

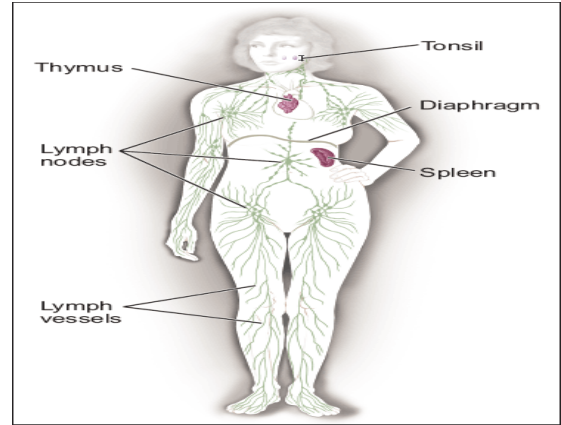
Hodgkin's Lymphoma

Definition: Hodgkin's lymphoma is a cancer that starts in lymphocyte cells, which are part of the immune system.¹ The lymphoid system is found all over the body, giving Hodgkin's lymphoma the ability to start practically anywhere.

Background: From 2002 to 2006, there was a yearly average of approximately **346** newly diagnosed cases of Hodgkin's lymphoma in Ohio.² During this same time period, Ohio experienced approximately **58** deaths each year due to Hodgkin's lymphoma.²

Hodgkin's lymphoma can develop in children and adults.¹ It mostly occurs in early adulthood (ages 15 to 40, particularly around age 20) and late adulthood (ages 55 and older).¹ Approximately 10% to 15% of Hodgkin's lymphoma are diagnosed in children and teenagers.¹

Figure 9



Cuyahoga County Data:

- The average annual number of newly diagnosed Hodgkin's lymphoma cases from 2002-2006 was **40**, with an age-adjusted incidence rate of **2.9** per 100,000 people.
- This is **lower** than the **3.0** incidence rate for Ohio and **higher** than the **2.8** incidence rate for the Nation.
- The average annual number of Hodgkin's lymphoma deaths from 2002-2006 was **9**, with an age-adjusted mortality rate of **0.6** per 100,000 people.
- This is **higher** than the **0.5** mortality rate for Ohio and **higher** than the **0.4** mortality rate for the Nation.

Table 9a Hodgkin's Lymphoma

Average Annual Number of Cancer Deaths and Age-Adjusted Incidence Rates* for 2002-2006

Incidence	Male		Female		Total	
	Cases	Rate	Cases	Rate	Cases	Rate
Cuyahoga County	19	3.1	20	2.7	40	2.9
Ohio	181	3.3	165	2.8	346	3.0
National SEER		3.1		2.5		2.8

* Rate is calculated per 100,000 people.

