Healthography Insights for Complete Streets

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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?
The bodily imprinting of place:

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

“The complex, integrated factors that contribute to a person's current state of health”
60% of Health Determinants can be addressed by Local Government & Community Partners.

- Genetics: 20%
- Interactions among Determinants: 15%
- Access to Care: 6%
- Healthy Behaviors: 37%
- Socioeconomic & Physical Environments: 22%

Joint project for a healthier community

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

Source: 2012 American Diabetes Association (ADA).
Adult Diabetes Hospitalizations

Data: Florida Agency for Health Care Administration (AHCA) via FloridaCharts.com
“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 Diabetes Hospitalizations by Income Group

Disparity of 225%

Disparity of 38%

Data: BRFSS, 2013 via FloridaCharts.com
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

Source: ADA
Broward Disparities by Race

Broward Diabetes Hospitalizations by Race

Data: Florida Agency for Health Care Administration (AHCA) via FloridaCharts.com
Broward Diabetes Disparities by Race

Based on preventable hospital discharges by ZIP Code for Long Term Diabetes, PQI#3

2010 County Rate =155 per 100 K

Rate Relative to the County

County Rate

Race & Cultural Origin

White -38%
Black 88%
Hispanic -49%
Asian/Pacific Island
Native American -1%
Other -49%

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 near CRAs: 24%

Diabetes Deaths Not near CRAs: -10%
## Diabetes Deaths: Food Deserts vs. Non-Food Deserts

<table>
<thead>
<tr>
<th>Variable</th>
<th>Food Desert</th>
<th>Non-Food Desert</th>
<th>t-Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tracts</td>
<td>27% (98)</td>
<td>73% (263)</td>
<td>NA</td>
</tr>
<tr>
<td>Diabetes Deaths</td>
<td>130</td>
<td>83</td>
<td>Significant  +57%</td>
</tr>
<tr>
<td>Black Population</td>
<td>47%</td>
<td>16%</td>
<td>Significant  +193%</td>
</tr>
<tr>
<td>62+ Population</td>
<td>19%</td>
<td>20%</td>
<td>No Difference</td>
</tr>
</tbody>
</table>

*NB: Statistical tests of means of 2008-2012 rates*
Broward County

Major Freeways

I-95

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

Based on an average from 2008-2012
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
Food Deserts

- 98 Food deserts
- 157,644 Low Income Population
- Nearly all within ZIP Codes with high diabetes
Pedestrian Injury Disparities by Poverty

County Poverty: 14%  
(ACS 2008-2012)

Below County Rate: 218 tracts, 31 crashes  
Above County Rate: 144 tracts, 52 crashes  
92% Disparity

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

- Segregation
- Income & Employment
- Education
- Housing
- Transportation
- Air Quality
- Food Access & Liquor Stores
- Physical Activity & Neighborhood Conditions
- Criminal Justice
- Access to Healthcare
- Social Relationships & Community Capacity

Social Inequities

Alameda County Public Health Department - Community Assessment Planning & Education Unit
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.
• 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.