



Diabetes Affects Everyone

Diabetes Coalition of Palm Beach County

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April 28, 2017

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Financial Disclosure

I do not have any financial relationship relative to the content of this presentation.

Objectives

After participating in this presentation, the participants should be able to:

- Understand the tremendous impact that diabetes has on Palm Beach County
- Discuss the healthcare disparity factors/data that may impact patient outcomes within the different age groups/races/ethnicities
- Discuss the impact of this disease and related conditions within the different age groups



What is diabetes?

- ▶ Diabetes mellitus (DM) is a group of diseases characterized by high levels of blood glucose resulting from defects in insulin production, insulin action, or both.
- ▶ The term diabetes mellitus describes a metabolic disorder of multiple aetiology characterized by chronic hyperglycaemia with disturbances of carbohydrate, fat and protein metabolism resulting from defects in insulin secretion, insulin action, or both.
- ▶ The effects of diabetes mellitus include long-term damage, dysfunction and failure of various organs.

Types of Diabetes

- Type 1 Diabetes Mellitus
- Type 2 Diabetes Mellitus
- Gestational Diabetes
- Other types:
 - ❖ LADA (Latent Autoimmune Diabetes in Adults is a form of *autoimmune type 1 diabetes*)
 - ❖ MODY (maturity-onset diabetes of youth)
 - ❖ Secondary Diabetes Mellitus

Type 1 diabetes

- ▶ **Was previously called insulin-dependent diabetes mellitus (IDDM) or juvenile-onset diabetes.**
- ▶ **Type 1 diabetes develops when the body's immune system destroys pancreatic beta cells, the only cells in the body that make the hormone insulin that regulates blood glucose.**
- ▶ **This form of diabetes usually strikes children and young adults, although disease onset can occur at any age.**
- ▶ **Type 1 diabetes may account for 5% to 10% of all diagnosed cases of diabetes.**
- ▶ **Risk factors for type 1 diabetes may include autoimmune, genetic, and environmental factors.**

Type 2 diabetes

- ▶ **Was previously called non-insulin-dependent diabetes mellitus (NIDDM) or adult-onset diabetes.**
- ▶ **Type 2 diabetes may account for about 90% to 95% of all diagnosed cases of diabetes.**
- ▶ **It usually begins as insulin resistance, a disorder in which the cells do not use insulin properly. As the need for insulin rises, the pancreas gradually loses its ability to produce insulin.**
- ▶ **Type 2 diabetes is associated with older age, obesity, family history of diabetes, history of gestational diabetes, impaired glucose metabolism, physical inactivity, and race/ethnicity.**
- ▶ **African Americans, Hispanic/Latino Americans, American Indians, and some Asian Americans and Native Hawaiians or Other Pacific Islanders are at particularly high risk for type 2 diabetes.**
- ▶ **Type 2 diabetes is increasingly being diagnosed in children and adolescents.**

Gestational diabetes

- ▶ **A form of glucose intolerance that is diagnosed in some women during pregnancy.**
- ▶ **Gestational diabetes occurs more frequently among African Americans, Hispanic/Latino Americans, and American Indians. It is also more common among obese women and women with a family history of diabetes.**
- ▶ **During pregnancy, gestational diabetes requires treatment to normalize maternal blood glucose levels to avoid complications in the infant.**
- ▶ **After pregnancy, 5% to 10% of women with gestational diabetes are found to have type 2 diabetes.**
- ▶ **Women who have had gestational diabetes have a 20% to 50% chance of developing diabetes in the next 5-10 years.**

Management of DM

The major components of the treatment of diabetes are:

A

- **Diet and Exercise**

B

- **Oral hypoglycaemic therapy**

C

- **Insulin Therapy**

Burden of Diabetes

- ▶ The development of diabetes is projected to reach pandemic proportions over the next 10-20 years.
- ▶ International Diabetes Federation (IDF) data indicate that by the year 2025, the number of people affected will reach 333 million –90% of these people will have Type 2 diabetes.
- ▶ In most Western societies, the overall prevalence has reached 4-6%, and is as high as 10-12% among 60-70-year-old people.
- ▶ The annual health costs caused by diabetes and its complications account for around 6-12% of all health-care expenditure.

The Staggering Costs of Diabetes

GROWING EPIDEMIC

Diabetes affects
29 million
children and adults
in the U.S.



That's
1 in 11
Americans.



86 million Americans
have prediabetes and are at risk
for developing type 2 diabetes.

50% of them don't know
they have it.



Every **23 seconds**
someone in the
U.S. is diagnosed
with diabetes.

HUMAN COSTS

African Americans and
Hispanics are almost

2x

as likely to have diabetes
as non-Hispanic whites.

People with diabetes are at higher risk of serious health complications:



STROKE



BLINDNESS



KIDNEY
DISEASE



HEART
DISEASE



LOSS OF
TOES, FEET,
OR LESS

ECONOMIC COSTS



The total cost of diabetes
and prediabetes in the U.S. is
\$322 billion.



The average price of
insulin increased nearly **3x**
between 2002 and 2013.



People with diabetes have
health care costs
2.3x greater
than those
without diabetes.

Learn more at diabetes.org/congress.



