Cancer Incidence and Mortality Rates in Louisiana’s Industrial Corridor

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LTR Registry Liaison

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Overview

**Part I:** What is the Louisiana Tumor Registry?
- Background
- Data Collection Methods

**Part II:** Cancer Surveillance Data in the Industrial Corridor

**Part III:** LTR Data Resources
- Data Visualization
- Monograph
- Census Tract Report
- Cancer Handouts
What is the Louisiana Tumor Registry?
Louisiana Tumor Registry (LTR)

- A statewide population-based cancer registry.
- Compiles information to help guide policies for cancer prevention, early detection, diagnosis, treatment, prognosis, and survivorship.
- Users of LTR data include cancer prevention programs, physicians and other medical practitioners, healthcare facilities, the public health community, and researchers.
- Funded by:
  - NCI-SEER, 1 of 19 SEER registries in the country
  - CDC-NPCR
  - State of Louisiana
Mission and Vision

**Mission**: To collect and report complete, high-quality, and timely population-based cancer data in Louisiana to support cancer research, control, and prevention.

**Vision**: To reduce suffering and death from cancer using information collected by the LTR.
State’s Cancer Surveillance System

Statewide program: established by R.S. 40:1105.1
- Authorized by state law to collect data on all cases of cancer diagnosed among Louisiana residents
- All hospitals, pathology laboratories, radiation centers, physicians, nursing homes, hospices, other licensed health care facilities and providers, as well as coroners’ offices shall report all reportable cases to the LTR, a public health authority. *(LA Admin Code)*

**Purpose:**
- Cancer Surveillance
  - Gathering statistical data to aid in assessment of cancer incidence, mortality, survival and prevalence
  - Data:
    - Demographics
    - Tumor Characteristics
    - Treatment
    - Survival
How does LTR obtain data?

Cancer reporting is a very complex system.

Facilities with COC Accreditation
- In-house cancer registrars collect the data and send abstracts to the central registry

Non-COC Facilities
- Registrars from the LTR abstract data from these facilities

Non-hospital sources
- Pathology laboratories
- Physician offices
- Nursing homes
- Hospice facilities
What are the numbers?

26,000+ cases of cancer collected each year in Louisiana.

500+ data items are collected for each case.
Cancer Incidence in Louisiana

NEW CANCER CASES DIAGNOSED PER 100K PEOPLE
All Cancers, Both Sexes, All Races

475.9 per 100k
Cases Diagnosed per 100k people (Incidence Rate)

Cancer Incidence Rates for All Cancers Combined

Most Common Cancers in Louisiana

<table>
<thead>
<tr>
<th>Cancer Type</th>
<th>Rate</th>
<th># of Cancers Diagnosed/Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prostate</td>
<td>137.4</td>
<td>3,387</td>
</tr>
<tr>
<td>Breast (Female)</td>
<td>124.1</td>
<td>3,340</td>
</tr>
<tr>
<td>Lung and Bronchus</td>
<td>68.8</td>
<td>3,515</td>
</tr>
<tr>
<td>Colon and Rectum</td>
<td>46.5</td>
<td>2,347</td>
</tr>
<tr>
<td>Kidney and Renal Pelvis</td>
<td>21.7</td>
<td>1,097</td>
</tr>
<tr>
<td>Non-Hodgkin Lymphoma</td>
<td>19.9</td>
<td>984</td>
</tr>
<tr>
<td>Corpus and Uterus</td>
<td>19.7</td>
<td>549</td>
</tr>
<tr>
<td>Urinary Bladder</td>
<td>18.6</td>
<td>923</td>
</tr>
<tr>
<td>Melanoma of the skin</td>
<td>17.0</td>
<td>833</td>
</tr>
<tr>
<td>Pancreas</td>
<td>14.4</td>
<td>725</td>
</tr>
</tbody>
</table>

Annual Changes from 1988 to 2015 Cancer Incidence Rates

Notes:
Those data represent all cancer cases and deaths in Louisiana from 2011-15 combined, except in the annual trends chart. Annual U.S. incidence rates are only available after 2000. For data on specific types of cancer, see the 'Types of Cancer' tab.
Cancer Incidence Data in the Industrial Corridor
Louisiana’s Industrial Corridor

- East Baton Rouge
- West Baton Rouge
- Iberville
- Ascension
- St. John the Baptist
- St. James
- St. Charles
Cancer Incidence Rates in Louisiana, 2012-2016
All Cancers Combined, All Races, Both Sexes

