Louisiana Cancer Facts & Figures,
Female Breast Cancer

Louisiana Tumor Registry

July, 2017
Female Breast Cancer

• Female breast cancer was the most common cancer and the 2nd leading cause of cancer death in Louisiana women from 2010 to 2014.¹

• Between 2010 and 2014, the average annual incidence rate of female breast cancer in Louisiana ranked 29th in the nation and the mortality rate was the 2nd highest in the U.S.¹

• About 3,320 new females breast cancers are expected to be diagnosed and about 620 females are expected to die of breast cancer in Louisiana in 2017.²

1. Data source: NCI state cancer profile.
Female Breast Cancer: Age-Specific Incidence Rates\(^\#\) by Race, 2010-2014

\(^\#\) Only invasive cases.
U.S. data source: 18 SEER registries.
Female Breast Cancer: Incidence# and Mortality Rates¹,², 2010-2014

Incidence Rate

<table>
<thead>
<tr>
<th></th>
<th>Louisiana</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>White Female</td>
<td>121.0</td>
<td>127.7</td>
</tr>
<tr>
<td>Black Female</td>
<td>131.6</td>
<td>125.1</td>
</tr>
</tbody>
</table>

Mortality Rate

<table>
<thead>
<tr>
<th></th>
<th>Louisiana</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>White Female</td>
<td>20.2</td>
<td>20.6</td>
</tr>
<tr>
<td>Black Female</td>
<td>34.8</td>
<td>29.2</td>
</tr>
</tbody>
</table>

# Invasive cases only.
¹ Age-adjusted to the 2000 U.S. standard population;
² Incidence data source: SEER 18 registries; Mortality data source: National Center for Health Statistics (NCHS).
↓↑ Rate of Louisiana is significantly different from that of the U.S.
Incidence Rates# of Female Breast Cancer in Louisiana, All Races, All Ages, 2010-2014

Notes:
State Cancer Registries may provide more current or more local data.
Data presented on the State Cancer Profiles Web Site may differ from statistics reported by the State Cancer Registries (for more information).
* Incidence rates (cases per 100,000 population per year) are age-adjusted to the 2000 US standard population (19 age groups: <1, 1-4, 5-9, ..., 80-84, 85+). Rates are for invasive cancer only (except for bladder which is invasive and in situ) or unless otherwise specified. Rates calculated using SEER*Stat. Population counts for denominators are based on Census populations as modified by NCI. The 1969-2015 US Population Data File is used for SEER and NPCR incidence rates.
Data for the United States does not include data from Puerto Rico.
Female Breast Cancer Incidence Rates#,1,2, by Region3: Louisiana, Whites, 2010-2014

<table>
<thead>
<tr>
<th>Region</th>
<th>Rate per 100,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Orleans</td>
<td>133.6*</td>
</tr>
<tr>
<td>Baton Rouge</td>
<td>122.2</td>
</tr>
<tr>
<td>Southeast</td>
<td>127.0*</td>
</tr>
<tr>
<td>Acadiana</td>
<td>126.6</td>
</tr>
<tr>
<td>Southwest</td>
<td>112.0*</td>
</tr>
<tr>
<td>Central</td>
<td>97.8*</td>
</tr>
<tr>
<td>Northwest</td>
<td>107.0*</td>
</tr>
<tr>
<td>Northeast</td>
<td>116.0</td>
</tr>
<tr>
<td>LA</td>
<td>121.0*</td>
</tr>
<tr>
<td>U.S.</td>
<td>128.0</td>
</tr>
</tbody>
</table>

# Only invasive cases.

1 Age-adjusted to the 2000 U.S. standard population.

2 Data source for the U.S. was the 18 SEER registries.

3 See Appendix A.

* Incidence rate of regions/Louisiana is significantly different from that of the U.S.
Female Breast Cancer Incidence Rates#,1,2, by Region3: Louisiana, Blacks, 2010-2014