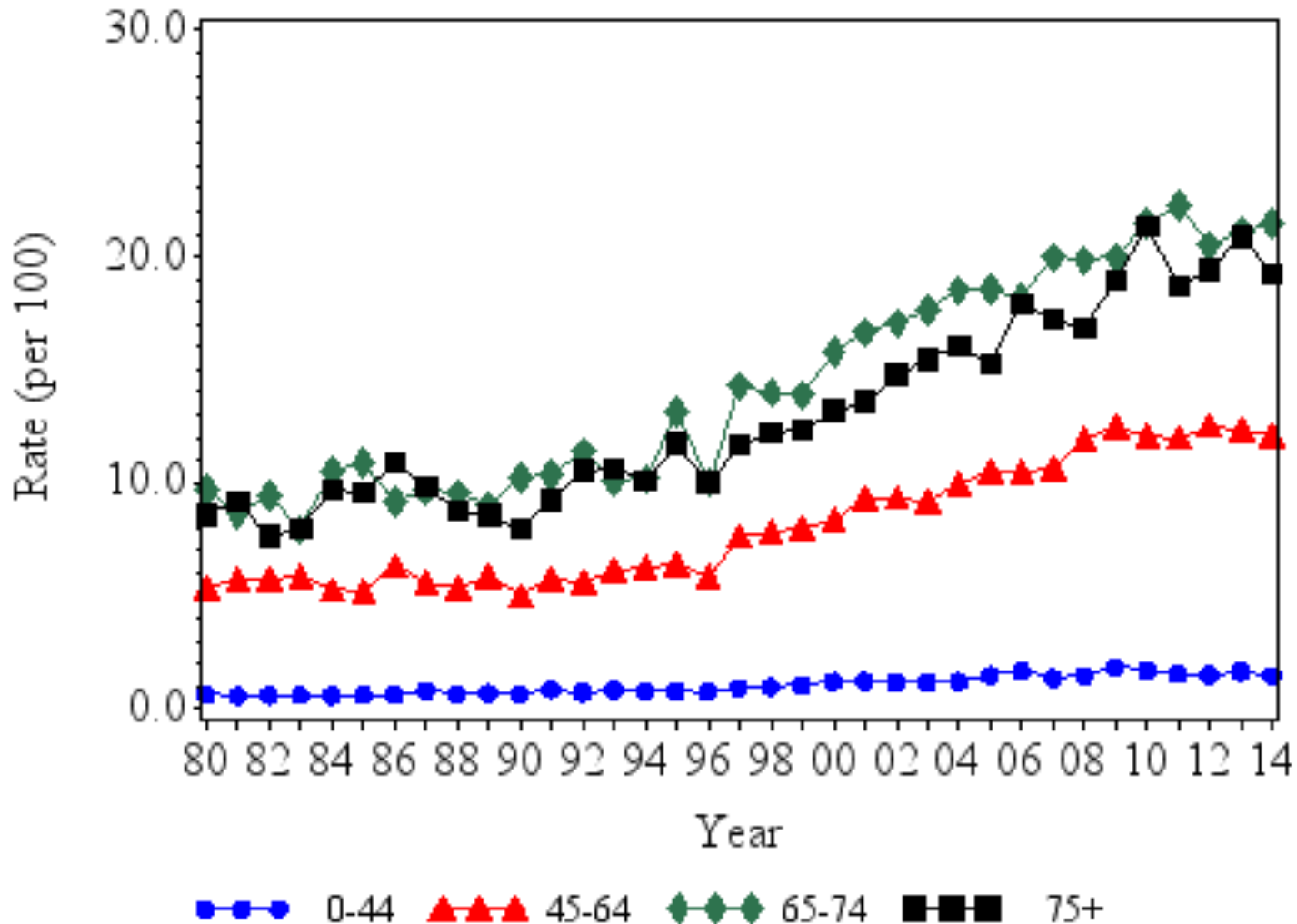
Diabetes Costs in Specific Populations

- Most of the cost for diabetes care in the U.S., 62.4%, is provided by government insurance (including Medicare, Medicaid, and the military).
- People with diabetes who do not have health insurance have 79% fewer physician office visits and are prescribed 68% fewer medications than people with insurance
- Total per-capita health care expenditures are lower among Hispanics (\$5,930) and higher among non-Hispanic blacks (\$9,540) than among non-Hispanic whites (\$8,101).

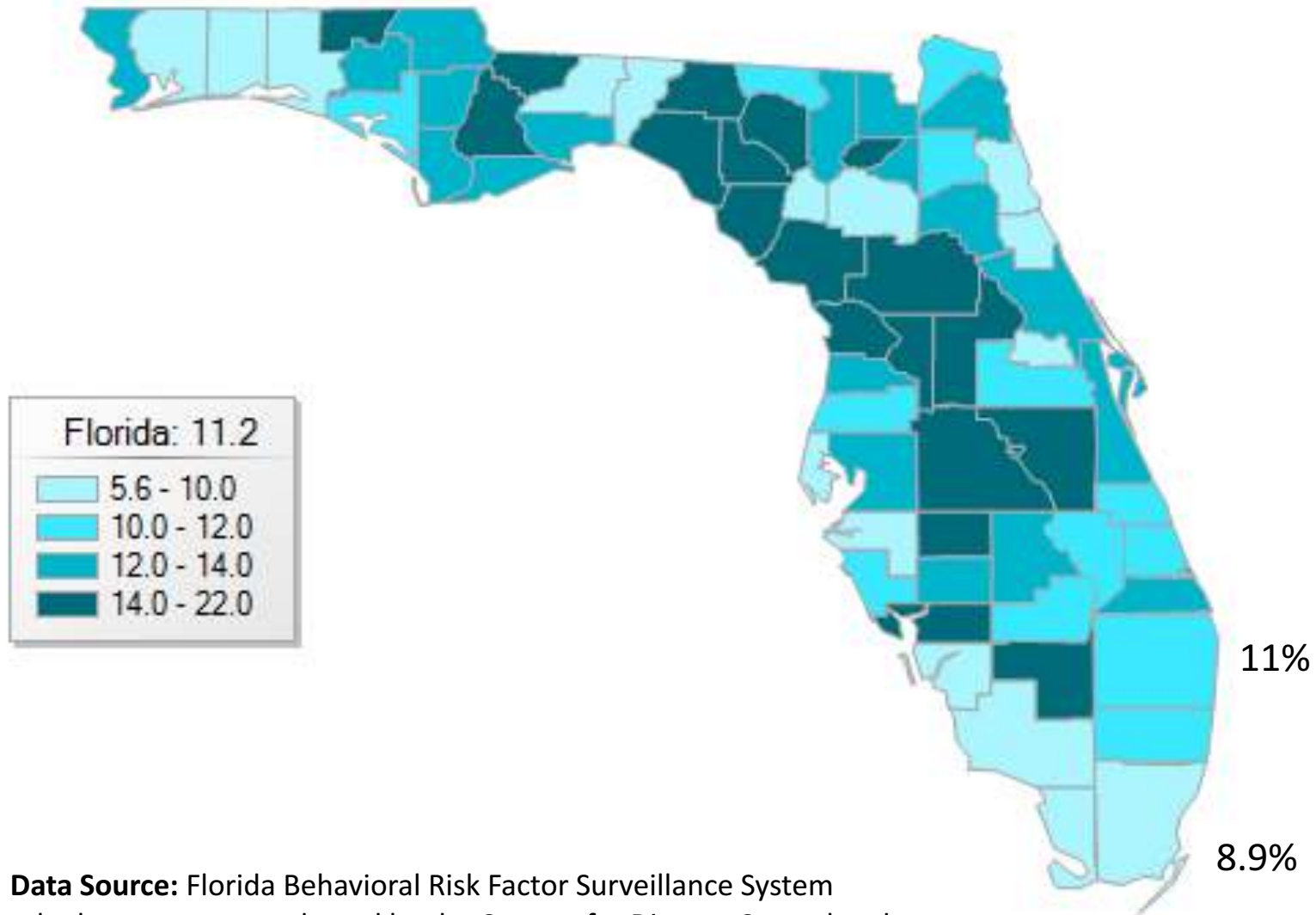
Diabetes Costs in Specific Populations (cont.)