- Louisiana: 472.3
- Industrial Corridor: 470.7
- Ascension: 463.3
- East Baton Rouge: 469.1
- Iberville: 526.0*
- St. Charles: 447.7
- St. James: 481.7
- St. John the Baptist: 457.8
- West Baton Rouge: 524.6*

*Significant

Sum of Rate for each Geographical Area. Color shows details about Significant. The marks are labeled by sum of Rate and Significant. The data is filtered on Rate Type, Cancer Type and Sex. The Rate Type filter keeps incidence Rate. The Cancer Type filter keeps All Sites. The Sex filter keeps Male and female.
Cancer Incidence Rates in Louisiana’s Industrial Corridor, 2012-2016
All Cancers Combined, All Races, Both Sexes

Map based on Longitude (generated) and Latitude (generated). Color shows sum of Rate. The marks are labeled by sum of Rate and Significant. Details are shown for Geographical Area. The data is filtered on Rate Type, Cancer Type and Sex. The Rate Type filter keeps Incidence Rate. The Cancer Type Filter keeps All Sites. The Sex filter keeps Male and female.
Prostate Cancer Incidence Rates in Louisiana, 2012-2016

All Races

<table>
<thead>
<tr>
<th>Location</th>
<th>Incidence Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Louisiana</td>
<td>131.7</td>
</tr>
<tr>
<td>Industrial Corridor</td>
<td>150.5*</td>
</tr>
<tr>
<td>Ascension</td>
<td>147.3*</td>
</tr>
<tr>
<td>East Baton Rouge</td>
<td>155.6*</td>
</tr>
<tr>
<td>Iberville</td>
<td>153.7</td>
</tr>
<tr>
<td>St. Charles</td>
<td>118.2</td>
</tr>
<tr>
<td>St. James</td>
<td>175.8*</td>
</tr>
<tr>
<td>St. John the Baptist</td>
<td>118.9</td>
</tr>
<tr>
<td>West Baton Rouge</td>
<td>171.1*</td>
</tr>
</tbody>
</table>

*Significant
Breast Cancer Incidence Rates in Louisiana, 2012-2016

All Races, Females

<table>
<thead>
<tr>
<th>Area</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Louisiana</td>
<td>124.2</td>
</tr>
<tr>
<td>Industrial Corridor</td>
<td>130.0*</td>
</tr>
<tr>
<td>Ascension</td>
<td>121.3</td>
</tr>
<tr>
<td>East Baton Rouge</td>
<td>132.0*</td>
</tr>
<tr>
<td>Iberville</td>
<td>133.9</td>
</tr>
<tr>
<td>St. Charles</td>
<td>130.3</td>
</tr>
<tr>
<td>St. James</td>
<td>131.0</td>
</tr>
<tr>
<td>St. John the Baptist</td>
<td>125.9</td>
</tr>
<tr>
<td>West Baton Rouge</td>
<td>127.0</td>
</tr>
</tbody>
</table>

*Significant

Sum of Rate for each Geographical Area. Color shows details about Significant. The marks are labeled by sum of Rate and Significant. The data is filtered on Rate Type, Cancer Type and Sex. The Rate Type filter keeps Incidence Rate. The Cancer Type filter keeps Breast. The Sex filter keeps Female.
Lung Cancer Incidence Rates in Louisiana, 2012-2016

All Races, Both Sexes

- Louisiana: 67.5
- Industrial Corridor: 56.7*
- Ascension: 63.2
- East Baton Rouge: 51.8*
- Iberville: 86.5*
- St. Charles: 54.8*
- St. James: 63.4
- St. John the Baptist: 54.8*
- West Baton Rouge: 80.6

*Significant
Lung Cancer Incidence Rates in Louisiana’s Industrial Corridor, 2012-2016
All Races, Both Sexes
Colorectal Cancer Incidence Rates in Louisiana, 2012-2016
All Races, Both Sexes

<table>
<thead>
<tr>
<th>Location</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Louisiana</td>
<td>45.8</td>
</tr>
<tr>
<td>Industrial Corridor</td>
<td>40.9</td>
</tr>
<tr>
<td>Ascension</td>
<td>38.5</td>
</tr>
<tr>
<td>East Baton Rouge</td>
<td>40.7</td>
</tr>
<tr>
<td>Iberville</td>
<td>49.6</td>
</tr>
<tr>
<td>St. Charles</td>
<td>37.5</td>
</tr>
<tr>
<td>St. James</td>
<td>46.4</td>
</tr>
<tr>
<td>St. John the Baptist</td>
<td>42.7</td>
</tr>
<tr>
<td>West Baton Rouge</td>
<td>42.6</td>
</tr>
</tbody>
</table>

