

# Louisiana Cancer Facts & Figures, Non-Hodgkin Lymphoma

Louisiana Tumor Registry

July, 2017

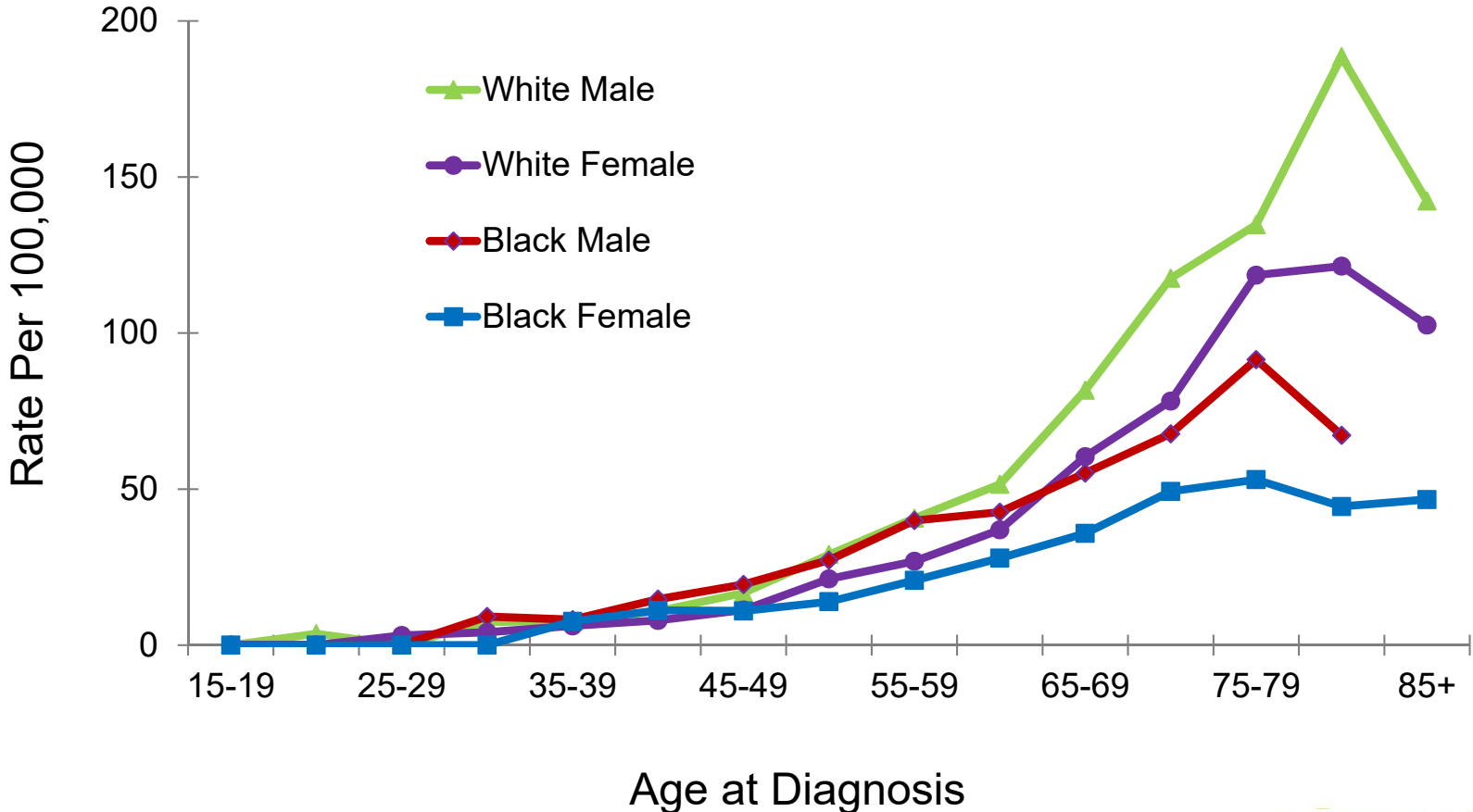
# Non-Hodgkin Lymphoma

- Non-Hodgkin lymphoma was the 6th most common cancer and the 8<sup>th</sup> leading cause of cancer deaths in Louisiana from 2010 to 2014.<sup>1</sup>
- Between 2010 and 2014, the Louisiana incidence rate for lung cancer ranked 18<sup>th</sup> and the mortality rate ranked 5<sup>th</sup> in the nation.<sup>1</sup>
- About 990 new lung cancers are expected to be diagnosed and about 330 patients are expected to die of lung cancer in 2017 in Louisiana.<sup>2</sup>

1. Data source: [NCI state cancer profile](#).

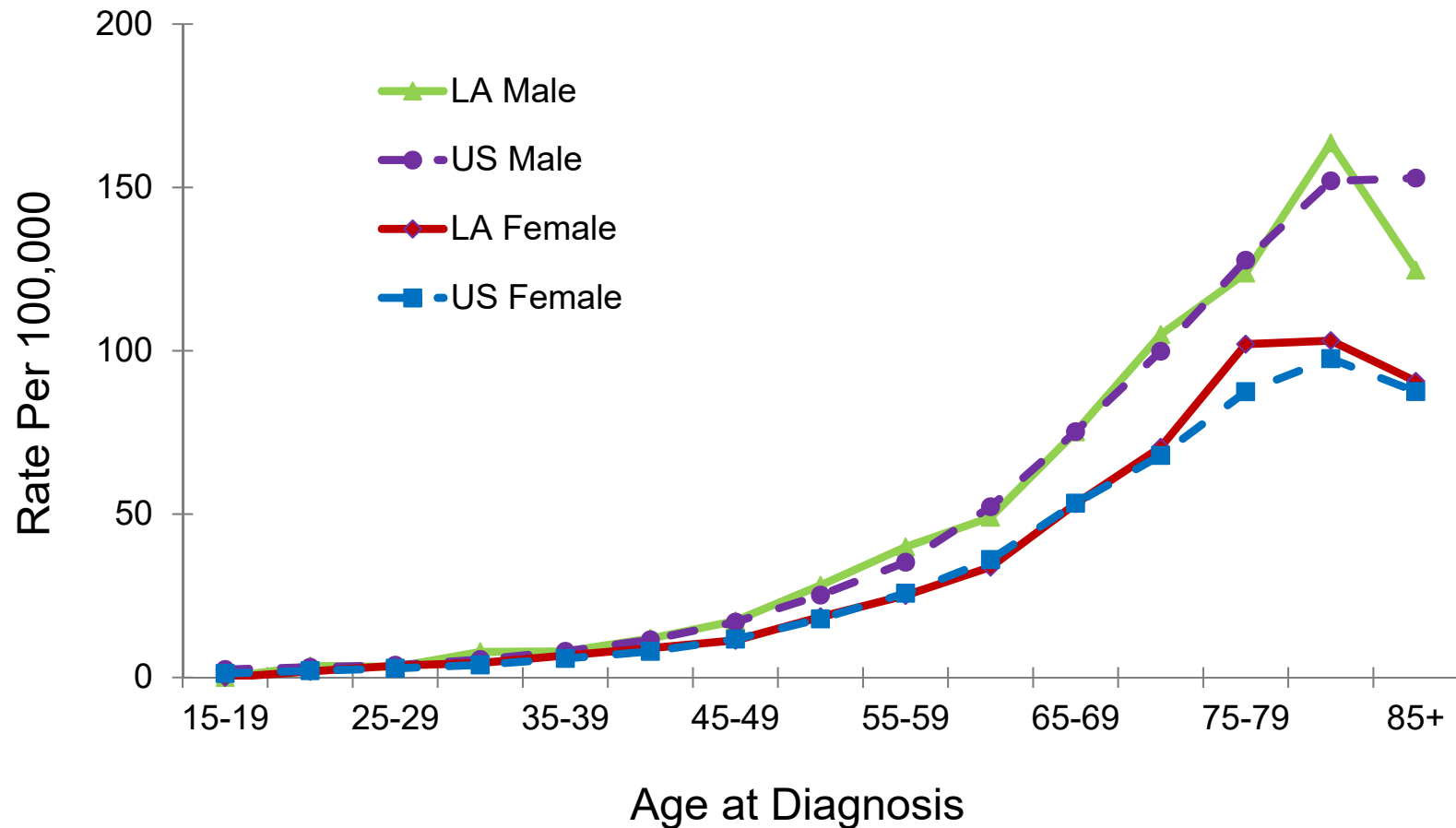
2. Data source: [American Cancer Society, Cancer Facts & Figures 2017](#).

# Non-Hodgkin Lymphoma: Age-Specific Incidence Rates<sup>#</sup>, Louisiana, 2010-2014



<sup>#</sup>Invasive cases only.