- Non-Hispanic blacks also have 75% more emergency department visits than the population with diabetes as a whole.
- Total per-capita health expenditures are higher among women than men (\$8,331 vs. \$7,458).
- Compared to non-Hispanic whites, per capita hospital inpatient costs are 41.3% higher among non-Hispanic blacks and 25.8% lower among Hispanics.

Rates of Diagnosed Diabetes per 100 Civilian, Non-Institutionalized Population, by Age, United States, 1980–2014



Adults who have ever been told they had diabetes, Overall, 2013



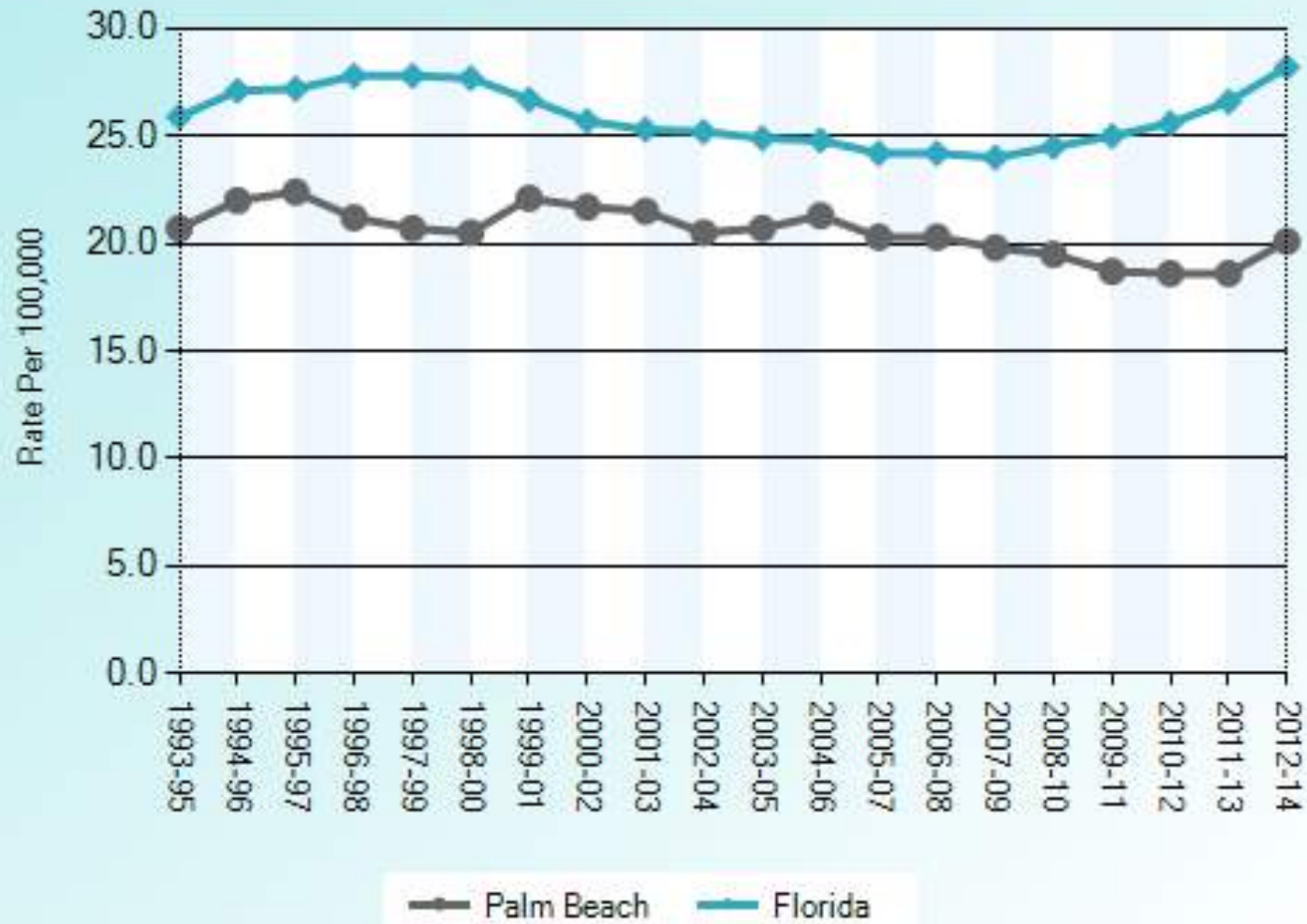
Data Source: Florida Behavioral Risk Factor Surveillance System telephone survey conducted by the Centers for Disease Control and Prevention (CDC) and Florida Department of Health Division of Community Health Promotion.

Adults who have ever been told they had diabetes, Overall

Year	Palm Beach	Florida
2002	8.3% (5.9 - 11.4)	8.2% (7.6 - 8.9)
2007	8.9% (6.2 - 12.6)	8.7% (8.2 - 9.3)
2010	10.1% (6.8 - 13.3)	10.4% (9.8 - 11.1)
2013	11.0% (7.6 - 14.4)	11.2% (10.5 - 11.9)