Sum of Rate for each Geographical Area. Color shows details about Significant. The marks are labeled by sum of Rate and Significant. The data is filtered on Rate Type, Cancer Type and Sex. The Rate Type filter keeps incidence Rate. The Cancer Type filter keeps Colon and Rectum. The Sex filter keeps Male and female.
Colorectal Cancer Incidence Rates in Louisiana’s Industrial Corridor, 2012-2016
All Races, Both Sexes

Map based on Longitude (generated) and Latitude (generated). Color shows sum of Rate. The marks are labeled by sum of Rate and Significant. Details are shown for Geographical Area. The data is filtered on Rate Type, Cancer Type and Sex. The Rate Type filter keeps Incidence Rate. The Cancer Type Filter keeps Colon and Rectum. The Sex filter keeps Male and female.
Kidney Cancer Incidence Rates in Louisiana, 2012-2016
All Races, Both Sexes

- Louisiana: 21.7
- Industrial Corridor: 21.0
- Ascension: 22.1
- East Baton Rouge: 19.5*
- Iberville: 26.2
- St. Charles: 17.3
- St. James: 24.4
- St. John the Baptist: 29.3*
- West Baton Rouge: 24.3

*Significant

Sum of Rate for each Geographical Area. Color shows details about Significant. The marks are labeled by sum of Rate and Significant. The data is filtered on Rate Type, Cancer Type and Sex. The Rate Type filter keeps incidence Rate. The Cancer Type filter keeps Kidney and Renal Pelvis. The Sex Filter keeps Male and female.
Kidney Cancer Incidence Rates in Louisiana’s Industrial Corridor, 2012-2016
All Races, Both Sexes
<table>
<thead>
<tr>
<th>Primary Site</th>
<th>White Men</th>
<th>Black Men</th>
<th>White Women</th>
<th>Black Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Sites</td>
<td>480.1</td>
<td>537.3↑</td>
<td>550.4↑</td>
<td>523.7↑</td>
</tr>
<tr>
<td>Oral Cavity and Pharynx</td>
<td>18.1</td>
<td>21.9↑</td>
<td>21.6↑</td>
<td>13.9</td>
</tr>
<tr>
<td>Esophagus</td>
<td>7.6</td>
<td>8.2↑</td>
<td>7.0↑</td>
<td>6.4</td>
</tr>
<tr>
<td>Stomach</td>
<td>8.7</td>
<td>8.1↑</td>
<td>6.9↑</td>
<td>13.5</td>
</tr>
<tr>
<td>Colon excluding Rectum</td>
<td>29.5</td>
<td>34.1↑</td>
<td>30.8↑</td>
<td>38.7</td>
</tr>
<tr>
<td>Rectum and Rectosigmoid Junction</td>
<td>14.1</td>
<td>16.6↑</td>
<td>15.1↑</td>
<td>15.3</td>
</tr>
<tr>
<td>Liver and Intrahepatic Bile Duct</td>
<td>12.3</td>
<td>13.4↑</td>
<td>11.5↑</td>
<td>17.4</td>
</tr>
<tr>
<td>Pancreas</td>
<td>14.4</td>
<td>16.0↑</td>
<td>16.0↑</td>
<td>17.1</td>
</tr>
<tr>
<td>Larynx</td>
<td>5.1</td>
<td>7.4↑</td>
<td>6.5↑</td>
<td>8.0</td>
</tr>
<tr>
<td>Lung and Bronchus</td>
<td>62.1</td>
<td>79.7↑</td>
<td>67.6↑ *</td>
<td>78.8</td>
</tr>
<tr>
<td>Melanoma of the Skin</td>
<td>35.8</td>
<td>32.3↓</td>
<td>44.7 #</td>
<td>1.1</td>
</tr>
<tr>
<td>Breast</td>
<td>1.2</td>
<td>1.1↓</td>
<td>1.9</td>
<td>2.1</td>
</tr>
<tr>
<td>Cervix Uteri</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Corpus and Uterus, NOS</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Ovary</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Prostate</td>
<td>99.8</td>
<td>115.4↑</td>
<td>131.9 #</td>
<td>170.8</td>
</tr>
<tr>
<td>Testis</td>
<td>6.9</td>
<td>6.3↓</td>
<td>7.8</td>
<td>1.6</td>
</tr>
<tr>
<td>Urinary Bladder</td>
<td>36.9</td>
<td>37.4↓</td>
<td>38.9↑</td>
<td>20.4</td>
</tr>
<tr>
<td>Kidney and Renal Pelvis</td>
<td>22.5</td>
<td>29.8↑</td>
<td>29.0↑</td>
<td>25.4</td>
</tr>
<tr>
<td>Brain and Other Nervous System</td>
<td>9.2</td>
<td>8.4↑</td>
<td>9.7↑</td>
<td>4.7</td>
</tr>
<tr>
<td>Thyroid</td>
<td>7.9</td>
<td>8.2↑</td>
<td>10.8 #</td>
<td>3.9</td>
</tr>
<tr>
<td>Hodgkin Lymphoma</td>
<td>3.0</td>
<td>3.0↑</td>
<td>3.0↑</td>
<td>3.0</td>
</tr>
<tr>
<td>Non-Hodgkin Lymphoma</td>
<td>24.6</td>
<td>25.4↑</td>
<td>26.0↑</td>
<td>17.5</td>
</tr>
<tr>
<td>Myeloma</td>
<td>8.0</td>
<td>8.1↑</td>
<td>9.8</td>
<td>16.2</td>
</tr>
<tr>
<td>Leukemia</td>
<td>18.7</td>
<td>19.2↑</td>
<td>17.1</td>
<td>14.1</td>
</tr>
</tbody>
</table>

