

Lymphoma in Arizona

The term “Lymphoma” refers to a variety of cancers originating in lymphoid tissue. It usually is diagnosed as a systemic disease affecting the entire lymphatic system; rarely, it is isolated to a single location. There are many ways of classifying lymphomas. The category **Hodgkin lymphoma (HL)** is generally considered as a distinct condition, in part, because treatments now are so effective. The other major category of lymphoma is termed **non Hodgkin lymphoma (NHL)**, which may be further divided and subdivided into several dozen cancers, each with its own risk factors, treatment plan, and anticipated rate of response. This fact sheet presents Arizona data for the two categories: HL and NHL.

Hodgkin lymphoma comprises about 0.5 percent of all cancers in Arizona, while **non Hodgkin lymphoma** comprises around 3.8 percent of all cancers in Arizona. (Arizona Cancer Registry, 2002-2006)

Non Hodgkin lymphoma describes a large group of cancers of lymphocytes (white blood cells). Non Hodgkin lymphomas can occur at any age and are often marked by enlarged lymph nodes, fever, and weight loss. There are many different types of non Hodgkin lymphoma. These types can be divided into aggressive (fast-growing) and indolent (slow-growing) types, and they can be formed from either B-cells or T-cells.¹

A **Arizona Data**
 In recent years, the Arizona Cancer Registry received reports of an average of 115 Hodgkin and 908 non Hodgkin newly diagnosed cases each year (Figure 1). In the same years, the number of deaths from these conditions averaged 19 and 382 respectively.

Figure 1. Arizona Lymphoma Incident Counts & Death Counts

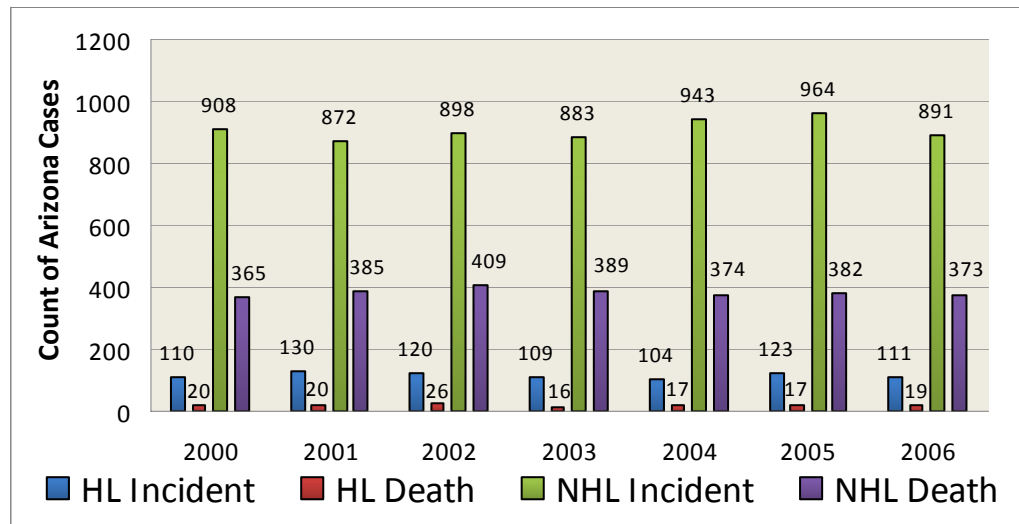
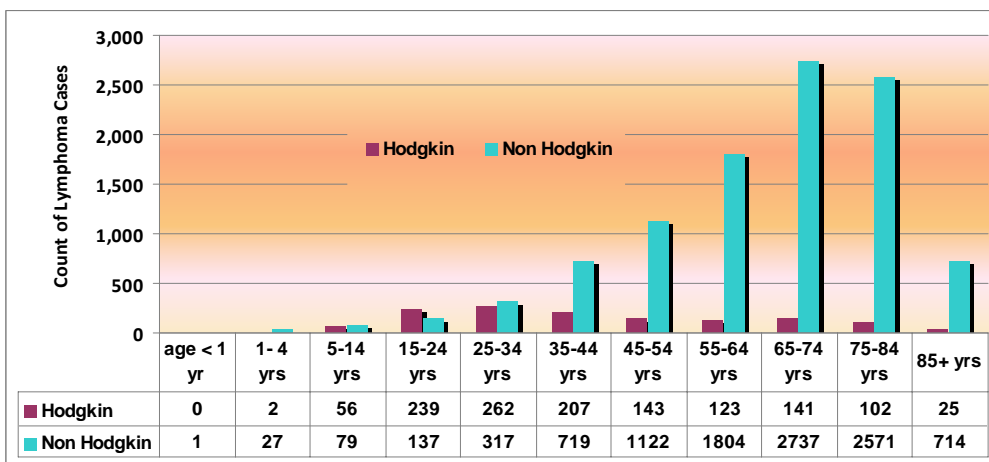


Figure 2. Count of lymphoma cases by age-group at Diagnosis, Arizona, 1995-2006



The median age at

diagnosis of Hodgkin lymphoma is much younger (38 years old) than that of NHL (67 years) (Figure 2). Among all ages, HL is the 24th most common cancer, while NHL is the 7th most common in Arizona.

