District of Columbia Cancer Report 2011
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- DC Cancer Consortium

We would also like to thank the cancer registrars throughout the District who abstract and submit data to the central registry. Without you, this report would not have been possible.

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Introduction

The District of Columbia Central Cancer Registry (DCCR) and the Comprehensive Cancer Control Program (CCCP) are pleased to present the annual Cancer Report for the District of Columbia, monograph series, documenting cancer incidence and mortality in the District from 2004-2008.

DC Cancer Registry

The DC Cancer Registry is a population-based cancer surveillance system that maintains a record of the occurrence of all malignant cancer cases, and certain reportable benign conditions within the District. National collection of cancer surveillance data has been Congressionally mandated since 1951. The District’s reference date, the date after which all cancers diagnosed and treated are reportable, is January 1, 1996. Approximately 233,509 cancer cases are currently part of the District’s cancer registry. Approximately 8,200 new cases are added annually, of these approximately 3,100 (1/3) are DC residents. The remaining cases are primarily for Maryland and Virginia residents seeking diagnosis or treatment in the District.

DCCR provides accurate, complete, and timely data on malignant neoplasms and certain benign tumors. The DC Cancer Registry:
- Serves as the foundation for a comprehensive strategy to reduce cancer incidence and mortality
- Provides an indispensable tool for health professionals in the analysis of the District’s cancer burden
- Facilitates monitoring and evaluation of the clinical, epidemiological and supportive health services provided to District residents diagnosed with cancer

DC Comprehensive Cancer Control Program

Developing a clear understanding of the District’s leading cancers provides an opportunity to support medical and behavioral interventions that aim to decrease cancer incidence and mortality. The Comprehensive Cancer Control Program monitors trends in total cancers and the specific cancer sites, (e.g., breast, cervical, prostate, lung and bronchus, and colorectal) and uses the data to support community interventions to reduce the District cancer burden.

The CCCP works with its community partners to:
- Prevent cancer risk factors
- Research effective interventions
- Educate residents about early detection
- View cancer as a survivable disease
- Eradicate cancer disparities
- Navigate patients from screening to treatment
- Treat cancer patients early with high quality care
Population Profile

The District of Columbia is made up of 8 Wards across a geographic area of approximately 61 square miles. Between the 2000 and 2010, according to the United States Censuses, the District's population increased by 5.2% (572,059 to 601,723). Increases in population was seen in all Wards, except Ward 8 which decreased by -0.3%, Wards 2 and 6 experienced the largest population increases of 16% and 12.6% respectively.

Males and females are almost evenly distributed across the District (47.2% male and 52.8% female) and within each Ward. According to the 2010 US Census, Whites make up 38.5% of the District's population, Blacks 50.7%, and Hispanic or Latino 9.1%. The distribution of racial and ethnic communities vary greatly by Ward, for example:

- **Black**: 94.9% in Ward 7 - 5.0% in Ward 3;
- **White**: 83.5% in Ward 3 - 1.8% in Ward 7;
- **Hispanic**: 20.8% in Ward 1 - 1.8% in Ward 8.

Almost three quarters (71.7%) of the District's residents are below 49 years of age. The distribution of younger residents ranges from 80.5% in Ward 1 to 64.4% in Ward 4. In contrast, only 11.4% of the District's population are 65 years of age and older. Ward 1 has the smallest population of residents 65 years of age and older (7.1%) compared to Wards 4 and 5 with 15.3% of residents 65 years and older.

Cancer Overview

Cancer is a leading cause of death worldwide accounting for 7.6 million deaths in 2008, according to the World Health Organization. Nationally, cancer represents the number two cause of death. Approximately 1.6 million Americans are expected to be diagnosed with cancer in 2012 and 557,190 will die from the disease.

In the District of Columbia, 2,741 new cases of cancer were diagnosed in 2008, and 1,135 Washingtonians died from the disease. Of the 5,124 deaths that occurred in the District in 2008, 1 out of every 4 was attributable to cancer. Given the life expectancy of District residents, cancer is the number one cause of premature deaths (deaths before the age of 70) - far greater than heart disease, HIV/AIDS, homicide/assault, and accidents.
Cancer Risk Factors

There are many causes of cancer including genetic, environmental, and behavioral lifestyle choices. Of cancers causes, behavioral risk factors are the most vexing. Approximately 30% of cancer deaths might have been prevented by behavioral and dietary changes such as maintaining a health body mass index; adequate consumption of fruits and vegetables; regular physical activity; and reduction in alcohol and tobacco consumption. In fact, tobacco usage has been linked to almost one quarter of all cancer deaths and 71% of lung cancer deaths worldwide. Additionally, research has shown that overweight and obesity may be related to 14% of cancer deaths in men and 20% of cancer deaths in women. Excess weight also has been associated with national increases in cancers of the pancreas, kidney and adenocarcinoma of the esophagus, and has been adversely linked poor quality of life for cancer survivors.

Viral infections such as hepatitis B and C (HBV/HCV) and human papiloma virus (HPV) also lead to many types of cancer. More than 4 million Americans are reported to have chronic HBV and HCV which can lead to liver cancer. Approximately 15,000 Americans die from liver cancer each year. Additionally, Human papillomavirus (HPV), the most common sexually transmitted infection, is a known cause of cancers of the cervix, vulva, vagina, penis, anus, and oropharynx. Recent medical discoveries offer hope of preventing some virally-linked cancers thereby greatly reducing suffering from disease in this country.

Early Detection

Cancer is the number one cause of premature deaths in the District. Detecting cancer early through regular screening is the most effective way of identifying cancer when it is most treatable. National and state-based programs that improve access to care through patient navigation and community education have greatly improved routine use of cancer screening, particularly among underserved populations. Since its inception more than 20 years ago, the National Breast and Cervical Cancer Early Detection program has provided more than 9.8 million breast and cervical examinations and diagnosed 52,694 breast cancers and 2,856 invasive cervical cancers. Recent federal expansion programs such as the Screen for Life colorectal cancer screening program have increased access to colorectal cancer screening and improved early detection and prevention of colorectal cancer for many Americans.
Key Points

In the District of Columbia, the four most common types of cancer are lung, prostate, breast, and colorectal cancer. These cancers combined represent 54.8% of all new cancer cases and 47.8% of cancer deaths.

Incidence

- **The District experienced a 6.5% decrease in the number of cancer cases** diagnosed from 2007 to 2008. Of the four most common types of cancer only lung and bronchus increased by 3% in the number of cancer cases.

- **Age-adjusted incidence rate decreased by 6.4%** from 2007 to 2008. Of the four most common types of cancer only lung and bronchus increased by 3%.

Mortality

- **Overall, there was a 2.1% decrease in the number of cancer deaths** from 2007 to 2008. Decreases were also seen in three of the top four cancer sites. Only deaths from cancer of the lung and bronchus increased by 6.6%.

- **The age-adjusted mortality rate decreased by 2.1%** from 2007 to 2008. Decreases were also seen in three of the top four cancer sites. Only lung and bronchus increased by 6.3%.

Stage

The majority of cancers diagnosed in the District in 2008 were found in local and regional stages (60.6%) for all sites combined. Lung and bronchus cancer were the most likely to be diagnosed at advanced stage.

