

## BLADDER

**Table 12: Bladder Incidence and Mortality Summary, 2011**

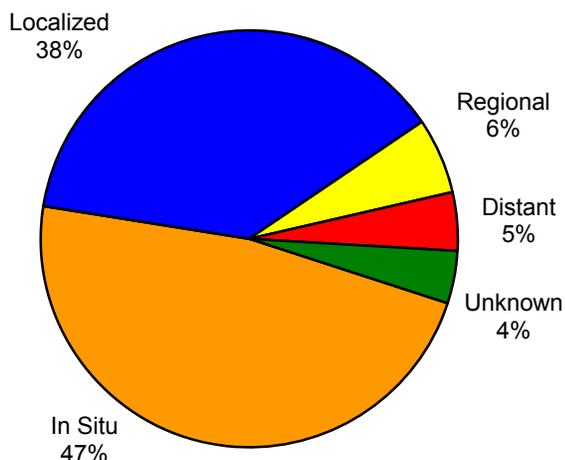
Bladder Cancer			Incidence			Mortality		
			Total	Male	Female	Total	Male	Female
South Dakota	Total	# Cases / Deaths	221	162	59	34	24	10
		Age Adjusted Rate	22.9	38.2	10.8	3.2	5.6	1.7
	White	# Cases / Deaths	217	159	58	33	23	10
		Age Adjusted Rate	23.7	39.3	11.3	3.2	5.5	1.8
	American Indian	# Cases / Deaths	2	2	0	1	1	0
		Age Adjusted Rate	5.5	12.5	0.0	3.9	9.6	0.0
United States	Total	Age Adjusted Rate	19.7	34.6	8.4	* 4.4	* 7.7	* 2.2
	White	Age Adjusted Rate	21.5	37.7	9.0	* 4.6	* 8.1	* 2.2
	American Indian	Age Adjusted Rate	8.3	17.0	2.6	* 2.4	* 4.1	* 1.4

<sup>1</sup>Includes *in situ* bladder; 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 15: Bladder Cancer Stage at Diagnosis, South Dakota, 2011**



Source: South Dakota Department of Health

### Descriptive Epidemiology

**Stage at Diagnosis:** Cancer is categorized as noninvasive and invasive. There were 105 noninvasive bladder cancers reported in 2011. There were 116 invasive. Forty-seven percent of all bladder cancer cases were diagnosed at noninvasive, *in situ* stage. Nationally 50% of the cases of urinary bladder cancer are diagnosed at the *in situ* stage. In South Dakota, 5% of the cases were not diagnosed until the disease had spread to distant sites. In the United States, distant stage accounted for 4% of the bladder cancers reported.

**Incidence:** In 2011, it was estimated that over 69,250 cases of bladder cancer would be diagnosed in the United States. There were 221 cases of bladder cancer reported in South