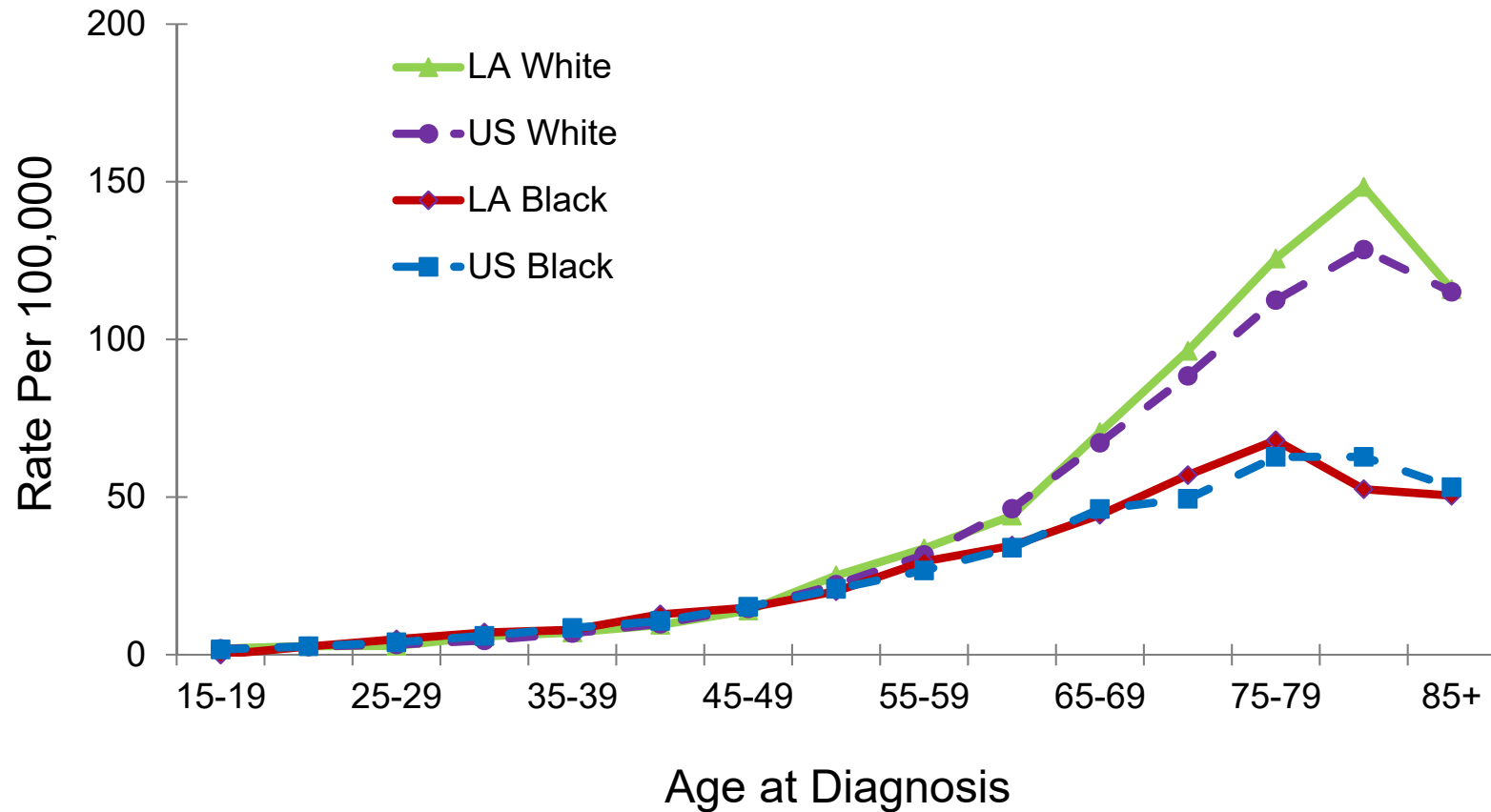
# Non-Hodgkin Lymphoma: Age-Specific Incidence Rates # by Gender, 2010-2014



#Invasive cases only.

U.S. data source: 18 SEER registries.

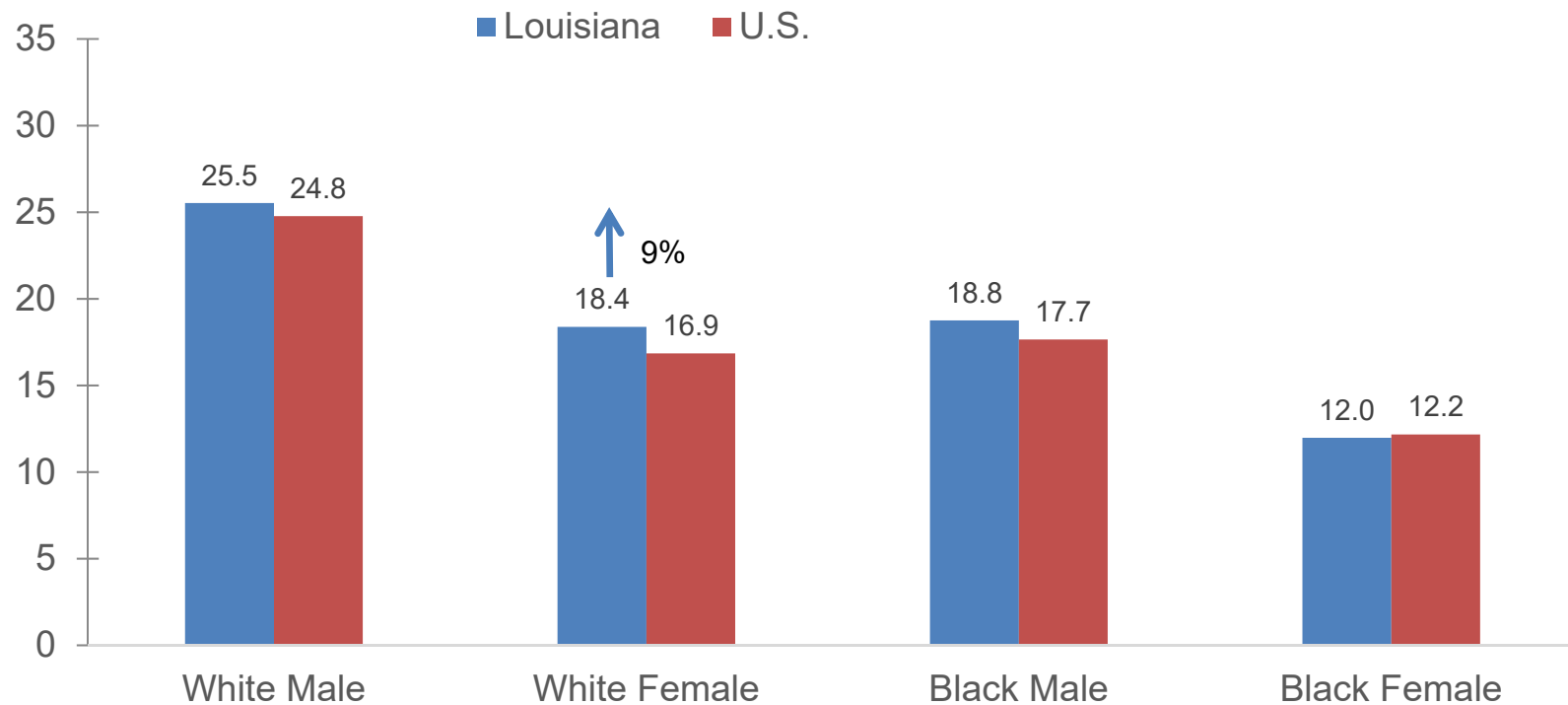
# Non-Hodgkin Lymphoma: Age-Specific Incidence Rates # by Race, 2010-2014



#Invasive cases only.

U.S. data source: 18 SEER registries.

# Non-Hodgkin Lymphoma: Incidence Rates<sup>#,1,2</sup> 2010-2014



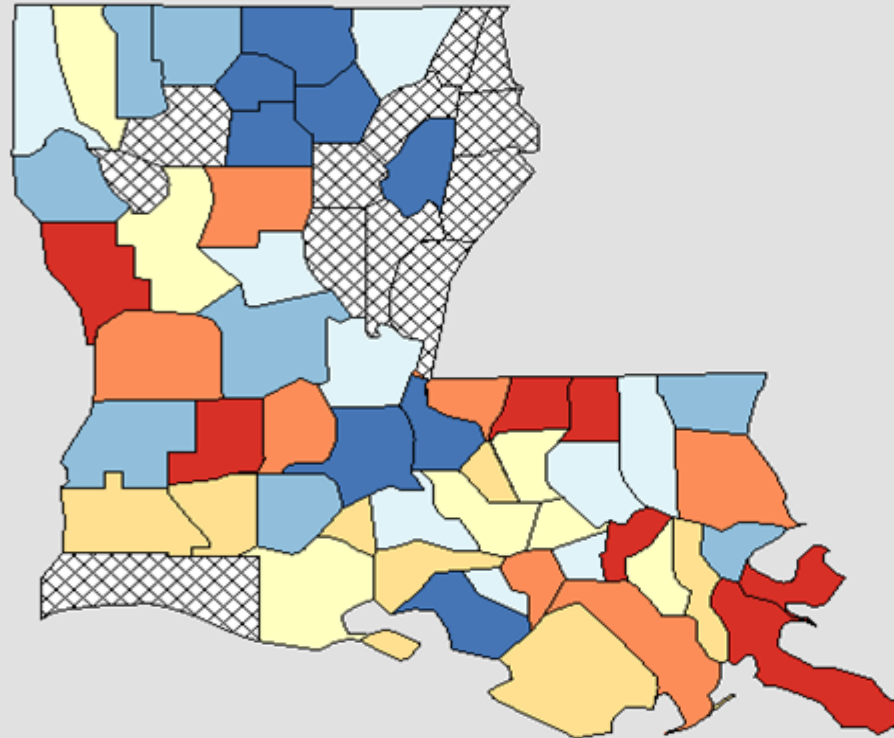
# Invasive cases only.

<sup>1</sup> Age-adjusted to the 2000 U.S. standard population.

<sup>2</sup> U.S. Incidence data source: 18 SEER registries.

↓↑ Rate of Louisiana is significantly different from that of the U.S.