Summary

Although cancer disparities persist, the District has experienced modest decreases in both cancer incidence and mortality. Additionally, efforts aimed at increasing early detection and reducing barriers to care have improved how residents utilize services resulting in a greater number of cancers being detected at earlier stages.
2008 Incidence

Table 1
Age-Adjusted Incidence Rates by Sex and Race for Cancers Diagnosed in 2008, DC residents

<table>
<thead>
<tr>
<th>Race</th>
<th>Male and female Rate</th>
<th>Male Count</th>
<th>Male Rate</th>
<th>Male Count</th>
<th>Female Rate</th>
<th>Female Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>All races</td>
<td>487.8</td>
<td>2,741</td>
<td>605.3</td>
<td>1,422</td>
<td>410.2</td>
<td>1,317</td>
</tr>
<tr>
<td>White</td>
<td>442.4</td>
<td>739</td>
<td>468.9</td>
<td>361</td>
<td>432.5</td>
<td>378</td>
</tr>
<tr>
<td>Black</td>
<td>497.8</td>
<td>1,799</td>
<td>657.9</td>
<td>950</td>
<td>396.3</td>
<td>849</td>
</tr>
</tbody>
</table>

Rates are per 100,000 persons and are age-adjusted to the 2000 U.S. standard.

All races includes White, Black and other races.

The age-adjusted incidence rates decreased (for both sexes, all races and all age groups combined) in 2008.

Significant decreases were seen in colorectal and prostate cancer (22.2% and 11.9% of respectively).
The age when cancer is diagnosed varies according to the primary site.

- 67% of colorectal cancer cases were diagnosed in patients between 55-84 year old
- 69% of lung and bronchus cancer cases were diagnosed in patients between 55-79 year old
- 61% of breast cancer cases were diagnosed in patients between 50-74 years old
- 78% of prostate cancer cases were diagnosed in patients between 55-79 year old during 2008

Prostate and breast cancer had the highest age-adjusted incidence rates in each Ward in 2004-2008.

The age when cancer is diagnosed varies according to the primary site.

- 67% of colorectal cancer cases were diagnosed in patients between 55-84 year old
- 69% of lung and bronchus cancer cases were diagnosed in patients between 55-79 year old
- 61% of breast cancer cases were diagnosed in patients between 50-74 years old
- 78% of prostate cancer cases were diagnosed in patients between 55-79 year old during 2008
2008 Mortality

Table 2

Age-Adjusted Mortality Rates by Sex and Race for Cancer Deaths Occurred in 2008, DC residents

<table>
<thead>
<tr>
<th>All sites</th>
<th>Male and female</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Race</td>
<td>Rate</td>
<td>Count</td>
<td>Rate</td>
</tr>
<tr>
<td>All races</td>
<td>202.6</td>
<td>1,135</td>
<td>270.4</td>
</tr>
<tr>
<td>White</td>
<td>155.2</td>
<td>249</td>
<td>208.9</td>
</tr>
<tr>
<td>Black</td>
<td>240.4</td>
<td>874</td>
<td>324.4</td>
</tr>
</tbody>
</table>

Rates are per 100,000 persons and are age-adjusted to the 2000 U.S. standard.

All races includes White, Black and other races.

The age-adjusted mortality rates (for both sexes, all races and all age groups combined) experienced a decline during 2008.

Colorectal and prostate cancer had significant decrease (17.7% and 32.9% respectively).
The age when death caused by cancer occurred varies according to the primary site.

- 72% of colorectal cancer deaths occurred in people over 60 years old
- 65% of lung and bronchus cancer deaths occurred in people between 55-79 years old
- 64% of breast cancer deaths occurred in people between 55-84 years old
- 72% of prostate cancer deaths occurred in people over 75 years of age during 2008

Lung and bronchus shows one of the highest age-adjusted mortality rates (in most cases followed by prostate) across District Wards during 2004-2008.

The age when death caused by cancer occurred varies according to the primary site.

- 72% of colorectal cancer deaths occurred in people over 60 years old
- 65% of lung and bronchus cancer deaths occurred in people between 55-79 years old
- 64% of breast cancer deaths occurred in people between 55-84 years old
- 72% of prostate cancer deaths occurred in people over 75 years of age during 2008
Cancer Staging at Time of Diagnosis

The diagnosis of cancer at an early stage increases the likelihood of successful treatment. The National Cancer Institute Surveillance Epidemiology and End Results (SEER) provides a useful methodology to characterize how far a cancer has spread from its point of origin. In the District, the distribution of SEER stage at the time of diagnosis during 2008 shows higher incidence in local stage, with 81% of prostate cases being diagnosed at local stage. Of the top four cancer sites lung and bronchus represented the highest percentage of cases diagnosed at a distant stage 48%.

Figure 7

SEER Stage at Diagnosis, 2008, Percentage of Total Cases By Site
Colorectal cancer was more likely to be diagnosed at local stage (37.3%).

Breast cancer was also more likely to be diagnosed at local stage (42.0%).

Of the top 4 cancers diagnosed in the District, lung and bronchus cancer was the only cancer more likely to be diagnosed in distant stage (47.8%).

Prostate cancer was the most likely to be diagnosed at local stage (81.3%).
The District’s overall cancer mortality rate is higher than the national rate. However, the District’s lung and bronchus mortality rate falls below the rate for the U.S. The tables on the following pages depict the overall and selected site cancer mortality rate in comparison to the top five U.S. States and lowest five U.S. States. Breast and prostate cancer have the highest age-adjusted mortality rates in the country for 2004-2008.

Table 3

### All Cancer Sites (Invasive)

#### Age-adjusted Cancer Death\(^a\) Rates, By State, All Races, 2004-2008

<table>
<thead>
<tr>
<th>State</th>
<th>Rate</th>
<th>SE</th>
<th>Rank</th>
<th>PD</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL U.S.</td>
<td>181.32</td>
<td>0.11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kentucky</td>
<td>213.58b</td>
<td>0.99</td>
<td>1</td>
<td>17.79c</td>
</tr>
<tr>
<td>Louisiana</td>
<td>208.41b</td>
<td>0.98</td>
<td>2</td>
<td>14.94c</td>
</tr>
<tr>
<td>West Virginia</td>
<td>207.83b</td>
<td>1.37</td>
<td>3</td>
<td>14.62c</td>
</tr>
<tr>
<td>Mississippi</td>
<td>206.82b</td>
<td>1.19</td>
<td>4</td>
<td>14.06c</td>
</tr>
<tr>
<td>Tennessee</td>
<td>202.83b</td>
<td>0.8</td>
<td>5</td>
<td>11.86c</td>
</tr>
<tr>
<td>New Mexico</td>
<td>160.84b</td>
<td>1.28</td>
<td>47</td>
<td>-11.29c</td>
</tr>
<tr>
<td>Arizona</td>
<td>156.15b</td>
<td>0.7</td>
<td>48</td>
<td>-13.88c</td>
</tr>
<tr>
<td>Colorado</td>
<td>156.09b</td>
<td>0.88</td>
<td>49</td>
<td>-13.91c</td>
</tr>
<tr>
<td>Hawaii</td>
<td>149.15b</td>
<td>1.44</td>
<td>50</td>
<td>-17.74c</td>
</tr>
<tr>
<td>Utah</td>
<td>131.78b</td>
<td>1.18</td>
<td>51</td>
<td>-27.32c</td>
</tr>
</tbody>
</table>

**D.C.**

<table>
<thead>
<tr>
<th>Rate</th>
<th>SE</th>
<th>Rank</th>
<th>PD</th>
</tr>
</thead>
<tbody>
<tr>
<td>198.33b</td>
<td>2.63</td>
<td>8</td>
<td>9.38c</td>
</tr>
</tbody>
</table>

**Footnotes:**

\(a\) US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention. Rates are per 100,000 and are age-adjusted to the 2000 US Standard Population (19 age groups - Census P25-1130).

\(b\) Difference between state rate and total U.S. rate is statistically significant (\(p<=.0002\)).

\(c\) Absolute percent difference between state rate and total U.S. rate is 5% or more. SE Standard error of the rate.

