity have lower rates of diabetes
- An estimated 48.2% of Connecticut adults are physically inactive (not age-adjusted)

Physical Inactivity

- Rates of physical activity vary by race and ethnicity and socioeconomic status
 - Hispanic or Latino adults have significantly higher rates than White and Black or African American adults
 - In terms of educational attainment, adults who are college graduates have the lowest rates
 - In terms of income, adults with annual household incomes of \$75,000 or more have the lowest rates
 - The differences in rates among gender and age groups did not reach statistical significance

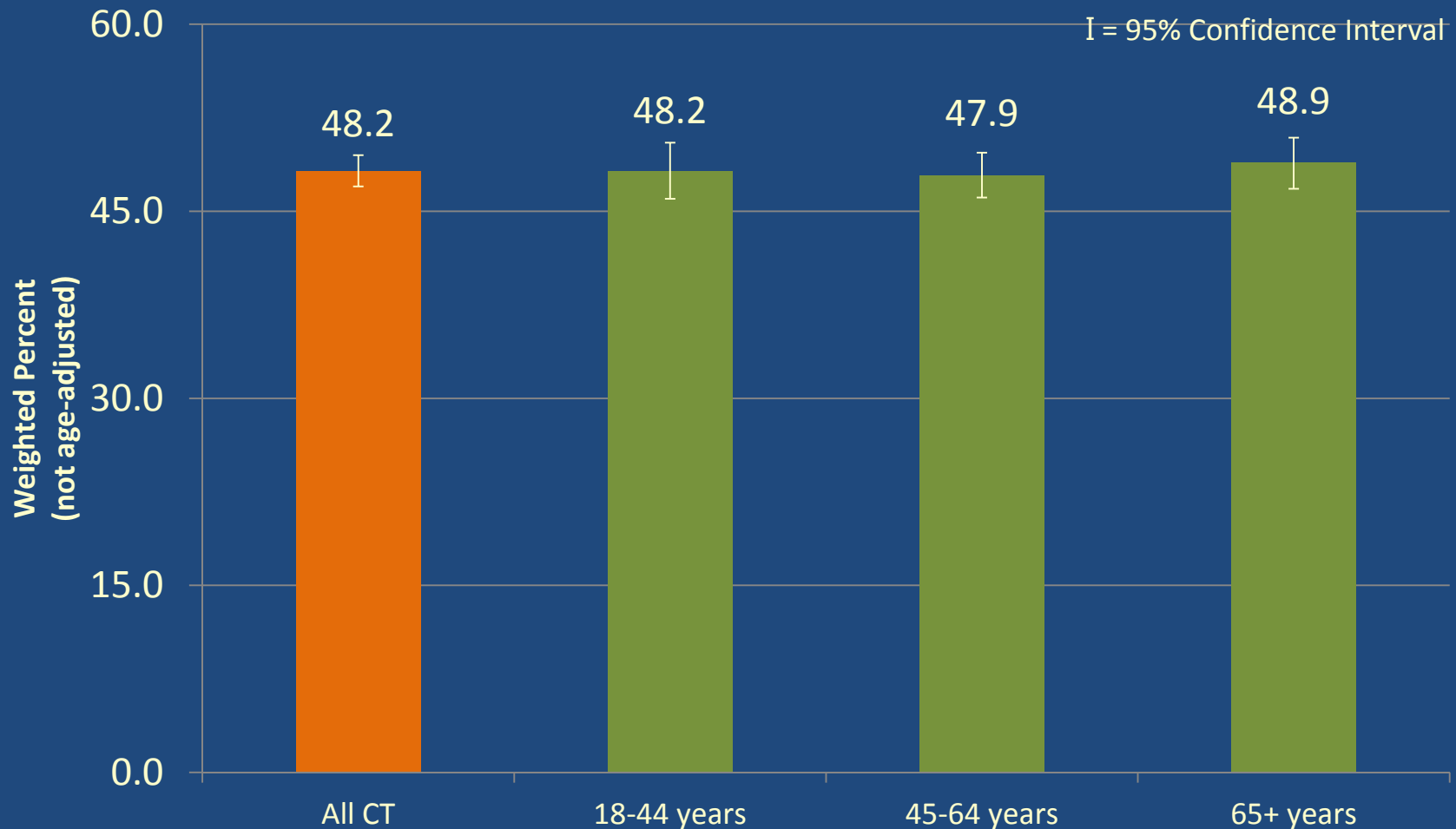
(Data are presented on the following 5 slides)

