

Healthography Insights for Complete Streets



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Broward Regional Health Planning Council



Roadmap

- Place as a Determinant of Health
- Evidence from Diabetes and Pedestrian Injuries Disparities
- Enabling language to Plan and Design with health in mind
- Can we design our way to more healthy and just communities?

Theme: The Embodiment of Place

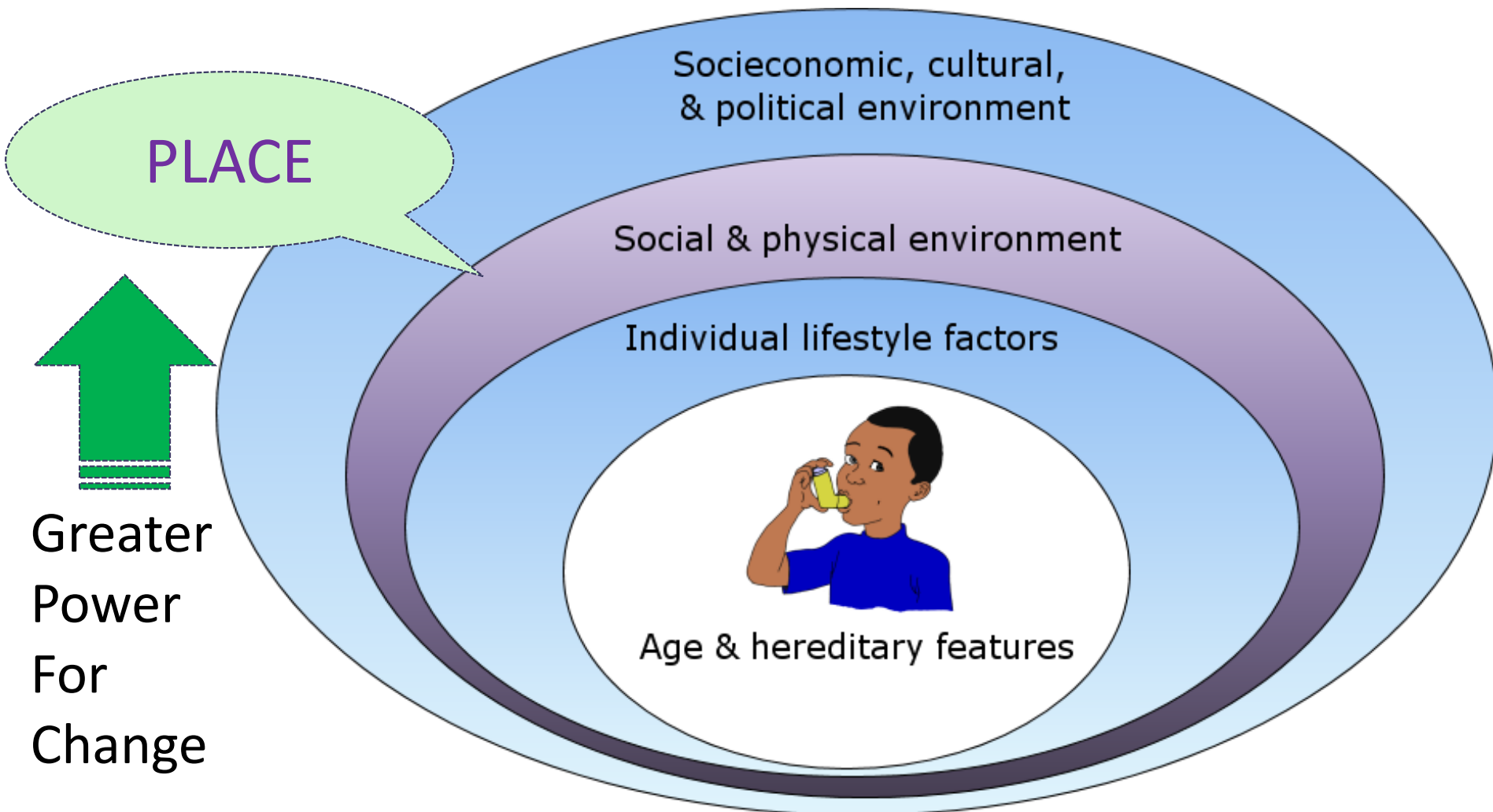
The bodily imprinting of place:

“Bodies tell stories about - and cannot be studied divorced from the conditions of place.”

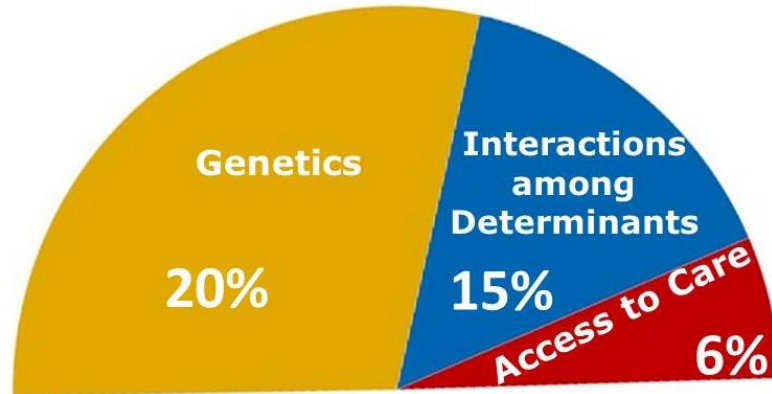
-Jason Corburn, Univ. California Berkeley quoting Kriesger, J (2002)

Determinants of Health

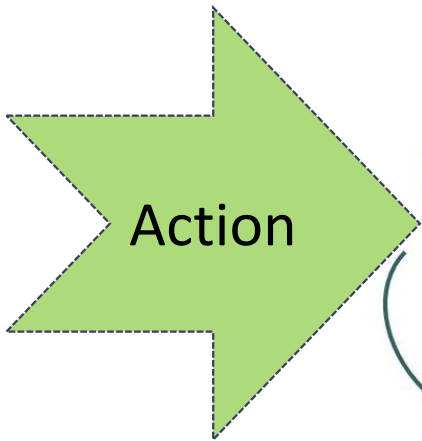
“The complex, integrated factors that contribute to a person's current state of health”



Health Determinant Contributors



60% of Health Determinants can be addressed by Local Government & Community Partners.



