

## NON-HODGKIN'S LYMPHOMA

**Table 22: Non-Hodgkin's Lymphoma Incidence and Mortality Summary, 2011**

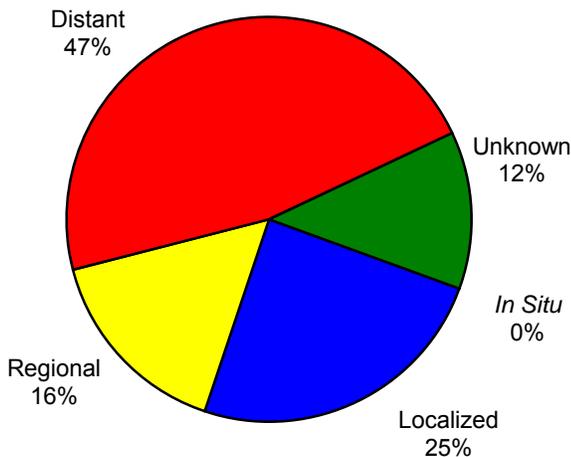
Non-Hodgkin's Lymphoma			Incidence			Mortality		
			Total	Male	Female	Total	Male	Female
South Dakota	Total	# Cases / Deaths	183	100	83	62	41	21
		Age Adjusted Rate	19.3	23.0	16.7	6.0	9.3	3.3
	White	# Cases / Deaths	174	93	81	59	39	20
		Age Adjusted Rate	19.6	22.7	17.6	6.0	9.4	3.2
	American Indian	# Cases / Deaths	5	3	2	2	2	0
		Age Adjusted Rate	12.9	18.0	8.7	6.3	14.5	0.0
United States	Total	Age Adjusted Rate	19.0	23.0	15.8	* 6.1	* 7.8	* 4.9
	White	Age Adjusted Rate	19.8	23.9	16.5	* 6.4	* 8.1	* 5.0
	American Indian	Age Adjusted Rate	12.7	12.9	12.3	* 4.4	* 5.7	* 3.3

Rates per 100,000 age-adjusted to 2000 US standard population and 2011 SD estimated population.

\* US Mortality rates are from 2010, the 2011 rate is not available at this time. US rates [www.seer.cancer.gov](http://www.seer.cancer.gov)

Source: South Dakota Department of Health

**Figure 53: Non-Hodgkin's Lymphoma Stage at Diagnosis, South Dakota, 2011**



Source: South Dakota Department of Health

### Descriptive Epidemiology

**Stage at Diagnosis:** Stage is based on where lymphoma cells are found (in the lymph or in other organs or tissues). The stage also depends on how many areas are involved. Localized stage only involves a single lymph node region or single extralymphatic organ. When two or more lymph node regions are involved and the regions are on both sides of the diaphragm the cancer will be staged as distant. In 2011, 47% of the cases were diagnosed at distant stage, a decrease from 2010 when 50% were diagnosed at distant stage.

**Incidence:** Non-Hodgkin's lymphoma is a cancer that originates in the lymphatic system, the disease-fighting network that spreads throughout the body. It develops in lymphocytes, a type of white blood cell. Non-Hodgkin's lymphoma is more than five times as common as the other general type of lymphoma,

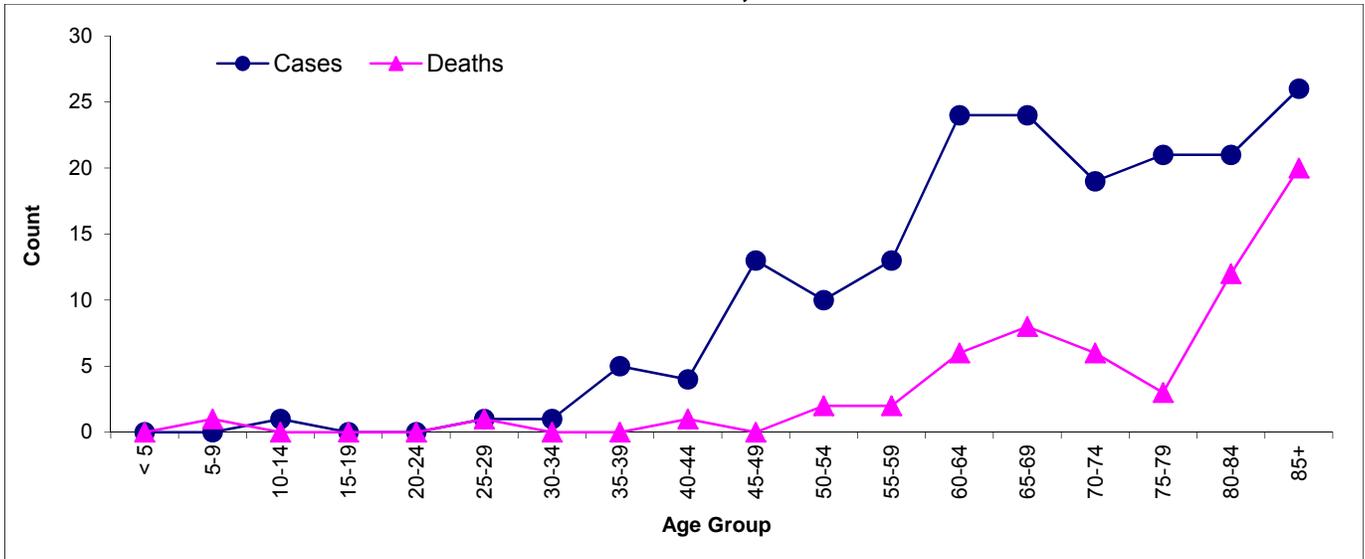
Hodgkin's disease. The incidence rate has been increasing in the United States since the 1970s. The incidence of non-Hodgkin's disease in South Dakota was 183 cases in 2011. The median age at diagnosis in South Dakota in 2011 was 68.

