Liver and Intrahepatic Bile Duct Cancer

• From 2010 to 2014, Louisiana had the 7th highest incidence rate for liver and intrahepatic bile duct cancer, and the 3rd highest mortality rate of any state in the nation (all races and sexes combined). ¹

• In Louisiana, liver cancer has the 6th highest death rate and 8th in the U.S. for 2010-2014. ¹

• About 660 new cases of liver cancer are expected to be diagnosed and about 520 people are expected to die of liver cancers in Louisiana in 2017. ²

¹Data source: State Cancer Profiles
²Data source: American Cancer Society, Cancer Facts & Figures 2017
Liver and Intrahepatic Bile Duct Cancer: Incidence Rates\(^#,1,2\), 2010-2014

- **White Males**
  - Louisiana: 11.8
  - U.S.: 11.9

- **Black Males**
  - Louisiana: 19.7
  - U.S.: 16.7
  - **18%**

- **White Females**
  - Louisiana: 3.4
  - U.S.: 4.1
  - **17%**

- **Black Females**
  - Louisiana: 4.4
  - U.S.: 5

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1. Age-adjusted to the 2000 U.S. standard population.
3. ♂Rate of Louisiana is significantly different from that of the U.S.
4. #Invasive cases only.
Incidence Rates of Liver and Intrahepatic Bile Duct Cancer in the U.S., All Races, Both Sexes, 2010-2014

Louisiana:
Rate: 8.7 per 100,000
Rank: 7th

# Only invasive cases.
Liver and Intrahepatic Bile Duct Cancer: Age-Specific Incidence Rates # in Louisiana by Race and Gender, 2010-2014

#Invasive cases only.
Liver and Intrahepatic Bile Duct Cancer: Age-Specific Incidence Rates $\text{#}$ by Gender, 2010-2014

$\text{#}$Invasive cases only.

U.S. data source: 18 SEER registries.
Liver and Intrahepatic Bile Duct Cancer: Age-Specific Incidence Rates # by Race, 2010-2014

#Invasive cases only.

U.S. data source: 18 SEER registries.
Incidence Rates # of Liver and Intrahepatic Bile Duct Cancer in the Louisiana, All Races, Both Sexualities, 2010-2014

# Only invasive cases.
Liver and Intrahepatic Bile Duct Cancer Incidence Rates\(^\#,1,2\) by Region\(^3\): 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>9.2*</td>
</tr>
<tr>
<td>Baton Rouge</td>
<td>6.9</td>
</tr>
<tr>
<td>Southeast</td>
<td>8.2</td>
</tr>
<tr>
<td>Acadiana</td>
<td>6.7</td>
</tr>
<tr>
<td>Southwest</td>
<td>7.1</td>
</tr>
<tr>
<td>Central</td>
<td>7.9</td>
</tr>
<tr>
<td>Northwest</td>
<td>7.1</td>
</tr>
<tr>
<td>Northeast</td>
<td>4.9*</td>
</tr>
<tr>
<td>LA</td>
<td>7.4</td>
</tr>
<tr>
<td>U.S.</td>
<td>7.8</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.

\(^3\) LTR Regions

\(^*\) Incidence rate of regions/Louisiana is significantly different from that of the U.S.
Liver and Intrahepatic Bile Duct 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>12.8*</td>
</tr>
<tr>
<td>Baton Rouge</td>
<td>11.8</td>
</tr>
<tr>
<td>Southeast</td>
<td>9.3</td>
</tr>
<tr>
<td>Acadiana</td>
<td>11.1</td>
</tr>
<tr>
<td>Southwest</td>
<td>12.8</td>
</tr>
<tr>
<td>Central</td>
<td>10.2</td>
</tr>
<tr>
<td>Northwest</td>
<td>10.7</td>
</tr>
<tr>
<td>Northeast</td>
<td>8.2</td>
</tr>
<tr>
<td>LA</td>
<td>11.2</td>
</tr>
<tr>
<td>U.S.</td>
<td>10.1</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 LTR Regions
* Incidence rate of regions/Louisiana is significantly different from that of the U.S.
Liver and Intrahepatic Bile Duct Cancer: Trends of Incidence Rates #,1,2, Whites, 1988-2014

#Invasive cases only.
1 Age-adjusted to the 2000 U.S. standard population.
2 US data source: 18 SEER registries.
Liver and Intrahepatic Bile Duct Cancer: Trend of Incidence Rates#,1,2,Blacks 1988-2014

Invasive cases only.