<table>
<thead>
<tr>
<th>Region</th>
<th>Rate per 100,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Orleans</td>
<td>136.8</td>
</tr>
<tr>
<td>Baton Rouge</td>
<td>134.5</td>
</tr>
<tr>
<td>Southeast</td>
<td>130.0</td>
</tr>
<tr>
<td>Acadiana</td>
<td>131.3</td>
</tr>
<tr>
<td>Southwest</td>
<td>121.0</td>
</tr>
<tr>
<td>Central</td>
<td>129.7</td>
</tr>
<tr>
<td>Northwest</td>
<td>131.0</td>
</tr>
<tr>
<td>Northeast</td>
<td>119.0</td>
</tr>
<tr>
<td>LA</td>
<td>132.0*</td>
</tr>
<tr>
<td>U.S.</td>
<td>125.0</td>
</tr>
</tbody>
</table>

# Only invasive cases.
1 Age-adjusted to the 2000 U.S. standard population.
2 Data source for U.S. was the 18 SEER registries.
3 See Appendix A.
* Incidence rate of regions/Louisiana is significantly different from that of the U.S.
Female Breast Cancer: Trend of Incidence Rates#,1,2, 1988-2014

# Invasive cases only.
1 Age-adjusted to the 2000 U.S. standard population.
2 U.S. incidence data source: 18 SEER registries.

Rate per 100,000

Year of Diagnosis

LA Whites  LA Blacks
US Whites  US Blacks
Mortality Rates of Female Breast Cancer in Louisiana, All Races, All Ages, 2010-2014

Notes:
State Cancer Registries may provide more current or more local data.
Data presented on the State Cancer Profiles Web Site may differ from statistics reported by the State Cancer Registries (for more information).
Source: Death data provided by the National Vital Statistics System; public use data file. Death rates calculated by the National Cancer Institute using SEER*Stat. Death rates (deaths per 100,000 population per year) are age-adjusted to the 2000 US standard population (19 age groups: <1, 1-4, 5-9, ... , 80-84, 85+). The Healthy People 2020 goals are based on rates adjusted using different methods but the differences should be minimal.
Population counts for denominators are based on the Census 1969-2015 US Population Data File as modified by NCI.
* Data have been suppressed to ensure confidentiality and stability of rate estimates. Data is currently being suppressed if there are fewer than 16 counts for the time period.
** Data have been suppressed for states with a population below 50,000 per sex combination for American Indian/Alaska Native or Asian/Pacific Islander because of concerns regarding the relatively small size of these populations in some states.
Healthy People 2020 Objectives provided by the Centers for Disease Control and Prevention.
Data for the United States does not include data from Puerto Rico.

Age-Adjusted Annual Death Rate (Deaths per 100,000)

Quantile Interval

- 16.4 to 20.8
- > 20.8 to 24.2
- > 24.2 to 26.1
- > 26.1 to 29.6
- > 29.6 to 42.3

United States Rate (95% C.I.)
21.2 (21.1 - 21.3)

Louisiana Rate (95% C.I.)
24.2 (23.4 - 25.1)

Healthy People 2020 Goal C-3
20.7
Female Breast Cancer: Trends of Mortality Rates\textsuperscript{1,2}, 1988-2014

\textsuperscript{1} Age-adjusted to the 2000 U.S. standard population.
\textsuperscript{2} Data source: National Center of Health Statistics (NHCS) mortality rates.
Female Breast Cancer: Louisiana Trends of Incidence# and Mortality Rates, 1988-2014

Invasive cases only.
Annual average percent change (APC) were calculated using weighted least squares method.
* APC significantly different from zero.
Female Breast Cancer#: Louisiana
5-Year Relative Survival by Stage¹, Whites, 2007-2013

#Only invasive cases.
¹ The stage distribution is based on Summary Stage 2000.
Female Breast Cancer#: Louisiana
5-Year Relative Survival by Stage¹, Blacks, 2007-2013

Percent of Cases by Stage

- In Situ: 16%
- Localized: 45%
- Regional: 31%
- Distant: 7%
- Unstaged: 1%

#Only invasive cases.
¹ The stage distribution is based on Summary Stage 2000.
## Appendix A. Regions of the Louisiana Tumor Registry