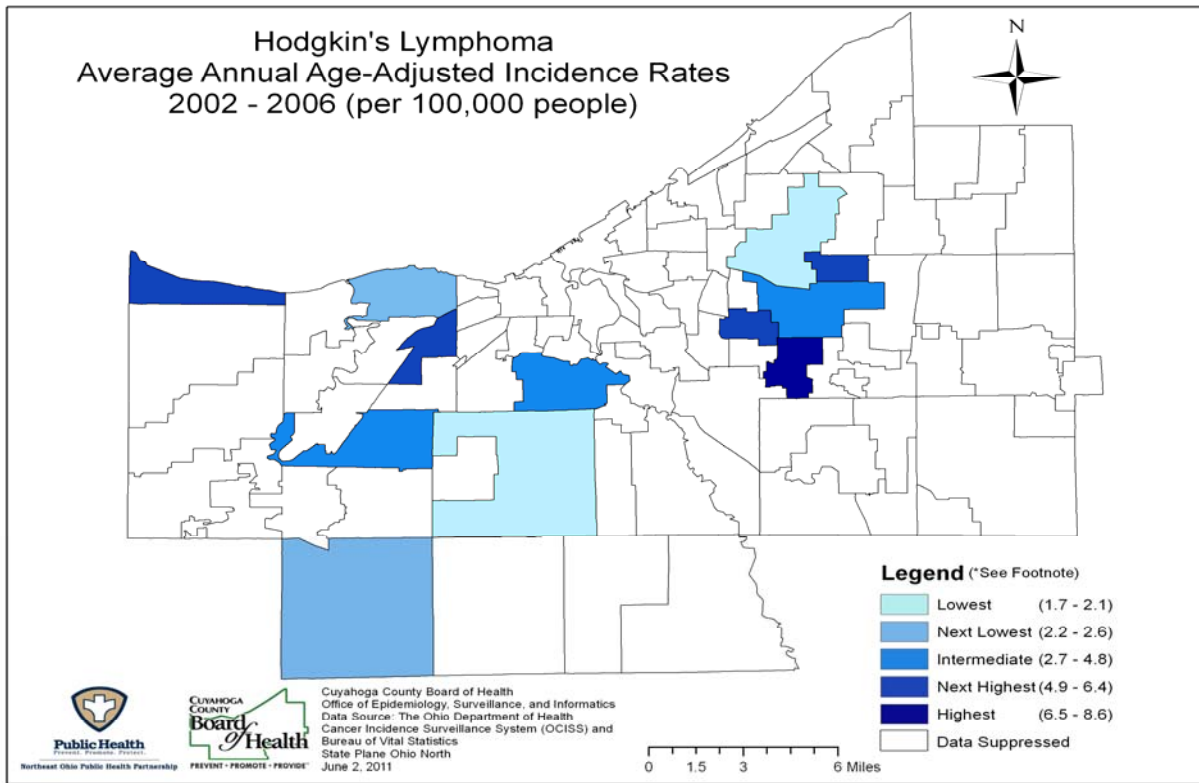
Table 9b Hodgkin's Lymphoma

Average Annual Number of Cancer Deaths and Age-Adjusted Mortality Rates* for 2002-2006

Mortality	Male		Female		Total	
	Cases	Rate	Cases	Rate	Cases	Rate
Cuyahoga County	5	0.7	4	0.5	9	0.6
Ohio	32	0.6	26	0.4	58	0.5
National SEER		0.5		0.4		0.4

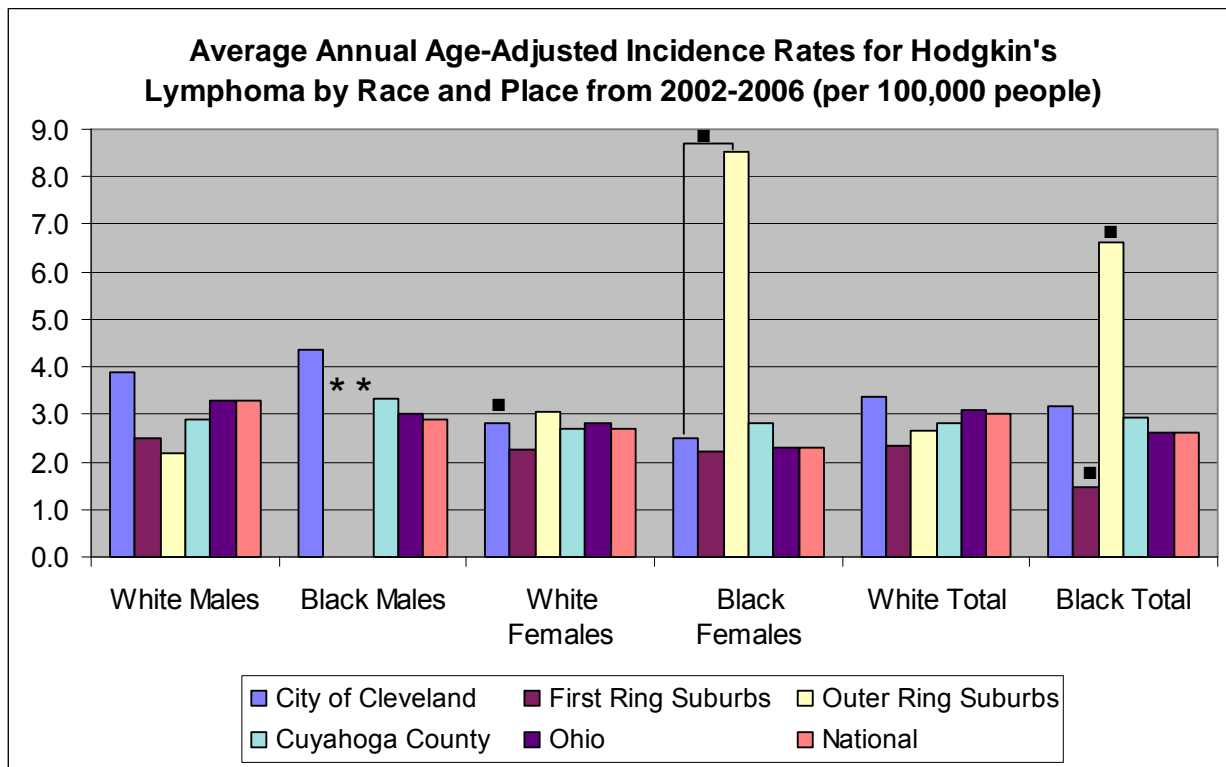
* Rate is calculated per 100,000 people.