PD Percent difference between state rate and total U.S. rate.

- Statistic not shown. Rate based on less than 16 cases for the time interval.
Table 4

Cancer of the Colon and Rectum
Age-adjusted Cancer Death\textsuperscript{a} Rates by State, All Races, 2004-2008

Males and Females
Total U.S. Rate compared to Five Highest and Five Lowest State Rates

<table>
<thead>
<tr>
<th>State</th>
<th>Rate</th>
<th>SE</th>
<th>Rank</th>
<th>PD</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL U.S.</td>
<td>17.15</td>
<td>0.03</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Louisiana</td>
<td>20.28b</td>
<td>0.31</td>
<td>1</td>
<td>18.27c</td>
</tr>
<tr>
<td>Mississippi</td>
<td>20.22b</td>
<td>0.37</td>
<td>2</td>
<td>17.88c</td>
</tr>
<tr>
<td>Kentucky</td>
<td>20.11b</td>
<td>0.3</td>
<td>3</td>
<td>17.29c</td>
</tr>
<tr>
<td>D.C.</td>
<td>20.11b</td>
<td>0.83</td>
<td>4</td>
<td>17.25c</td>
</tr>
<tr>
<td>West Virginia</td>
<td>20.08b</td>
<td>0.43</td>
<td>5</td>
<td>17.07c</td>
</tr>
<tr>
<td>Minnesota</td>
<td>15.20b</td>
<td>0.24</td>
<td>47</td>
<td>-11.39c</td>
</tr>
<tr>
<td>Idaho</td>
<td>14.78b</td>
<td>0.46</td>
<td>48</td>
<td>-13.79c</td>
</tr>
<tr>
<td>Arizona</td>
<td>14.46b</td>
<td>0.21</td>
<td>49</td>
<td>-15.70c</td>
</tr>
<tr>
<td>Hawaii</td>
<td>14.38b</td>
<td>0.45</td>
<td>50</td>
<td>-16.12c</td>
</tr>
<tr>
<td>Utah</td>
<td>12.20b</td>
<td>0.36</td>
<td>51</td>
<td>-28.84c</td>
</tr>
</tbody>
</table>

Footnotes: Table created by SEER Cancer Statistics.
\textsuperscript{a} US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention. Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).
\textsuperscript{b} Difference between state rate and total U.S. rate is statistically significant (p<=.0002).
\textsuperscript{c} Absolute percent difference between state rate and total U.S. rate is 10% or more.
SE Standard error of the rate.
PD Percent difference between state rate and total U.S. rate.
- Statistic not shown. Rate based on less than 16 cases for the time interval.

Table 5

Cancer of the Lung and Bronchus
Age-adjusted Cancer Death\textsuperscript{a} Rates by State, All Races, 2004-2008

Males and Females
Total U.S. Rate compared to Five Highest and Five Lowest State Rates

<table>
<thead>
<tr>
<th>State</th>
<th>Rate</th>
<th>SE</th>
<th>Rank</th>
<th>PD</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL U.S.</td>
<td>51.61</td>
<td>0.06</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kentucky</td>
<td>75.70b</td>
<td>0.59</td>
<td>1</td>
<td>46.67c</td>
</tr>
<tr>
<td>Arkansas</td>
<td>67.00b</td>
<td>0.65</td>
<td>2</td>
<td>29.80c</td>
</tr>
<tr>
<td>West Virginia</td>
<td>66.88b</td>
<td>0.77</td>
<td>3</td>
<td>29.58c</td>
</tr>
<tr>
<td>Tennessee</td>
<td>66.68b</td>
<td>0.46</td>
<td>4</td>
<td>29.20c</td>
</tr>
<tr>
<td>Mississippi</td>
<td>66.29b</td>
<td>0.67</td>
<td>5</td>
<td>28.44c</td>
</tr>
<tr>
<td>California</td>
<td>40.82b</td>
<td>0.16</td>
<td>47</td>
<td>-20.91c</td>
</tr>
<tr>
<td>Hawaii</td>
<td>38.24b</td>
<td>0.73</td>
<td>48</td>
<td>-25.91c</td>
</tr>
<tr>
<td>Colorado</td>
<td>37.93b</td>
<td>0.44</td>
<td>49</td>
<td>-26.50c</td>
</tr>
<tr>
<td>New Mexico</td>
<td>36.58b</td>
<td>0.61</td>
<td>50</td>
<td>-29.12c</td>
</tr>
<tr>
<td>Utah</td>
<td>22.55b</td>
<td>0.49</td>
<td>51</td>
<td>-56.32c</td>
</tr>
<tr>
<td>D.C.</td>
<td>48.51</td>
<td>1.3</td>
<td>36</td>
<td>-6.02c</td>
</tr>
</tbody>
</table>

Footnotes: Table created by SEER Cancer Statistics.
\textsuperscript{a} US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention. Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).
\textsuperscript{b} Difference between state rate and total U.S. rate is statistically significant (p<=.0002).
\textsuperscript{c} Absolute percent difference between state rate and total U.S. rate is 5% or more.
SE Standard error of the rate.
PD Percent difference between state rate and total U.S. rate.
- Statistic not shown. Rate based on less than 16 cases for the time interval.
### Table 6

**Female Breast (Invasive)**

**Age-adjusted Cancer Death**\(^a\) **Rates By State, All Races, 2004-2008**

<table>
<thead>
<tr>
<th>State</th>
<th>Rate</th>
<th>SE</th>
<th>Rank</th>
<th>PD</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL U.S.</td>
<td>23.47</td>
<td>0.05</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D.C.</td>
<td>27.64</td>
<td>1.28</td>
<td>1</td>
<td>17.79c</td>
</tr>
<tr>
<td>Louisiana</td>
<td>26.81b</td>
<td>0.47</td>
<td>2</td>
<td>14.23c</td>
</tr>
<tr>
<td>New Jersey</td>
<td>26.45b</td>
<td>0.32</td>
<td>3</td>
<td>12.71c</td>
</tr>
<tr>
<td>Ohio</td>
<td>25.95b</td>
<td>0.27</td>
<td>4</td>
<td>10.56c</td>
</tr>
<tr>
<td>Maryland</td>
<td>25.57b</td>
<td>0.4</td>
<td>5</td>
<td>8.96</td>
</tr>
<tr>
<td>Idaho</td>
<td>21.19</td>
<td>0.75</td>
<td>47</td>
<td>-9.72</td>
</tr>
<tr>
<td>Arizona</td>
<td>20.97b</td>
<td>0.35</td>
<td>48</td>
<td>-10.66c</td>
</tr>
<tr>
<td>Montana</td>
<td>20.72</td>
<td>0.86</td>
<td>49</td>
<td>-11.71c</td>
</tr>
<tr>
<td>Colorado</td>
<td>20.49b</td>
<td>0.42</td>
<td>50</td>
<td>-12.69c</td>
</tr>
<tr>
<td>Hawaii</td>
<td>17.80b</td>
<td>0.69</td>
<td>51</td>
<td>-24.14c</td>
</tr>
</tbody>
</table>

**Footnotes:**

\(^a\) US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention. Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

\(^b\) Difference between state rate and total U.S. rate is statistically significant (p<=.0002).

\(^c\) Absolute percent difference between state rate and total U.S. rate is 10% or more.

SE Standard error of the rate.

PD Percent difference between state rate and total U.S. rate.

- Statistic not shown. Rate based on less than 16 cases for the time interval.

### Table 7

**Cancer of the Prostate**

**Age-adjusted Cancer Death**\(^a\) **Rates by State, All Races, 2004-2008**

<table>
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<tr>
<th>State</th>
<th>Rate</th>
<th>SE</th>
<th>Rank</th>
<th>PD</th>
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**Footnotes:**

\(^a\) US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention. Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

\(^b\) Difference between state rate and total U.S. rate is statistically significant (p<=.0002).