# Incidence Rates # of Non-Hodgkin Lymphoma in the U.S., All Races, Both Sexes, 2010-2014



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

[Quantile Interval](#)

- 11.8 to 15.9
- > 15.9 to 18.2
- > 18.2 to 19.7
- > 19.7 to 20.7
- > 20.7 to 22.1
- > 22.1 to 24.9
- > 24.9 to 27.3

▨ Suppressed \* / \*\*

US (SEER + NPCR)  
Rate (95% C.I.)  
19.0 (18.9 - 19.0)

Louisiana  
Rate (95% C.I.)  
20.0 (19.4 - 20.5)

# Only invasive cases.

## 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](#)).

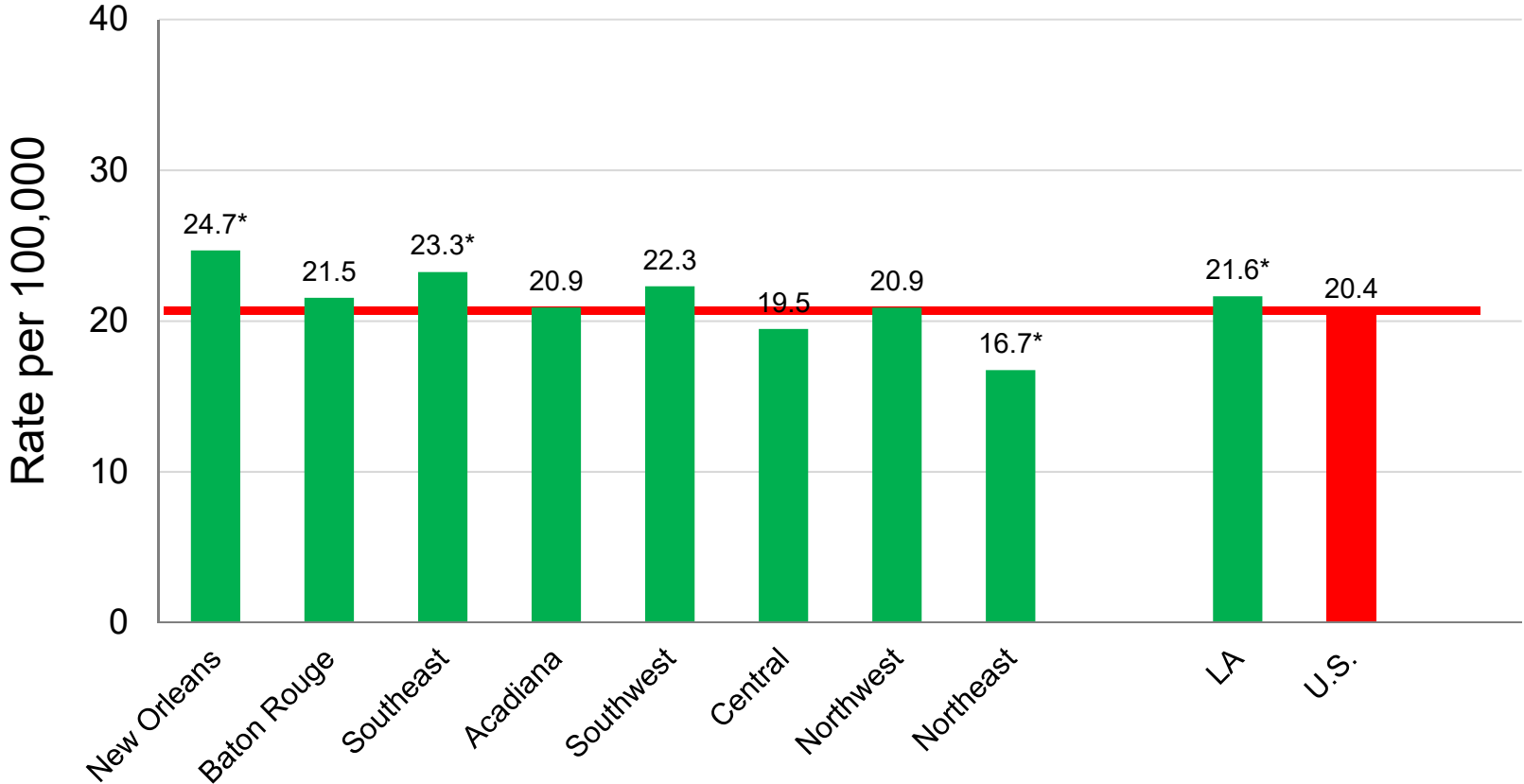
\* Incidence rates (cases per 100,000 population per year) are age-adjusted to the [2000 US standard population](#) (19 age groups: <1, 1-4, 5-9, ... , 80-84, 85+). Rates are for invasive cancer only (except for bladder which is invasive and in situ) or unless otherwise specified. Rates calculated using 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 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 Islanders because of concerns regarding the relatively small size of these populations in some states.

Data for the United States does not include data from Puerto Rico

# Non-Hodgkin Lymphoma Incidence<sup>#,1,2</sup> by Louisiana Region<sup>3</sup>: Whites, 2010-2014



# Invasive cases only.

<sup>1</sup> Age-adjusted to the 2000 U.S. standard population.

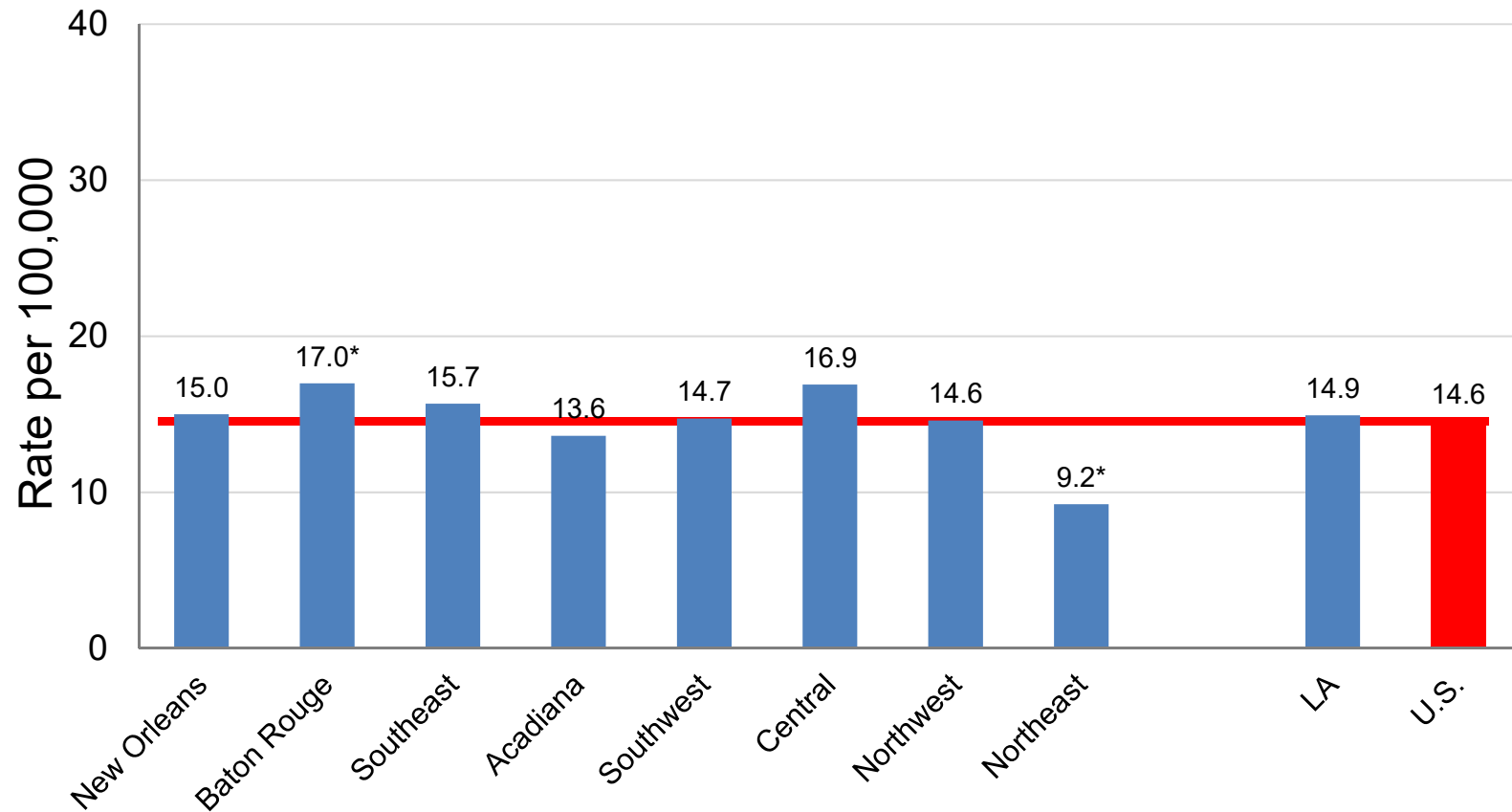
<sup>2</sup> Data source for U.S. was the 18 SEER registries.

<sup>3</sup> See Appendix A.

\* Incidence rate of regions/Louisiana is significantly different from that of U.S.