Data Source: BRFSS

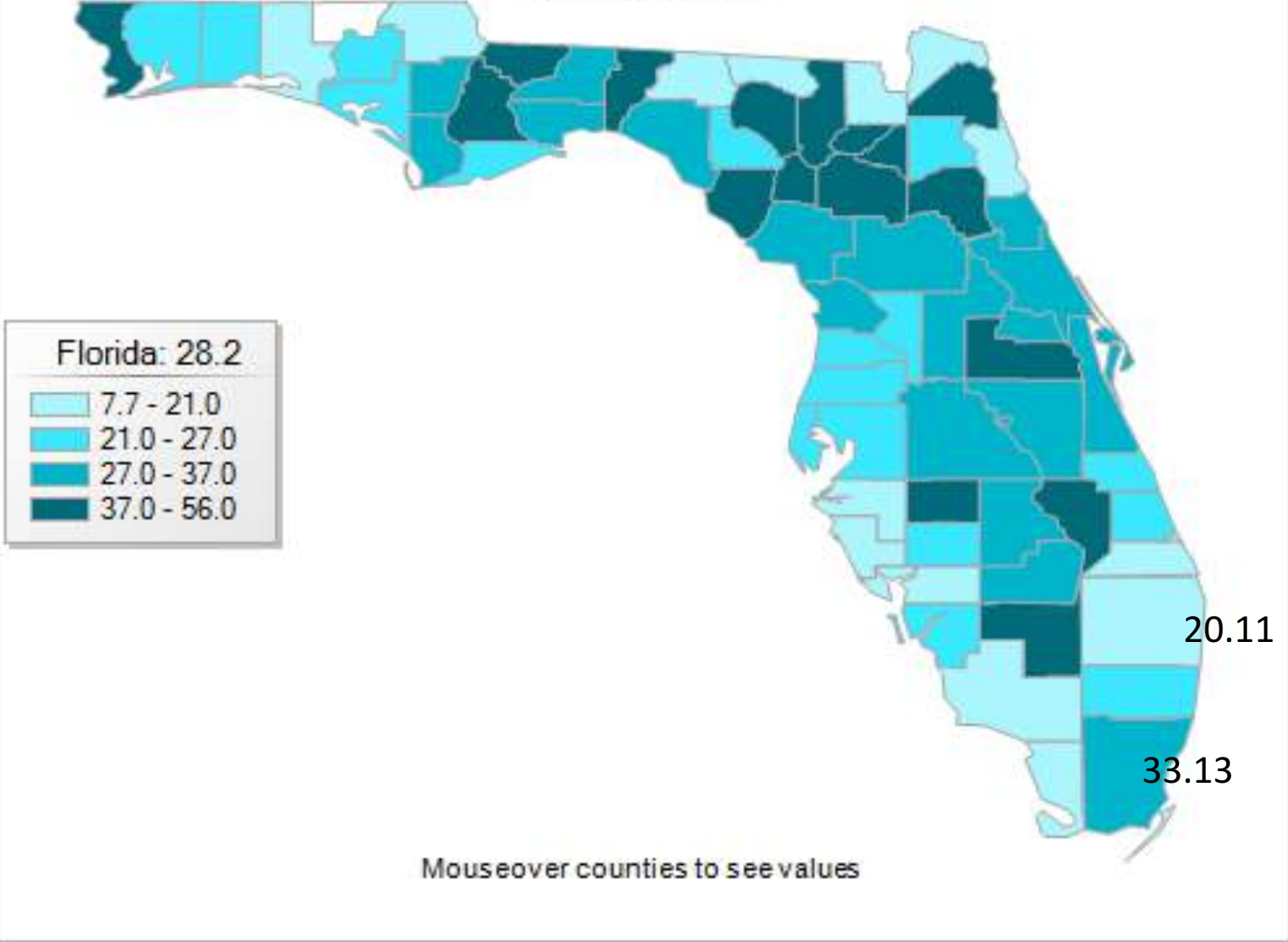
Age-adjusted Hospitalizations From Amputation of a Lower Extremity Attributable to Diabetes, 3-Year Rolling Rates



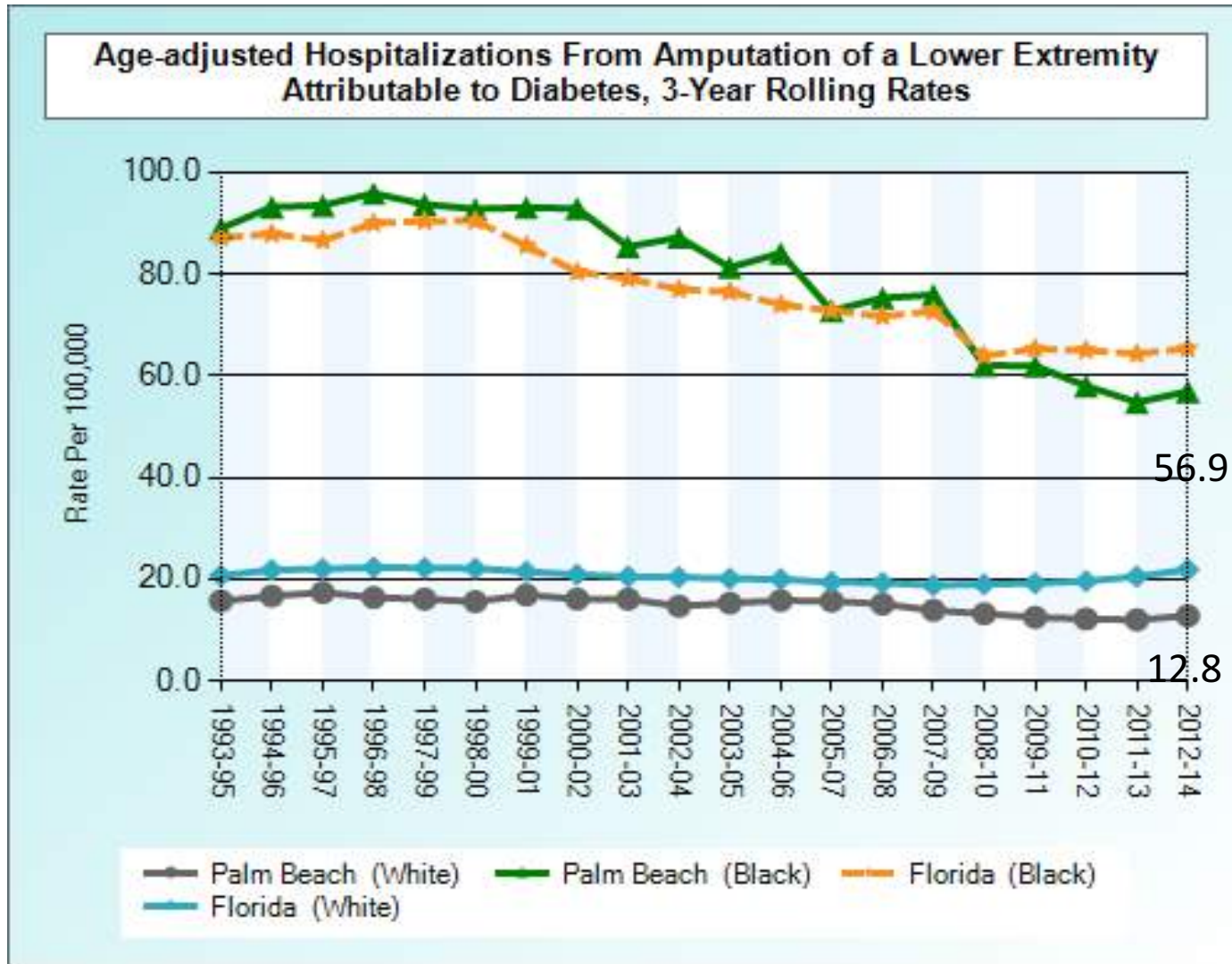
Data Source: Florida Agency for Health Care Administration (AHCA)