Figure 9a



*Data were suppressed to help maintain confidentiality and/or due to concerns over unstable numbers. See methods/limitations section for additional details. Age-adjusted mortality rates for Hodgkin's Lymphoma are not presented due to data suppression from case count totals being less than 5 for the time period 2002-2006.

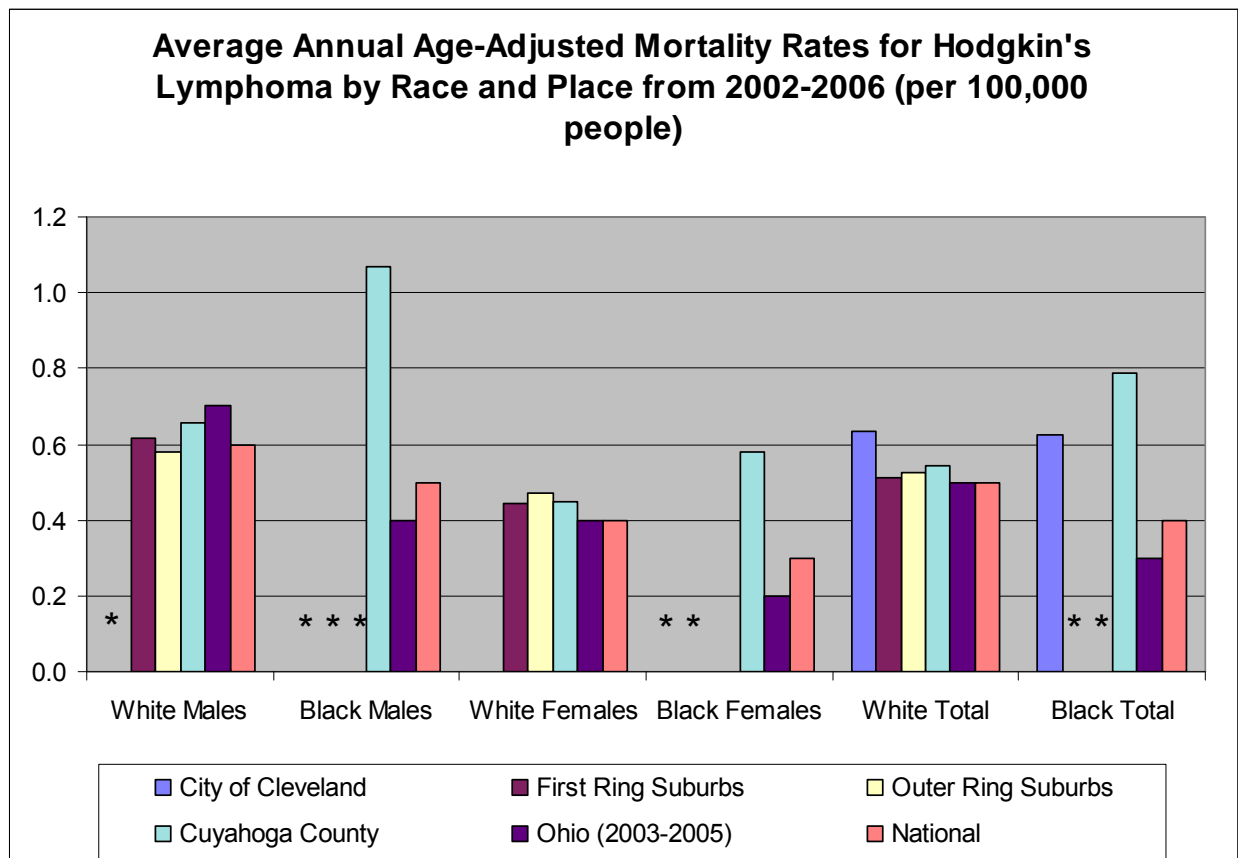
Chart 9a



▲ Rates are statistically significantly higher when compared to Cuyahoga County.
 ▼ Rates are statistically significantly lower when compared to Cuyahoga County.
 ■ Rates are not compared to Cuyahoga County when there are <20 cases total for 2002-2006 due to instability.

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Chart 9b



¹ Age-adjusted mortality rates were unable to be compared for Hodgkin's Lymphoma due to instability of confidence intervals (i.e. there were <20 cases total for 2002-2006).

² Rates were suppressed if there were less than 5 cases during 2002-2006.

*Data were suppressed to help maintain confidentiality and /or due to concerns over unstable numbers. See methods/limitations section for additional details.

Risk Factors

Males: 1 in 385 males will develop Hodgkin's lymphoma and 1 in 2,000 males will die from Hodgkin's lymphoma.⁴

Females: 1 in 476 females will develop Hodgkin's lymphoma and 1 in 2,500 females will die from Hodgkin's lymphoma.⁴

Several risk factors may contribute to the development of Hodgkin's lymphoma. They include:¹

- **Epstein-Barr virus infection/mononucleosis**
- **Age-** Hodgkin's lymphoma is most common in early adulthood (ages 15-40) and in late adulthood (after age 55).
- **Gender-** Males have a slightly higher risk for Hodgkin's lymphoma than females.
- **Geography-** Hodgkin's lymphoma is more common in the United States, Canada and northern Europe.
- **Family history**
- **Socioeconomic status-** Hodgkin's lymphoma is more common in people with higher socioeconomic backgrounds.