Action



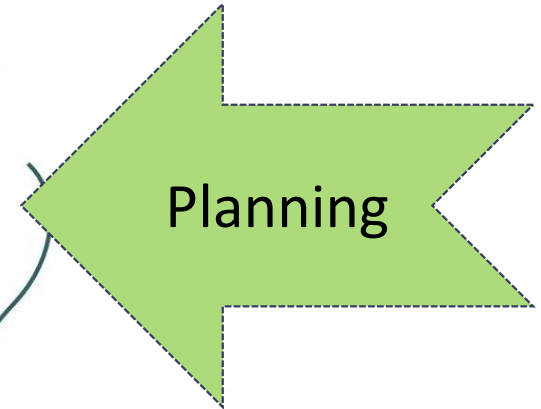
Healthy Behaviors

37%



Socioeconomic & Physical Environments

22%



Planning

Community Partners

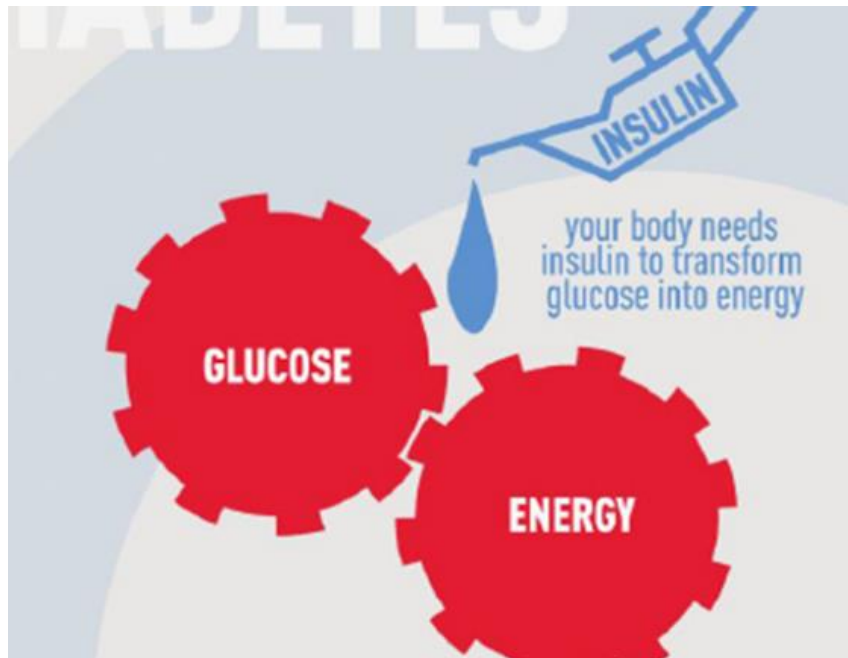
Local Government

Joint project for a healthier community

Data from The Boston Foundation (2014, p. 5). [Healthy People in A Healthy Economy., 2014.](#)

Diabetes: A Metabolic Disease

Cause: Insulin Resistance



Diabetes is a disease where your blood glucose levels become extremely high because your body stops producing enough insulin.

Cure: Diet and Exercise

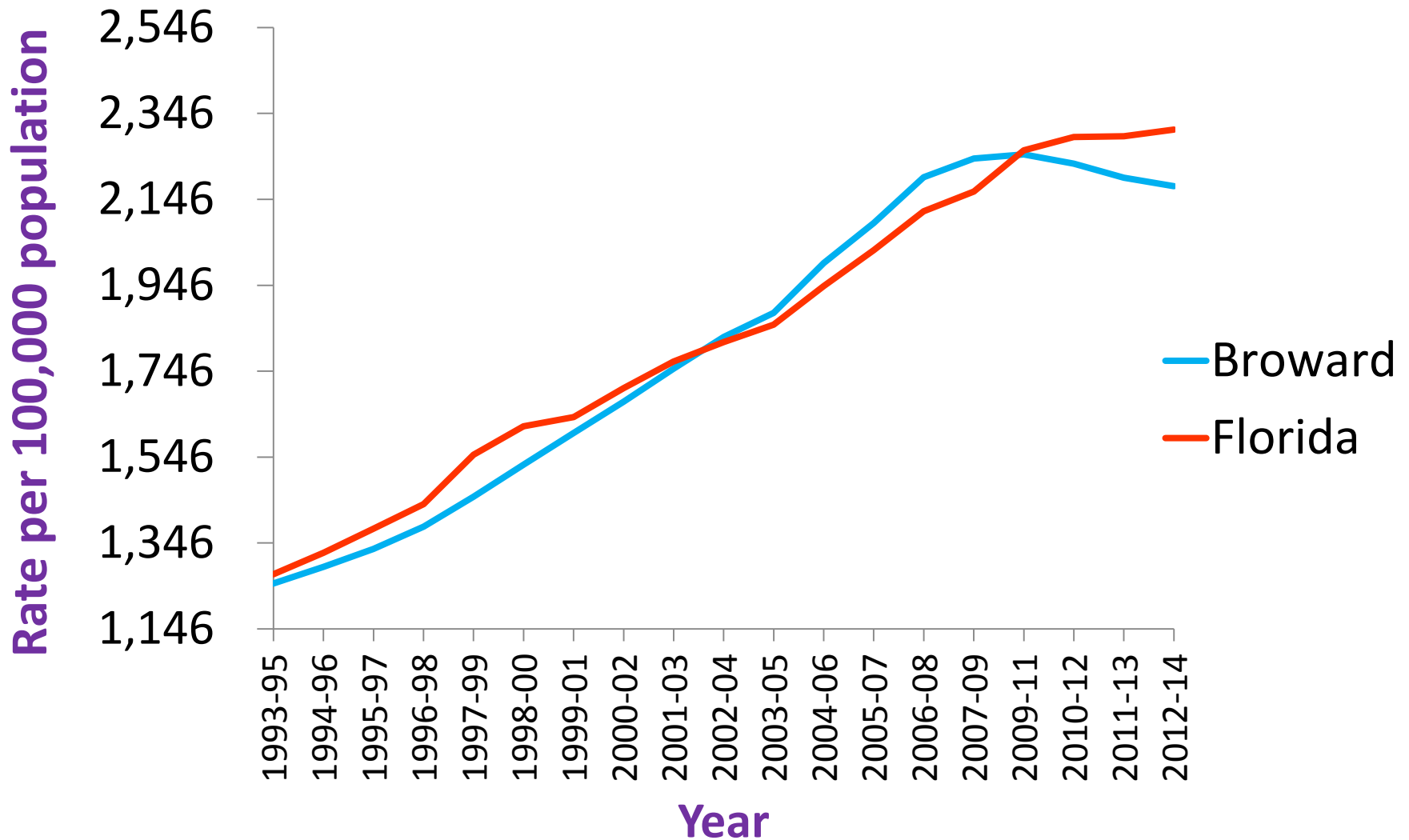


Type II Diabetes can be managed and even reversed with timely and proper nutrition and exercise.

Diabetes: A Preventable Problem

- **90%** of diabetes cases are Type II: **Preventable, Acquired Diabetes.**
- **Driven by health determinants such as lack to healthy food access, which is a condition of place.**
- \$245 Billion in direct and indirect medical costs.
- 7th cause of death in the United States.
- 8.9% of Americans with Diabetes.
- **2050: 1 in 3 Americans will develop diabetes.**