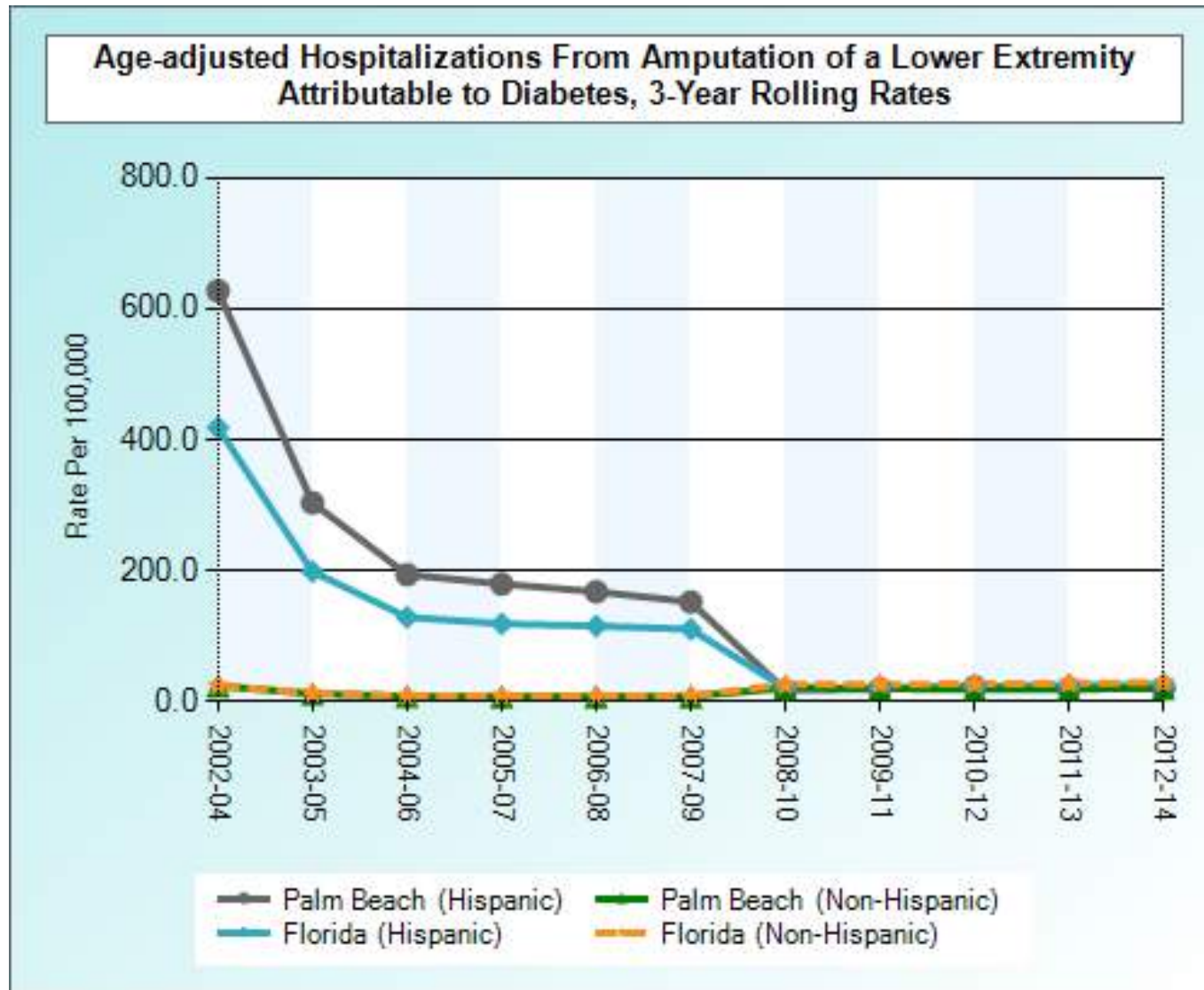
Age-adjusted Hospitalizations From Amputation of a Lower Extremity Attributable to Diabetes, 2012-14



