

## STOMACH

**Table 26: Stomach Incidence and Mortality Summary, 2012**

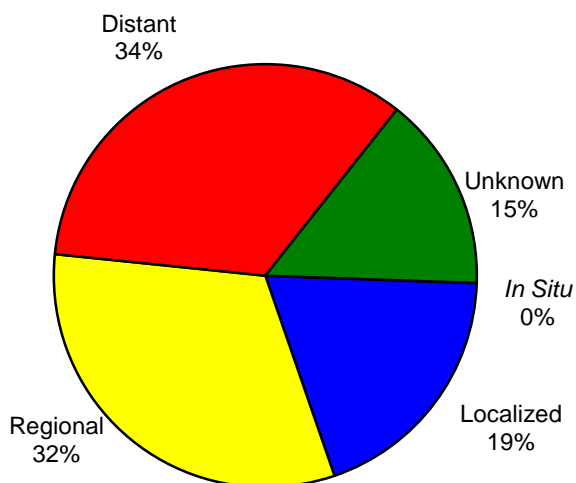
Stomach Cancer			Incidence			Mortality		
			Total	Male	Female	Total	Male	Female
South Dakota	Total	# Cases / Deaths	47	34	13	14	7	7
		Age Adjusted Rate	4.8	7.3	2.6	1.4	1.6	1.2
	White	# Cases / Deaths	44	31	13	11	6	5
		Age Adjusted Rate	4.6	6.8	2.7	1.1	1.4	0.8
	American Indian	# Cases / Deaths	2	2	0	2	1	1
		Age Adjusted Rate	4.1	9.0	0.0	6.0	4.3	6.7
United States	Total	Age Adjusted Rate	* 7.2	* 9.8	* 5.1	* 3.3	* 4.4	* 2.3
	White	Age Adjusted Rate	* 6.5	* 9.0	* 4.4	* 2.8	* 3.9	* 2.0
	American Indian	Age Adjusted Rate	* 8.7	* 13.7	* 5.2	* 4.6	* 6.5	* 3.2

Rates per 100,000 age-adjusted to 2000 US standard population and 2012 SD estimated population.

\* US Mortality rates are from 2011, the 2012 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 69: Stomach Cancer Stage of Diagnosis, South Dakota, 2012**



Source: South Dakota Department of Health

### Descriptive Epidemiology

**Stage at Diagnosis:** In 2012 data demonstrates that 9 (19%) cases were diagnosed at localized stage. When a patient is diagnosed at an early stage prognosis is much better. Fifteen cases (32%) were diagnosed at regional stage. There were 16 (34%) of the cases in South Dakota diagnosed at distant stage. Prognosis for distant stage is very poor. The stage is based on whether the tumor has invaded nearby tissues, where the cancer has spread, and if so, to what extent.

**Incidence:** Stomach cancer continues to account for approximately 1.1% of all cancers in South Dakota. Of the 47 cases diagnosed in 2012, 34 were male and 13 were female. It is

predominately a disease of men. Gastric (stomach) cancer is found more commonly in people between the ages of 50 and 70 years of age. The median age at diagnosis was 69 in the United States and 70 in South Dakota.

**Mortality:** Stomach cancer accounted for 0.8% of cancer deaths in South Dakota in 2012. The median age at death was 64.5 in South Dakota and 72 in the United States. The age-adjusted death rate was 1.6 for men and 1.2 in women in South Dakota. These rates are based on patients who died in 2012 in South Dakota. There were two American Indian stomach cancer deaths.

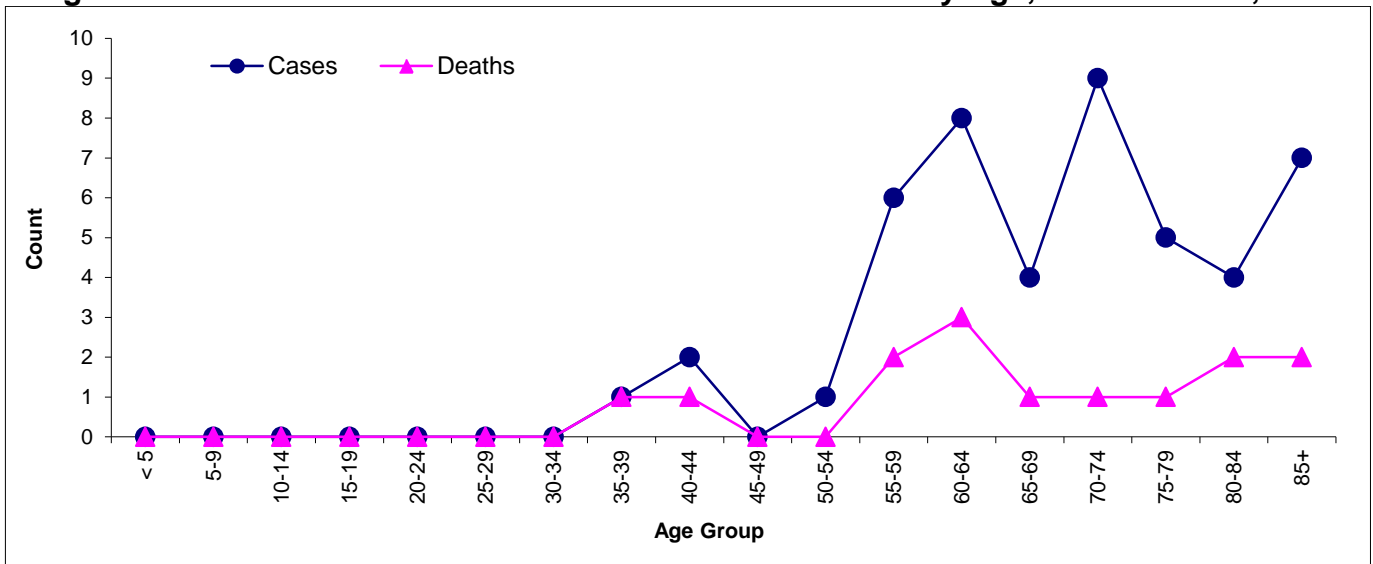
**Risk and Associated Factors:** Men have twice the risk of women for developing stomach cancer. In recent years, *Helicobacter pylori* bacteria have received considerable attention as a potential factor. Some researchers suspect this bacterium, which causes stomach inflammation and ulcers, may be an important stomach cancer risk factor. Individuals with pernicious anemia (a vitamin B-12-related disorder) and achlorhydria or gastric atrophy, both of which result in lower than normal amounts of gastric juices, may be at higher risk.

