Kidney and Renal Pelvis Cancer

- From 2010 to 2014, Louisiana had the highest incidence rate for kidney and renal pelvis cancer, and the 2nd highest mortality rate of any state in the nation (all races and sexes combined).\(^1\)

- About 1,090 new kidney and renal pelvis cancers are expected to be diagnosed and about 260 people are expected to die of kidney and renal pelvis cancers in Louisiana in 2017.\(^2\)

---

\(^1\)Data source: [United States Cancer Statistics](https://www.cdc.gov/cancer/caqc_stats.htm)

Kidney and Renal Pelvis Cancer: Incidence Rates\(^\#,1,2\), 2010-2014

<table>
<thead>
<tr>
<th></th>
<th>White Males</th>
<th>Black Males</th>
<th>White Females</th>
<th>Black Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>Louisiana</td>
<td>29.2</td>
<td>27.5</td>
<td>16.3</td>
<td>15.4</td>
</tr>
<tr>
<td>U.S.</td>
<td>25.0</td>
<td>25.0</td>
<td>25.0</td>
<td>25.0</td>
</tr>
</tbody>
</table>

\# Only invasive cases.
\(^1\) Age-adjusted to the 2000 U.S. standard population.
\(^2\) Incidence data source: 18 SEER registries.
\(\uparrow\uparrow\) Rate of Louisiana is significantly different from that of the U.S.
Incidence Rates of Kidney and Renal Pelvis Cancer in the U.S., All Races, Both Sexes, 2010-2014

Louisiana:
Rate: 21.6 per 100,000
Rank: 1st

# Only invasive cases.
Kidney and Renal Pelvis Cancer: Age-Specific Incidence Rates # in Louisiana by Race and Gender, 2010-2014

Rate Per 100,000

Age at Diagnosis

White Male
Black Male
White Female
Black Female

#Invasive cases only.
Kidney and Renal Pelvis Cancer: Age-Specific Incidence Rates by Gender, 2010-2014

# Only invasive cases.
U.S. data source: 18 SEER registries.
Kidney and Renal Pelvis Cancer: Age-Specific Incidence Rates # by Race, 2010-2014

# Only invasive cases.
U.S. data source: 18 SEER registries.
Incidence Rates # of Kidney and Renal Pelvis Cancer in the Louisiana, All Races, Both Sexes, 2010-2014

Age-Adjusted Annual Incidence Rate (Cases per 100,000)

Quantile Interval

- 13.5 to 19.3
- > 19.3 to 21.6
- > 21.6 to 23.8
- > 23.8 to 25.6
- > 25.6 to 31.1

Suppress * / **

US (SEER + NPCR) Rate (95% C.I.)
16.1 (16.0 - 16.2)

Louisiana Rate (95% C.I.)
21.6 (21.0 - 22.2)

# Only invasive cases.
Kidney and Renal Pelvis Cancer Incidence\textsuperscript{#,1,2} by Region\textsuperscript{3}: Louisiana, Whites, 2010-2014

\textsuperscript{#} Only invasive cases.
\textsuperscript{1} Age-adjusted to the 2000 U.S. standard population.
\textsuperscript{2} Data source for U.S. was the 18 SEER registries.
\textsuperscript{3} LTR Regions
\textsuperscript{*} Incidence rate of regions/Louisiana is significantly different from that of the U.S.
Kidney and Renal Pelvis Cancer Incidence\#,1,2 by Region\textsuperscript{3}: Louisiana, Blacks, 2010-2014

\begin{table}
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline
Region & Rate Per 100,000 \\
\hline
New Orleans & 19.8 & & & & & \\
Baton Rouge & 21.9\textsuperscript{*} & & & & & \\
Southeast & 23\textsuperscript{*} & & & & & \\
Acadiana & 24.3\textsuperscript{*} & & & & & \\
Southwest & 22.5 & & & & & \\
Central & 19.3 & & & & & \\
Northwest & 18.6 & & & & & \\
Northeast & 16.2 & & & & & \\
LA & 20.7 & & & & & \\
U.S. & 18 & & & & & \\
\hline
\end{tabular}
\end{table}

\# Only invasive cases.
\textsuperscript{1} Age-adjusted to the 2000 U.S. standard population.
\textsuperscript{2} Data source for U.S. was the 18 SEER registries.
\textsuperscript{3} LTR Regions

\textsuperscript{*} Incidence rate of regions/Louisiana is significantly different from that of the U.S.
Kidney and Renal Pelvis Cancer: Trends of Incidence Rates\(^\#,1,2\), Whites, 1988-2014

\(^\#\) Only invasive cases.
\(^1\) Age-adjusted to the 2000 U.S. standard population.
\(^2\) U.S. data source: 18 SEER registries.