Gender: Slightly more males than females are diagnosed with lymphoma (Arizona Cancer Registry, 2002-2006).

Race/Ethnicity

Eighty-four percent of the lymphoma cases occurred among White non Hispanics, and eleven percent of the cases occurred among White Hispanics (see Figure 3). The remaining groups (Black, American Indian, Asian/Pacific Islander) together accounted for less than 6 percent of the total cases.

The age-adjusted incidence rate among the race groups shows that White non Hispanics have the highest incidence rate and American Indians have the lowest rate (see Figure 4). The finding in Whites is consistent with national data.

Figure 3. Lymphomas (HL & NHL) in Arizona, 1995-2006. Distribution of 11,528 cases by race/ethnic group.

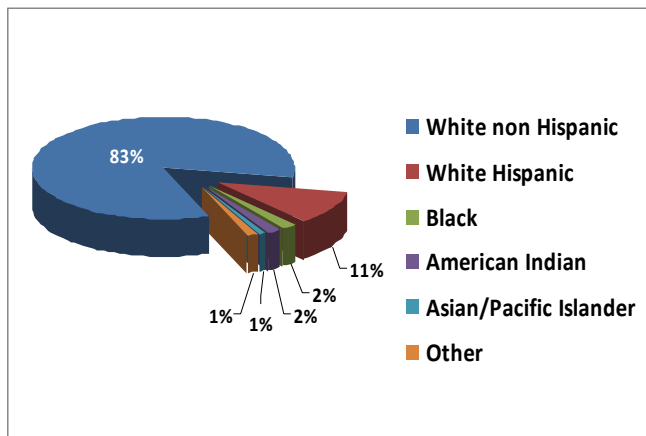
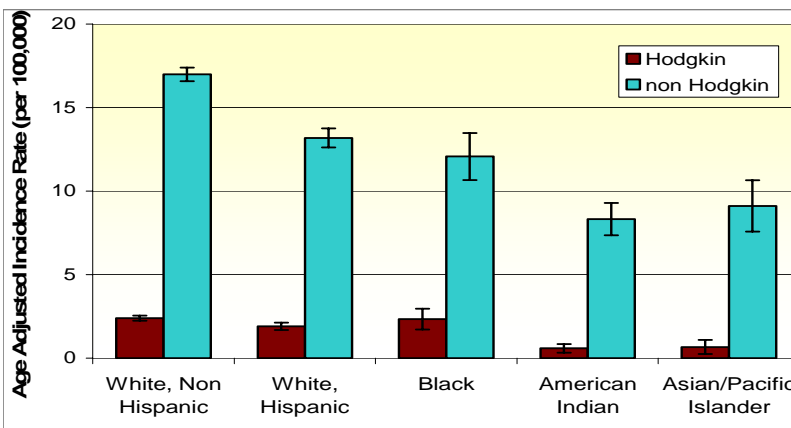


Figure 4. Incidence rates of lymphoma by race/ethnicity (per 100,000 population), Arizona, 1995-2006. Bars show 95 percent confidence interval of the rate.



Geographically, lymphomas occur throughout the state (see Map). Not surprisingly, Maricopa County reports most of the state's cases because that is where most of the population lives: the 2008 population estimates were 3,954,598 for Maricopa County, and 6,500,180 for the state of Arizona (US Census Bureau, State and County QuickFacts).

Annual Average Incidence of Lymphoma Cases, Arizona, 1995-2006, by County of Residence