**Prevention and Early Detection:** Excessive salt intake has been identified as a possible risk factor for stomach cancer. Having a high intake of fresh fruits and vegetables may be associated with a decreased risk of stomach cancer. Studies have suggested that eating foods that contain [beta-carotene](http://www.cancer.gov/Common/PopUps/popDefinition.aspx?id=45328&version=Patient&language=English)<sup>1</sup> and [vitamin C](http://www.cancer.gov/Common/PopUps/popDefinition.aspx?id=439435&version=Patient&language=English)<sup>2</sup> may decrease the risk of stomach cancer.

<sup>1</sup><http://www.cancer.gov/Common/PopUps/popDefinition.aspx?id=45328&version=Patient&language=English>

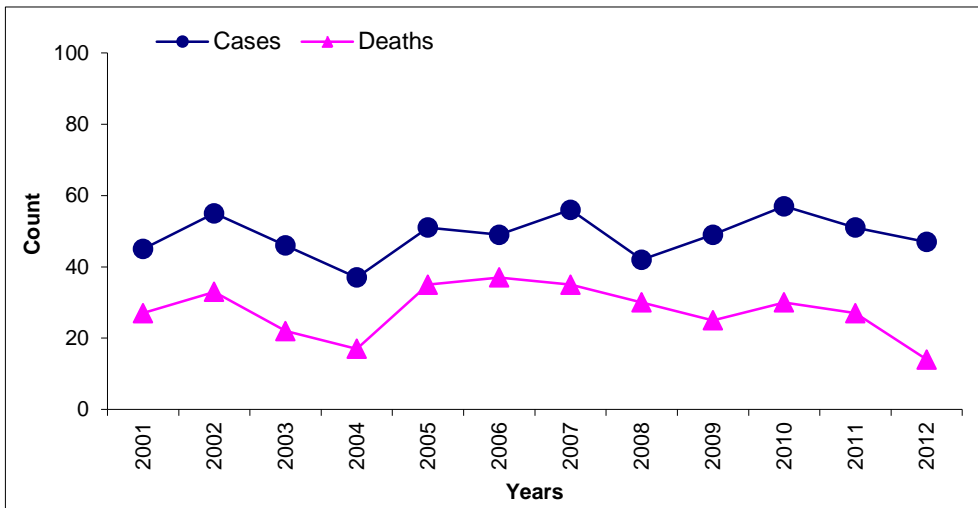
<sup>2</sup><http://www.cancer.gov/Common/PopUps/popDefinition.aspx?id=439435&version=Patient&language=English>

**Figure 70: Stomach Cancer Number of Cases and Deaths by Age, South Dakota, 2012**



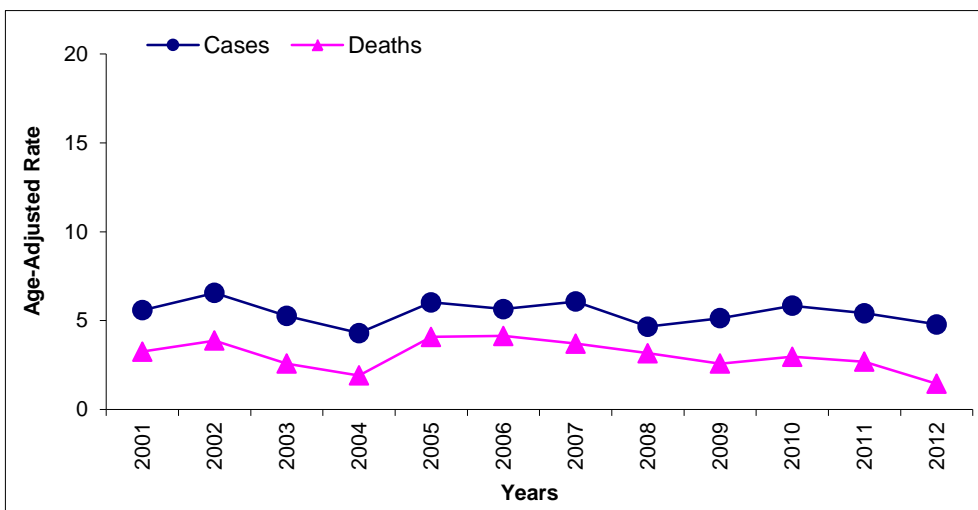
Source: South Dakota Department of Health

**Figure 71: Stomach Cancer Cases and Deaths by Year, South Dakota, 2001 - 2012**



Source: South Dakota Department of Health

**Figure 72: Stomach Cancer Age-Adjusted Rates, Cases, and Deaths by Year, South Dakota, 2001 - 2012**



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