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

2 US data source: 18 SEER registries.
Liver and Intrahepatic Bile Duct Cancer: Mortality Rates\textsuperscript{1,2}, 2010-2014

<table>
<thead>
<tr>
<th>Group</th>
<th>Louisiana</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>White Males</td>
<td>10.5</td>
<td>8.5</td>
</tr>
<tr>
<td>Black Males</td>
<td>16.5</td>
<td>13</td>
</tr>
<tr>
<td>White Females</td>
<td>4.1</td>
<td>3.5</td>
</tr>
<tr>
<td>Black Females</td>
<td>5.9</td>
<td>4.5</td>
</tr>
</tbody>
</table>

\textsuperscript{1} Age-adjusted to the 2000 U.S. standard population.
\textsuperscript{2} Data source: National Center of Health Statistics (NCHS).
\uparrow\downarrow Rate of Louisiana is significantly different from that of the U.S.
Mortality Rates of Liver and Intrahepatic Bile Duct Cancer in the U.S., All Races, Both Sexes, 2010-2014

Louisiana:
Rate: 8.1 per 100,000
Rank: 3rd
Mortality Rates of Liver and Intrahepatic Bile Duct Cancer in the Louisiana, All Races, Both Sexes, 2010-2014
Liver and Intrahepatic Bile Duct Cancer: Trends of Mortality Rates\textsuperscript{1,2}, Whites, 1988-2014

\textsuperscript{1} Age-adjusted to the 2000 U.S. standard population.

\textsuperscript{2} Data source: National Center of Health Statistics (NCHS).
Liver and Intrahepatic Bile Duct Cancer: Trends of Mortality Rates\textsuperscript{1,2}, Blacks, 1988-2014

\textsuperscript{1} Age-adjusted to the 2000 U.S. standard population.
\textsuperscript{2} Data source: National Center of Health Statistics (NCHS).
Liver and Intrahepatic Bile Duct: Trends of Incidence# and Mortality Rates, by Race, Louisiana, 1988-2014

Invasive cases only.

*Annual average percent change (APC) were calculated using weighted least squares method.
Liver and Intrahepatic Bile Duct: Trends of Incidence and Mortality Rates, by Gender, Louisiana, 1988-2014

*Invasive cases only.

*Annual average percent change (APC) were calculated using weighted least squares method.
Liver and Intrahepatic Bile Duct Cancer#: Louisiana 5-Year Relative Survival by Stage¹, Both Sexes, All Races, 2007-2013

Percent of cases by stage

- Localized: 47%
- Regional: 19%
- Distant: 7%
- Unstaged: 1%

5-year Relative Survival Rate (%)

- Localized: 23.1%
- Regional: 7.5%
- Distant: 1.1%
- Unstaged: 5.6%

#Only invasive cases.
¹ The stage distribution is based on Summary Stage 2000.
Liver and Intrahepatic Bile Duct Cancer#: Louisiana
5-Year Relative Survival by Stage¹, White Males, 2007-2013

5-year Relative Survival Rate (%)

- Localized: 24.3%
- Regional: 10.1%
- Distant: 3.3%
- Unstaged: 0%

Percent of cases by stage:
- Localized: 48%
- Regional: 27%
- Distant: 18%
- Unstaged: 7%

#Only invasive cases.
¹ The stage distribution is based on Summary Stage 2000.
Liver and Intrahepatic Bile Duct Cancer#: Louisiana 5-Year Relative Survival by Stage¹, White Females, 2007-2013

Only invasive cases.

¹ The stage distribution is based on Summary Stage 2000.

* The Unstaged 5-year relative survival could not be calculated.
Liver and Intrahepatic Bile Duct Cancer#: Louisiana 5-Year Relative Survival by Stage¹, Black Males, 2007-2013

Percent of cases by stage

- Localized: 44%
- Regional: 29%
- Distant: 20%
- Unstaged: 7%

Only invasive cases.

¹ The stage distribution is based on Summary Stage 2000.

* The Regional 5-year relative survival could not be calculated.
Liver and Intrahepatic Bile Duct Cancer#: Louisiana
5-Year Relative Survival by Stage¹, Black Females,
Louisiana, 2007-2013

The stage distribution is based on Derived Summary Stage 2000.
* The Unstaged 5-year relative survival could not be calculated due to lack of cases.
* The Regional 5-year relative survival could not be calculated.

¹ The stage distribution is based on Derived 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>A voyelles, 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


For Incidence:

For Mortality:

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.
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- Physician offices and clinics
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