# Non-Hodgkin Lymphoma Incidence<sup>#,1,2</sup>, by Louisiana Region<sup>3</sup>: Blacks, 2010-2014



# Invasive cases only.

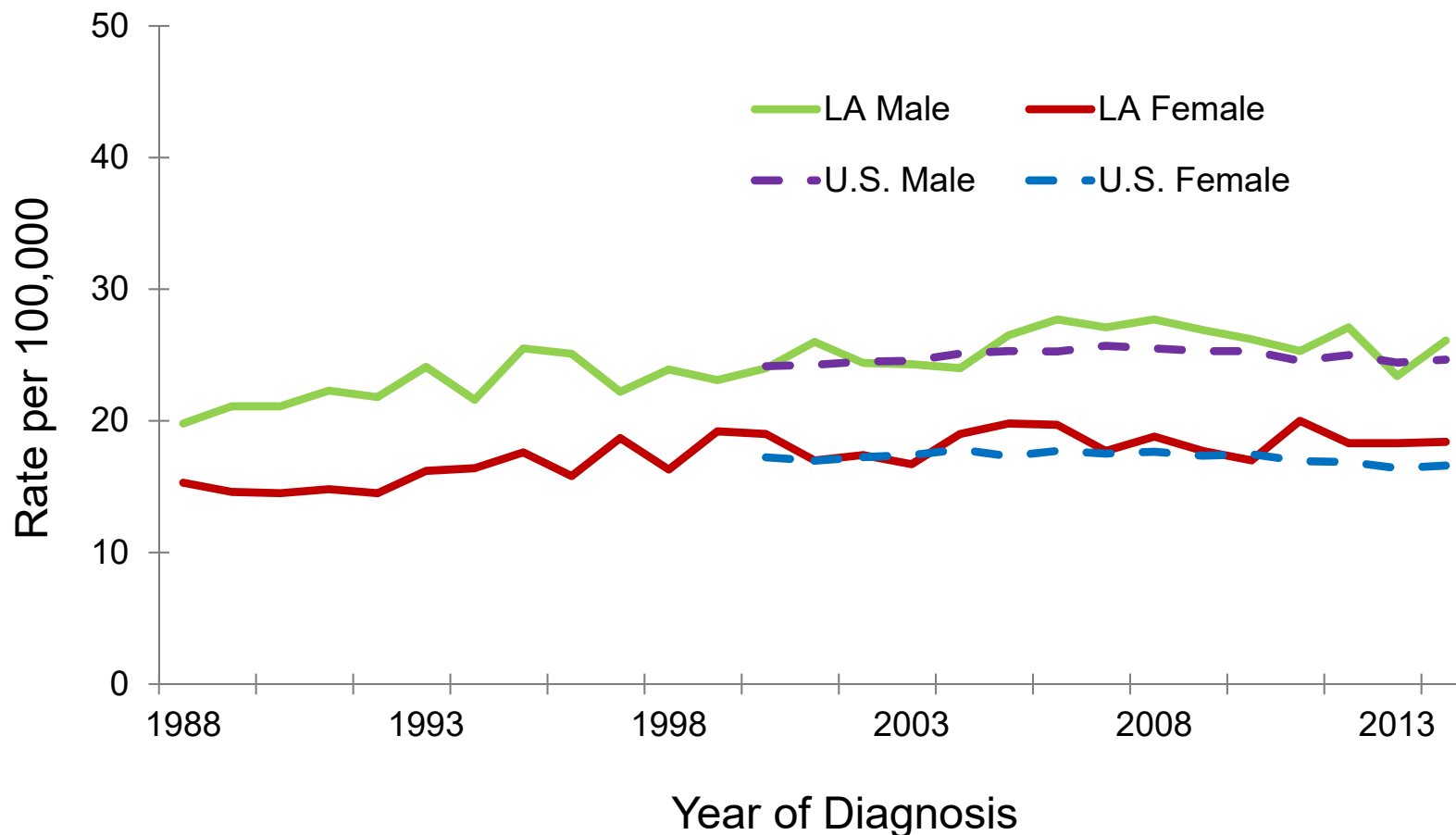
<sup>1</sup> Age-adjusted to the 2000 U.S. standard population.

<sup>2</sup> Data source for U.S. was the 18 SEER registries.

<sup>3</sup> See Appendix A.

\* Incidence rate of regions/Louisiana is significantly different from that of U.S.

# Non-Hodgkin Lymphoma: Trend of Incidence Rates<sup>#,1,2</sup>, Whites 1988-2014

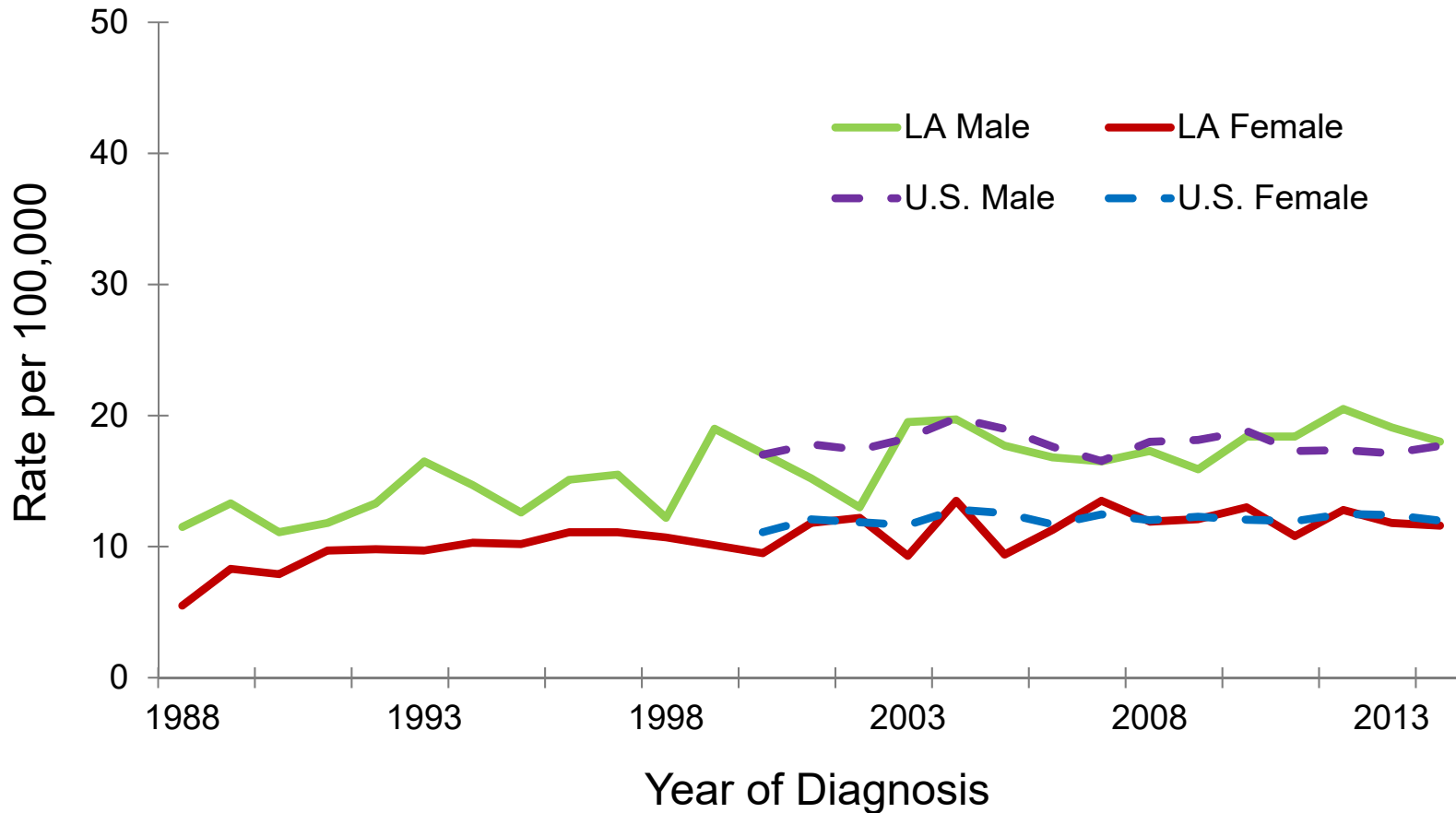


# Invasive cases only.

<sup>1</sup> Age-adjusted to the 2000 U.S. standard population.

<sup>2</sup> U.S. data source: 18 SEER registries.

# Non-Hodgkin Lymphoma: Trend of Incidence Rates<sup>#,1,2</sup>, Blacks 1988-2014

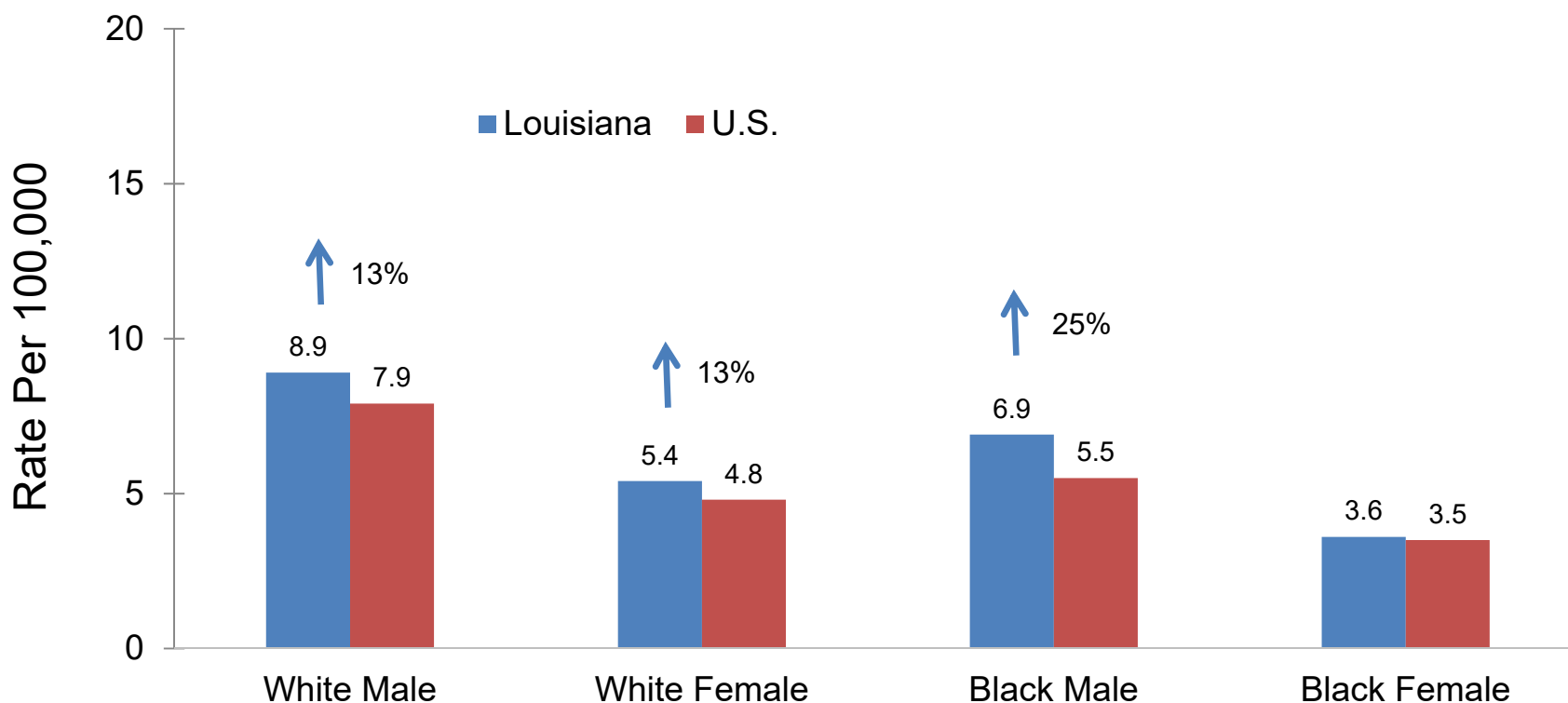


# Invasive cases only.

<sup>1</sup> Age-adjusted to the 2000 U.S. standard population.

