Louisiana Cancer Facts & Figures, Myeloma

Louisiana Tumor Registry

September, 2017
Myeloma*

- From 2010 to 2014, Louisiana had the 7th highest incidence rate and the 5th highest death rate of myeloma of any state in the nation (all races and sexes combined).\(^1\)

- About 470 new myeloma cases are expected to be diagnosed and about 190 persons are expected to die of this cancer in Louisiana in 2017.\(^2\)

\(^*\text{ICD}_O\_3/\text{WHO 2008}: 9731-9732, 9734.\)

\(^1\) Data source: USCS.

Myeloma: Incidence Rates#,1, Louisiana vs. U.S.,2 2010-2014

<table>
<thead>
<tr>
<th></th>
<th>Louisiana</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>White Male</td>
<td>7.3</td>
<td>7.8</td>
</tr>
<tr>
<td>Black Male</td>
<td>15.6</td>
<td>15.9</td>
</tr>
<tr>
<td>White Female</td>
<td>4.3</td>
<td>4.6</td>
</tr>
<tr>
<td>Black Female</td>
<td>10.3</td>
<td>11.4</td>
</tr>
</tbody>
</table>

#Only invasive cases.
1 Age-adjusted to the 2000 U.S. standard population.
2 Incidence data source: 18 SEER registries.
Myeloma: Age-Specific Incidence Rates# by Race and Sex, Louisiana, 2010-2014

#Only invasive cases.
Myeloma: Age-Specific Incidence Rates# by Gender, 2010-2014

#Only invasive cases.
U.S. data source: 18 SEER registries.

Rate Per 100,000

Age at Diagnosis

45-49 55-59 65-69 75-79 85+

LA Male
U.S. Male
LA Female
U.S. Female

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Myeloma: Age-Specific Incidence Rates# by Race, 2010-2014

#Only invasive cases.
U.S. data source: 18 SEER registries.
Myeloma Incidence\textsuperscript{#,1,2} by Region\textsuperscript{3}: Louisiana, Whites, 2010-2014

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{myeloma_incidence.png}
\end{figure}

\begin{itemize}
\item Only invasive cases.
\item Age-adjusted to the 2000 U.S. standard population.
\item Data source for the U.S. was the 18 SEER registries.
\item See Appendix A for Regions in the Louisiana Tumor Registry.
\item Incidence rate of regions/Louisiana is significantly different from that of the U.S.
\end{itemize}
Myeloma Incidence\textsuperscript{#,1,2} by Region\textsuperscript{3}: Louisiana, Black, 2010-2014

\textsuperscript{#}Only invasive cases.
\textsuperscript{1}Age-adjusted to the 2000 U.S. standard population.
\textsuperscript{2}Data source for the U.S. was the 18 SEER registries.
\textsuperscript{3}See Appendix A for Regions in the Louisiana Tumor Registry.

* Incidence rate of regions/Louisiana is significantly different from that of the U.S.
Myeloma: 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.

![Graph showing trends of incidence rates for myeloma by gender and location from 1988 to 2014.](image)

- LA Male
- U.S. Male
- LA Female
- U.S. Female

Year of Diagnosis

Rate Per 100,000


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Myeloma:
Trends of Incidence Rates#,1,2, Blacks, 2000-2014

#Only invasive cases.
1 Age-adjusted to the 2000 U.S. standard population.
2 U.S. data source: 18 SEER registries.
Myeloma: Mortality Rates\(^1\), Louisiana vs. U.S.\(^2\), 2010-2014

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<thead>
<tr>
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<tbody>
<tr>
<td>White Male</td>
<td>3.8</td>
<td>4.0</td>
</tr>
<tr>
<td>White Female</td>
<td>2.4</td>
<td>2.4</td>
</tr>
<tr>
<td>Black Male</td>
<td>8.7</td>
<td>7.5</td>
</tr>
<tr>
<td>Black Female</td>
<td>5.0</td>
<td>5.5</td>
</tr>
</tbody>
</table>

\(^1\) Age-adjusted to the 2000 U.S. standard population.
\(^2\) Data source: National Center of Health Statistics (NCHS).
Myeloma: Trends of Mortality Rates\textsuperscript{1,2}, Whites, 1988-2014

\textsuperscript{1} Adjusted to the 2000 U.S. standard population.

\textsuperscript{2} Data source: National Center of Health Statistics (NCHS).

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Myeloma: Trends of Mortality Rates$^{1,2}$, Blacks, 1988-2014

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

$^2$ Data source: National Center of Health Statistics (NCHS).

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Myeloma: Trends of Incidence# and Mortality Rates, by Race, Louisiana, 1988-2014

#Only invasive cases.

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

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

Percent of Cases by Stage

- Localized: 5%
- Distant: 95%

61.9% (Localized) 44.8% (Distant)

#Only invasive cases.

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

- **Localized**: 57.7%
- **Distant**: 44.9%

Percent of Cases by Stage:
- Localized: 6%
- Distant: 94%

\(^*\)Only invasive cases.

\(^1\) The stage distribution is based on Summary Stage 2000.
Myeloma#: Louisiana
5-Year Relative Survival by Stage¹, White females, 2007-2013

5-Year Relative Survival Rate (%)

Percent of Cases by Stage

- Localized: 5%
- Distant: 95%

# Only invasive cases.
¹ The stage distribution is based on Summary Stage 2000.
Myeloma#: Louisiana
5-Year Relative Survival by Stage¹, Black Males, 2007-2013

Myeloma#: Louisiana
5-Year Relative Survival by Stage¹, Black Males, 2007-2013

5-Year Relative Survival Rate (%)

- Localized: 64.4%
- Distant: 42.0%

Percent of Cases by Stage

- Localized: 6%
- Distant: 94%

#Only invasive cases.
¹ The stage distribution is based on Summary Stage 2000.
Myeloma#: Louisiana
5-Year Relative Survival by Stage\(^1\), Black Females, 2007-2013

- **72.2%** Localized
- **43.6%** Distant

Percent of Cases by Stage

- Localized: 95%
- Distant: 5%

\(^1\) The stage distribution is based on Summary Stage 2000.

# Only invasive 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

Surveillance, Epidemiology, and End Results (SEER) Program
(www.seer.cancer.gov) SEER*Stat Databases, National Cancer Institute,
DCCPS, Surveillance Research Program, Surveillance Systems Branch,
released April 2017, based on the November 2016 submission.

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

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  • Medical records offices
  • Pathology laboratories
  • Physician offices and clinics
  • Hospice programs and nursing homes
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  (http://louisianatumorregistry.lsuhsc.edu/regionalregistries.html)
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Editors
Lu Zhang, PhD, MPH
Lauren Maniscalco, MPH
Meichin Hsieh, PhD, MSPH, CTR
Xiaocheng Wu, MD, MPH, CTR

Contributors
Xiangrong Li, MD, MSPH
Brent Mumphrey, BS
Tina Lefante, MPH
Lisa Pareti, BS, RHIT, CTR
Yong Yi, PhD, MS
Questions?

Contact:
LTR-info@lsuhsc.edu
or
504-568-5757