**Mortality:** There were 62 deaths reported in South Dakota that were attributed to non-Hodgkin's lymphoma. The median age at death for those whose death was attributed to non-Hodgkin's lymphoma in South Dakota was 81 years of age. Nationally, the five-year survival rate is 69.3% for non-Hodgkin's lymphoma.

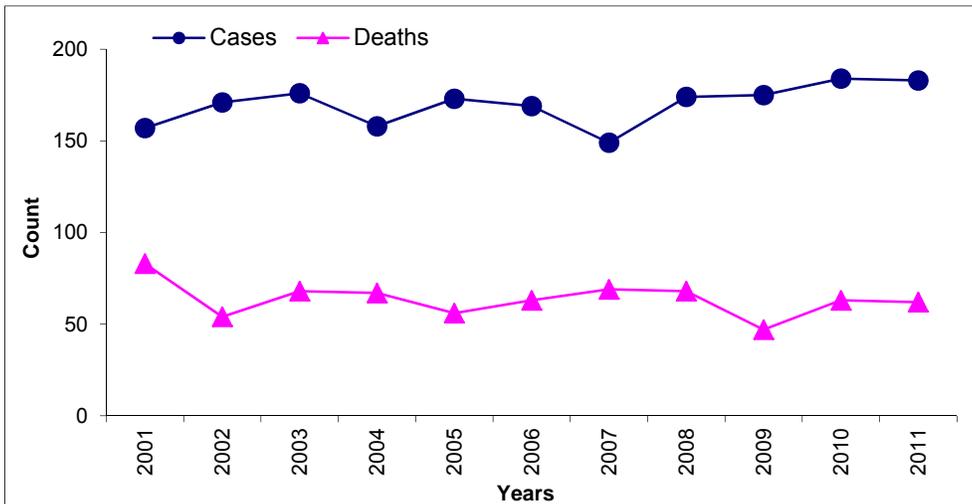
**Risk and Associated Factors:** Getting older is a strong risk factor for this disease, with most cases occurring from age 60 and older. Some studies suggest that exposure to chemicals such as benzene and certain herbicides and insecticides may be linked to an increased risk. Some chemotherapy used to treat other cancers can increase the risk as well as patients having been treated with radiation. The risk is higher for those having been treated with both. Certain infections increase the risk, such as HIV, Epstein - Barr virus, H. pylori bacteria, and Hepatitis C virus.

**Early Detection and Prevention:** Non-Hodgkin's lymphoma may present with various symptoms. Symptoms may include signs resulting from local effects of cancer growth. Non-Hodgkin's lymphoma can also produce generalized symptoms, such as unexplained weight loss, fever, drenching night sweats, and severe itching.

**Figure 54: Non-Hodgkin's Lymphoma Number of Cases and Death by Age, South Dakota, 2011**

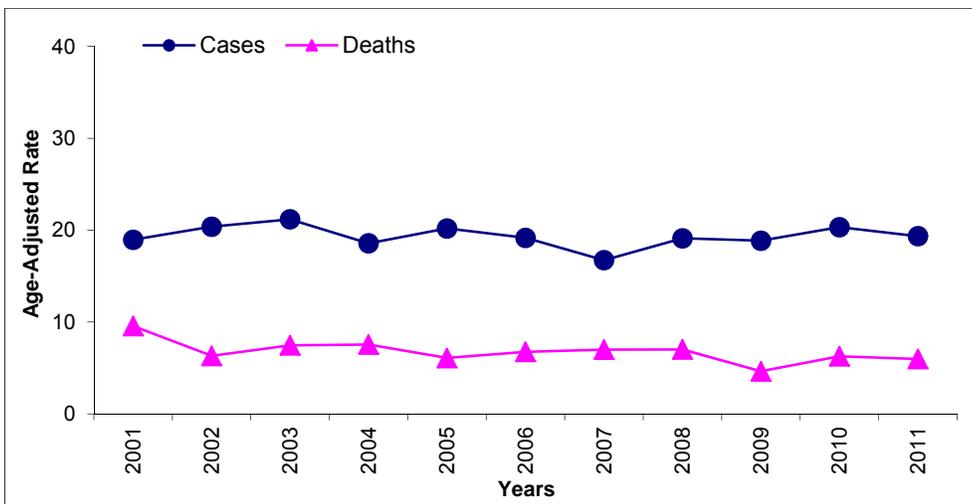


Source: South Dakota Health Department



**Figure 55: Non-Hodgkin's Lymphoma Cases and Deaths by Year, South Dakota, 2001 - 2011**

Source: South Dakota Health Department



**Figure 56: Non-Hodgkin's Lymphoma Age-Adjusted Rates, Cases, and Deaths by Year, South Dakota, 2001 - 2011**

Rates per 100,000 age-adjusted to 2000 US standard population and SD estimated populations.  
Source: South Dakota Department of Health