Prevalence of Physical Inactivity* by Gender, Adults (18+y), CT, 2011-2013



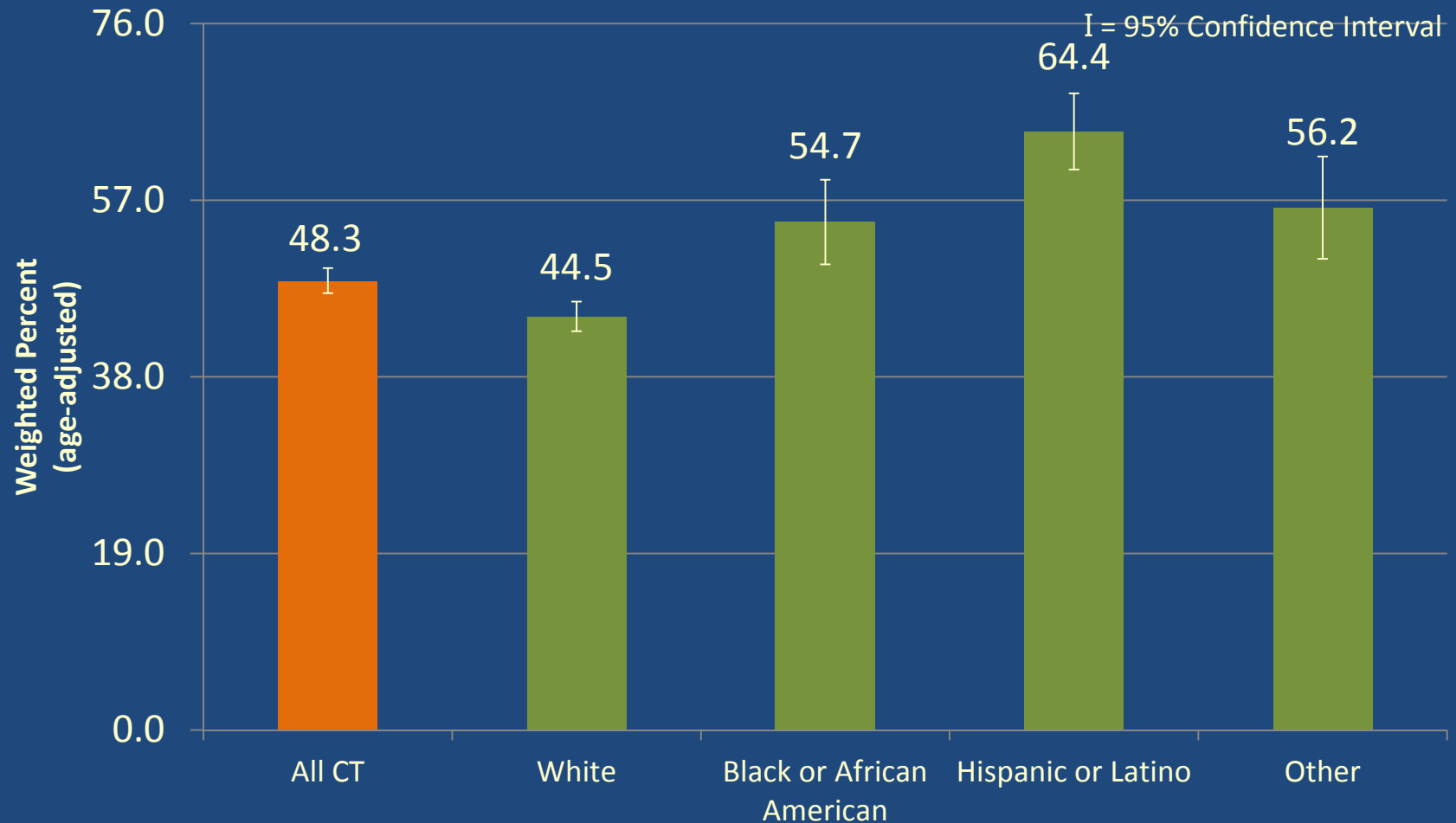
*Did not meet recommendation of participating in 150 minutes or more of aerobic physical activity per week
Source: CT DPH. BRFSS, 2011-2013 data.

Prevalence of Physical Inactivity* by Age, Adults (18+y), CT, 2011-2013



*Did not meet recommendation of participating in 150 minutes or more of aerobic physical activity per week
Source: CT DPH. BRFSS, 2011-2013 data.