\(^c\) Absolute percent difference between state rate and total U.S. rate is 10% or more.

SE Standard error of the rate.

PD Percent difference between state rate and total U.S. rate.

- Statistic not shown. Rate based on less than 16 cases for the time interval.
Variations by Race in the Top Four Cancer Sites

Disparities in cancer incidence and mortality are experienced by District residents in similar patterns to the U.S. The incidence of breast cancer is higher among Whites (178.8 per 100,000) compared to Blacks (118.6 per 100,000), while the inverse is true of breast cancer mortality rates. Lung and bronchus incidence and mortality rates are higher among Blacks than Whites. Prostate cancer mortality is almost three times higher in Blacks than in Whites.

DC Top Four Cancer Sites

**Incidence Rates - 2008**

Table 8

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**Footnotes:**

<sup>a</sup> Top 4 cancer sites selected based on 2008 age-adjusted rates for the race group.

<sup>b</sup> The rates for sex-specific cancer sites are calculated using the population for the specific sexes.

<sup>c</sup> Incidence data used in calculating the rates are from DC Cancer Registry. Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

- Statistic not shown. Rate based on less than 16 cases for the time interval. Trend based on less than 10 cases for at least one year within the time interval.
## DC Top Four Cancer Sites

### Mortality Rates - 2008

#### Table 9

**DC Age-Adjusted Death Rates for the Top 4 Cancer Sites**

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**Footnotes:**

<sup>a</sup> Top 4 cancer sites selected based on 2008 age-adjusted rates for the race group.

<sup>b</sup> The rates for sex-specific cancer sites are calculated using the population for the specific sexes.

<sup>c</sup> Mortality data used in calculating the rates are analyzed from US mortality files provided by the National Center for Health Statistics, CDC. Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

- Statistic not shown. Rate based on less than 16 cases for the time interval. Trend based on less than 10 cases for at least one year within the time interval.
### District of Columbia and National Comparisons

#### Cancer Incidence Age-Adjusted Rates, 2004-2008, DC and National

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All rates are age-adjusted per 100,000 men and women (only women in Breast and only men in Prostate) and include invasive cases only.

* Includes White, Black and other races.

All ages included.

Source: DC Cancer Registry, National SEER17 Incidence.

#### Cancer Mortality Age-Adjusted Rates, 2004-2008, DC and National

Table 11

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All rates are age-adjusted per 100,000 men and women (only women in Breast and only men in Prostate).

* Includes White, Black and other races.

All ages included.

Source: DC Cancer Registry, NCHS Mortality.
## Cancer Incidence Age-Adjusted Rates, 2008, DC and National

### Table 12

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All rates are age-adjusted per 100,000 men and women (only women in Breast and only men in Prostate) and include invasive cases only.

* Includes White, Black and other races.

All ages included.

Source: DC Cancer Registry, National SEER17 Incidence.

## Cancer Mortality Age-Adjusted Rates, 2008, DC and National

### Table 13

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<th>Female</th>
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All rates are age-adjusted per 100,000 men and women (only women in Breast and only men in Prostate).

* Includes White, Black and other races.

All ages included.

Source: DC Cancer Registry, NCHS Mortality.
Breast Cancer

There was a 14% difference in local SEER stage of diagnosis between White and Black women in the District. Black women were more likely to be diagnosed at regional and distant stages, and were less likely to be diagnosed at local stage when compared to White women.
Figure 13
Breast Cancer Incidence 2008
Age Distribution by Race

Figure 14
Breast Cancer Mortality 2008
Age Distribution by Race
There was a 7.3% difference in in situ SEER stage of diagnosis between White and Black residents. Black men and women were less likely to be diagnosed at local regional stage.
Figure 16

Colorectal Cancer Incidence 2008
Age Distribution by Race

Groups of Age

85+
80-84
75-79
70-74
65-69
60-64
55-59
50-54
45-49
40-44
35-39
30-34
25-29
20-24
15-19
10-14
05-09
00-04

Percentages

White
Black

Figure 17

Colorectal Cancer Mortality 2008
Age Distribution by Race

Groups of Age

85+
80-84
75-79
70-74
65-69
60-64
55-59
50-54
45-49
40-44
35-39
30-34
25-29
20-24
15-19
10-14
05-09
00-04

Percentages

White
Black
Among District residents, lung and bronchus cancer showed a 2% difference in regional SEER stage of diagnosis.

The majority of cases for both races were diagnosed at distant stage.

Figure 18

Lung and Bronchus Cancer 2008
SEER Stage Distribution, by Race

<table>
<thead>
<tr>
<th>SEER Stage</th>
<th>Black</th>
<th>White</th>
</tr>
</thead>
<tbody>
<tr>
<td>In Situ</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regional</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distant</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Figure 19
Lung and Bronchus Cancer Incidence 2008
Age Distribution by Race

Figure 20
Lung and Bronchus Cancer Mortality 2008
Age Distribution by Race
At the time of diagnosis, prostate cancer showed the biggest difference between races in distant SEER stage, with 2.6% difference between Whites and Blacks.
Figure 22

Prostate Cancer Incidence 2008
Age Distribution by Race

Prostate Cancer Mortality 2008
Age Distribution by Race
### Cancer Incidence Trends* by Ward

#### Table 14
**Percentage of Change 2007-2008**

<table>
<thead>
<tr>
<th>Ward</th>
<th>% change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>9.3</td>
</tr>
<tr>
<td>2</td>
<td>-16.9</td>
</tr>
<tr>
<td>3</td>
<td>-15.7</td>
</tr>
<tr>
<td>4</td>
<td>-1.2</td>
</tr>
<tr>
<td>5</td>
<td>6.2</td>
</tr>
<tr>
<td>6</td>
<td>17.8</td>
</tr>
<tr>
<td>7</td>
<td>13.0</td>
</tr>
<tr>
<td>8</td>
<td>8.4</td>
</tr>
</tbody>
</table>

Source: DC Cancer Registry

#### Table 15
**Percentage of Change 2007-2008**

<table>
<thead>
<tr>
<th>Ward</th>
<th>% change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>-15.2</td>
</tr>
<tr>
<td>2</td>
<td>-46.4</td>
</tr>
<tr>
<td>3</td>
<td>-50.0</td>
</tr>
<tr>
<td>4</td>
<td>4.9</td>
</tr>
<tr>
<td>5</td>
<td>-3.5</td>
</tr>
<tr>
<td>6</td>
<td>21.7</td>
</tr>
<tr>
<td>7</td>
<td>-25.5</td>
</tr>
<tr>
<td>8</td>
<td>-11.8</td>
</tr>
</tbody>
</table>

Source: DC Cancer Registry

---

*Incidence Trends reflect both invasive and In Situ Cases
**Table 16**

Percentage of Change 2007-2008

<table>
<thead>
<tr>
<th>Number of Cases</th>
<th>Lung and Bronchus</th>
<th>08-07 % change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ward 1</td>
<td>6.5</td>
<td></td>
</tr>
<tr>
<td>Ward 2</td>
<td>-44.8</td>
<td></td>
</tr>
<tr>
<td>Ward 3</td>
<td>15.4</td>
<td></td>
</tr>
<tr>
<td>Ward 4</td>
<td>0.0</td>
<td></td>
</tr>
<tr>
<td>Ward 5</td>
<td>7.1</td>
<td></td>
</tr>
<tr>
<td>Ward 6</td>
<td>54.2</td>
<td></td>
</tr>
<tr>
<td>Ward 7</td>
<td>46.3</td>
<td></td>
</tr>
<tr>
<td>Ward 8</td>
<td>25.0</td>
<td></td>
</tr>
</tbody>
</table>