Racial Disparity Among Diabetic Amputations

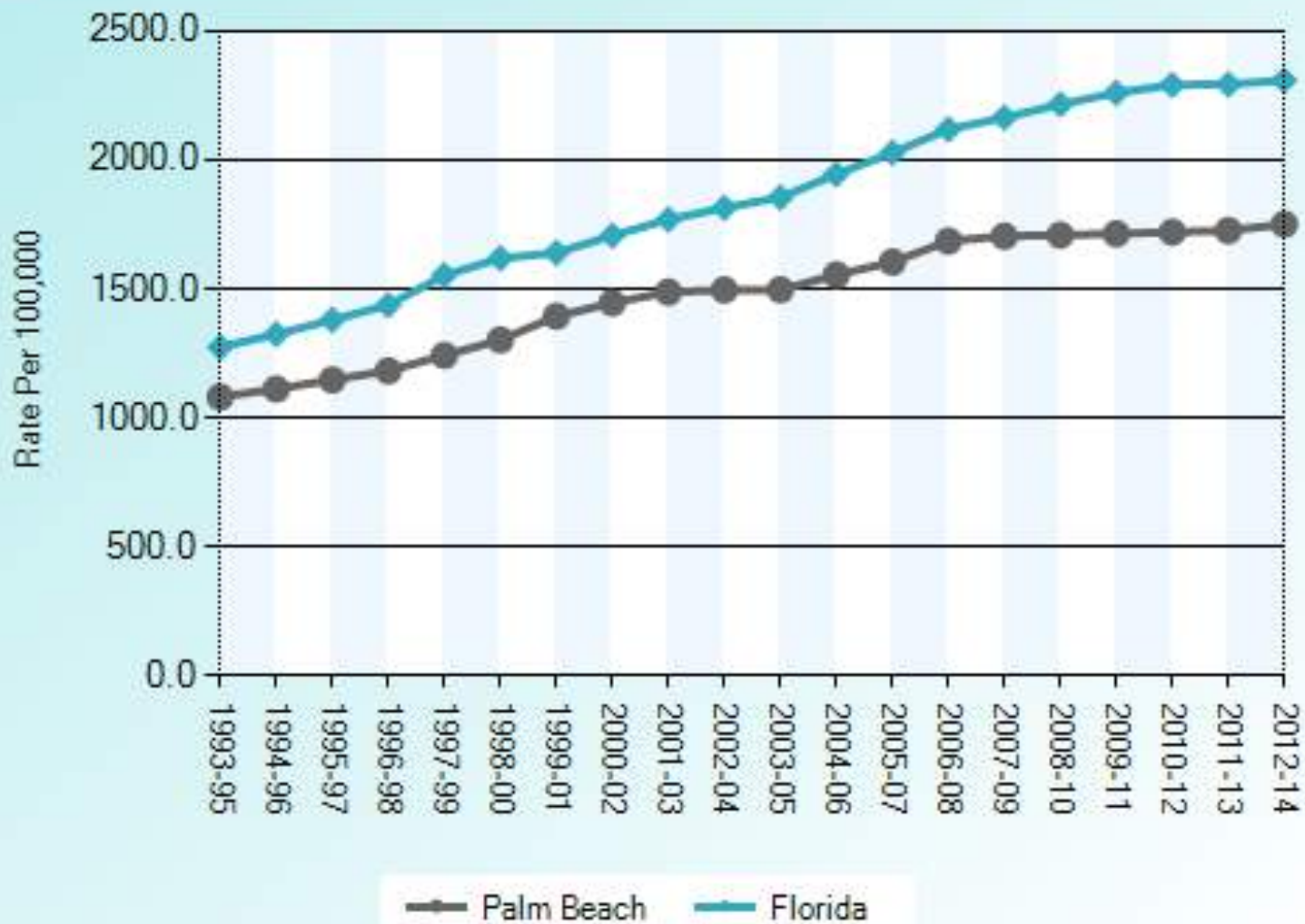


Ethnic Disparity Among Diabetic Amputations



Data Source: Florida Agency for Health Care Administration (AHCA)

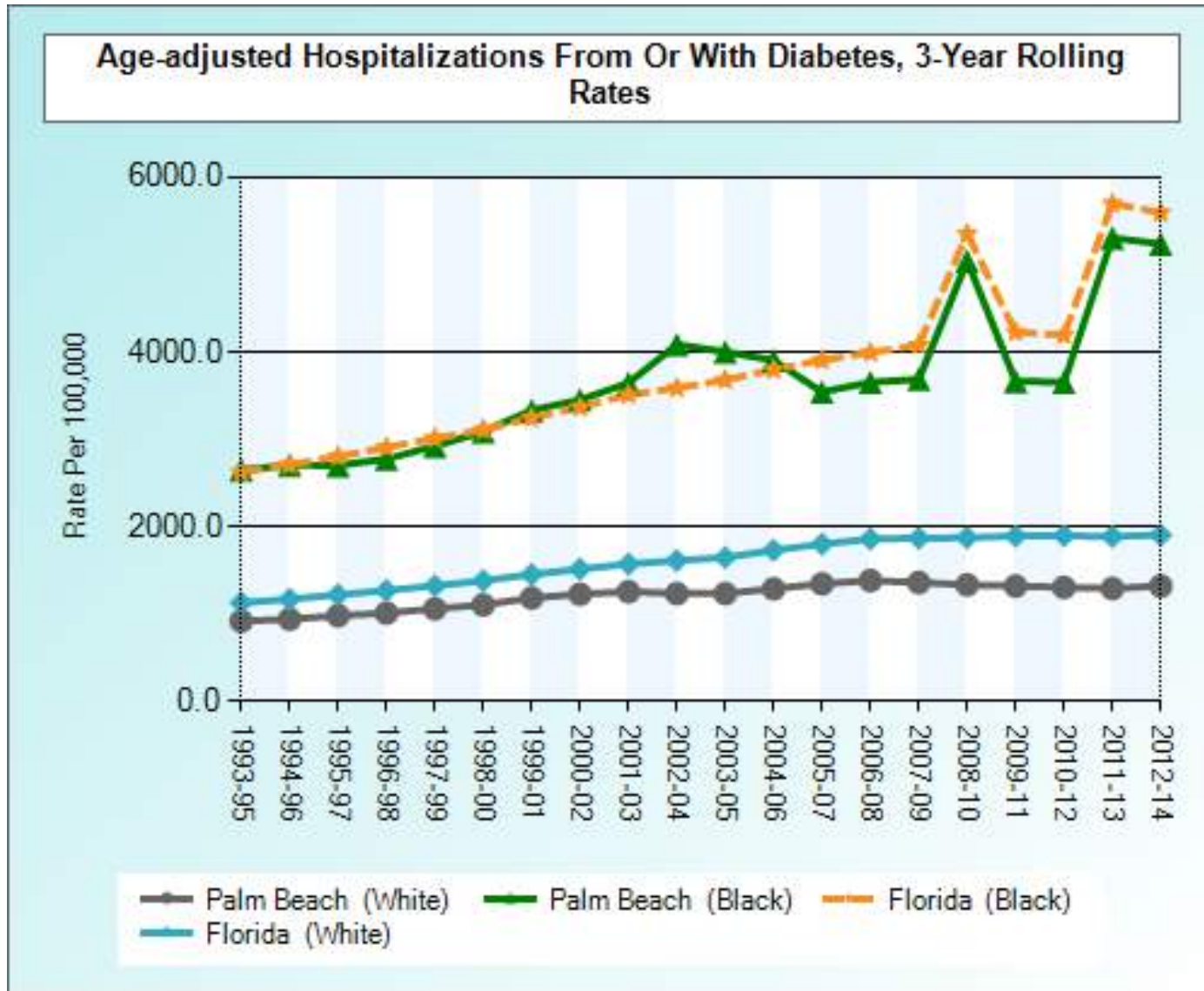
Age-adjusted Hospitalizations From Or With Diabetes, 3-Year Rolling Rates