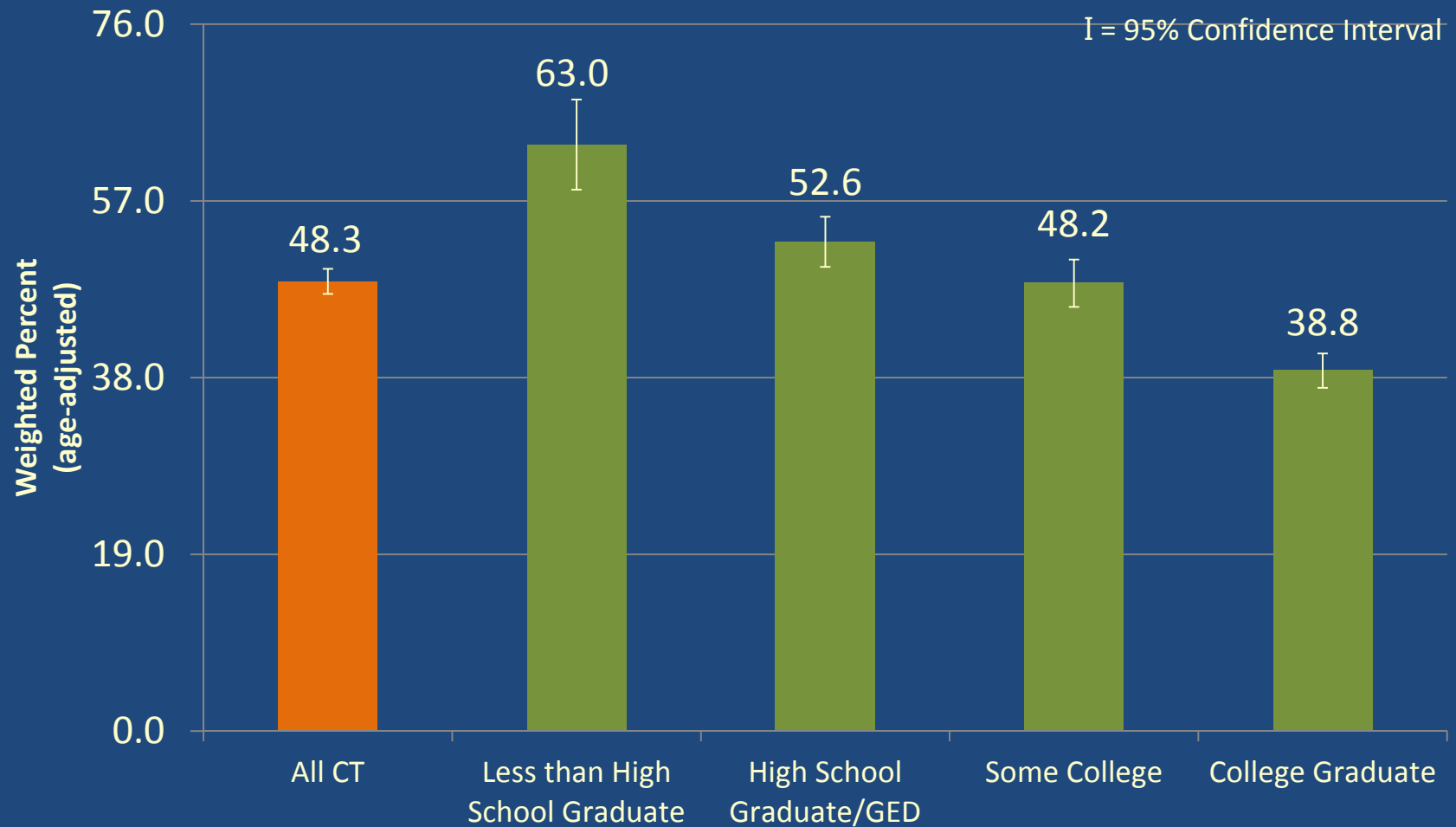
Prevalence of Physical Inactivity* by Race and Ethnicity, Adults (18+y), CT, 2011-2013