<sup>2</sup> U.S. data source: 18 SEER registries.

# Non-Hodgkin Lymphoma: Mortality Rates<sup>1</sup>, Louisiana vs. U.S.<sup>2</sup>, 2010-2014

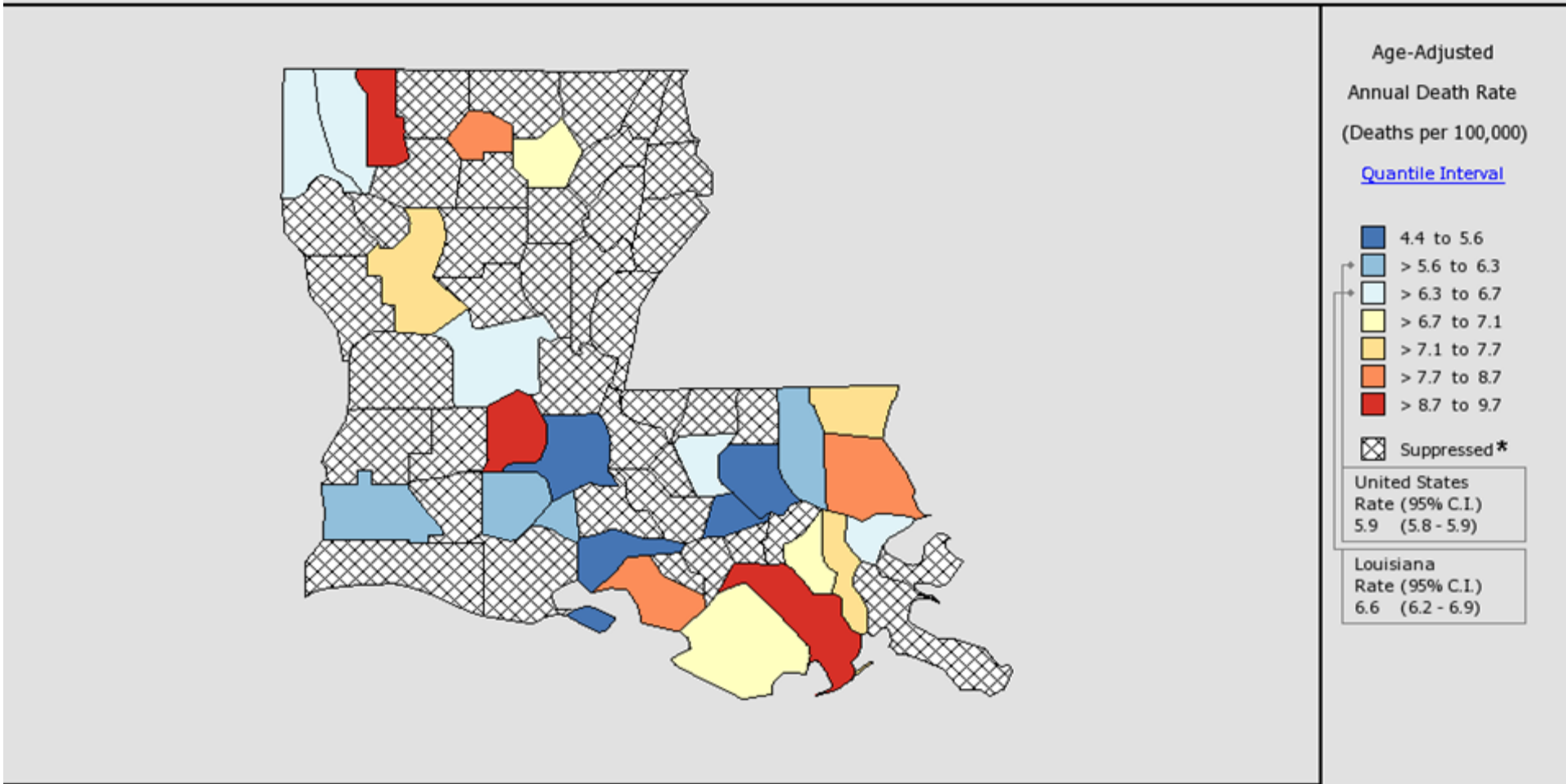


<sup>1</sup> Age-adjusted to the 2000 U.S. standard population.

<sup>2</sup> Mortality data source was National Center of Health Statistics (NCHS).

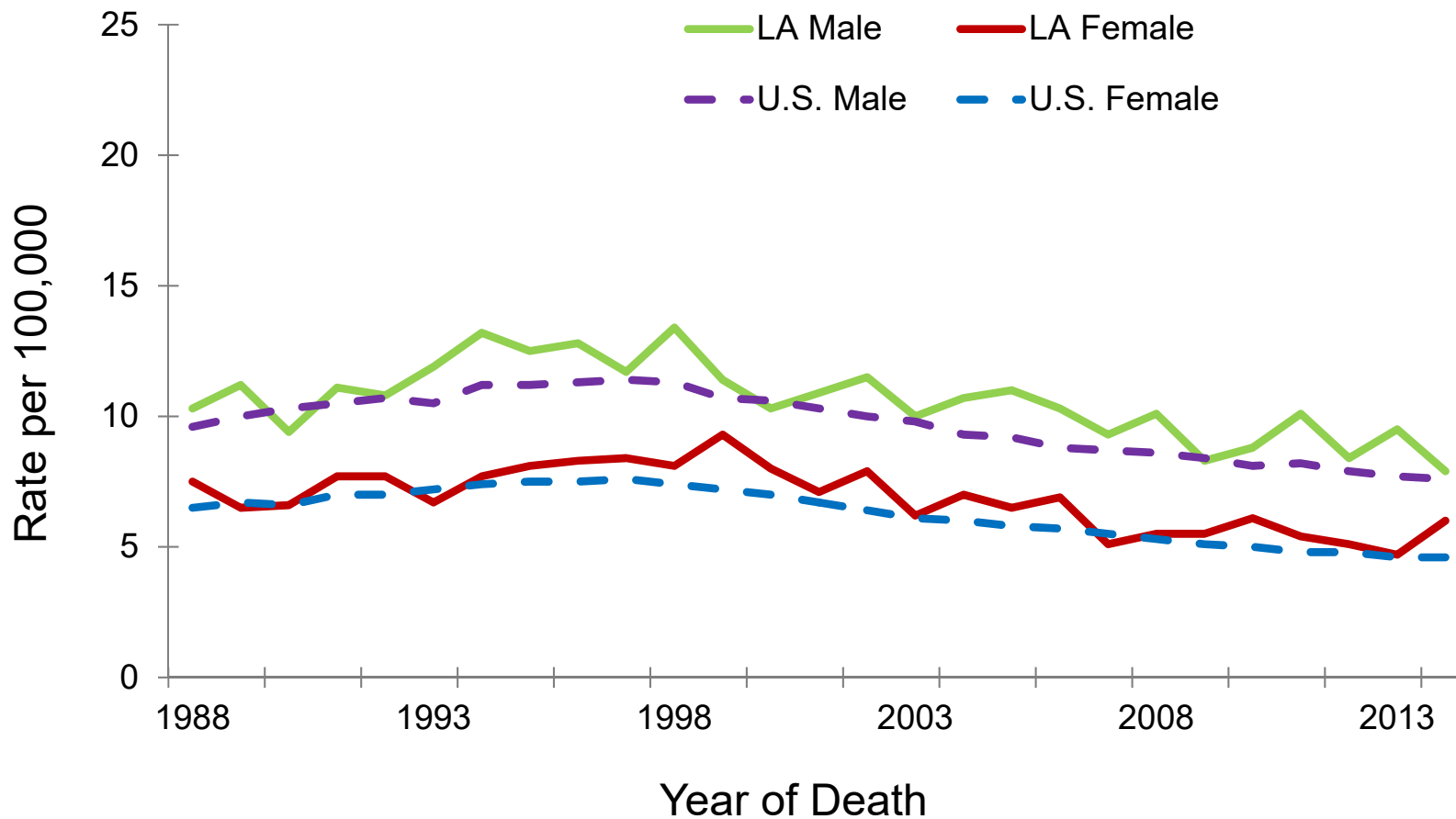
↓↑Rate of Louisiana is significantly different from that of the U.S.

# Mortality Rates of Non-Hodgkin Lymphoma in the U.S., All Races, Both Sexes, 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 1990-2015 Population Data](#) File as modified by NCI.