1Rates are per 100,000 and age-adjusted to the 2000 US Population (19 age groups — Census P2S-1130) standard.
2Ascension, East Baton Rouge, Iberville, St. Charles, St. James, St. John the Baptist, and West Baton Rouge Parishes comprise the Industrial Corridor.
3Except for urinary bladder (in situ and invasive), only invasive cases are included.
4Statistical not displayed due to fewer than 16 cases during the five-year period.
5The Industrial Corridor rate is significantly lower (P < 0.05) than the Louisiana rate.
6The Industrial Corridor rate is significantly higher (P < 0.05) than the Louisiana rate. ↑ or ↓ The Louisiana rate is significantly higher or lower (P < 0.05) than the U.S. rate. -- Not applicable
Census Tract Data
Figure 3. Comparison of Cancer Incidence Rates\(^1\) of Individual Census Tracts with Louisiana, Prostate, 2005-2015

**Risk Factors\(^2\)**
- Increased age
- African ancestry
- Smoking
- Diets high in dairy and calcium
- Excess body weight
- Taking vitamin E alone or folic acid
- Prostate changes
- Family history of prostate cancer in first-degree relative
- Certain inherited genetic conditions, including Lynch syndrome and BRCA1 and BRCA2 mutations

1\(^{Average annual age-adjusted (2000 US) incidence rates}\)
Figure 4. Comparison of Cancer Incidence Rates\textsuperscript{1} of Individual Census Tracts with Louisiana, Female Breast, 2005-2015

<table>
<thead>
<tr>
<th>Risk Factors\textsuperscript{2}</th>
<th>or lobular carcinoma in situ, high-dose radiation to chest at young age, or high breast density</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increased age</td>
<td>Recent use of oral contraceptives</td>
</tr>
<tr>
<td>Race/ethnicity</td>
<td>Postmenopausal hormone use</td>
</tr>
<tr>
<td>Weight gain after age of 18</td>
<td>Long-term use of combination hormone replacement therapy</td>
</tr>
<tr>
<td>Being overweight or obese</td>
<td>Being given diethylstilbestrol during pregnancy, or mother having been given diethylstilbestrol during pregnancy</td>
</tr>
<tr>
<td>Physical inactivity</td>
<td>Menopausal hormone therapy (combined estrogen and progestin)</td>
</tr>
<tr>
<td>Alcohol consumption</td>
<td></td>
</tr>
<tr>
<td>Long menstrual history</td>
<td></td>
</tr>
<tr>
<td>Never having children</td>
<td></td>
</tr>
<tr>
<td>Having first child after age</td>
<td></td>
</tr>
<tr>
<td>of 30</td>
<td></td>
</tr>
<tr>
<td>Breastfeeding for less than 1 year</td>
<td></td>
</tr>
<tr>
<td>Personal or family history of breast or ovarian cancer</td>
<td></td>
</tr>
<tr>
<td>Inherited mutations in BRCA1, BRCA2, or other susceptibility genes</td>
<td></td>
</tr>
<tr>
<td>Benign breast conditions (ex. atypical hyperplasia)</td>
<td></td>
</tr>
<tr>
<td>Personal history of ductal cancer</td>
<td></td>
</tr>
</tbody>
</table>

\textsuperscript{1}Average annual age-adjusted (2000 US) incidence rates


Louisiana Tumor Registry
Figure 2. Comparison of Cancer Incidence Rates\(^1\) of Individual Census Tracts with Louisiana, Lung & Bronchus, 2005-2015