*Participated in 150 minutes or more of aerobic physical activity per week

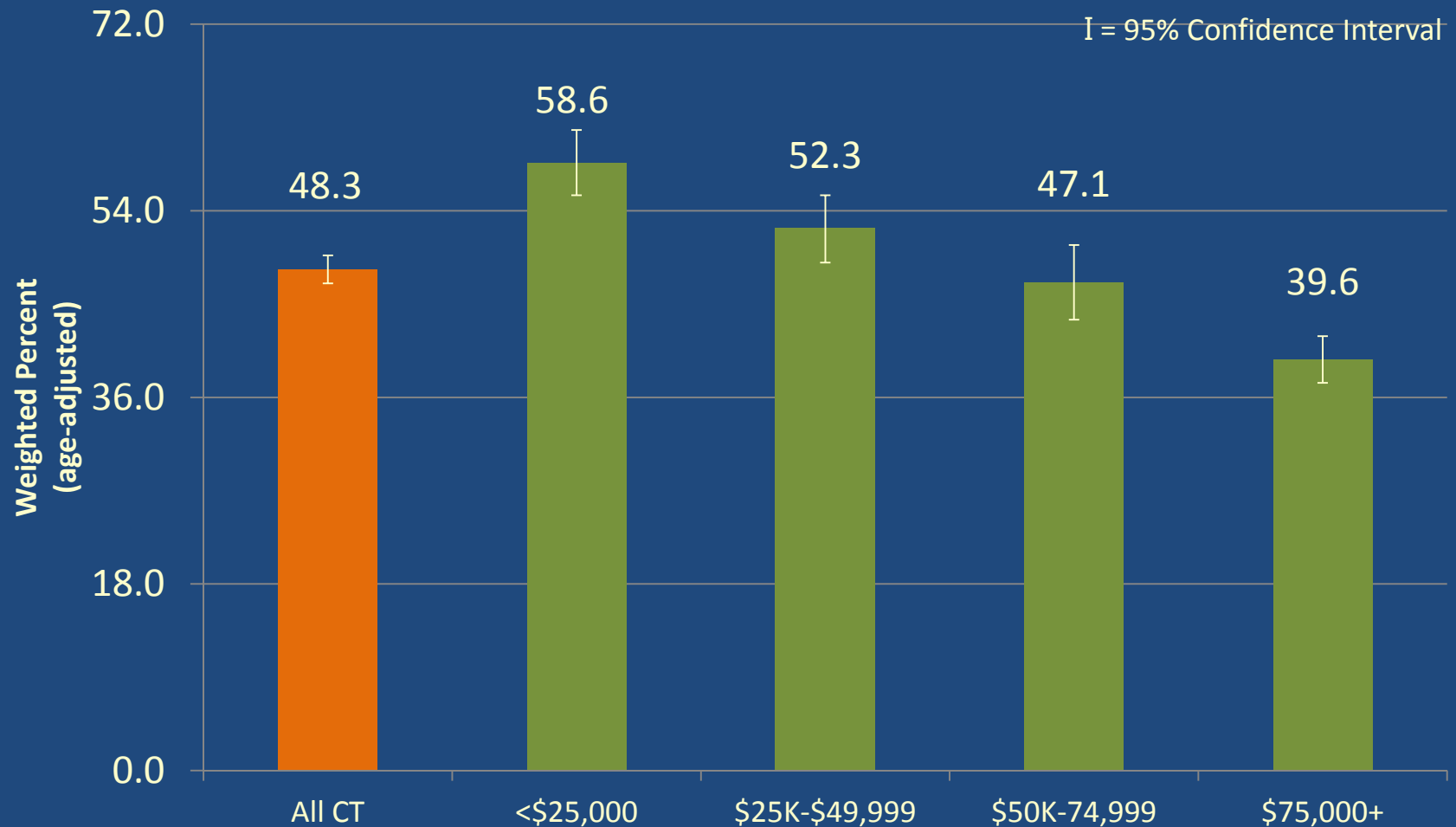
Source: CT DPH. BRFSS, 2011-2013 data.

Prevalence of Physical Inactivity* by Education, Adults (18+y), CT, 2011-2013



*Did not meet recommendation of participating in 150 minutes or more of aerobic physical activity per week
Source: CT DPH. BRFSS, 2011-2013 data.

Prevalence of Physical Inactivity* by Annual Household Income (18+y), CT, 2011-2013



*Did not meet recommendation of participating in 150 minutes or more of aerobic physical activity per week
Source: CT DPH. BRFSS, 2011-2013 data.



Health Care Coverage

Adults (18-64y) without Health Care Coverage, Connecticut, 2011-2013

- Access to health care is crucial to the prevention, diagnosis, treatment, and management of diabetes.
- An estimated 13.3% of Connecticut adults were uninsured prior to health insurance expansion.
- Provisions of the Patient Protection and Affordable Care Act (ACA) that went into effect on January 1, 2014, expanded health care coverage in many states, including Connecticut
 - Access Health CT reports that the percent of uninsured residents was halved in the first year of implementation of the ACA ([8 Key Facts](#), August 6, 2014)

Adults (18-64y) without Health Care Coverage, Connecticut, 2011-2013

- Age-adjusted rates of not having health insurance vary by gender and race and ethnicity
 - Adult males are less likely to have health insurance than adult females
 - Hispanic or Latino adults are least likely to have health insurance than other racial and ethnic groups
 - Black or African American adults are less likely than White adults to have health insurance