Source: DC Cancer Registry

**Table 17**

Percentage of Change 2007-2008

<table>
<thead>
<tr>
<th>Number of Cases</th>
<th>Breast</th>
<th>08-07 % change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ward 1</td>
<td>20.0</td>
<td></td>
</tr>
<tr>
<td>Ward 2</td>
<td>1.8</td>
<td></td>
</tr>
<tr>
<td>Ward 3</td>
<td>-10.6</td>
<td></td>
</tr>
<tr>
<td>Ward 4</td>
<td>-3.5</td>
<td></td>
</tr>
<tr>
<td>Ward 5</td>
<td>-32.6</td>
<td></td>
</tr>
<tr>
<td>Ward 6</td>
<td>8.9</td>
<td></td>
</tr>
<tr>
<td>Ward 7</td>
<td>31.4</td>
<td></td>
</tr>
<tr>
<td>Ward 8</td>
<td>8.7</td>
<td></td>
</tr>
</tbody>
</table>

Source: DC Cancer Registry
Table 18

Percentage of Change 2007-2008

<table>
<thead>
<tr>
<th>Number of Cases</th>
<th>08-07 % change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prostate</td>
<td></td>
</tr>
<tr>
<td>Ward 1</td>
<td>-9.4</td>
</tr>
<tr>
<td>Ward 2</td>
<td>-41.3</td>
</tr>
<tr>
<td>Ward 3</td>
<td>-19.4</td>
</tr>
<tr>
<td>Ward 4</td>
<td>-6.1</td>
</tr>
<tr>
<td>Ward 5</td>
<td>41.3</td>
</tr>
<tr>
<td>Ward 6</td>
<td>8.3</td>
</tr>
<tr>
<td>Ward 7</td>
<td>25.0</td>
</tr>
<tr>
<td>Ward 8</td>
<td>21.9</td>
</tr>
</tbody>
</table>

Source: DC Cancer Registry
Cancer Mortality Trends by Ward

Table 19
Percentage of Change 2007-2008
Number of Deaths

<table>
<thead>
<tr>
<th>Ward</th>
<th>08-07 % change</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Sites</td>
<td>3.8</td>
</tr>
<tr>
<td>Ward 1</td>
<td>3.8</td>
</tr>
<tr>
<td>Ward 2</td>
<td>-35.9</td>
</tr>
<tr>
<td>Ward 3</td>
<td>-11.3</td>
</tr>
<tr>
<td>Ward 4</td>
<td>-11.2</td>
</tr>
<tr>
<td>Ward 5</td>
<td>11.5</td>
</tr>
<tr>
<td>Ward 6</td>
<td>-0.8</td>
</tr>
<tr>
<td>Ward 7</td>
<td>14.1</td>
</tr>
<tr>
<td>Ward 8</td>
<td>13.4</td>
</tr>
</tbody>
</table>

Source: DC Cancer Registry

Figure 29

All Sites
Mortality Trends by Ward

Number of Deaths

Year of Death
Figure 30

Colorectal Mortality Trends by Ward

Year of Death

Number of Deaths

Table 20
Percentage of Change 2007-2008
Number of Deaths

<table>
<thead>
<tr>
<th>Ward</th>
<th>08-07 % change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ward 1</td>
<td>-20.0</td>
</tr>
<tr>
<td>Ward 2</td>
<td>-66.7</td>
</tr>
<tr>
<td>Ward 3</td>
<td>-23.5</td>
</tr>
<tr>
<td>Ward 4</td>
<td>12.5</td>
</tr>
<tr>
<td>Ward 5</td>
<td>-29.2</td>
</tr>
<tr>
<td>Ward 6</td>
<td>7.7</td>
</tr>
<tr>
<td>Ward 7</td>
<td>33.3</td>
</tr>
<tr>
<td>Ward 8</td>
<td>-45.5</td>
</tr>
</tbody>
</table>

Source: DC Cancer Registry

Figure 31

Lung and Bronchus Mortality Trends by Ward

Year of Death

Number of Deaths

Table 21
Percentage of Change 2007-2008
Number of Deaths

<table>
<thead>
<tr>
<th>Ward</th>
<th>08-07 % change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ward 1</td>
<td>4.0</td>
</tr>
<tr>
<td>Ward 2</td>
<td>-32.0</td>
</tr>
<tr>
<td>Ward 3</td>
<td>-10.5</td>
</tr>
<tr>
<td>Ward 4</td>
<td>-14.9</td>
</tr>
<tr>
<td>Ward 5</td>
<td>55.3</td>
</tr>
<tr>
<td>Ward 6</td>
<td>-16.1</td>
</tr>
<tr>
<td>Ward 7</td>
<td>32.5</td>
</tr>
<tr>
<td>Ward 8</td>
<td>23.3</td>
</tr>
</tbody>
</table>

Source: DC Cancer Registry
Breast Mortality Trends by Ward

Year of Death

Number of Deaths

Prostate Mortality Trends by Ward

Year of Death

Number of Deaths

Table 22
Percentage of Change 2007-2008
Number of Deaths
Breast

<table>
<thead>
<tr>
<th>Ward</th>
<th>% change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ward 1</td>
<td>-22.2</td>
</tr>
<tr>
<td>Ward 2</td>
<td>-52.9</td>
</tr>
<tr>
<td>Ward 3</td>
<td>-33.3</td>
</tr>
<tr>
<td>Ward 4</td>
<td>-29.4</td>
</tr>
<tr>
<td>Ward 5</td>
<td>33.3</td>
</tr>
<tr>
<td>Ward 6</td>
<td>-15.4</td>
</tr>
<tr>
<td>Ward 7</td>
<td>-13.3</td>
</tr>
<tr>
<td>Ward 8</td>
<td>175.0</td>
</tr>
</tbody>
</table>

Source: DC Cancer Registry

Table 23
Percentage of Change 2007-2008
Number of Deaths
Prostate

<table>
<thead>
<tr>
<th>Ward</th>
<th>% change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ward 1</td>
<td>-33.3</td>
</tr>
<tr>
<td>Ward 2</td>
<td>-37.5</td>
</tr>
<tr>
<td>Ward 3</td>
<td>-20.0</td>
</tr>
<tr>
<td>Ward 4</td>
<td>-45.5</td>
</tr>
<tr>
<td>Ward 5</td>
<td>-33.3</td>
</tr>
<tr>
<td>Ward 6</td>
<td>11.1</td>
</tr>
<tr>
<td>Ward 7</td>
<td>-46.2</td>
</tr>
<tr>
<td>Ward 8</td>
<td>-27.3</td>
</tr>
</tbody>
</table>