**Risk Factors\(^2\)**
- Age
- Sex
- Cigarette smoking (increases with amount and years of smoking)
- Cigar and pipe smoking
- Exposure to secondhand smoke
- Taking beta carotene supplements
- Exposure to radon gas, asbestos, certain metals (chromium, cadmium, arsenic), silica, beryllium, nickel chromate, some organic chemicals, radiation, vinyl chloride, mustard gas, coal products, or diesel exhaust
- Air pollution
- Occupational exposures, including: rubber manufacturing, paving, roofing, painting, chimney sweeping
- History of tuberculosis
- Personal or family history of lung cancer
- Radiation therapy to the chest for other cancers
- HIV infection
- Multiple endocrine neoplasia type 1 (MEN1)

1. Average annual age-adjusted (2000 US) incidence rates

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The rate is statistically significantly lower than Louisiana.

The rate is not statistically significantly different from Louisiana.

The rate is statistically significantly higher than Louisiana.

The census tract does not meet the requirements (population count \(> 20,000\) and case count \(\geq 16\) for the 2005-2015 combined data) for publication of cancer incidence data, which is a restriction in state law that is in compliance with HIPAA rules and the standard of United States Cancer Statistics.
Figure 5. Comparison of Cancer Incidence Rates\(^1\) of Individual Census Tracts with Louisiana, Colon & Rectum, 2005-2015

<table>
<thead>
<tr>
<th>Risk Factors(^2)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>Personal history of chronic inflammatory bowel disease, ulcerative colitis, or Crohn’s disease</td>
</tr>
<tr>
<td>Sex</td>
<td>Inherited genetic conditions (ex. Lynch syndrome or familial adenomatous polyposis)</td>
</tr>
<tr>
<td>Race/ethnicity</td>
<td>Type II diabetes</td>
</tr>
<tr>
<td>Obesity</td>
<td>Long-term use of nonsteroidal anti-inflammatory drugs can reduce risk</td>
</tr>
<tr>
<td>Physical inactivity</td>
<td></td>
</tr>
<tr>
<td>Long-term inactivity</td>
<td></td>
</tr>
<tr>
<td>High consumption of red or processed meat</td>
<td></td>
</tr>
<tr>
<td>Low intake of calcium, fruits, vegetables, and whole-grain fiber</td>
<td></td>
</tr>
<tr>
<td>Moderate to heavy alcohol consumption</td>
<td></td>
</tr>
<tr>
<td>Personal or family history of colon or rectal cancer and/or polyps</td>
<td></td>
</tr>
</tbody>
</table>

1. Average annual age-adjusted (2000 US) incidence rates
Figure 6. Comparison of Cancer Incidence\(^1\) Rates of Individual Census Tracts with Louisiana, Kidney & Renal Pelvis, 2005-2015

Risk Factors\(^2\)
- Obesity
- Tobacco use
- High blood pressure
- Family history of kidney cancer
- Von-Hippel Lindau syndrome
- Chronic renal failure
- Occupational exposure to chemicals like trichloroethylene or cadmium
- Certain medicines: Phenacetin & Diuretics

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\(^1\)Average annual age-adjusted (2000 US) incidence rates
Cancer Mortality in Louisiana

CANCER DEATHS PER 100K PEOPLE
Cancer Mortality in Louisiana: 2011-2015
All Cancers, Both Sexes, All Races

187.8 per 100k
Deaths per 100k people (Mortality Rate)

9,362
Deaths per Year, on Average

Cancer Mortality Rates for All Cancers Combined

Most Common Cancers in Louisiana

<table>
<thead>
<tr>
<th>Cancer Type</th>
<th>Rate</th>
<th># of People Died/Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lung and Bronchus</td>
<td>53.6</td>
<td>2,701</td>
</tr>
<tr>
<td>Breast (Female)</td>
<td>23.7</td>
<td>651</td>
</tr>
<tr>
<td>Prostate</td>
<td>21.6</td>
<td>412</td>
</tr>
<tr>
<td>Colon and Rectum</td>
<td>17.5</td>
<td>874</td>
</tr>
<tr>
<td>Pancreas</td>
<td>13.1</td>
<td>653</td>
</tr>
<tr>
<td>Liver and Intrahepatic Bile Duct</td>
<td>8.4</td>
<td>443</td>
</tr>
<tr>
<td>Leukemia</td>
<td>6.8</td>
<td>324</td>
</tr>
<tr>
<td>Non-Hodgkin Lymphoma</td>
<td>6.4</td>
<td>310</td>
</tr>
<tr>
<td>Ovary</td>
<td>6.4</td>
<td>178</td>
</tr>
<tr>
<td>Kidney and Renal Pelvis</td>
<td>4.8</td>
<td>243</td>
</tr>
</tbody>
</table>