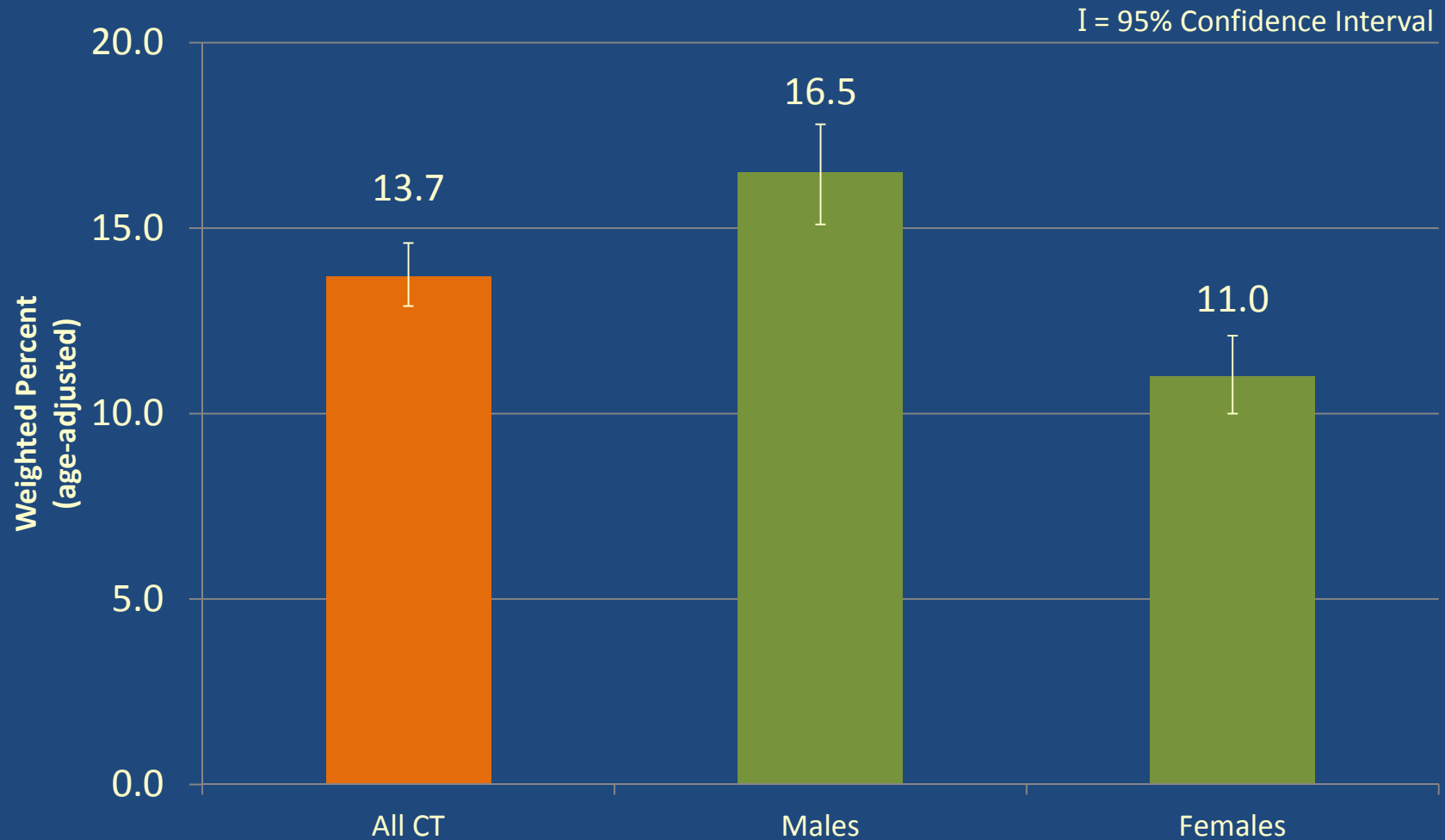
(Data are presented slides 78 and 79)

Adults (18-64y) without Health Care Coverage, Connecticut, 2011-2013

- Age-adjusted rates of not having health insurance vary by socioeconomic status
 - The rates of uninsured decrease with increasing educational attainment levels
 - Adults with annual household incomes of less than \$25,000 are 11 times more likely to not have health insurance compared to adults with annual household incomes of \$75,000 or more

(Data are presented on slides 80 and 81)