Adult Diabetes Hospitalizations

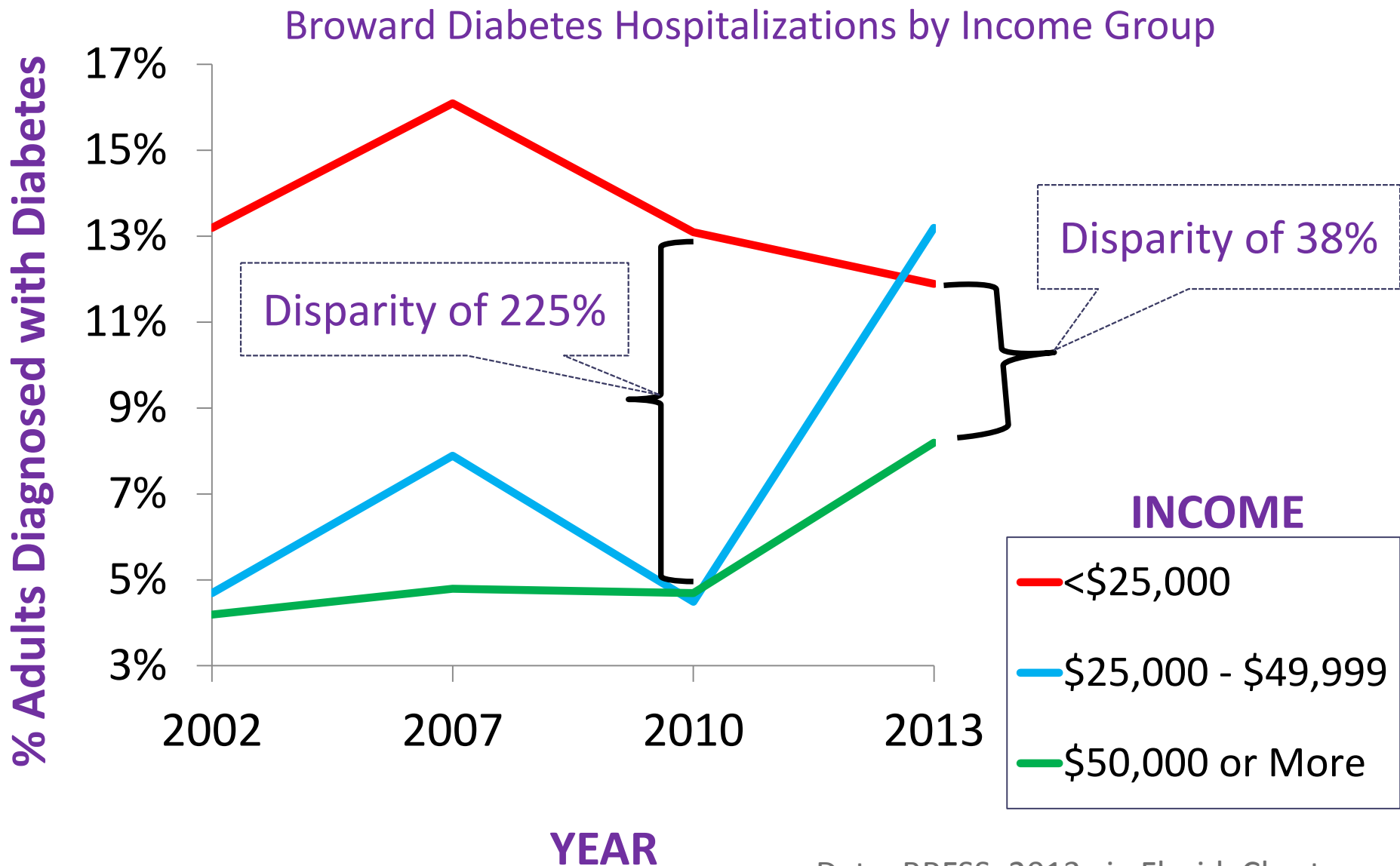


Health Disparities

“A difference in rates of illness, disease, or conditions among different populations.”

—UW, Robert Wood Johnson & National Association of County and City Health Officials

Broward Disparities by Income



Racial Diabetes Health Disparities

Because of disparities in social and environmental determinants of health, not all demographic groups share equal diabetes risks.

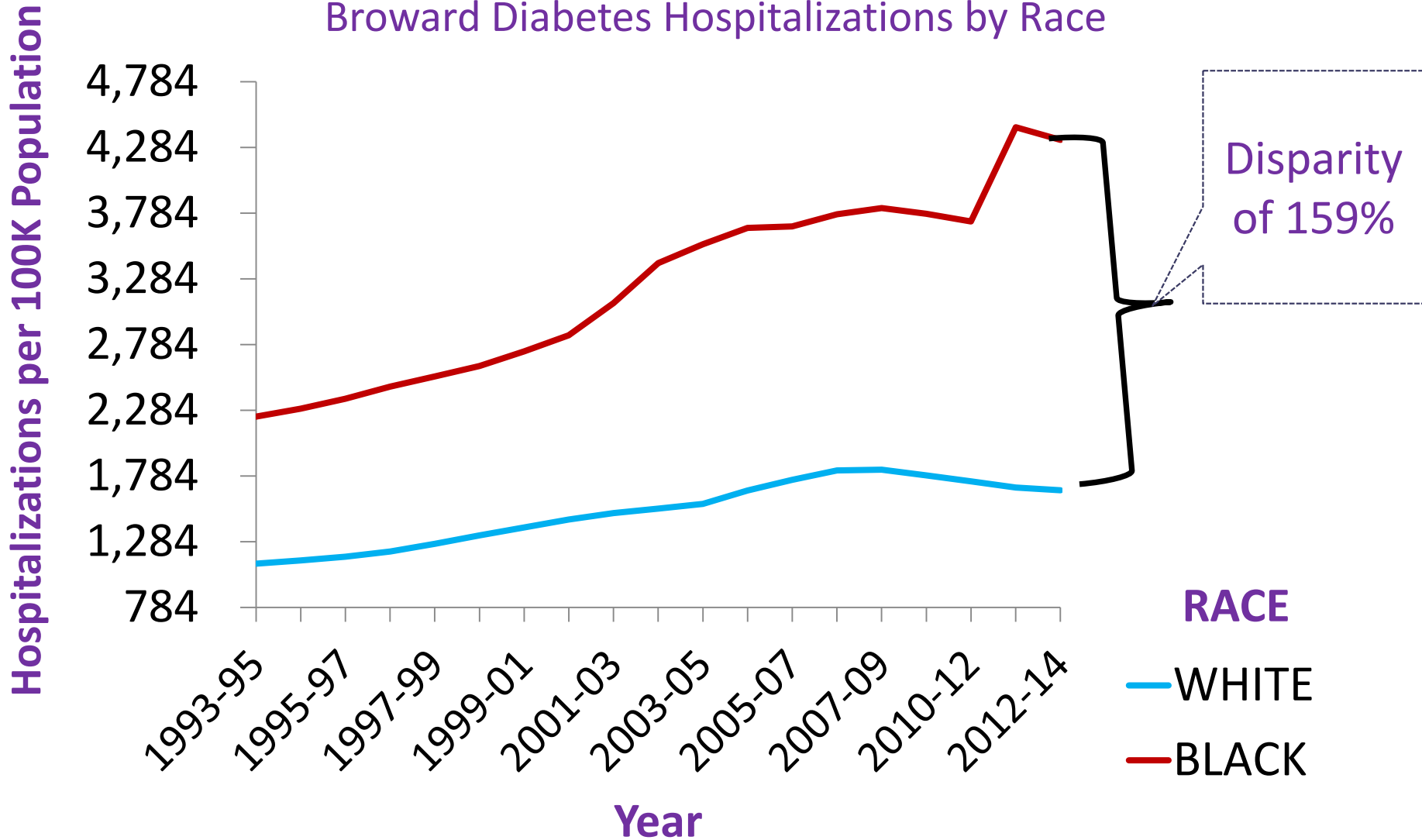
2012 National Diabetes Rates by Race:

10.2 % non-Hispanic whites

18.7 % non-Hispanic blacks

Broward Disparities by Race

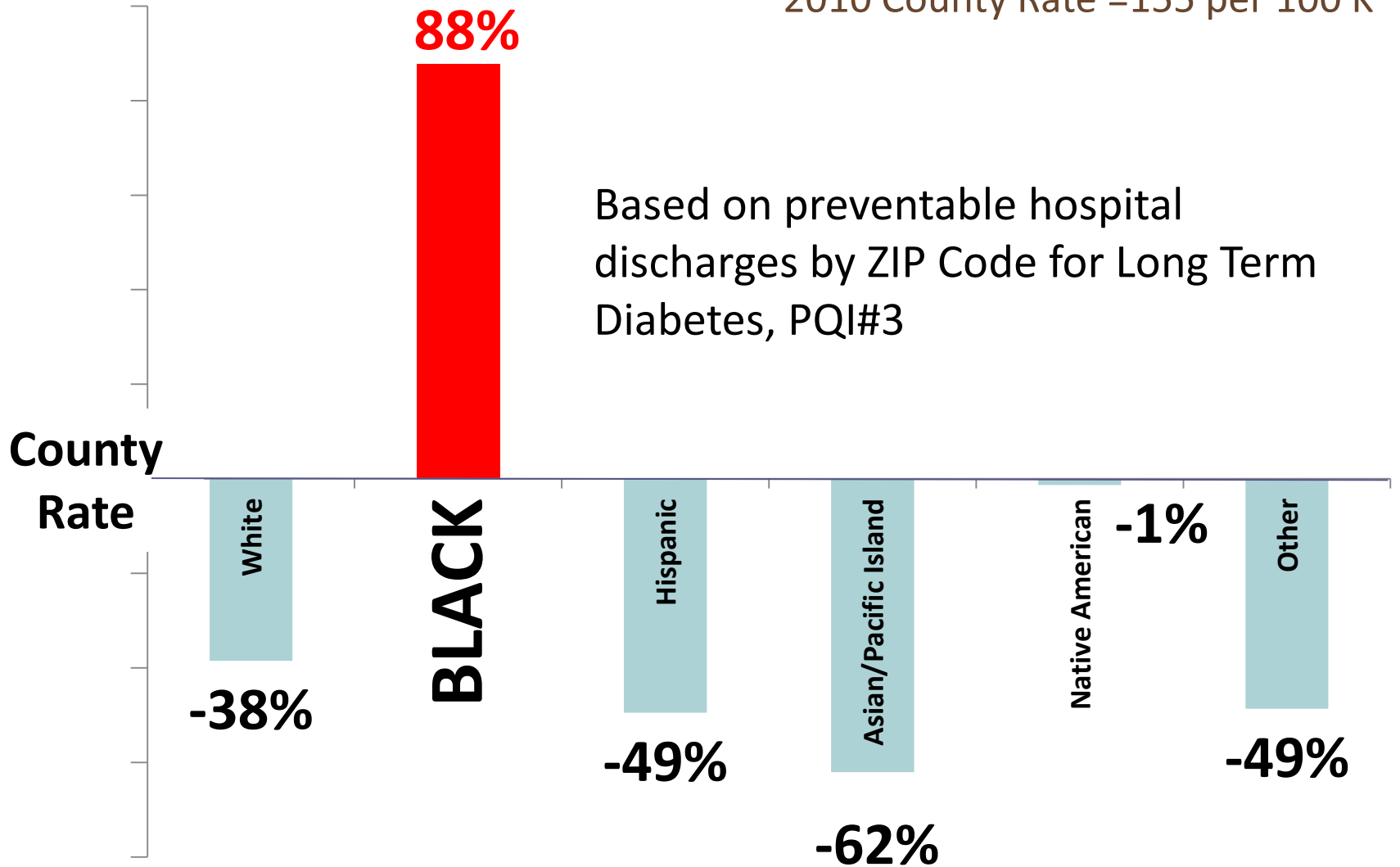
Broward Diabetes Hospitalizations by Race