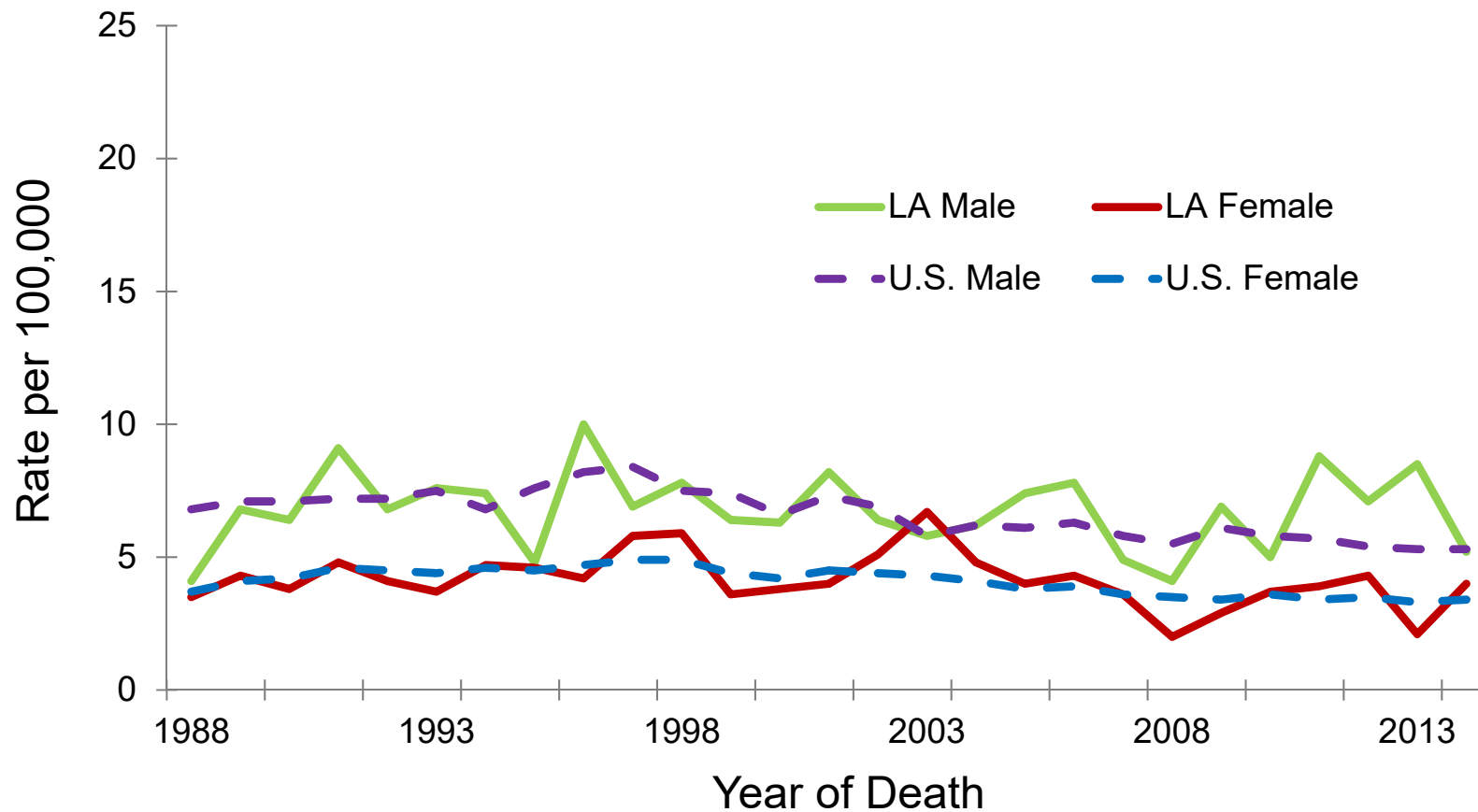
# Non-Hodgkin Lymphoma: Trends of Mortality Rates<sup>1,2</sup>, Whites, 1988-2014



<sup>1</sup> Age-adjusted to the 2000 U.S. standard population.

<sup>2</sup> Data source: National Center of Health Statistics (NCHS).

# Non-Hodgkin Lymphoma: Trends of Mortality Rates<sup>1,2</sup>, Blacks, 1988-2014

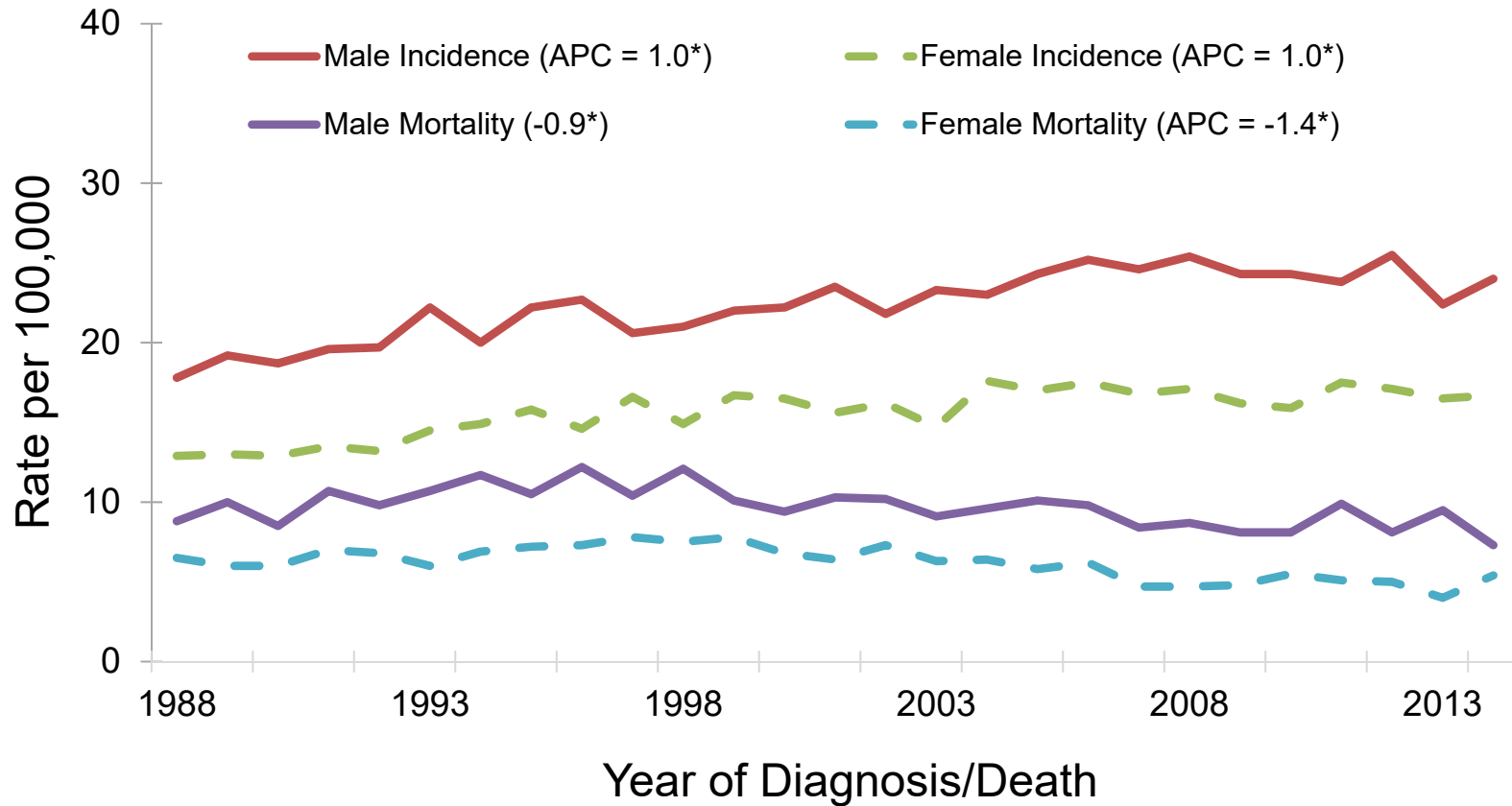


<sup>1</sup> Age-adjusted to the 2000 U.S. standard population.

<sup>2</sup> Data source: National Center of Health Statistics (NCHS).

# Non-Hodgkin Lymphoma : Louisiana, 1988-2014

## Trends of Incidence# and Mortality Rates by Gender



#Invasive cases only.

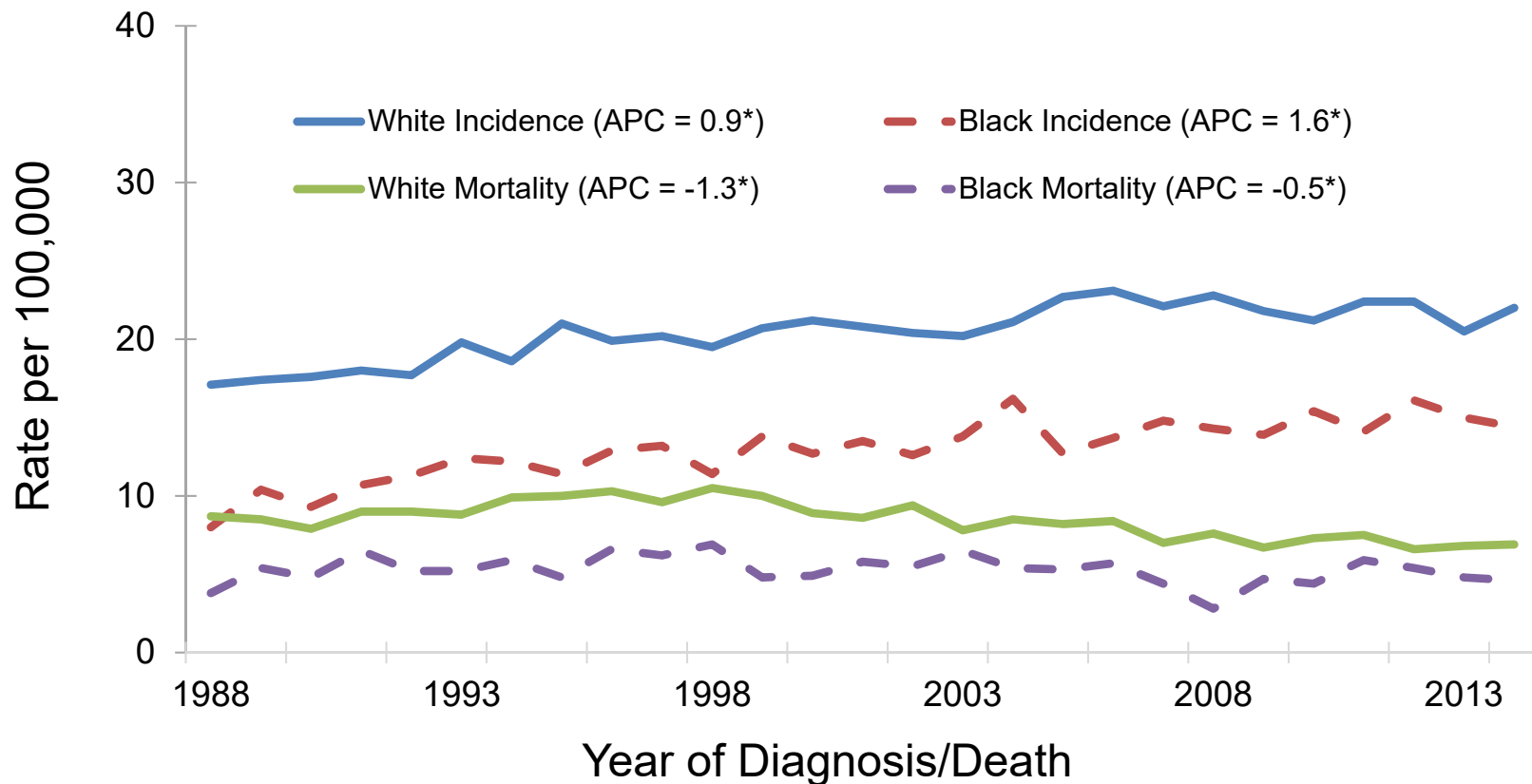
Annual average percent change (APC) were calculated using weighted least squares method.