Annual Changes from 1988 to 2015 Cancer Mortality Rates

Notes:
These data represent all cancer cases and deaths in Louisiana from 2011-15 combined, except in the annual trends chart. Annual U.S. incidence rates are only available after 2000. For data on specific types of cancer, see the "Types of Cancer" tab.
Cancer Mortality Data in the Industrial Corridor
Cancer Mortality Rates in Louisiana’s Industrial Corridor, 2012-2016
All Cancers Combined, All Races, Both Sexes

Map based on Longitude (generated) and Latitude (generated). Color shows sum of Rate. The marks are labeled by sum of Rate and Significant. Details are shown for Geographical Area. The data is filtered on Sex, Rate Type and Cancer Type. The Sex filter keeps Male and female. The Rate Type filter keeps Mortality Rate. The Cancer Type filter keeps All Malignant Cancers.
Lung Cancer Mortality Rates in Louisiana, 2012-2016
All Races, Both Sexes

<table>
<thead>
<tr>
<th>Region</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Louisiana</td>
<td>51.5</td>
</tr>
<tr>
<td>Industrial Corridor</td>
<td>45.3*</td>
</tr>
<tr>
<td>Ascension</td>
<td>51.7</td>
</tr>
<tr>
<td>East Baton Rouge</td>
<td>41.7*</td>
</tr>
<tr>
<td>Iberville</td>
<td>68.4*</td>
</tr>
<tr>
<td>St. Charles</td>
<td>49.6</td>
</tr>
<tr>
<td>St. James</td>
<td>49.9</td>
</tr>
<tr>
<td>St. John the Baptist</td>
<td>39.6*</td>
</tr>
<tr>
<td>West Baton Rouge</td>
<td>48.6</td>
</tr>
</tbody>
</table>

Sum of Rate for each Geographical Area. Color shows details about Significant. The marks are labeled by sum of Rate and Significant. The data is filtered on Rate Type, Sex and Cancer Type. The Rate Type filter keeps Mortality Rate. The Sex filter keeps Male and female. The Cancer Type filter keeps Lung and Bronchus.
Lung Cancer Mortality Rates in Louisiana’s Industrial Corridor, 2012-2016
All Races, Both Sexes
Breast Cancer Mortality Rates in Louisiana, 2012-2016
All Races, Females

- Louisiana: 23.2
- Industrial Corridor: 24.4
- Ascension: 19.7
- East Baton Rouge: 24.8
- Iberville: 18.1
- St. Charles: 24.0
- St. James: 28.6
- St. John the Baptist: 36.4*
- West Baton Rouge: 24.9

Sum of Rate for each Geographical Area. Color shows details about Significant. The marks are labeled by sum of Rate and Significant. The data is filtered on Rate Type, Cancer Type and Sex. The Rate Type filter keeps Mortality Rate. The Cancer Type filter keeps Breast. The Sex filter keeps Female.
Breast Cancer Mortality Rates in Louisiana’s Industrial Corridor, 2012-2016
All Races, Females

Map based on Longitude (generated) and Latitude (generated). Color shows sum of Rate. The marks are labeled by sum of Rate and Significant. Details are shown for Geographical Area. The data is filtered on Rate Type, Cancer Type and Sex. The Rate Type filter keeps Mortality Rate. The Cancer Type Filter keeps Breast. The Sex filter keeps Female.
Prostate Cancer Mortality Rates in Louisiana, 2012-2016

All Races

- Louisiana: 21.0
- Industrial Corridor: 19.1
- Ascension: 16.8
- East Baton Rouge: 18.7
- Iberville: 20.7
- St. Charles: 15.5
- St. James: 15.5
- St. John the Baptist: 25.8
- West Baton Rouge: 0.0

Sum of Rate for each Geographical Area. Color shows details about Significant. The marks are labeled by sum of Rate and Significant. The data is filtered on Rate Type, Cancer Type and Sex. The Rate Type filter keeps Mortality Rate. The Cancer Type filter keeps Prostate. The Sex filter keeps Male.
Prostate Cancer Mortality Rates in Louisiana’s Industrial Corridor, 2012-2016
All Races