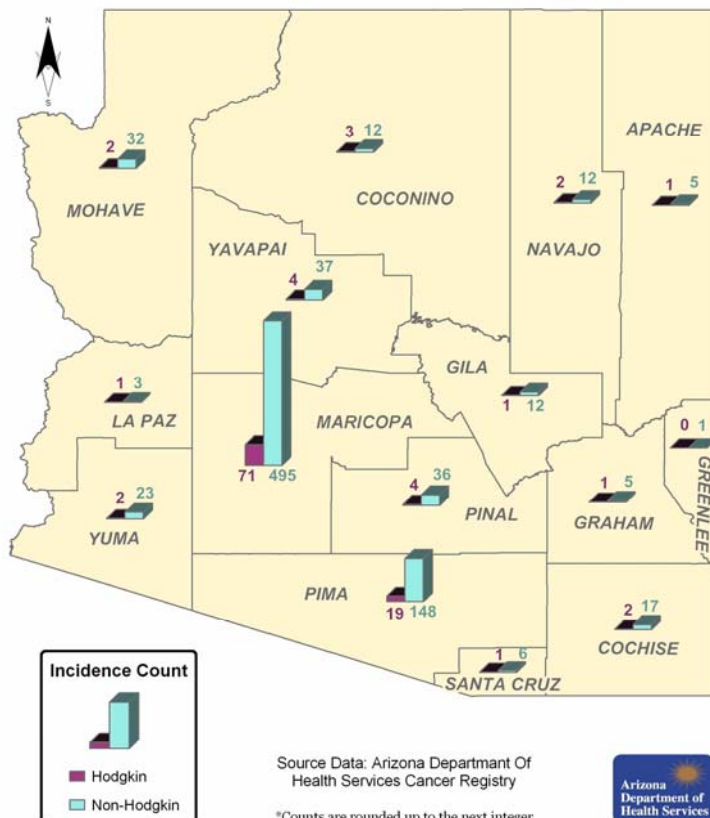
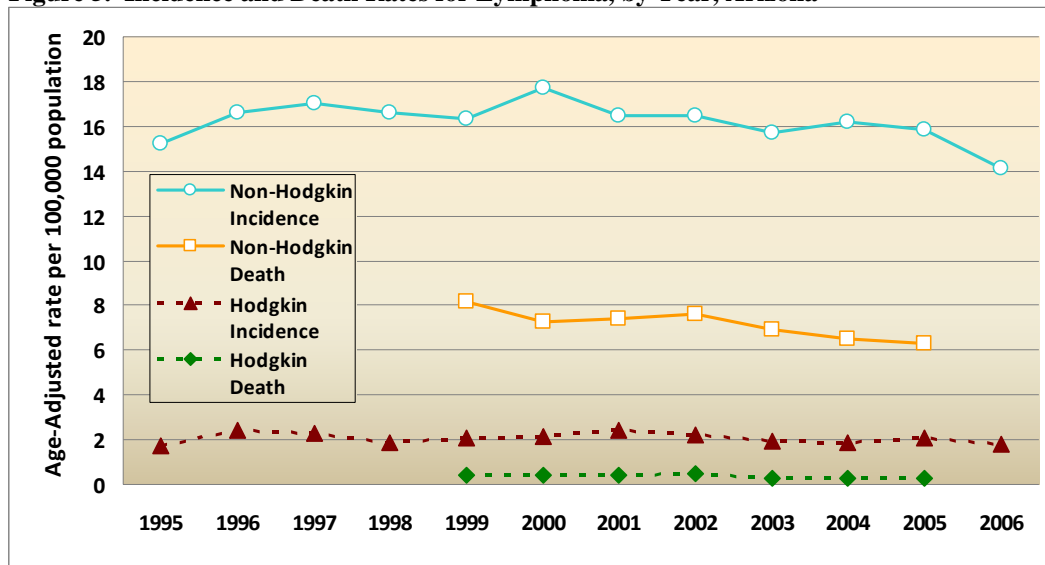


Figure 5. Incidence and Death Rates for Lymphoma, by Year, Arizona



The incidence rates in Arizona remained relatively stable for both HL and NHL during the period from 1995 to 2006 (Figure 5). On the other hand, the mortality rate for non Hodgkin lymphoma has been decreasing.

Prevalence Data (that is, the number of persons who have a history of the diagnosis) are not available for Arizona. However, U.S. data are helpful in understanding survivorship.

Prevalence of non Hodgkin Lymphoma: On January 1, 2006, in the United States there were approximately 419,533 men and women alive who had a history of non Hodgkin lymphoma -- 217,143 men and 202,390 women. This includes any person alive on January 1, 2006 who had been diagnosed with non Hodgkin lymphoma at any point prior to January 1, 2006 and includes persons with active disease and those who are cured of their disease.²

Prevalence of Hodgkin Lymphoma: On January 1, 2006, in the United States there were approximately 160,007 men and women alive who had a history of Hodgkin lymphoma -- 82,450 men and 77,557 women. This includes any person alive on January 1, 2006 who had been diagnosed with Hodgkin lymphoma at any point prior to January 1, 2006 and includes persons with active disease and those who are cured of their disease.³

Survival Rates: Survival rates for the two lymphomas have been improving nationally. For Hodgkin lymphoma, the overall 5-year relative survival rate for 1999-2005 reported from 17 SEER geographic areas was 84.7 percent. And for non Hodgkin lymphoma, the overall 5-year relative survival rate for 1999-2005 was 67.2 percent.

Incidence in Children: Lymphoma (HL, 5.5 percent of all cancers in children less than 20 years of age, and NHL, 6.9 percent) is the third most common cancer in Arizona's children, following leukemia (28.9 percent) and neoplasms of the brain and other nervous tissue (17.7 percent). In children younger than 20 years of age, lymphoma is most commonly diagnosed in White non Hispanics (21 new cases per million children), followed by White Hispanics (16 per million), African-American children (8 per million). It is rarest among American Indian children (12.6 per million).⁴

Endnotes

¹ <http://www.cancer.gov/cancertopics/types/non-hodgkin>
² <http://seer.cancer.gov/statfacts/html/nhl.html>
³ <http://seer.cancer.gov/statfacts/html/hodg.html>

⁴ Arizona Cancer Registry, Child Cancer Report, June 2009. Rates for non Whites are statistically unstable because those population sizes are small.

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