Source: DC Cancer Registry
### Table 24

<table>
<thead>
<tr>
<th>Primary Site</th>
<th>Percent</th>
<th>Total</th>
<th>SEX</th>
<th>RACE</th>
<th>SEER SUMMARY STAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral Cavity &amp; Pharynx</td>
<td>3.03%</td>
<td>89</td>
<td>66</td>
<td>23</td>
<td>22 61 6 5 28 17 6</td>
</tr>
<tr>
<td>Lip</td>
<td>0.07%</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0 0 0 0 0 0</td>
</tr>
<tr>
<td>Tongue</td>
<td>0.72%</td>
<td>21</td>
<td>16</td>
<td>5</td>
<td>15 0 7 6</td>
</tr>
<tr>
<td>Floor of the Mouth</td>
<td>0.24%</td>
<td>7</td>
<td>6</td>
<td>-</td>
<td>5 0 0 0 0 0 0</td>
</tr>
<tr>
<td>Gum and Other Mouth</td>
<td>0.51%</td>
<td>15</td>
<td>12</td>
<td>-</td>
<td>5 9 7 7 0 0 0</td>
</tr>
<tr>
<td>Salivary Gland</td>
<td>0.20%</td>
<td>6</td>
<td>-</td>
<td>-</td>
<td>5 0 0 0 0 0 0</td>
</tr>
<tr>
<td>Tonsil</td>
<td>0.72%</td>
<td>21</td>
<td>15</td>
<td>6</td>
<td>7 14 0 5 11 7</td>
</tr>
<tr>
<td>Oropharynx</td>
<td>0.17%</td>
<td>5</td>
<td>-</td>
<td>-</td>
<td>- 0 0 0 0 0 0</td>
</tr>
<tr>
<td>Nasopharynx</td>
<td>0.17%</td>
<td>5</td>
<td>-</td>
<td>-</td>
<td>- 0 0 0 0 0 0</td>
</tr>
<tr>
<td>Hypopharynx</td>
<td>0.24%</td>
<td>7</td>
<td>6</td>
<td>-</td>
<td>0 6 0 0 0 0 0</td>
</tr>
<tr>
<td>Digestive System</td>
<td>18.75%</td>
<td>550</td>
<td>289</td>
<td>261</td>
<td>126 404 20 21 152 143 168 66</td>
</tr>
<tr>
<td>Esophagus</td>
<td>1.19%</td>
<td>35</td>
<td>22</td>
<td>13</td>
<td>14 23 0 9 15 7</td>
</tr>
<tr>
<td>Stomach</td>
<td>1.70%</td>
<td>50</td>
<td>29</td>
<td>21</td>
<td>9 39 0 11 15 7 7</td>
</tr>
<tr>
<td>Small Intestine</td>
<td>0.92%</td>
<td>27</td>
<td>18</td>
<td>9</td>
<td>6 21 0 5 11 6 6</td>
</tr>
<tr>
<td>Colorectal</td>
<td>8.86%</td>
<td>260</td>
<td>114</td>
<td>146</td>
<td>58 192 10 15 97 64 59 25</td>
</tr>
<tr>
<td>Anus, Anal Canal and Anorectum</td>
<td>0.34%</td>
<td>10</td>
<td>5</td>
<td>5</td>
<td>5 0 0 0 0 0 0</td>
</tr>
<tr>
<td>Liver</td>
<td>1.98%</td>
<td>58</td>
<td>46</td>
<td>12</td>
<td>5 50 0 22 22 13</td>
</tr>
<tr>
<td>Gallbladder</td>
<td>0.27%</td>
<td>8</td>
<td>-</td>
<td>7</td>
<td>- 5 0 0 0 0 0</td>
</tr>
<tr>
<td>Other Biliary</td>
<td>0.44%</td>
<td>13</td>
<td>9</td>
<td>-</td>
<td>6 6 0 0 9 0 0</td>
</tr>
<tr>
<td>Pancreas</td>
<td>3.00%</td>
<td>88</td>
<td>45</td>
<td>43</td>
<td>20 65 0 11 29 41 7</td>
</tr>
<tr>
<td>Other Digestive System</td>
<td>0.03%</td>
<td>1</td>
<td>0</td>
<td>-</td>
<td>0 0 0 0 0 0 0</td>
</tr>
<tr>
<td>Respiratory System</td>
<td>12.96%</td>
<td>380</td>
<td>214</td>
<td>166</td>
<td>67 300 13 85 82 172 38</td>
</tr>
<tr>
<td>Nasal Cavity/Sinuses</td>
<td>0.20%</td>
<td>6</td>
<td>-</td>
<td>-</td>
<td>- 0 0 0 0 0 0</td>
</tr>
<tr>
<td>Larynx</td>
<td>0.89%</td>
<td>26</td>
<td>20</td>
<td>6</td>
<td>25 0 8 8 7 0 0</td>
</tr>
<tr>
<td>Lung and Bronchus</td>
<td>11.69%</td>
<td>343</td>
<td>187</td>
<td>156</td>
<td>59 271 13 0 73 69 164 37</td>
</tr>
<tr>
<td>Other Respiratory System</td>
<td>0.17%</td>
<td>5</td>
<td>5</td>
<td>-</td>
<td>0 0 0 0 0 0 0</td>
</tr>
<tr>
<td>Bones and Joints</td>
<td>0.44%</td>
<td>13</td>
<td>7</td>
<td>6</td>
<td>10 0 0 5 0 0 0</td>
</tr>
<tr>
<td>Skin (excl. Basal &amp; Squamous)</td>
<td>3.44%</td>
<td>101</td>
<td>67</td>
<td>34</td>
<td>46 15 40 34 34 0 0</td>
</tr>
<tr>
<td>Soft Tissue/Heart</td>
<td>0.68%</td>
<td>20</td>
<td>16</td>
<td>-</td>
<td>8 10 0 11 0 0 0 0</td>
</tr>
<tr>
<td>Breast</td>
<td>18.00%</td>
<td>528</td>
<td>5</td>
<td>522</td>
<td>185 314 29 104 223 160 20 21</td>
</tr>
<tr>
<td>Female Genital System</td>
<td>5.56%</td>
<td>163</td>
<td>0</td>
<td>163</td>
<td>44 106 13 64 46 38 13</td>
</tr>
<tr>
<td>Vulva</td>
<td>0.17%</td>
<td>6</td>
<td>0</td>
<td>5</td>
<td>- 0 - 0 0 0 0</td>
</tr>
<tr>
<td>Cervix Uteri</td>
<td>0.95%</td>
<td>28</td>
<td>0</td>
<td>28</td>
<td>6 19 0 3 12 6 5</td>
</tr>
<tr>
<td>Corpus Uteri</td>
<td>3.38%</td>
<td>99</td>
<td>0</td>
<td>99</td>
<td>25 64 10 48 30 11 9</td>
</tr>
<tr>
<td>Ovary</td>
<td>0.82%</td>
<td>24</td>
<td>0</td>
<td>24</td>
<td>6 17 0 0 0 0 0 0 0</td>
</tr>
<tr>
<td>Other Female Genital System</td>
<td>0.24%</td>
<td>7</td>
<td>0</td>
<td>7</td>
<td>- 0 0 0 0 0 0 0</td>
</tr>
<tr>
<td>Male Genital System</td>
<td>17.56%</td>
<td>515</td>
<td>514</td>
<td>0</td>
<td>123 329 63 418 44 18 34</td>
</tr>
<tr>
<td>Penis</td>
<td>0.10%</td>
<td>3</td>
<td>-</td>
<td>0</td>
<td>- 0 - 0 0 0 0</td>
</tr>
<tr>
<td>Prostate</td>
<td>16.95%</td>
<td>497</td>
<td>496</td>
<td>0</td>
<td>113 324 60 0 403 43 17 34</td>
</tr>
<tr>
<td>Testis</td>
<td>0.51%</td>
<td>15</td>
<td>15</td>
<td>0</td>
<td>9 - - 0 14 0 0 0 0</td>
</tr>
<tr>
<td>Urinary System</td>
<td>5.18%</td>
<td>152</td>
<td>103</td>
<td>49</td>
<td>44 97 11 28 54 20 19 9 9</td>
</tr>
<tr>
<td>Kidney and Renal Pelvis</td>
<td>2.52%</td>
<td>74</td>
<td>46</td>
<td>28</td>
<td>18 50 8 - 43 10 16 9</td>
</tr>
<tr>
<td>Urinary Bladder</td>
<td>2.45%</td>
<td>72</td>
<td>55</td>
<td>17</td>
<td>26 43 - 19 38 9 - -</td>
</tr>
<tr>
<td>Other Urinary Organs</td>
<td>0.20%</td>
<td>6</td>
<td>-</td>
<td>-</td>
<td>- 0 0 0 0 0 0 0 0</td>
</tr>
<tr>
<td>Eye/Brain/Other Nervous Sys</td>
<td>2.93%</td>
<td>86</td>
<td>44</td>
<td>42</td>
<td>28 47 11 - 29 7 5 8 8</td>
</tr>
<tr>
<td>Eye and Orbit</td>
<td>0.24%</td>
<td>7</td>
<td>6</td>
<td>-</td>
<td>- 5 0 - - 0 0 0 0 0</td>
</tr>
<tr>
<td>Brain and Other Nervous System</td>
<td>2.69%</td>
<td>79</td>
<td>38</td>
<td>41</td>
<td>26 42 11 0 25 7 - 8 0 8</td>
</tr>
<tr>
<td>Endocrine System</td>
<td>3.17%</td>
<td>93</td>
<td>35</td>
<td>58</td>
<td>44 40 9 0 48 22 5 8 8</td>
</tr>
<tr>
<td>Thyroid</td>
<td>2.39%</td>
<td>70</td>
<td>18</td>
<td>52</td>
<td>35 29 6 0 46 20 - - -</td>
</tr>
<tr>
<td>Other Endocrine including Thymus</td>
<td>0.78%</td>
<td>23</td>
<td>17</td>
<td>6</td>
<td>9 11 0 0 0 0 0 0 0 0 0</td>
</tr>
<tr>
<td>Lymphoma</td>
<td>2.11%</td>
<td>62</td>
<td>38</td>
<td>24</td>
<td>21 36 5 0 14 8 34 6 6 6 6 6 6</td>
</tr>
<tr>
<td>Plasma Cell/Hematopoietic Dz</td>
<td>3.78%</td>
<td>111</td>
<td>55</td>
<td>56</td>
<td>32 73 6 N/A N/A N/A N/A N/A</td>
</tr>
<tr>
<td>Other Ill Defined/Unknown</td>
<td>2.39%</td>
<td>70</td>
<td>23</td>
<td>47</td>
<td>8 58 # N/A N/A N/A N/A N/A N/A</td>
</tr>
</tbody>
</table>