\* APC significantly different from zero.



# Non-Hodgkin Lymphoma: Louisiana, 1988-2014

## Trends of Incidence<sup>#</sup> and Mortality Rates by Race

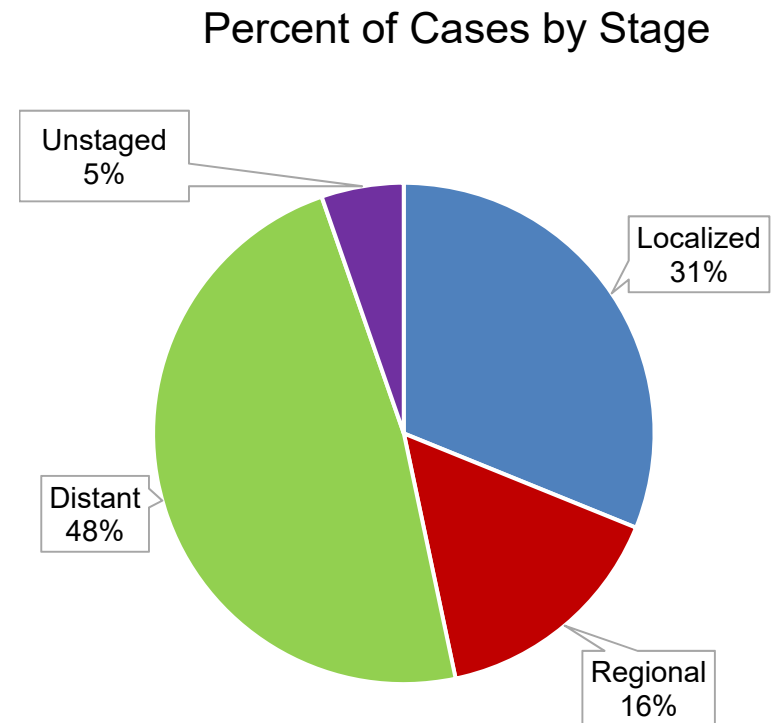
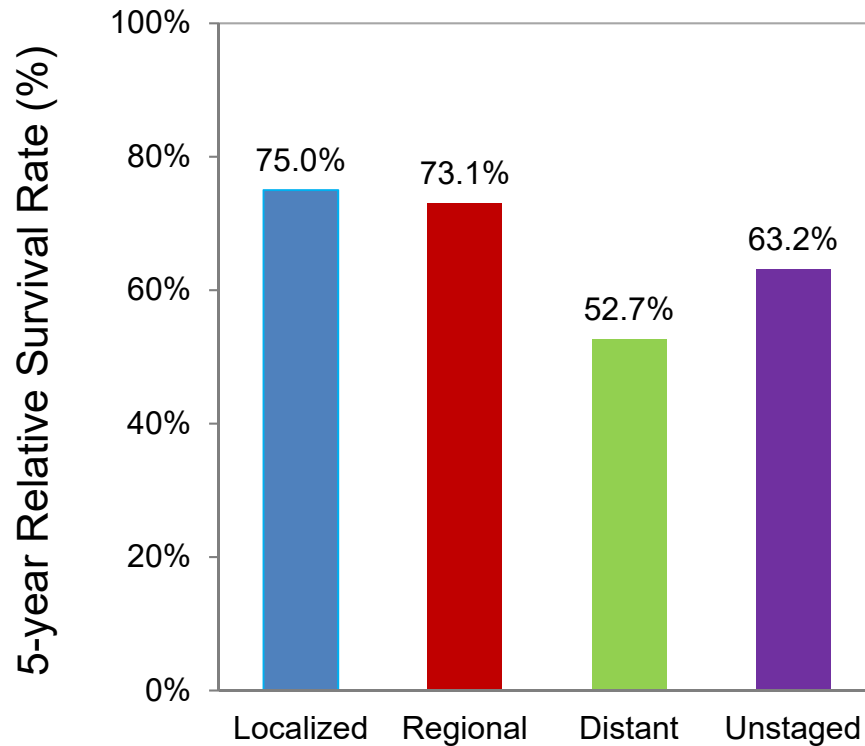


<sup>#</sup>Invasive cases only.

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

\* APC significantly different from zero.

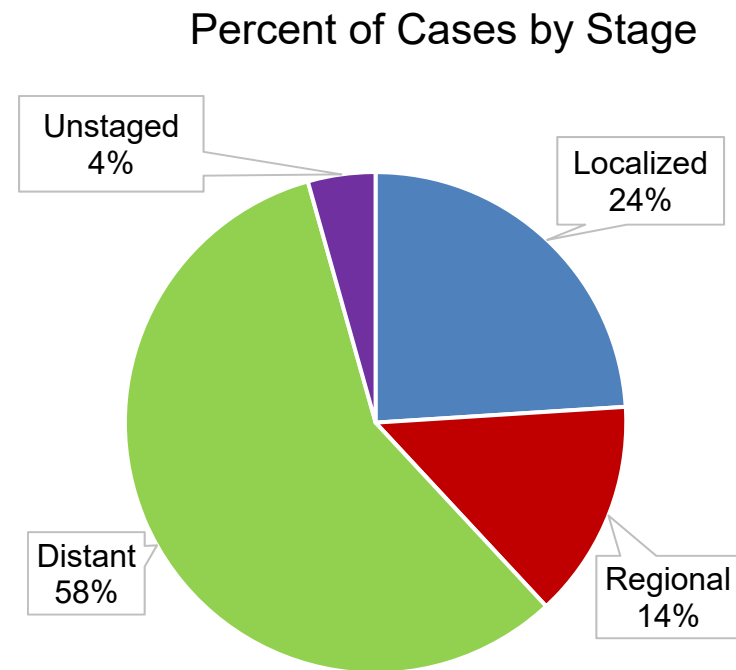
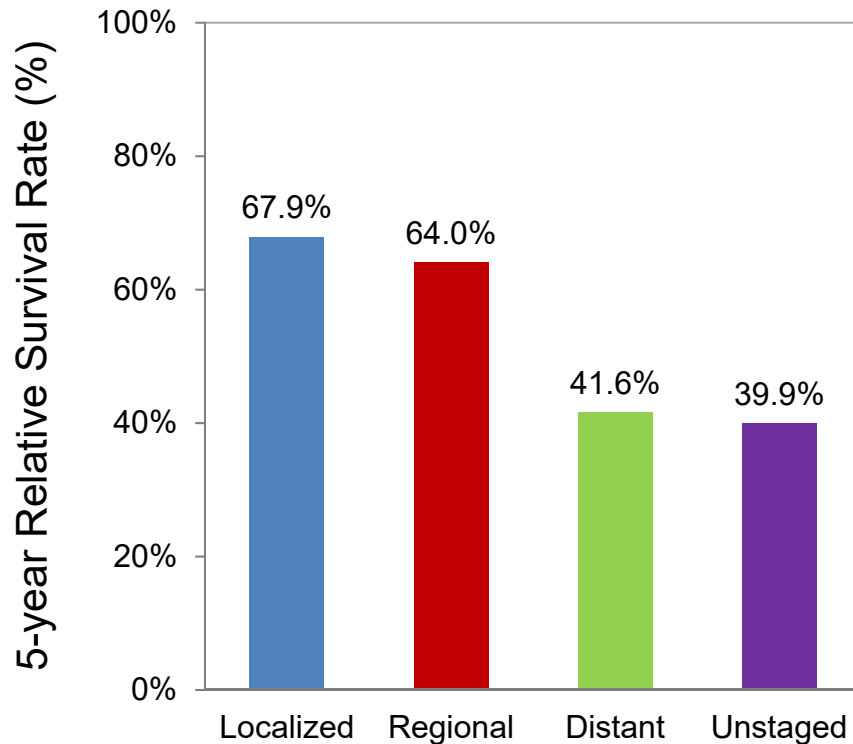
# Non-Hodgkin Lymphoma#: Louisiana 5-Year Relative Survival by Stage<sup>1</sup>, White Males, 2007-2013



#Only invasive cases.

<sup>1</sup> The stage distribution is based on Summary Stage 2000.