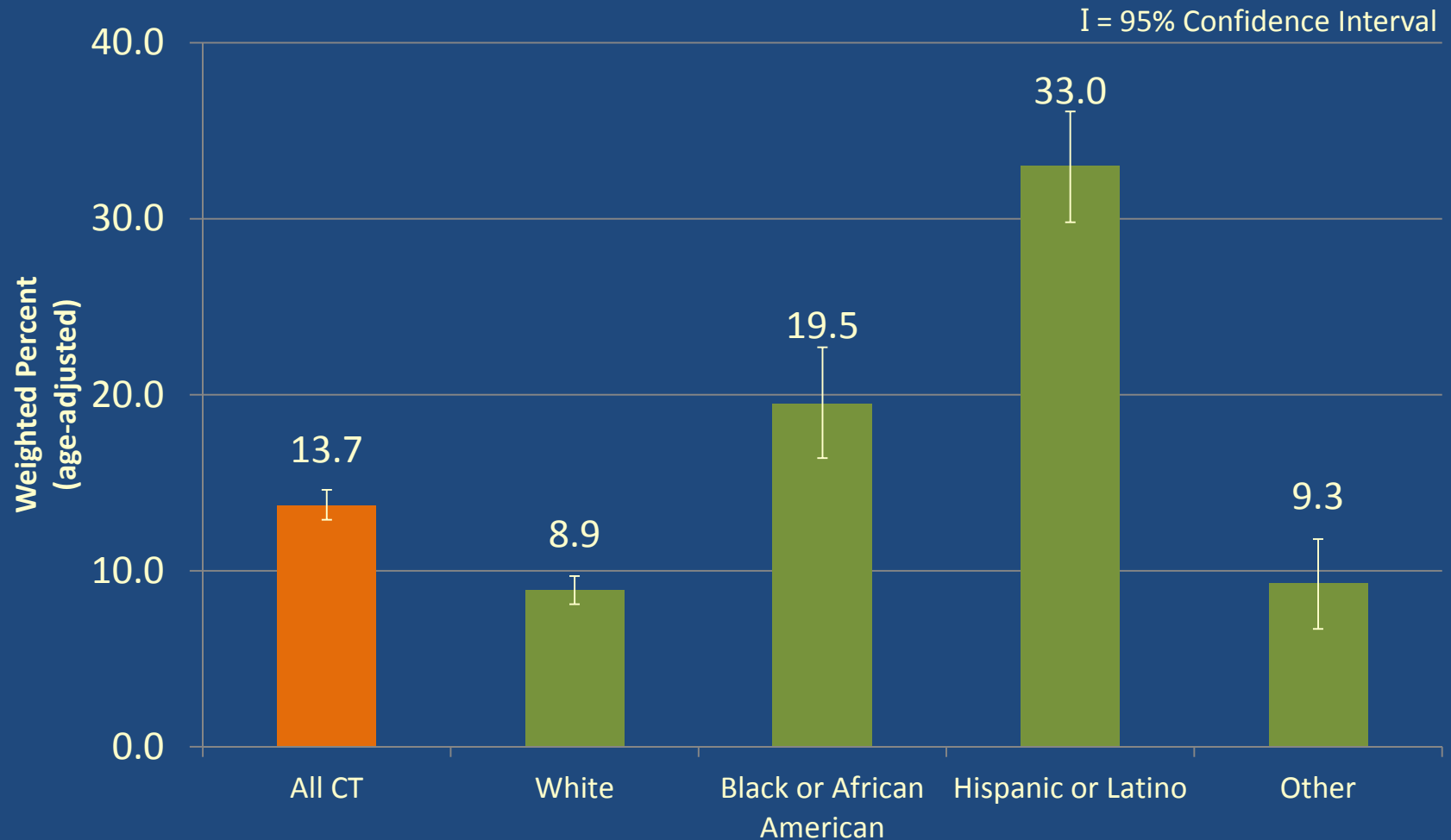
Adults (18-64y) without Health Care Coverage, by Gender, CT, 2011-2013*



Source: CT DPH, BRFSS, 2011-2013 data.

*The time period is before health insurance expansion.