Source: DC Cancer Registry

~: Small number of cases not shown.
### Table 25

<table>
<thead>
<tr>
<th>Primary Site</th>
<th>Percent</th>
<th>Total</th>
<th>SEX</th>
<th>RACE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>Oral Cavity and Pharynx</td>
<td>2.82%</td>
<td>32</td>
<td>17</td>
<td>15</td>
</tr>
<tr>
<td>Tongue</td>
<td>0.26%</td>
<td>3</td>
<td>0</td>
<td>~</td>
</tr>
<tr>
<td>Gum and Other Mouth</td>
<td>0.70%</td>
<td>8</td>
<td>5</td>
<td>~</td>
</tr>
<tr>
<td>Salivary Gland</td>
<td>0.62%</td>
<td>7</td>
<td>~</td>
<td>~</td>
</tr>
<tr>
<td>Tonsil</td>
<td>0.26%</td>
<td>3</td>
<td>~</td>
<td>0</td>
</tr>
<tr>
<td>Oropharynx</td>
<td>0.09%</td>
<td>1</td>
<td>0</td>
<td>~</td>
</tr>
<tr>
<td>Nasopharynx</td>
<td>0.26%</td>
<td>3</td>
<td>~</td>
<td>~</td>
</tr>
<tr>
<td>Hypopharynx</td>
<td>0.26%</td>
<td>3</td>
<td>0</td>
<td>~</td>
</tr>
<tr>
<td>Other Oral Cavity and Pharynx</td>
<td>0.35%</td>
<td>4</td>
<td>~</td>
<td>0</td>
</tr>
<tr>
<td><strong>Digestive System</strong></td>
<td><strong>25.90%</strong></td>
<td><strong>294</strong></td>
<td><strong>155</strong></td>
<td><strong>139</strong></td>
</tr>
<tr>
<td>Esophagus</td>
<td>2.91%</td>
<td>33</td>
<td>23</td>
<td>10</td>
</tr>
<tr>
<td>Stomach</td>
<td>2.29%</td>
<td>26</td>
<td>15</td>
<td>11</td>
</tr>
<tr>
<td>Small Intestine</td>
<td>0.53%</td>
<td>6</td>
<td>~</td>
<td>~</td>
</tr>
<tr>
<td>Colorectal</td>
<td>8.90%</td>
<td>101</td>
<td>43</td>
<td>58</td>
</tr>
<tr>
<td>Anus, Anal Canal and Anorectum</td>
<td>0.44%</td>
<td>5</td>
<td>~</td>
<td>~</td>
</tr>
<tr>
<td>Liver</td>
<td>2.82%</td>
<td>32</td>
<td>23</td>
<td>9</td>
</tr>
<tr>
<td>Gallbladder</td>
<td>0.35%</td>
<td>4</td>
<td>0</td>
<td>~</td>
</tr>
<tr>
<td>Other Biliary</td>
<td>0.35%</td>
<td>4</td>
<td>~</td>
<td>~</td>
</tr>
<tr>
<td>Pancreas</td>
<td>7.31%</td>
<td>83</td>
<td>44</td>
<td>39</td>
</tr>
<tr>
<td><strong>Respiratory System</strong></td>
<td><strong>26.96%</strong></td>
<td><strong>306</strong></td>
<td><strong>173</strong></td>
<td><strong>133</strong></td>
</tr>
<tr>
<td>Larynx</td>
<td>1.15%</td>
<td>13</td>
<td>11</td>
<td>~</td>
</tr>
<tr>
<td>Lung and Bronchus</td>
<td>25.73%</td>
<td>292</td>
<td>162</td>
<td>130</td>
</tr>
<tr>
<td>Other Respiratory System</td>
<td>0.09%</td>
<td>1</td>
<td>0</td>
<td>~</td>
</tr>
<tr>
<td>Bones and Joints</td>
<td>0.09%</td>
<td>~</td>
<td>~</td>
<td>0</td>
</tr>
<tr>
<td>Skin excluding Basal and Squamous</td>
<td>0.44%</td>
<td>5</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>Breast</td>
<td>8.37%</td>
<td>95</td>
<td>~</td>
<td>92</td>
</tr>
<tr>
<td>Female Genital System</td>
<td>4.58%</td>
<td>52</td>
<td>~</td>
<td>51</td>
</tr>
<tr>
<td>Cervix Uteri</td>
<td>0.88%</td>
<td>10</td>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td>Corpus Uteri</td>
<td>0.53%</td>
<td>6</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>Ovary</td>
<td>2.03%</td>
<td>23</td>
<td>~</td>
<td>22</td>
</tr>
<tr>
<td>Other Female Genital Organs</td>
<td>1.15%</td>
<td>13</td>
<td>0</td>
<td>13</td>
</tr>
<tr>
<td><strong>Male Genital System</strong></td>
<td><strong>5.11%</strong></td>
<td><strong>58</strong></td>
<td><strong>58</strong></td>
<td><strong>0</strong></td>
</tr>
<tr>
<td>Prostate</td>
<td>5.11%</td>
<td>58</td>
<td>58</td>
<td>0</td>
</tr>
<tr>
<td><strong>Urinary System</strong></td>
<td><strong>3.88%</strong></td>
<td><strong>44</strong></td>
<td><strong>27</strong></td>
<td><strong>17</strong></td>
</tr>
<tr>
<td>Kidney and Renal Pelvis</td>
<td>1.67%</td>
<td>19</td>
<td>13</td>
<td>6</td>
</tr>
<tr>
<td>Urinary Bladder</td>
<td>2.20%</td>
<td>25</td>
<td>14</td>
<td>11</td>
</tr>
<tr>
<td><strong>Eye/Brain/Other Nervous System</strong></td>
<td><strong>2.11%</strong></td>
<td><strong>24</strong></td>
<td><strong>16</strong></td>
<td><strong>8</strong></td>
</tr>
<tr>
<td>Brain and Other Nervous System</td>
<td>2.11%</td>
<td>24</td>
<td>16</td>
<td>8</td>
</tr>
<tr>
<td><strong>Endocrine System</strong></td>
<td><strong>0.44%</strong></td>
<td><strong>5</strong></td>
<td>~</td>
<td>~</td>
</tr>
<tr>
<td>Thyroid</td>
<td>0.26%</td>
<td>3</td>
<td>~</td>
<td>~</td>
</tr>
<tr>
<td>Other Endocrine including Thymus</td>
<td>0.18%</td>
<td>2</td>
<td>~</td>
<td>~</td>
</tr>
<tr>
<td>Lymphoma</td>
<td>2.11%</td>
<td>24</td>
<td>18</td>
<td>6</td>
</tr>
<tr>
<td>Plasma Cell/Hematopoetic</td>
<td>6.70%</td>
<td>76</td>
<td>48</td>
<td>28</td>
</tr>
<tr>
<td>Other Ill Defined/Unknown</td>
<td>10.48%</td>
<td>119</td>
<td>69</td>
<td>50</td>
</tr>
</tbody>
</table>