Broward Diabetes Disparities by Race

2010 County Rate = 155 per 100 K

Rate Relative to the County

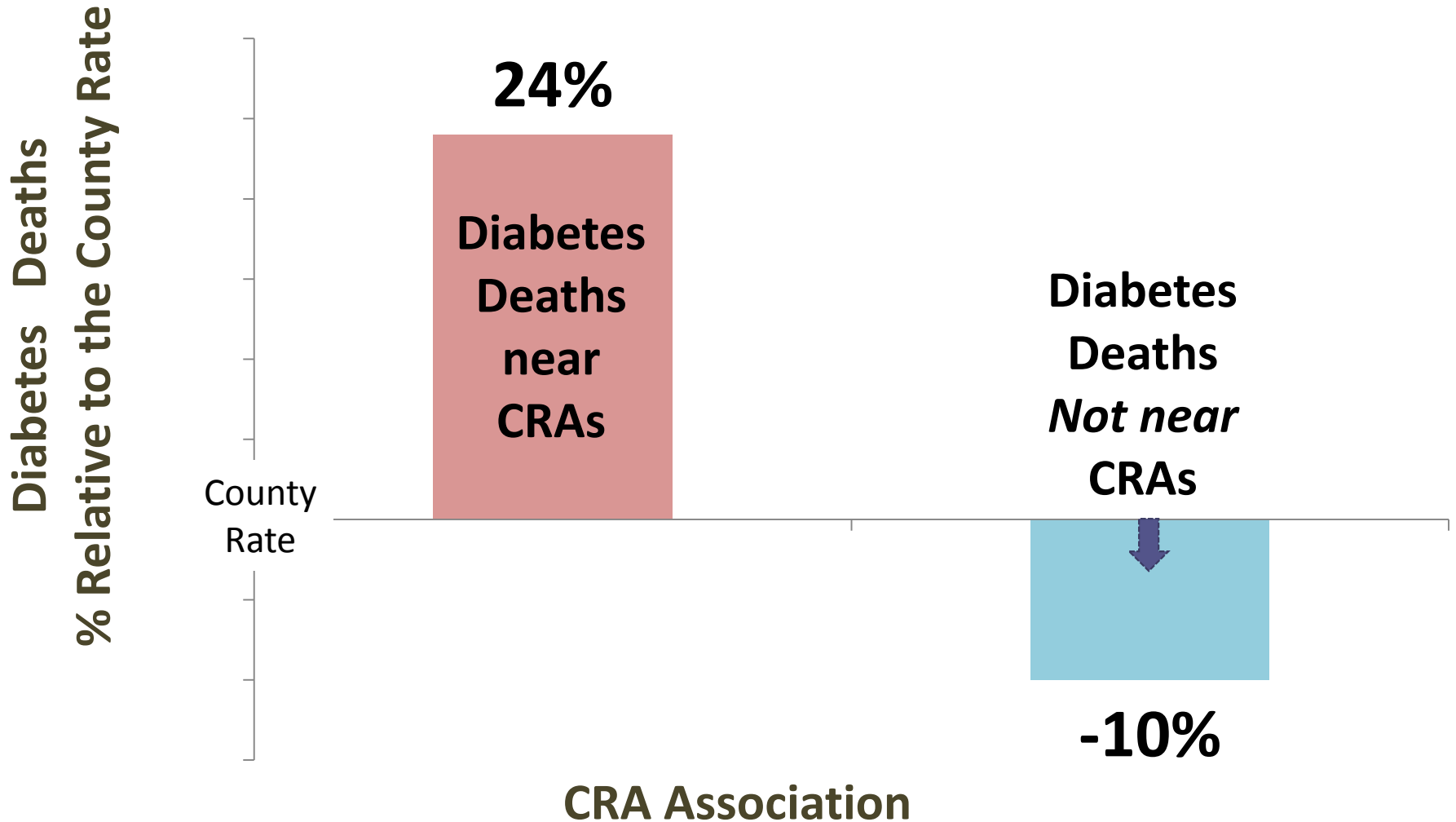


Race & Cultural Origin

Data acquired from the BRHPC data Warehouse.

Diabetes Deaths and CRAs

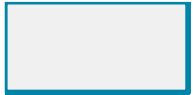
Tract Diabetes Death Rates by CRA Association,
Relative to the County Rate, Broward County 2006-2010



Diabetes Deaths: Food Deserts vs. Non-Food Deserts

Variable	Food Desert	Non-Food Desert	t-Test
Tracts	27% (98)	73% (263)	NA
Diabetes Deaths	130	83	Significant +57%
Black Population	47%	16%	Significant +193%
62+ Population	19%	20%	No Difference

NB: Statistical tests of means of 2008-2012 rates



Broward County

Major Freeways



I-95



TURNPIKE



10 Miles

 Broward County

Major Freeways

 I-95

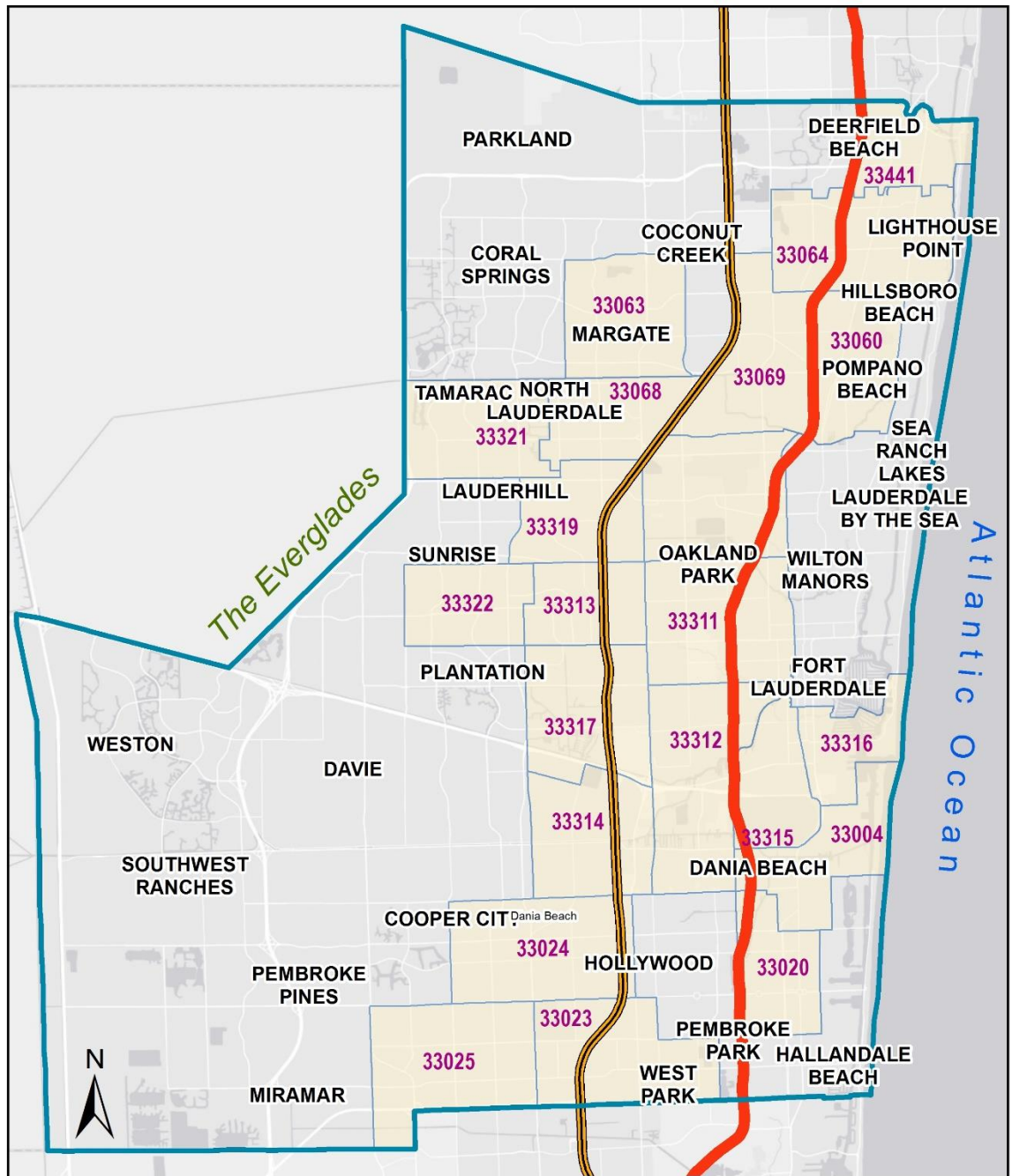
 TURNPIKE

 Diabetes >County Rate

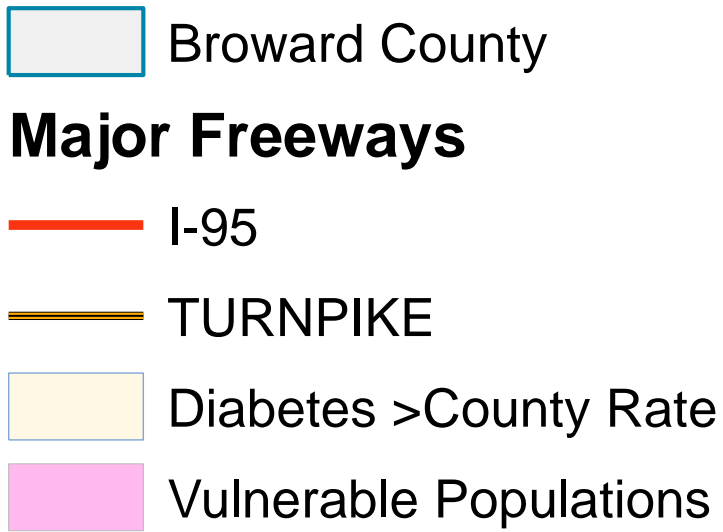
Diabetes Threshold:

10% above the County
five-year average of 155
per 100K population.