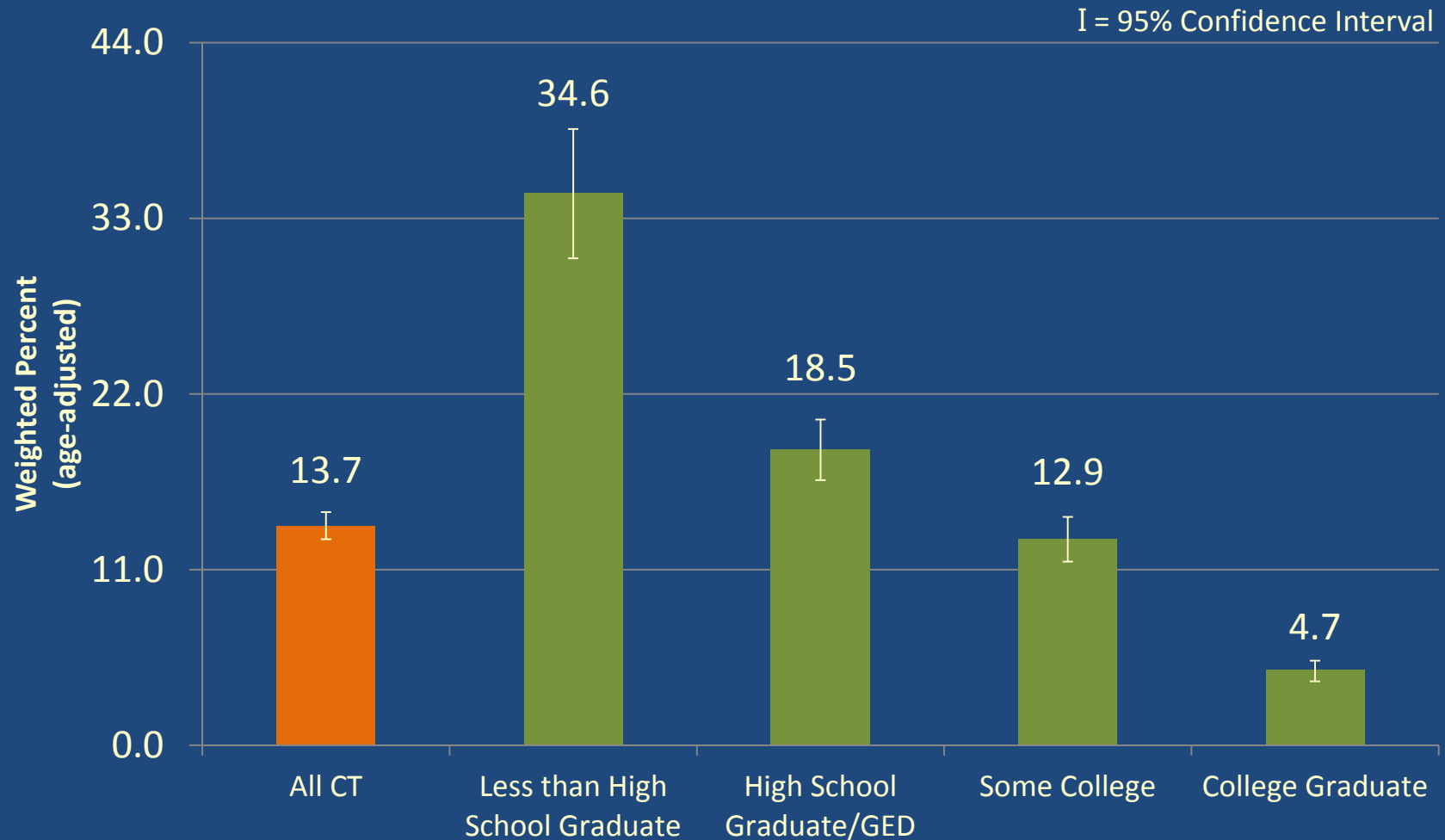
Adults (18-64y) without Health Care Coverage by Race & Ethnicity, CT, 2011-2013*



Source: CT DPH, BRFSS, 2011-2013 data.

*The time period is before health insurance expansion.