Data Source: Florida Agency for Health Care Administration (AHCA)



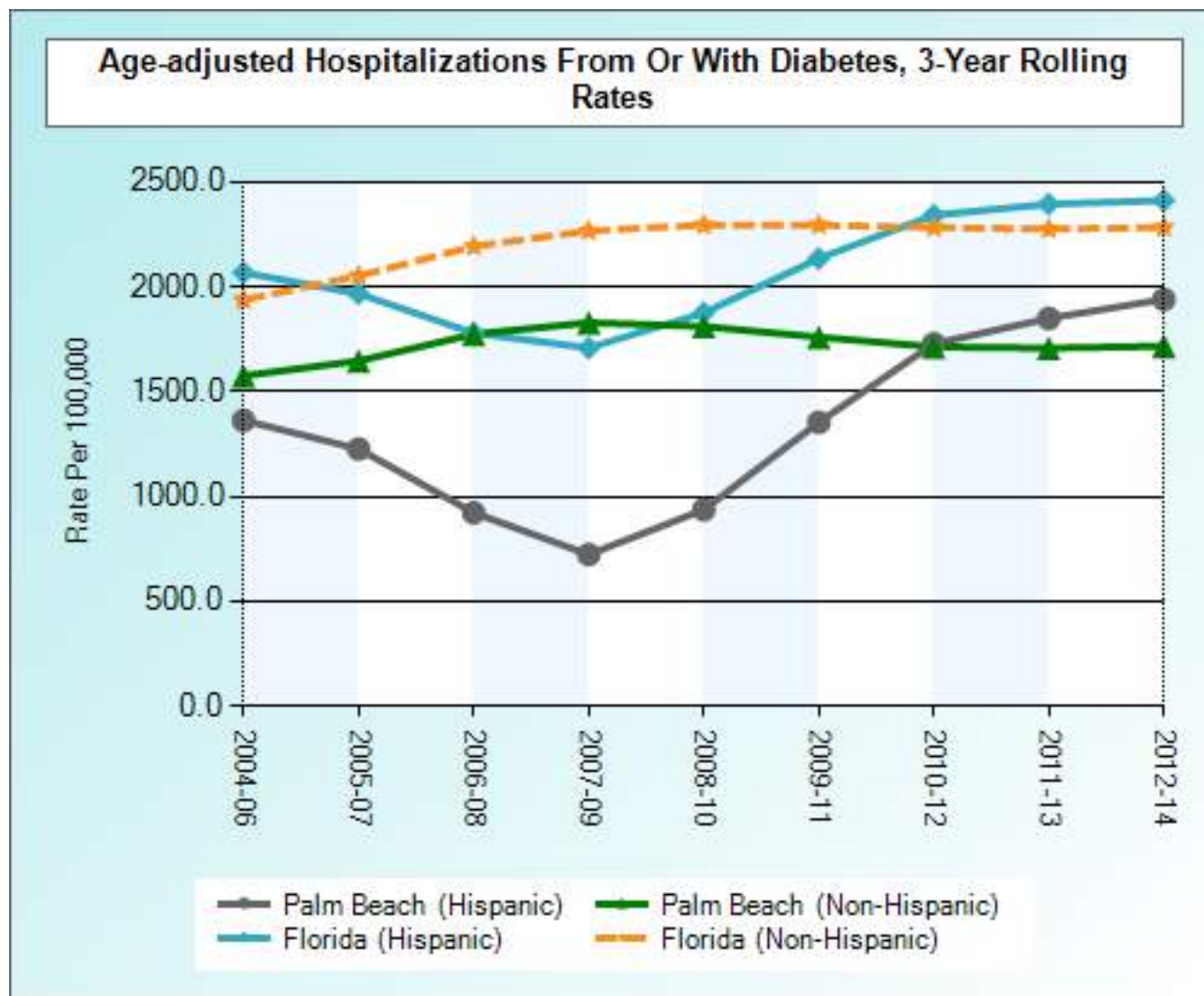
Racial Disparity Diabetes Hospitalizations



Data Source: Florida Agency for Health Care Administration (AHCA)