Map: Prostate Cancer Mortality Rates in Louisiana’s Industrial Corridor, 2012-2016. The map shows the mortality rates per 100,000 population in different regions of Louisiana. The rates are color-coded, with darker shades indicating higher rates. The map is based on longitudinal data and latitude data. The mortality rate is calculated using the rate type, cancer type, sex, and race. The rate type filter keeps mortality rate, the cancer type filter keeps prostate, the sex filter keeps male, and the race filter keeps white. The rate filter ranges from 15.5 to 35.8.
Colorectal Cancer Mortality Rates in Louisiana, 2012-2016
All Races, Both Sexes

<table>
<thead>
<tr>
<th>Area</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Louisiana</td>
<td>17.1</td>
</tr>
<tr>
<td>Industrial Corridor</td>
<td>15.0</td>
</tr>
<tr>
<td>Ascension</td>
<td>13.6</td>
</tr>
<tr>
<td>East Baton Rouge</td>
<td>16.0</td>
</tr>
<tr>
<td>Iberville</td>
<td>21.5</td>
</tr>
<tr>
<td>St. Charles</td>
<td>16.9</td>
</tr>
<tr>
<td>St. James</td>
<td>21.4</td>
</tr>
<tr>
<td>St. John the Baptist</td>
<td>15.0</td>
</tr>
<tr>
<td>West Baton Rouge</td>
<td>14.4</td>
</tr>
</tbody>
</table>
Colorectal Cancer Mortality Rates in Louisiana’s Industrial Corridor, 2012-2016
All Races, Both Sexes
Pancreatic Cancer Mortality Rates in Louisiana, 2012-2016
All Races, Both Sexes

- Louisiana: 12.9
- Industrial Corridor: 13.8
- Ascension: 12.8
- East Baton Rouge: 13.9
- Iberville: 16.6
- St. Charles: 13.3
- St. James: 15.1
- St. John the Baptist: 14.1
- West Baton Rouge: 13.6

Sum of Rate for each Geographical Area. Color shows details about Significant. The marks are labeled by sum of Rate and Significant. The data is filtered on Rate Type, Cancer Type and Sex. The Rate Type filter keeps Mortality Rate. The Cancer Type filter keeps Pancreas. The Sex filter keeps Male and female.
Exposure Data

Difficult to draw causation conclusions from cancer registry data!

We do not collect exposure information.
  ◦ Minimal tobacco-use information is collected.
Important to keep in mind the main cancer risk factors:

1. Tobacco use
2. Obesity/overweight
3. Pathogens
4. Unknown
5. Physical inactivity

Figure 4

Risky Business

Research has identified numerous factors that increase an individual’s risk for developing cancer. By modifying behavior, individuals can eliminate or reduce many of these risks and thereby reduce their risk of cancer. Developing and implementing additional public education and policy initiatives could help further reduce the burden of cancers related to preventable cancer risk factors.

American Association for Cancer Research (AACR) Cancer Progress Report 2017
Cancer Cluster Investigations, Steps 1 & 2

1. Initial Contact and Response
   - Collection information from the inquirer
   - Decision to close or continue to Step 2

2. Assessment
   - Determine whether the suspected cancer cluster is a statistically significant excess.
   - Decision to close or continue to Step 3

Source: Centers for Disease Control and Prevention; Investigating Suspected Cancer Clusters and Responding to Community Concerns: Guidelines from CDC and the Council of State and Territorial Epidemiologists
Cancer Cluster Investigations, Steps 3 & 4

3. Determine the feasibility of conducting an epidemiologic study
   - Assess the feasibility of performing an epidemiologic study to examine the association between the cancer cluster and a particular environmental contaminant. If further study is feasible, an outcome of this step should include a recommended study design.
   - Decision to close or continue to Step 4

4. Conducting an epidemiologic study to assess the association between cancers and environmental causes
   - The primary purpose of conducting an epidemiologic investigation of the suspected cancer cluster is to determine if the exposure to a specific risk factor or environmental contaminant might be associated with the suspected cancer cluster. Demonstrating a statistically significant association does not prove causation.
LTR Data Resources
Louisiana Cancer Data Visualization

- Interactive
- User-friendly
- Web-based

**Cancer Incidence in Louisiana: 2011-2015**

All Cancers, Both Sexes, All Races

- **475.9 per 100k**
  - Cases Diagnosed per 100k people (Incidence Rate)