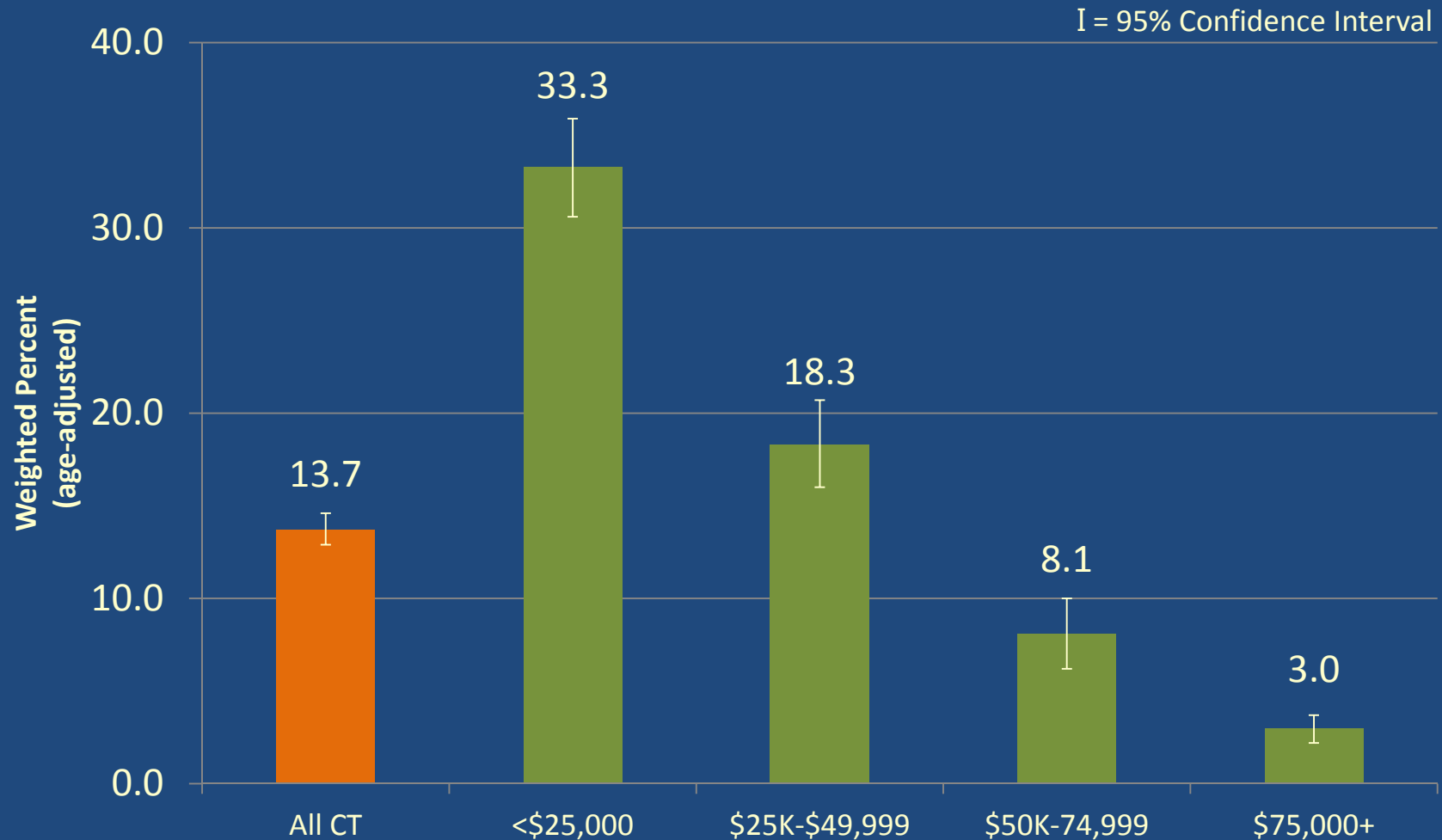
Adults (18-64y) without Health Care Coverage by Education, CT, 2011-2013*



Source: CT DPH, BRFSS, 2011-2013 data.


*The time period is before health insurance expansion.

Adults (18-64y) without Health Care Coverage by Annual Household Income, CT, 2011-2013*



Source: CT DPH, BRFSS, 2011-2013 data.

*The time period is before health insurance expansion.

A blue-tinted photograph showing a single apple in the foreground, resting on a scale. In the background, a dark bag is visible on a table. The entire image is set against a dark blue background.

Prevention and Control of Type 2 Diabetes

Prevention and Control of Diabetes

- The CDC recommends addressing type 2 diabetes and its related risk factors through policies, systems, and environmental changes with the potential for broad reach and impact on the general population and high-risk populations. For example:
 - Promoting healthy eating and active living in schools, early childhood education centers, worksites, state and local government agencies, and community settings;
 - Expanding access to healthy choices for people of all ages related to diabetes, cardiovascular health, physical activity, healthy foods and beverages, obesity, and breastfeeding;
 - Improving the delivery and use of quality clinical and other health services aimed at preventing and managing high blood pressure and diabetes; and
 - Increasing links between community and clinical organizations to support prevention, self-management and control of diabetes, high blood pressure, and obesity

Prevention and Control of Type 2 Diabetes

- The Connecticut Department of Public Health's Diabetes Prevention and Control Program works with partners to increase the awareness of, availability of, and access to effective and evidence-based lifestyle interventions.

Prevention and Control of Type 2 Diabetes

- These lifestyle interventions include:
 1. American Diabetes Association (ADA)-recognized, American Association of Diabetes Educators (AADE)-accredited, and Stanford licensed diabetes self-management programs
 - The Diabetes Prevention and Control Program partners with local health departments, community-based organizations, and community health centers to increase the number of diabetes self-management programs in the state and the number of participants in these programs

Prevention and Control of Type 2 Diabetes

- These lifestyle interventions include:
 2. Diabetes Prevention Programs
 - The Diabetes Prevention and Control Program partners with the local YMCAs and community health centers to increase provider referrals to and participation in Diabetes Prevention Programs

Prevention and Control of Type 2 Diabetes

- For information on the Department of Public Health's efforts to prevent and control diabetes visit:
 - www.ct.gov/dph/diabetes
 - www.ct.gov/dph/ChronicDisease

Questions or Comments?

Contact:

Stephanie M. Poulin, Epidemiologist

Email: Stephanie.Poulin@ct.gov

Phone: (860) 509-8252

For more information visit:

www.ct.gov/dph/DiabetesData