- **HIV infection**

Symptoms³

- Swollen lymph nodes (that are not painful) in the neck, underarms, or groin
- Becoming more sensitive to the effects of alcohol or having painful lymph nodes after drinking alcohol
- Weight loss
- Fever that does not go away
- Soaking night sweats
- Itchy skin
- Coughing, trouble breathing, or chest pain
- Weakness and tiredness that do not go away

Screening, Prevention and Early Detection¹

Screening and Prevention:

At this time there are no known preventable risk factors and no recommended blood tests or screening tests available to detect Hodgkin's lymphoma. Knowing the signs and symptoms of Hodgkin's lymphoma and discussing them with a physician may be the best way to find these cancers at an early stage.

Staging

Stage at Diagnosis describes the severity of a person's cancer and the extent to which it has or has not spread throughout the body.⁵ Cancer staging is important in helping physicians plan appropriate treatment, as well as to estimate a patient's prognosis.⁵ Cancer diagnosed in the *in situ* and localized stages are generally referred to as early-stage tumors, whereas regional and distant tumors are referred to as late-stage tumors.² Detecting cancers at an early stage may increase long-term survival and can lead to a reduction in mortality.²

The National Cancer Institute groups staging into five main categories:⁵

- ***In situ***: Abnormal cells are present only in the layer of cells in which they developed. In this report, *in situ* cases are only included for bladder cancer.
- **Localized**: Cancer is limited to the organ in which it began, without evidence of spread.
- **Regional**: Cancer has spread beyond the primary site to nearby lymph nodes or organs and tissues.
- **Distant**: Cancer has spread from the primary site to distant organs or distant lymph nodes.
- **Unstaged/Unknown**: There is not enough information to determine the stage.