Based on an average
from 2008-2012



10 Miles

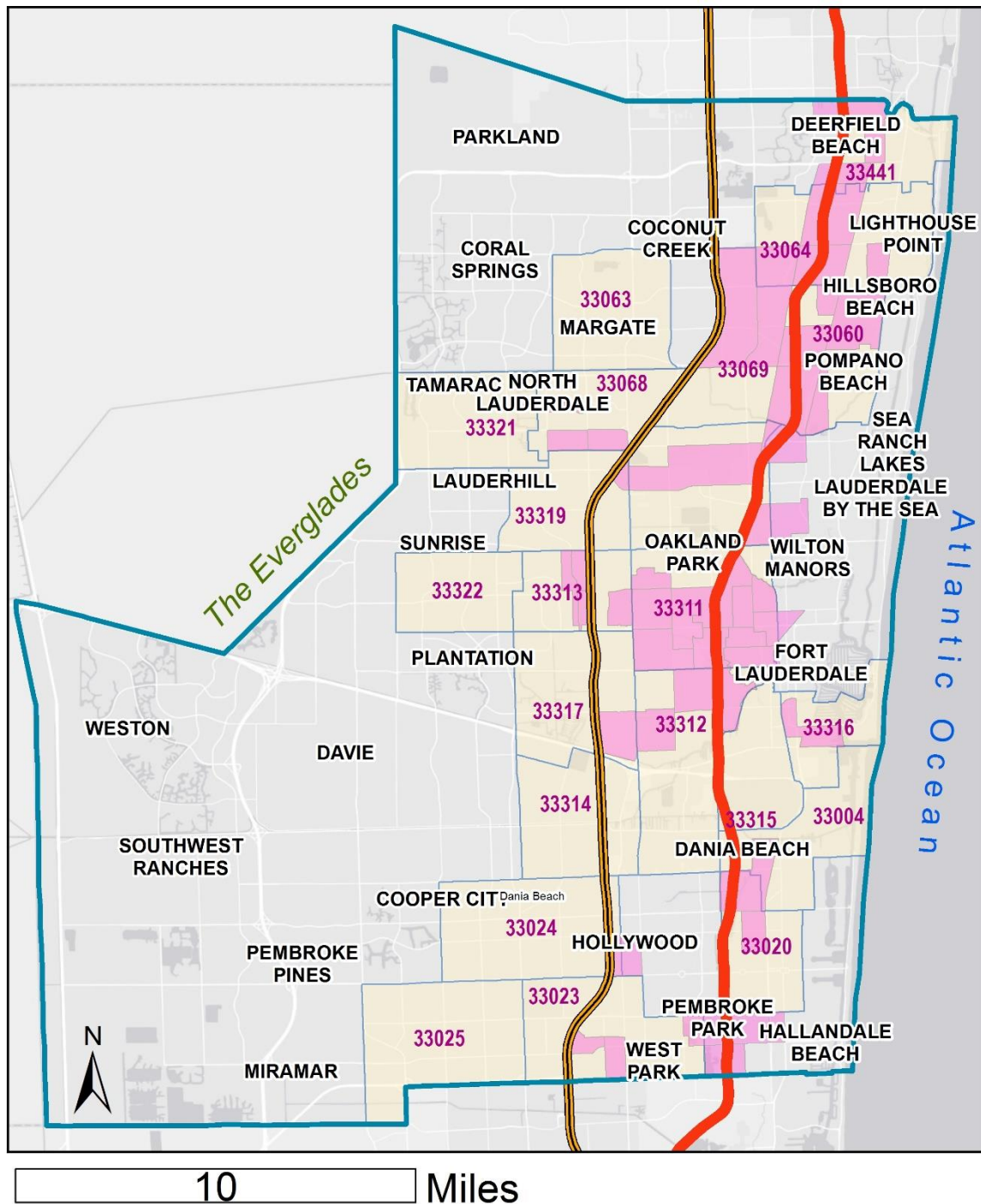


POVERTY:

At least 30% with income below 100% federal poverty level

EDUCATIONAL ATTAINMENT:

At least 25% of adults >25 years of age without a high school education



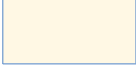
10 Miles

 Broward County


Major Freeways

 I-95

 TURNPIKE

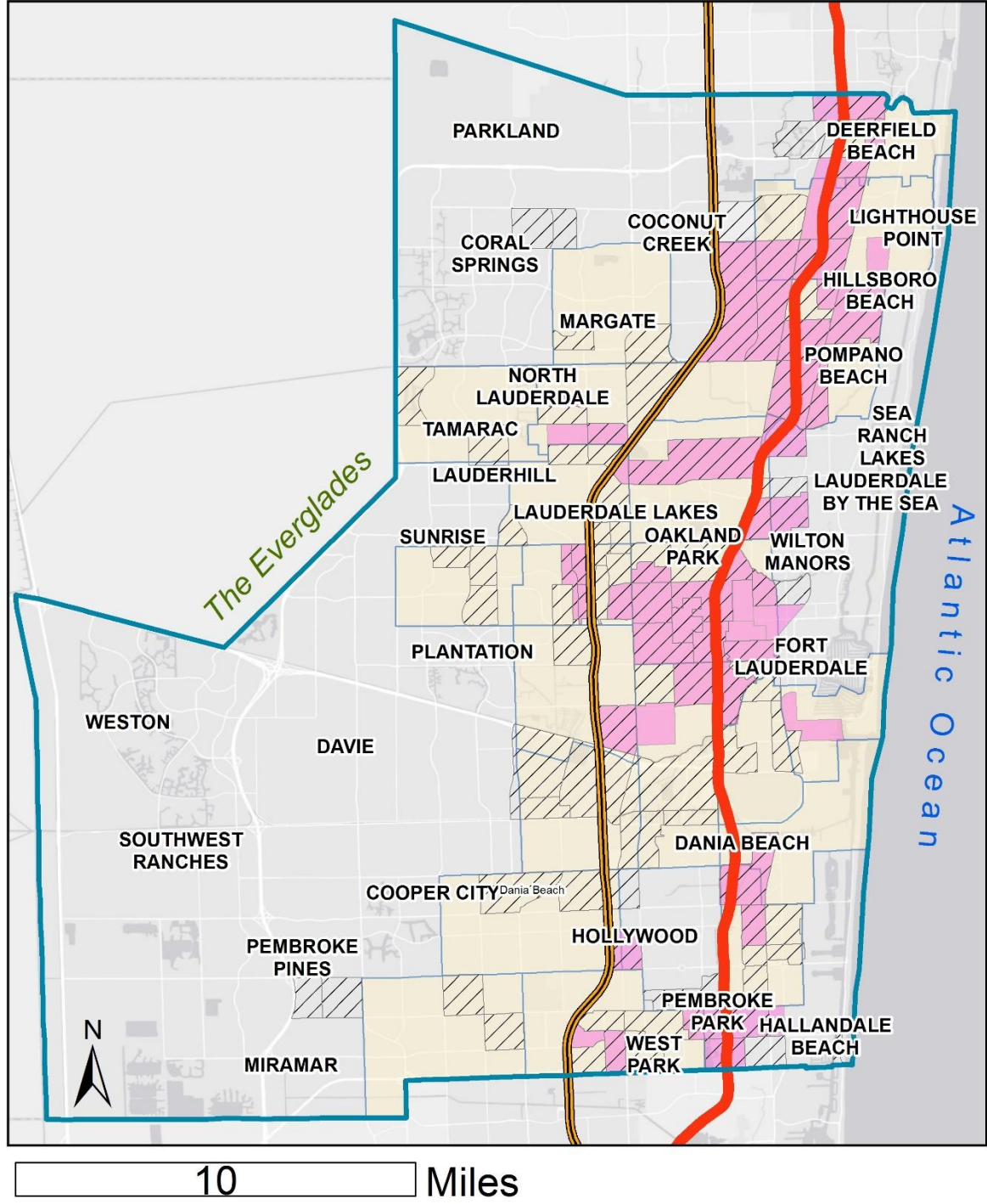
 Diabetes > County Rate

 Vulnerable Populations

 Food Desert

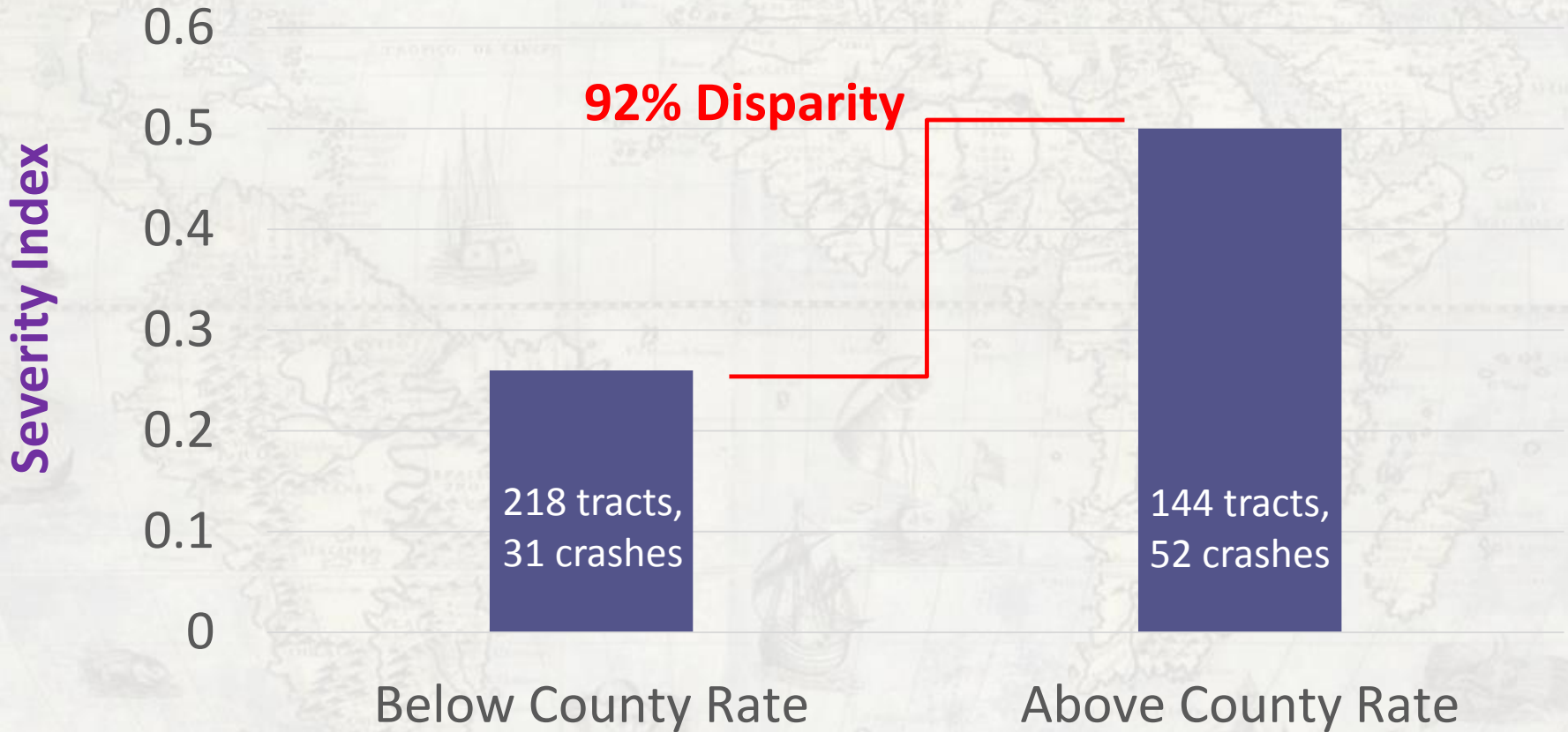
Food Deserts

- 98 Food deserts
- 157,644 Low Income Population
- Nearly all within ZIP Codes with high diabetes