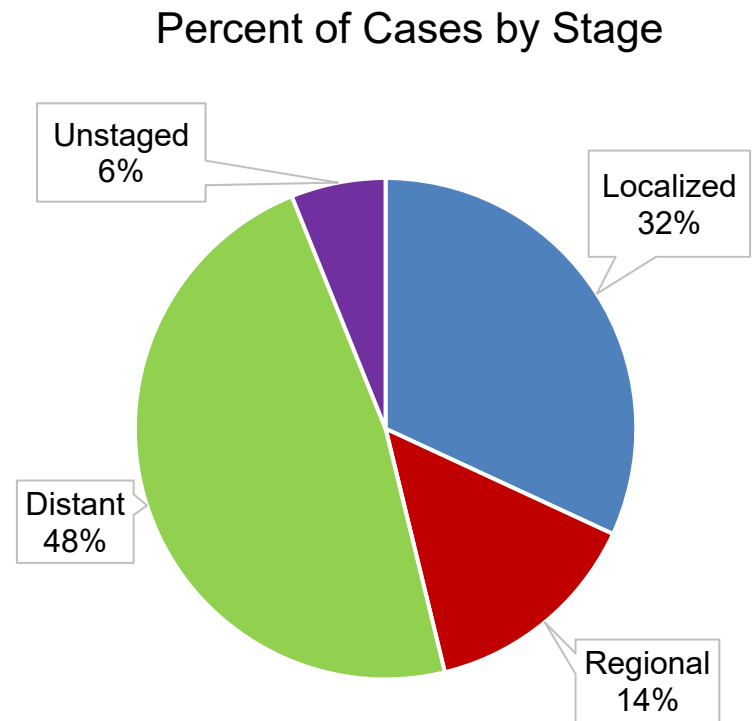
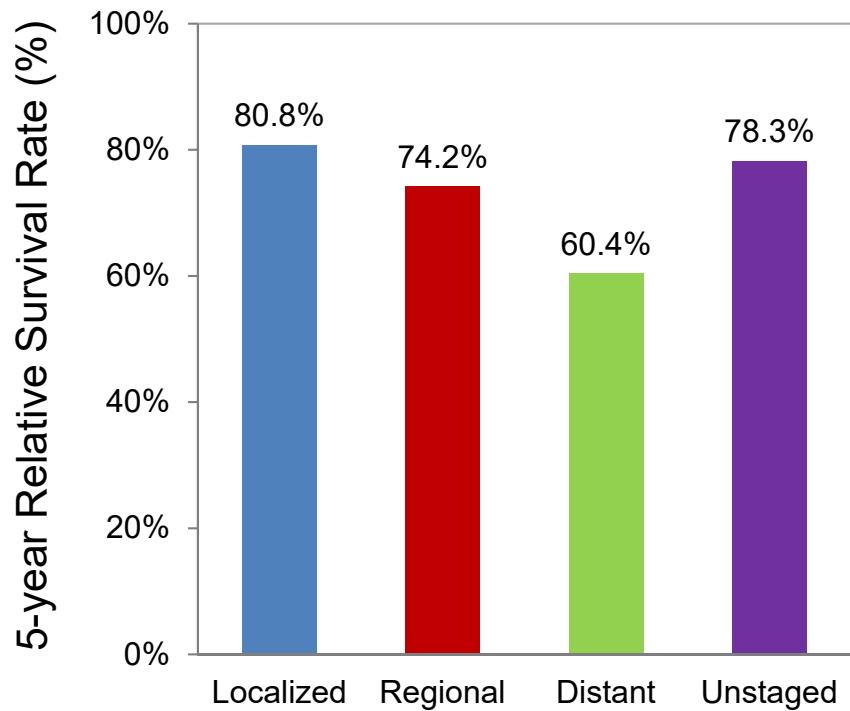
# Non-Hodgkin Lymphoma#: Louisiana 5-Year Relative Survival by Stage<sup>1</sup>, Black Males, 2007-2013



#Only invasive cases.

<sup>1</sup> The stage distribution is based on Summary Stage 2000.

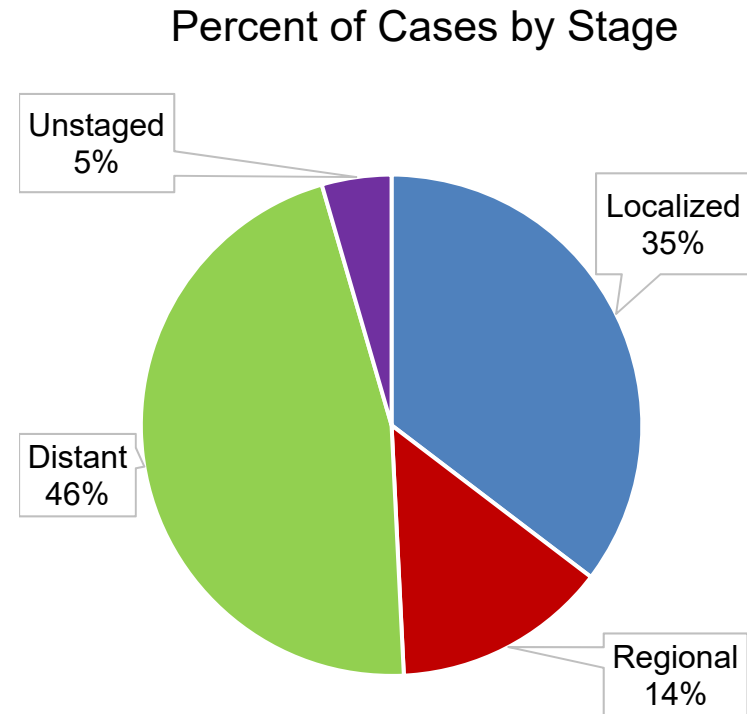
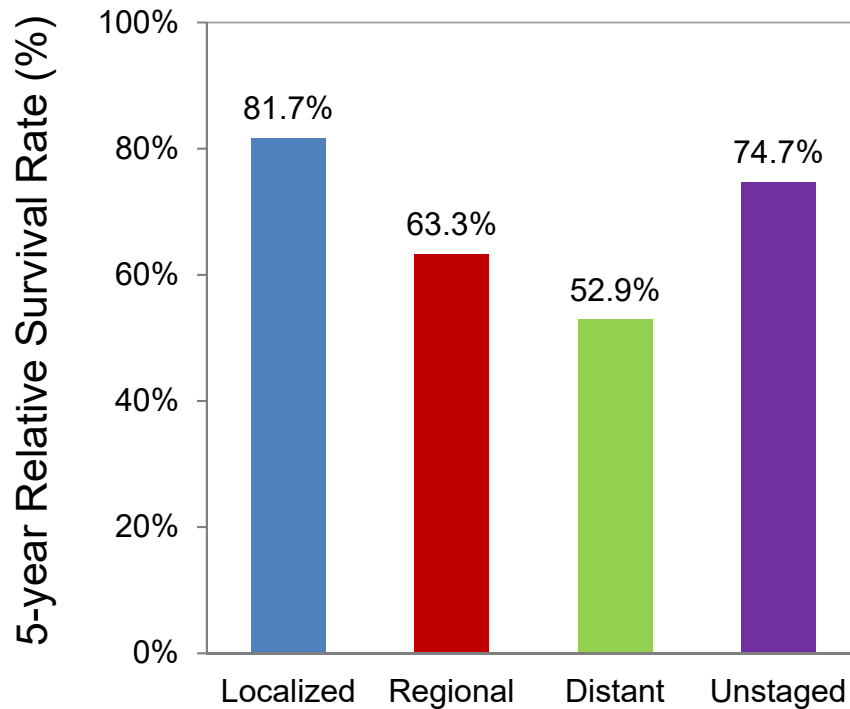
# Non-Hodgkin Lymphoma#: Louisiana 5-Year Relative Survival by Stage<sup>1</sup>, White Females, 2007-2013



#Only invasive cases.

<sup>1</sup> The stage distribution is based on Summary Stage 2000.

# Non-Hodgkin Lymphoma#: Louisiana 5-Year Relative Survival by Stage<sup>1</sup>, Black Females, 2007-2013



#Only invasive cases.

<sup>1</sup> The stage distribution is based on Summary Stage 2000.

# Appendix A. Regions of the Louisiana Tumor Registry

Regional Registry	Beginning Date of the Registry	Average Annual Population, 2010-2014	Parishes Covered
<b>Region 1 – New Orleans</b>	1974	21,864	Jefferson, Orleans, St. Bernard
<b>Region 2 – Baton Rouge</b>	1983	23,410	Ascension, Assumption, East Baton Rouge, East Feliciana, Iberville, Livingston, Pointe Coupée, St. Helena, Tangipahoa, West Baton Rouge, West Feliciana
<b>Region 3 – Southeast Louisiana</b>	1983	17,036	Lafourche, Plaquemines, St. Charles, St. James, St. John, St. Tammany, Terrebonne, Washington
<b>Region 4 – Acadiana</b>	1983	17,032	Acadia, Evangeline, Iberia, Lafayette, St. Landry, St. Martin, St. Mary, Vermilion
<b>Region 5 – Southwest Louisiana</b>	1983	7,698	Allen, Beauregard, Calcasieu, Cameron, Jefferson Davis
<b>Region 6 – Central Louisiana</b>	1988	8,283	Avoyelles, Catahoula, Concordia, Grant, La Salle, Rapides, Vernon, Winn
<b>Region 7 – Northwest Louisiana</b>	1988	14,817	Bienville, Bossier, Caddo, Claiborne, De Soto, Natchitoches, Red River, Sabine, Webster
<b>Region 8 – Northeast Louisiana</b>	1988	9,061	Caldwell, East Carroll, Franklin, Jackson, Lincoln, Madison, Morehouse, Ouachita, Richland, Tensas, Union, West Carroll
<b>Entire State</b>	1988	119,201	

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](http://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:
  - U.S. Cancer Statistics Working Group. United States Cancer Statistics: 1999-2014 Incidence and Mortality Web-based Report. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; 2017. Available at: [www.cdc.gov/uscs](http://www.cdc.gov/uscs).
- Cancer Facts & Figures:
  - American Cancer Society. *Cancer Facts & Figures 2017*. Atlanta: American Cancer Society; 2017.



# 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.lsuhs.edu/>)
- **Louisiana Cancer Registrars' Association** (<http://www.lcra-usa.org/>)
- **Physicians and staff members in:**
  - 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.lsuhs.edu/regionalregistries.html>)
- **School of Public Health, LSU Health Sciences Center–New Orleans**
- **Louisiana Cancer and Lung Trust Fund Board**
- **Coroners' offices**

# Sources of LTR Funding

- National Cancer Institute, SEER Program
- Centers for Disease Control and Prevention (CDC), National Program of Cancer Registries (NPCR)
- Louisiana Health Care Services Division

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