Cancer Trends among Persons of African Descent in Florida – A Florida Cancer Data System (FCDS) Publication

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OBJECTIVES

- Publish FCDS monograph on cancer trends among Florida Persons of African Descent
- Compare trends to the White population
- Identify increase or decrease in incidence rates by sex, site, and stage
- Identify racial disparities
- Distribute monograph to Florida cancer control community and advocacy groups
Cancer in Florida

2010

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Florida Persons of African Descent

- 3.1 million or 16%
- US born
- Caribbean, Latin American, African immigrants
Cancer Disparities by Race

- Persons of African Descent compared to Whites have:
  - greater risk for advanced stage cancers
  - greater risk for mortality due to cancer
  - lower survival time and quality of life

- Social and Economic Context of Health
  - socioeconomic status (education, employment, income)
  - Access to healthcare
  - Residential and work environments
METHODS

- Florida Dx 1988-2007 reported to Florida Cancer Data System
  - Top ten incidence of invasive cancer
  - Site and histology coded based on International Classification of Disease for Oncology

- Assignment of race categories -- NAACCR Item # 160
  - 01 White
  - 02 Black

- Age-adjusted Rates
  - 18 age groups
  - 2000 US standard population

- Joinpoint Regression
  - Statistically significant rate changes determine best fitting points
  - Monte Carlo Permutation Method
Florida Persons of African Descent Cancer Incidence Rates
All Sites
2000 - 2007

Age Adjusted Rate per 100,000
- 393 or less
- 394 - 432
- 433 - 464
- 465 or more
- Suppressed Data

ECDS #  County  Rate  Count
11  ALACHUA  487.4  1,175
12  BAKER  389.8  68
13  BAY  418.3  498
14  BRADFORD  352.3  105
15  BREVARD  466.3  1,521
16  BROOKS  428.8  9,002
17  CALHOUN  312.5  42
18  CHARLOTTE  334.6  290
19  CITRUS  412.6  123
20  CLAY  360.5  235
21  COLLIER  319.9  310
22  COLUMBIA  424.7  282
23  MARINA-DADE  409.9  12,688
24  DESOTO  579.6  124
25  DIXIE  445.4  32
26  DUVAL  686.8  1,997
27  ESCAMBIA  481.1  2,063
28  FLAILER  423.9  383
29  FRANKLIN  418.9  41
30  GADSDEN  434.5  791
31  GILCHRIST  suppressed
32  GLADES  409.2  28
33  GULF  411.8  77
34  HAMILTON  393.5  117
35  HANCO  548.6  77
36  HARDY  478.9  150
37  HERNANDO  419.6  231
38  HIGHLANDS  535.2  310
39  HILLBOROUGH  445.8  468
40  HOLMES  378.9  21
41  INDIAN RIVER  434.7  309
42  JACKSON  385.8  366
43  JEFFERSON  427.1  163
44  LAKE  524.1  747
45  LAKE  524.1  747
46  LEE  388.9  901
47  LEON  408.9  1,416
48  LEVY  384.8  108
49  LIBERTY  270.5  17
50  MADISON  467.5  239

Source: The Florida Cancer Data System,
The Office of Economic and Demographic Research of the Florida Legislature

* Suppressed data consists of counties with fewer than 11 cases
* Union County rates are suppressed due to inflated rates as a result of inmate patient care at a state correctional facility
Regional

Local

†Statistically significant $p = 0.05$
All Sites - Male - Distant Stage
All Sites - Female - Distant Stage

†Statistically significant $p = 0.05$

Year of Diagnosis

Age-Adjusted Rate


White
Persons of African Descent
<table>
<thead>
<tr>
<th>Site Specific Trends</th>
</tr>
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<tbody>
<tr>
<td>Lung</td>
</tr>
<tr>
<td>Prostate</td>
</tr>
<tr>
<td>Breast</td>
</tr>
<tr>
<td>Colorectal</td>
</tr>
<tr>
<td>Liver</td>
</tr>
</tbody>
</table>
CERVICAL CANCER

Cervix - Female

Cervix - Local Stage

Cervix - Regional Stage

Cervix - Distant Stage

† Statistically significant $p = 0.05$
LIVER CANCER

Liver - Male

Liver - Female

Liver - Male - Distant Stage

Liver - Female - Distant Stage

†Statistically significant $p = 0.05$
Proportional Distribution 2007

Percentage of New Male Cancer Cases by Race and Site
Florida, 2007

Axis Title

<table>
<thead>
<tr>
<th>Cancer Type</th>
<th>Persons of African Descent</th>
<th>White</th>
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</thead>
<tbody>
<tr>
<td>Prostate</td>
<td>38.80</td>
<td>26.4</td>
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<tr>
<td>Lung and Bronchus</td>
<td>14.77</td>
<td>15.9</td>
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<tr>
<td>Colorectal</td>
<td>9.12</td>
<td>9.4</td>
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<tr>
<td>Head &amp; Neck</td>
<td>5.04</td>
<td>5.4</td>
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<tr>
<td>Kidney and Renal Pelvis</td>
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<td>3.6</td>
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<tr>
<td>NHL</td>
<td>3.08</td>
<td>4.1</td>
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<tr>
<td>Stomach</td>
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<tr>
<td>Liver</td>
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<td>1.6</td>
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<tr>
<td>Pancreas</td>
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<td>2.5</td>
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<tr>
<td>Urinary Bladder</td>
<td>2.14</td>
<td>7.1</td>
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<td>Myeloma</td>
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<td>Leukemia</td>
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<td>Esophagus</td>
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<td>1.7</td>
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<tr>
<td>Brain/CNS</td>
<td>1.14</td>
<td>1.4</td>
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<tr>
<td>Thyroid</td>
<td>0.44</td>
<td>1.0</td>
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<tr>
<td>All Others</td>
<td>9.02</td>
<td>14.9</td>
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</tbody>
</table>
Proportional Distribution 2007

Percentage of New Female Cancer Cases by Race and Site
Florida, 2007

Breast
Colorectal
Lung and Bronchus
Corpus Uteri
NHL
Cervix Uteri
Thyroid
Pancreas
Kidney and Renal Pelvis
Myeloma
Ovary
Leukemia
Stomach
Head & Neck
Urinary Bladder
Brain/CNS
Liver
Esophagus
All Others

Persons of African Descent
White
CONCLUSION

- Declining rates over time
  - Late stage cancers
- Disparities declining
- Ongoing surveillance
Thank You!