- **24,166**
  - Cases Diagnosed per Year, on Average

**Most Common Cancers in Louisiana**

<table>
<thead>
<tr>
<th>Cancer Type</th>
<th>Rate</th>
<th># of Cancers Diagnosed/Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prostate</td>
<td>137.4</td>
<td>3,387</td>
</tr>
<tr>
<td>Breast (Female)</td>
<td>124.1</td>
<td>3,340</td>
</tr>
<tr>
<td>Lung and Bronchus</td>
<td>68.8</td>
<td>3,515</td>
</tr>
<tr>
<td>Colon and Rectum</td>
<td>46.5</td>
<td>2,347</td>
</tr>
<tr>
<td>Kidney and Renal Pelvis</td>
<td>21.7</td>
<td>1,097</td>
</tr>
<tr>
<td>Non-Hodgkin Lymphoma</td>
<td>19.9</td>
<td>984</td>
</tr>
<tr>
<td>Corpus and Uterus</td>
<td>19.7</td>
<td>549</td>
</tr>
<tr>
<td>Urinary Bladder</td>
<td>18.6</td>
<td>923</td>
</tr>
<tr>
<td>Melanoma of the skin</td>
<td>17.0</td>
<td>833</td>
</tr>
<tr>
<td>Pancreas</td>
<td>14.4</td>
<td>725</td>
</tr>
</tbody>
</table>

**Notes:**

These data represent all cancer cases and deaths in Louisiana from 2011-15 combined, except in the annual trends chart. Annual U.S. incidence rates are only available after 2000. For data on specific types of cancer, see the "Types of Cancer" tab.
1st reports of its kind in Louisiana

Provides incidence rates and counts at the census tract level for all races and sexes combined.

You can view the entire report on our website!
Cancer Handouts

- Colorectal
- Lung
- Breast
- Cervical
- Prostate

Louisiana Colorectal Cancer

<table>
<thead>
<tr>
<th>NEW CASE RATE</th>
<th>DEATH RATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black</td>
<td>White</td>
</tr>
<tr>
<td>55.0</td>
<td>42.8</td>
</tr>
<tr>
<td>22.0</td>
<td>15.4</td>
</tr>
</tbody>
</table>

In 2016, 3 out of 5 people 50 years and older had a stool test or colonoscopy in U.S. 1

Colorectal cancer is 90% survivable when found early. 2

40% of new cases were found at early stages. (localized) 2

4% Unstaged

34% Regional

40% Localized

22% Distant

64% is the 5-year relative survival for Louisiana residents

3rd leading cause of cancer death among Louisiana residents

Louisiana ranked 4th highest death rate for colorectal cancer in the U.S. 2

Louisiana Lung Cancer

<table>
<thead>
<tr>
<th>NEW CASE RATE</th>
<th>DEATH RATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black</td>
<td>White</td>
</tr>
<tr>
<td>70.4</td>
<td>67.0</td>
</tr>
<tr>
<td>55.5</td>
<td>50.6</td>
</tr>
</tbody>
</table>

In 2017, almost 1 out of 4 people 18 years and older were current smokers in the U.S. 1

Smoking causes 60% to 90% of lung cancer deaths. 1

4% Unstaged

54% Distant

19% is the 5-year relative survival for Louisiana people of all races

1st leading cause of cancer death among Louisiana people

Louisiana ranked 10th in the death rate for lung cancer in the U.S. 2

Updated July 2020

1 American Cancer Society. 2015
2 American Cancer Society. 2018
3 American Cancer Society. 2019
**Louisiana Female Breast Cancer**

- **New Cases Found in Women:** 16,989
- **Breast Cancer Survivors:** 32,000

**New Cases Rate:**
- Black: 133.9
- White: 121.5

**Death Rate:**
- Black: 32.2
- White: 19.7

- **In 2016:**
  - Almost 3 out of 4 women 40 years and older had a mammogram in the U.S.¹
  -Breast cancer is almost 100% survivable when found early.¹
- **68%** of new cases were found at early stages (in situ and localized)
- **87%** is the 5-year relative survival for Louisiana women of all races
- **2nd** leading cause of cancer death among Louisiana women

**Louisiana Cervical Cancer**

- **New Cases Found in Women:** 1,053
- **Cervical Cancer Survivors:** 2,000

**New Cases Rate:**
- Black: 11.2
- White: 8.0

**Death Rate:**
- Black: 4.5
- White: 2.3

- **In 2015:**
  - Almost 7 out of 10 women 18 years and older had Pap smear test for early detection in U.S.²
- **38%** of new cases were found at early stages (localized)
- **66%** is the 5-year relative survival for Louisiana women of all races
- **13th** leading cause of cancer death among Louisiana women

**Notes:**
- ¹ American Cancer Society, 2019
- ² Centers for Disease Control and Prevention, 2017
- Survival calculation based on 18 years survival duration from 2000 to 2015

**Updated July 2020**
Acknowledgments

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- Meichin Hsieh, Assistant Director

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