# Only invasive cases.
\(^1\) Age-adjusted to the 2000 U.S. standard population.
\(^2\) U.S. data source: 18 SEER registries.
Kidney and Renal Pelvis Cancer: Trends of Incidence Rates\(^1,2\), Blacks, 1988-2014

\(^1\) Age-adjusted to the 2000 U.S. standard population.
\(^2\) U.S. data source: 18 SEER registries.
Kidney and Renal Pelvis Cancer Mortality Rates
Louisiana vs. US\(^2\), 2010-2014

1 Age-adjusted to the 2000 U.S. standard population.
2 Data source: National Center of Health Statistics (NCHS).
↓↑Rate of Louisiana is significantly different from that of the U.S.
Mortality Rates of Kidney and Renal Pelvis Cancer in the U.S., All Races, Both Sexes, 2010-2014

Louisiana:
Rate: 5.0 per 100,000
Rank: 2nd
Mortality Rates of Kidney and Renal Pelvis Cancer in the Louisiana, All Races, Both Sexes, 2010-2014

* Suppressed due to fewer than 16 cases.
Kidney and Renal Pelvis 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).

\begin{figure}
\centering
\includegraphics[width=\textwidth]{chart.png}
\caption{Graph showing trends in kidney and renal pelvis cancer mortality rates by gender and location for Whites from 1988 to 2014.}
\end{figure}
Kidney and Renal Pelvis 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).
Kidney and Renal Pelvis Cancer: Trends of Incidence# and Mortality Rates, by Race, Louisiana, 1988-2014

*Annual average percent change (APC) were calculated using weighted least squares method

#Invasive cases only.
Kidney and Renal Pelvis Cancer: Trends of Incidence# and Mortality Rates, by Gender, Louisiana, 1988-2014

- Male Incidence (APC: 2.8*)
- Female Incidence (APC: 2.9*)
- Male Mortality (APC: -1.5*)
- Female Mortality (APC: -1.6*)

# Invasive cases only.

*Annual average percent change (APC) were calculated using weighted least squares method.
Kidney and Renal Pelvis Cancer #: Louisiana
5-Year Relative Survival by Stage\(^1\), Both Sexes, All Races, 2007-2013

#Only invasive cases.

\(^1\) The stage distribution is based on Summary Stage 2000.
Kidney and Renal Pelvis Cancer#: Louisiana
5-Year Relative Survival by Stage\(^1\), White Males, 2007-2013

<table>
<thead>
<tr>
<th>Stage</th>
<th>Survival Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Localized</td>
<td>90.7</td>
</tr>
<tr>
<td>Regional</td>
<td>69.8</td>
</tr>
<tr>
<td>Distant</td>
<td>13.1</td>
</tr>
<tr>
<td>Unstaged</td>
<td>29.5</td>
</tr>
</tbody>
</table>

### Percent of cases by stage

- Localized: 64%
- Regional: 18%
- Distant: 17%
- Unstaged: 1%

#Only invasive cases.

\(^1\) The stage distribution is based on Summary Stage 2000.
Kidney and Renal Pelvis Cancer#: Louisiana
5-Year Relative Survival by Stage¹, White Females, 2007-2013

Percent of cases by stage

- Localized: 70%
- Regional: 14%
- Distant: 14%
- Unstaged: 2%

#Only invasive cases.
¹ The stage distribution is based on Summary Stage 2000.
Kidney and Renal Pelvis Cancer#: Louisiana
5-Year Relative Survival by Stage¹, Black Males, 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 due to lack of cases.
Kidney and Renal Pelvis Cancer#: Louisiana
5-Year Relative Survival by Stage¹, Black Females, Louisiana, 2007-2013

<table>
<thead>
<tr>
<th>Stage</th>
<th>5-Year Relative Survival (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Localized</td>
<td>89.0</td>
</tr>
<tr>
<td>Regional</td>
<td>56.9</td>
</tr>
<tr>
<td>Distant</td>
<td>0.0</td>
</tr>
</tbody>
</table>

Percent of cases by stage
- Localized: 75%
- Regional: 12%
- Distant: 13%

#Only invasive cases.
¹ 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.
## 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


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/)
• Louisiana Cancer Registrars’ Association (http://www.lcra-usa.org/)
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  • Medical records offices
  • Pathology laboratories
  • Physician offices and clinics
  • Hospice programs and nursing homes
• Regional and central offices of the Louisiana Tumor Registry (http://louisianatumorregistry.lsuhsc.edu/regionalregistries.html)
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• Louisiana Cancer and Lung Trust Fund Board
• Coroners’ offices
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