<table>
<thead>
<tr>
<th>Regional Registry</th>
<th>Beginning Date of the Registry</th>
<th>Average Annual Population, 2010-2014</th>
<th>Parishes Covered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Region 1 – New Orleans</td>
<td>1974</td>
<td>21,864</td>
<td>Jefferson, Orleans, St. Bernard</td>
</tr>
<tr>
<td>Region 3 – Southeast Louisiana</td>
<td>1983</td>
<td>17,036</td>
<td>Lafourche, Plaquemines, St. Charles, St. James, St. John, St. Tammany, Terrebonne, Washington</td>
</tr>
<tr>
<td>Region 4 – Acadiana</td>
<td>1983</td>
<td>17,032</td>
<td>Acadia, Evangeline, Iberia, Lafayette, St. Landry, St. Martin, St. Mary, Vermilion</td>
</tr>
<tr>
<td>Region 5 – Southwest Louisiana</td>
<td>1983</td>
<td>7,698</td>
<td>Allen, Beauregard, Calcasieu, Cameron, Jefferson Davis</td>
</tr>
<tr>
<td>Region 6 – Central Louisiana</td>
<td>1988</td>
<td>8,283</td>
<td>Avoyelles, Catahoula, Concordia, Grant, La Salle, Rapides, Vernon, Winn</td>
</tr>
<tr>
<td>Region 7 – Northwest Louisiana</td>
<td>1988</td>
<td>14,817</td>
<td>Bienville, Bossier, Caddo, Claiborne, De Soto, Natchitoches, Red River, Sabine, Webster</td>
</tr>
<tr>
<td>Region 8 – Northeast Louisiana</td>
<td>1988</td>
<td>9,061</td>
<td>Caldwell, East Carroll, Franklin, Jackson, Lincoln, Madison, Morehouse, Ouachita, Richland, Tensas, Union, West Carroll</td>
</tr>
<tr>
<td>Entire State</td>
<td>1988</td>
<td>119,201</td>
<td></td>
</tr>
</tbody>
</table>

Source: U.S. Bureau of Census and National Cancer Institute, April 2017.
Data Sources

Surveillance, Epidemiology, and End Results (SEER) Program

For Incidence:
• Incidence - SEER 18 Regs Research Data + Hurricane Katrina Impacted Louisiana Cases, Nov 2016 Sub (2000-2014) <Katrina/Rita Population Adjustment>

For Mortality:
• mortality – All COD, Aggregated With State, Total U.S. (1969-2014) <Katrina/Rita Population Adjustment>>

For Survival:
• Incidence - SEER 18 Regs Research Data + Hurricane Katrina Impacted Louisiana Cases, Nov 2015 Sub (1973-2013 varying)
Data Sources

• **USCS:**

• **Cancer Facts & Figures:**
Data Sources

NCI State profiles

• Incidence Data Sources:
  – Incidence data are provided by the National Program of Cancer Registries External Web Site Policy Cancer Surveillance System (NPCR-CSS), Centers for Disease Control and Prevention and by the National Cancer Institute's Surveillance, Epidemiology, and End Results (SEER) Program External Web Site Policy.
  – Population counts for denominators are based on Census populations as modified by NCI.
  – Rates are calculated using SEER*Stat External Web Site Policy.

• Mortality Data Sources:
  – Mortality data are provided by the National Vital Statistics System External Web Site Policy at the National Center for Health Statistics of the Centers for Disease Control and Prevention.
  – Population counts for denominators are based on Census populations as modified by NCI.
  – Rates are calculated using SEER*Stat External Web Site Policy.
  – Trends are determined by using Joinpoint External Web Site Policy analysis of available historical data and reporting the last segment as the most recent trend.
Acknowledgements

• Hospital cancer registries (http://louisianatumorregistry.lsuhsc.edu/)
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  • Medical records offices
  • Pathology laboratories
  • Physician offices and clinics
  • Hospice programs and nursing homes
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