Chart 9c

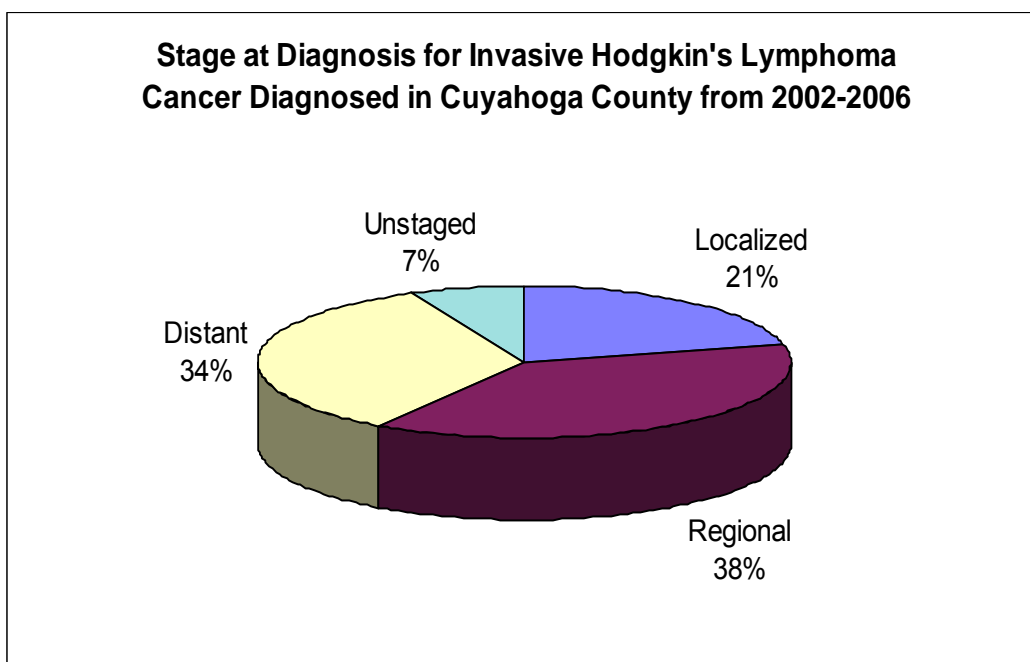


Table 9c

**5-year Relative Survival* by Stage at Diagnosis for
Hodgkin's lymphoma in the United States
for 1999-2006, All Races, Both Sexes⁶**

Stage at Diagnosis	5-year Relative Survival (%)
Localized (confined to primary site)	90.3
Regional (spread to regional lymph nodes)	91.1
Distant (cancer has metastasized)	74.2
Unknown/Unstaged	82.3

*Relative survival compares observed survival for those with cancer to the expected survival for those without cancer.

More Information

National Cancer Institute <http://www.cancer.gov/>

American Cancer Society <http://www.cancer.org>

Ohio Department of Health <http://www.odh.ohio.gov/>

Resources

1. The American Cancer Society. Hodgkin's Lymphoma Detailed Guide. <http://www.cancer.org/Cancer/HodgkinDisease/DetailedGuide/hodgkin-disease-what-is-hodgkin-disease>. (Accessed December 13, 2010).
2. *Cancer Incidence and Mortality among Ohio Residents, 2002-2006*. Ohio Cancer Incidence Surveillance System, Ohio Department of Health and The Ohio State University, Columbus, Ohio, December 2009. http://www.odh.ohio.gov/ASSETS/79F9E92E210F477D885F8EAC864E2F27/0206Monograph_Final.pdf.
3. National Cancer Institute. What you need to know about Hodgkin's lymphoma. <http://www.cancer.gov/cancertopics/wyntk/hodgkin/page4>. (Accessed December 13, 2010).
4. The American Cancer Society. Lifetime Risk of Developing or Dying From Cancer. <http://www.cancer.org/Cancer/CancerBasics/lifetime-probability-of-developing-or-dying-from-cancer>. (Accessed January 10, 2011).
5. National Cancer Institute. Cancer Staging. <http://www.cancer.gov/cancertopics/factsheet/Detection/staging>. (Accessed December 23, 2010).
6. Surveillance Epidemiology and End Results. SEER Stat Fact Sheets: Hodgkin Lymphoma. <http://seer.cancer.gov/statfacts/html/hodg.html>. (Accessed December 13, 2010).
7. National Cancer Institute. What you need to know about Hodgkin's lymphoma. Hodgkin's image from <http://www.cancer.gov/cancertopics/wyntk/hodgkin/page2>. (Accessed December 13, 2010).