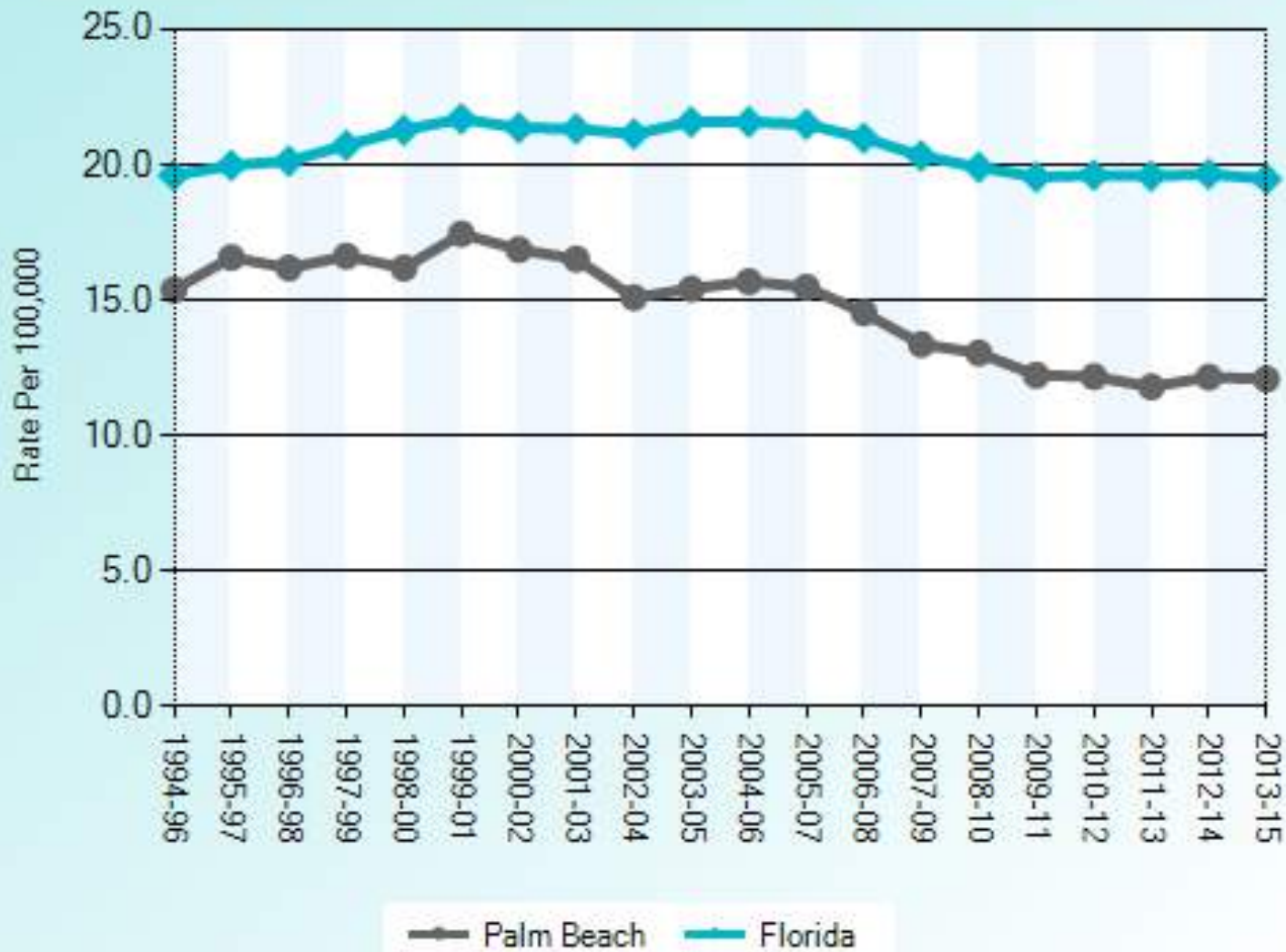
Ethnic Disparity Diabetes Hospitalizations



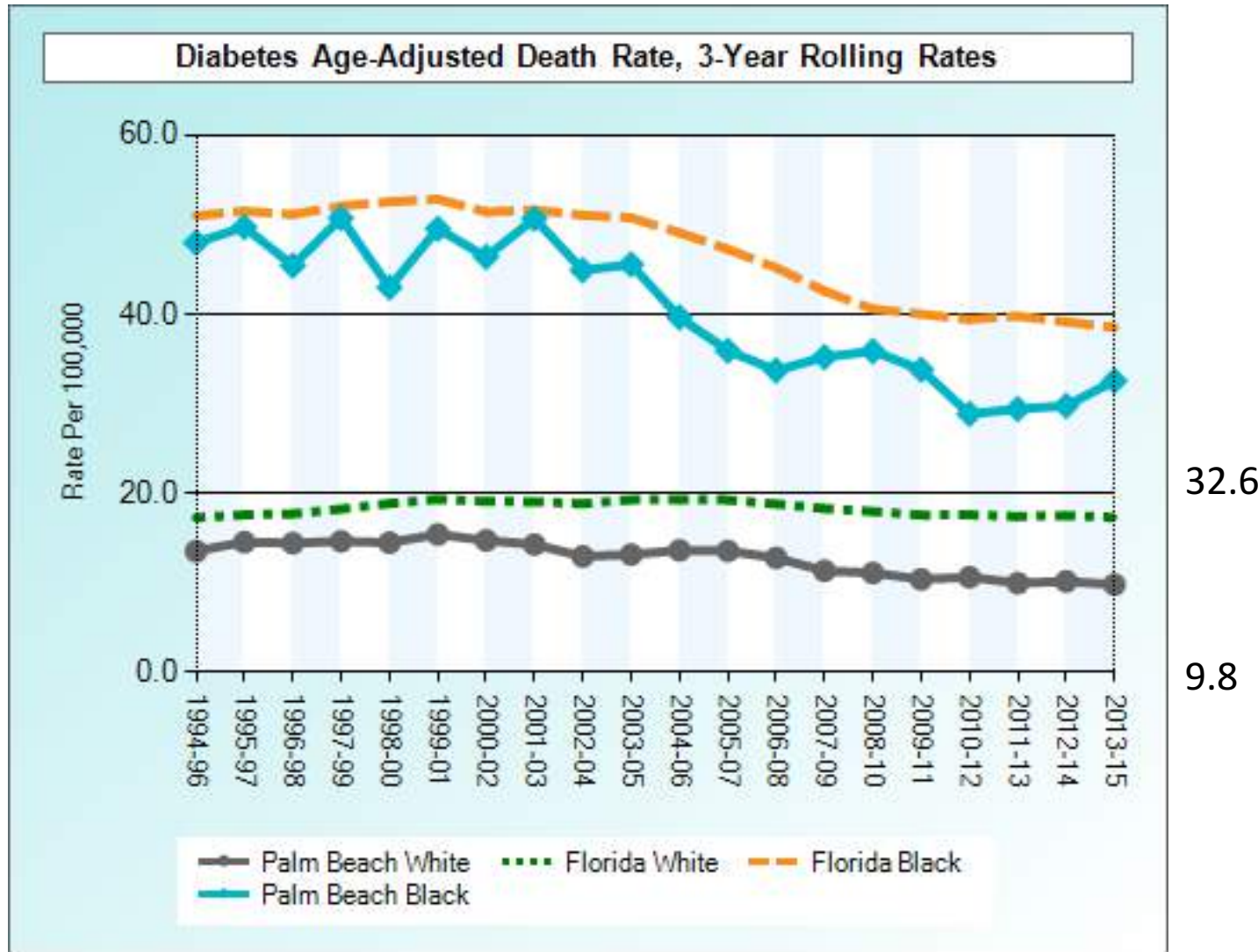
1940.5

1717.2

Diabetes Age-Adjusted Death Rate, 3-Year Rolling Rates



Disparity Diabetes Death Rates



Data Source: Florida Agency for Health Care Administration (AHCA)



How do we plan for the future?

Prevention is the KEY

- Utilize equity strategies to reduce disparities
- Innovative local initiatives
- Community engagement

Thank You

For questions or additional information,
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