Pedestrian Injury Disparities by Poverty

Pedestrian Crash Severity by tract poverty

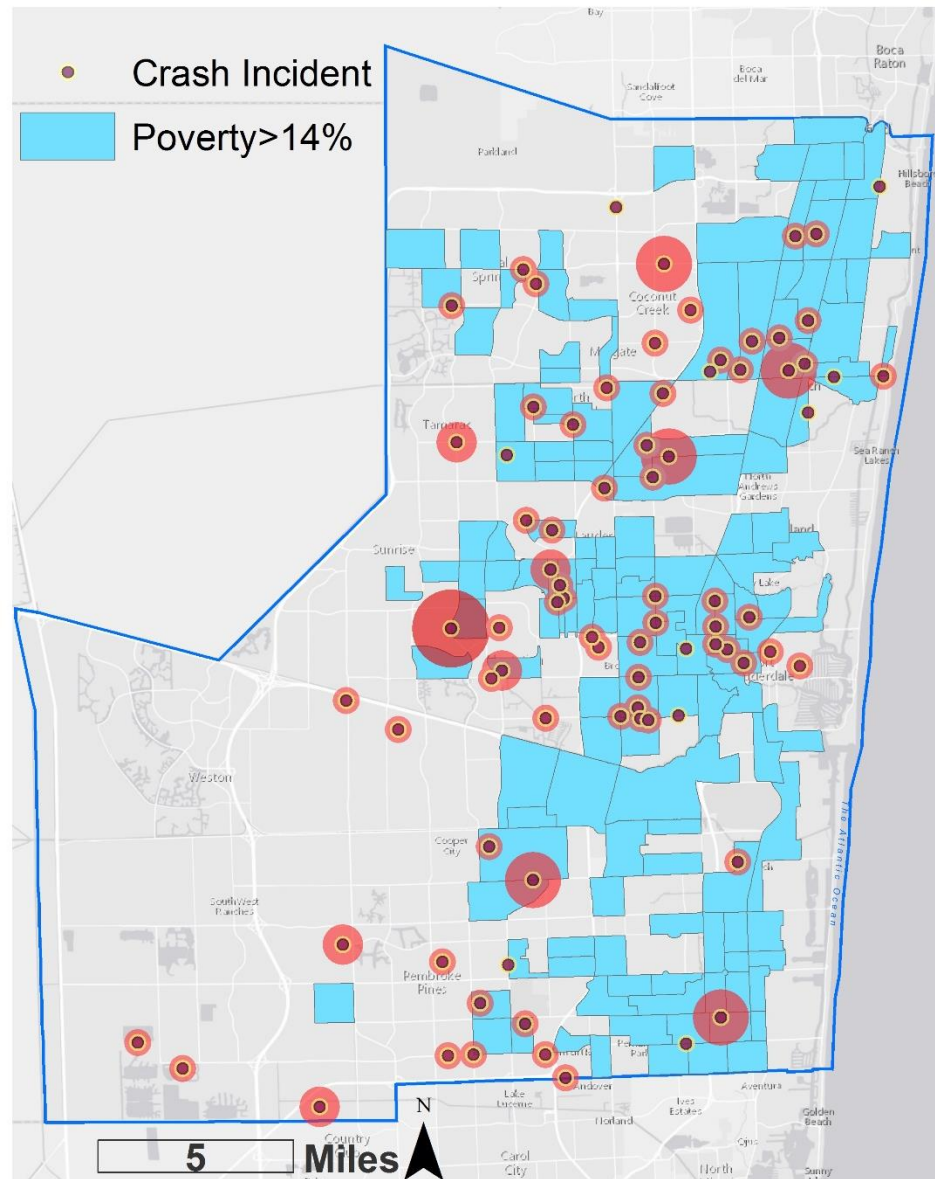
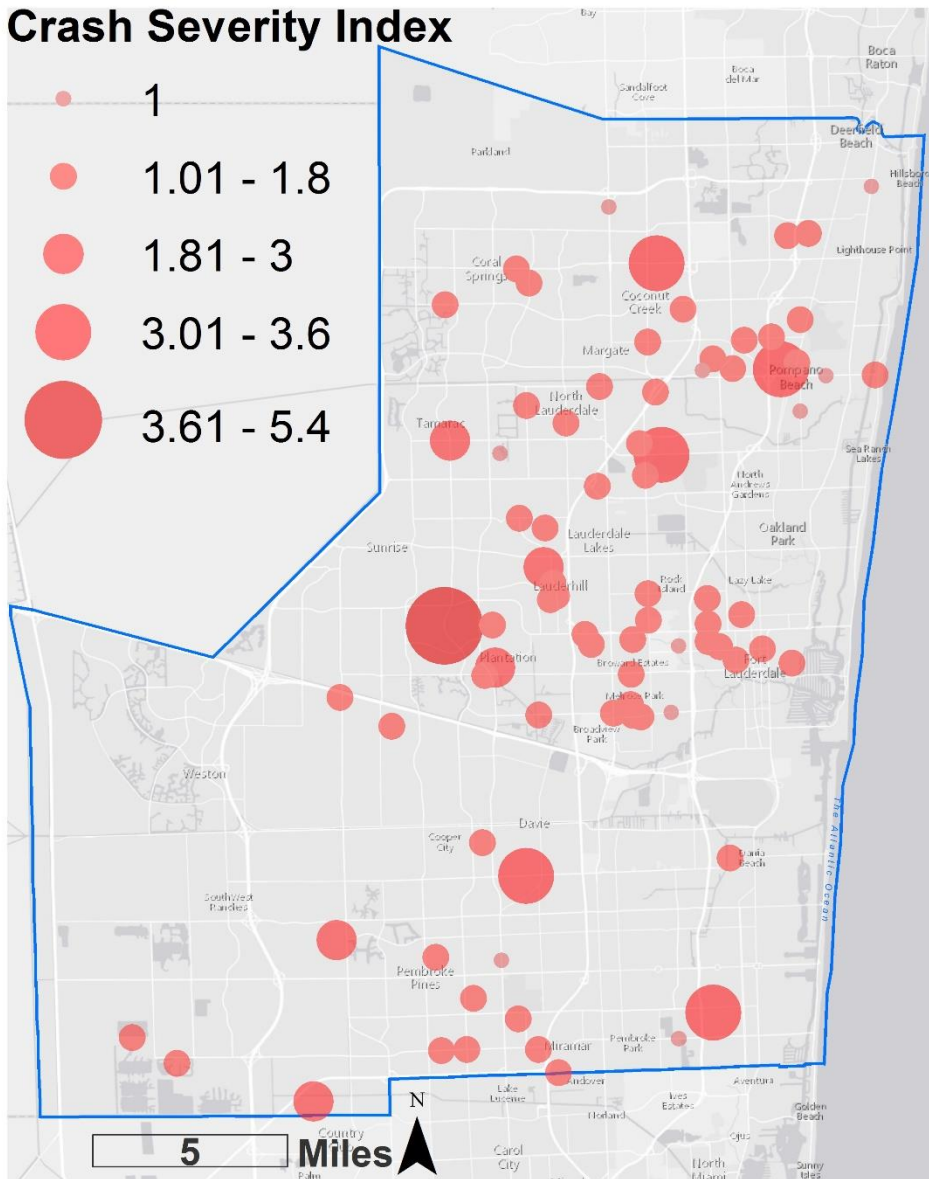


County Poverty: 14%
(ACS 2008-2012)

Crash Data Source: Signal Four Analytics from August 2011 and July 2015 via Katrina Lopez, WalkSafe® Statewide Coordinator, Florida. August 2011- July 2014 for children ages 5-14.

Geographic Pedestrian Injury Disparities

Crash Severity Index



Health Inequities

Health inequities are “differences in health which are not only unnecessary and **avoidable** but, in addition, are considered **unfair and unjust.**”

—Margaret Whitehead
Department of Public Health
University of Liverpool

Physical & Social Inequities: The Root Causes of Health Inequities

Health Inequities



Social Inequities

Designing for Health Equity: Florida Planning Enabling Language

- **Florida “Community Planning Act” State Statute, 163.3161:**
 - Deal effectively with future and current problems and handicaps that may result from the use and development of land.
 - To preserve, promote, protect, and improve the **public health, safety.**
- **Florida “Community Redevelopment Act of 1969.” 163.330:**
 - **Slum and blighted** areas constitute a serious and growing menace, **injurious to the public health, safety,** morals, and welfare.
 - Contributes to the **spread of disease** and crime, constitutes an **economic and social liability**
 - Causes an excessive proportion of revenue expense due to the extra services required for police, fire, **accident, hospitalization.**

Designing for Health Equity: Federal Transportation Planning Language

- **Title VI of the Civil Rights Act of 1964**
- **Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations, 1994**
- **To avoid**, minimize, or mitigate **disproportionately high and adverse human health and environmental effects**, including interrelated social and economic effects, on **minority populations and low-income populations**.
- To ensure the full and **fair participation by all potentially affected communities in the transportation decision-making process**.
- To prevent the denial of, reduction in, or significant delay in the receipt of benefits by **minority populations and low-income populations**.

Can we design/plan our way to more healthy and just communities?

- There are alarming, preventable health inequities in Broward County, which appear to be associated with community poverty levels and disinvestment.
- The determinants of health framework appears to be supported by planning enabling language.
- However, planning is imbued with a belief of *moral environmentalism*: “rational physical and urban designs can change social conditions for the poor.”
- The root causes of health inequities, and environmental justice imply that we must embody community capacity as *a condition of place* itself.