Source: DC Cancer Registry

~: Small number of deaths not shown.
Definitions and Technical Notes

Morbidity - Relative incidence of disease.

Rate - Number of cases divided by the population.

Incidence - Number of new cases of disease that occur in a specific time period within a specific population.

Incidence Rate - Number of new cases of disease that occur in a specific time period within a specific population, divided by the size of the population. Usually expressed per 100,000 population.

Mortality - Number of deaths that occur in a specific time period within a specific population.

Mortality Rate - Number of deaths that occur in a specific time period within a specific population, divided by the size of the population. Usually expressed per 100,000 population.

Percentage of change - Change in a rate or count between two calendar years (ignoring years in between)

\[
\text{Percentage of change} = \left(\frac{\text{end rate} - \text{initial rate}}{\text{initial rate}}\right) \times 100
\]

Cancer incidence rate - Number of new cancers of a specific site/type occurring in a specified population during a year, usually expressed as the number of cancers per 100,000 population at risk.

\[
\text{Incidence rate} = \frac{\text{New cancers}}{\text{Population}} \times 100,000
\]

Cancer mortality rate - Number of deaths, with cancer as the underlying cause of death, occurring in a specified population during a year. Cancer mortality is usually expressed as the number of deaths due to cancer per 100,000 population.

\[
\text{Mortality Rate} = \frac{\text{Cancer Deaths}}{\text{Population}} \times 100,000
\]

Statistics by Race/Ethnicity - Measure of the cancer burden in racial/ethnic minorities and medically underserved populations.

Age-adjusted Rate - Age-adjustment is a technique used to eliminate the effect of the age distribution of the population on mortality rates. Since the frequency of case or death varies with age, a measure free of the influences of population composition is needed to make comparisons between areas or over time.

Age-specific rate - Rate of incidence or mortality of a specific age group, calculated per 100,000 people.

Crude Rate - Ratio of the number of people in which the event of interest happens in a specified time period to the size of the population who may experience this event during the same time period. There are no adjustments made when a crude rate is given.

\[
\text{Crude Rate} = \frac{\text{Count}}{\text{Population}} \times 100,000
\]

Stage - Stage of diagnosis summarizes how far a cancer has spread when it is first discovered.

Stage distribution - Stage provides a measure of disease progression, detailing the degree to which the cancer has advanced. Two methods commonly used to determine stage are American Joint Committee on Cancer (AJCC) and Surveillance Epidemiology and End Results (SEER) historic. The AJCC method is more commonly used in the clinical settings, while SEER has standardized and simplified staging to ensure consistent definitions over time.

SEER describes cancers in five stages:
- In situ cancer is early cancer that is present only in the layer of cells in which it began.
- Localized cancer is cancer that is limited to the organ in which it began, without evidence of spread.
- Regional cancer is cancer that has spread beyond the original (primary) site to nearby lymph nodes or organs and tissues.
- Distant cancer is cancer that has spread from the primary site to distant organs or distant lymph nodes.
- Unstaged cancer is cancer for which there is not enough information to indicate a stage.

Invasive Cancer - Cancer that has spread beyond the layer of tissue in which it developed and is growing into surrounding, healthy tissues -- generally, the stage is either "localized", "regional", or "distant".

Primary Tumor - An original tumor. A tumor that did not initially arise in another site.

Primary cancer site - The organ of origin within the body where a given cancer occurs in an individual.

Case counts - Case counts are counts of reportable cancers, not patients. A patient may have more than one reported tumor.
All Counts and Rates are for **DC residents only**.
Rates are per 100,000 persons and are age-adjusted to the 2000 U.S. standard.

Age-adjusted rates **exclude in situ** cancers.

Only Black and White races are presented, due to the small number of cases or deaths in other races, same criterion applies to Hispanic.

All races includes White, Black and other races.

Information not shown for small number of cases or deaths.

Statistic (rates) not calculated for small number of cases or deaths.

Census tracts and Wards not include unknown, incomplete, incorrect addresses and PO Boxes for cancer cases or cancer deaths.

Deaths - Cancer deaths are based on information from all death certificates in the 50 states and the District of Columbia and processed by the National Vital Statistics System (NVSS) at the National Center for Health Statistics (NCHS).

Source for Incidence: District of Columbia Cancer Registry.


**Wards** - Political subdivisions of the District of Columbia, created for the purpose of voting and representation. Ward boundaries were first established in 1801 and are updated every ten years, based on population changes reported by the U.S. Census Bureau.

**Age-Adjusted Rates**

DC Cancer Registry (DCCR) utilizes age-adjustment technique for incidence and mortality rates’ calculation. Age-adjusted rates allow DCCR to compare its rates with populations of different age distribution or compare its rates through time.

The population utilized by DCCR in this process is US 2000 Standard. Only rates adjusted to the same standard population can be compared.

DC population utilized by DCCR in this process is produced by DC Government Office of Planning and it is produced by sex, race and ethnicity; ethnicity could be any race.

DC does not have counties instead DC is divided in wards; ward’s population is produced by DC Government Office of Planning, but after Census 2010 is completed the US Census Bureau will produce DC ward’s population thru the office of American Community Survey.

DC Ward’s population is estimated every 10 years.

Age-adjusted rates based on small numbers of cases or deaths will exhibit a large amount of random variation. A very rough guideline is that there should be at least 25 total cases or deaths over all age groups. When fewer than 25 health events occurred over a time period, it may be considered combining years, or using indirect age-adjustment.

DC population is not big and when producing age-adjusted rates for cases or deaths by wards, sex, and race and by selected sites, generates very small sub populations, creating unstable rates, it may be considered combining years.

DC utilized 19 groups of age to produce age adjusted rates, to be able to compare with national data.

For confidentiality reasons it cannot be shown cases or deaths with small numbers.
DISTRICT OF COLUMBIA
DEPARTMENT OF HEALTH

District of Columbia Cancer Registry
Bureau of Cancer and Chronic Disease
Community Health Administration
Department of Health
899 North Capitol St. NE, 3rd Floor
Washington, DC 20002