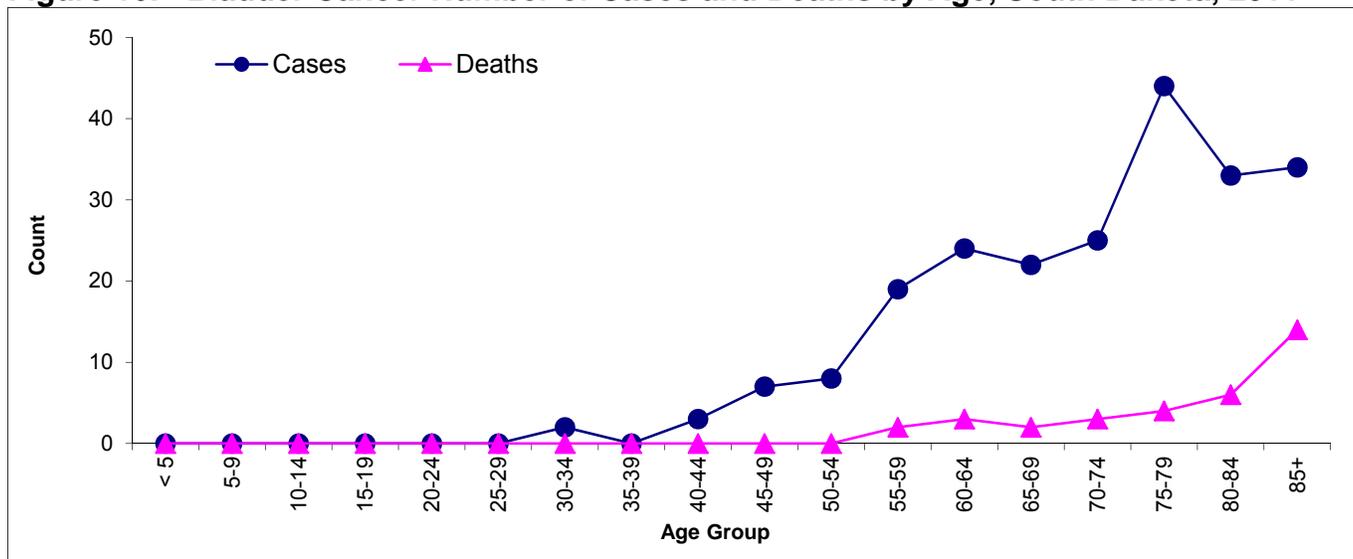
Dakota. There were 162 men and 59 women diagnosed with bladder cancer in 2011. Statistically, men are diagnosed four times more frequently than women. There were only two American Indian cases diagnosed in 2011. In the United States it is the fifth most frequent cancer. In South Dakota it was also the fifth most frequent cancer diagnosed.

**Mortality:** Almost half (47%) of all bladder cancer cases reported in South Dakota were noninvasive. Advances in intravesical therapy and in the treatment of advanced disease with chemotherapy have reduced the percentage of mortality from bladder cancer. In South Dakota, ages from 70 and above have the highest mortality. In 2011, the South Dakota mortality rate was 3.2 compared to the US (2010) rate which was 4.4.

**Risk and Associated Factors:** Bladder cancer was one of the first malignancies associated with industrialization. Not surprisingly, the incidence continues to rise. Cigarette smoking increases the risk for bladder cancer by two times that of a nonsmoker. Work exposure to certain chemicals also increases risk. Some of those with the highest risk are makers of rubber, leather, textiles, paint products, and printing compounds.

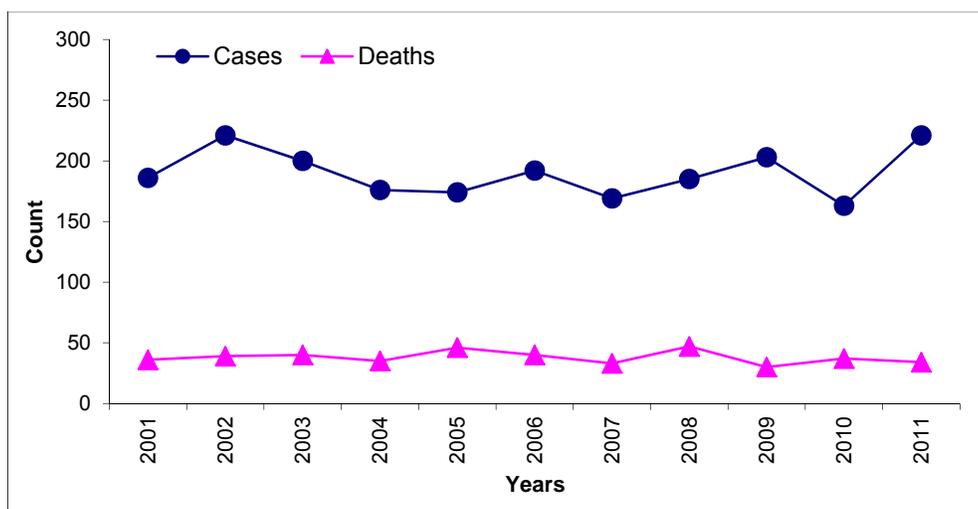
**Prevention and Early Detection:** Avoiding exposure to chemicals and cigarette smoking are two of the most common suggestions for prevention.

**Figure 16: Bladder Cancer Number of Cases and Deaths by Age, South Dakota, 2011**



Source: South Dakota Department of Health

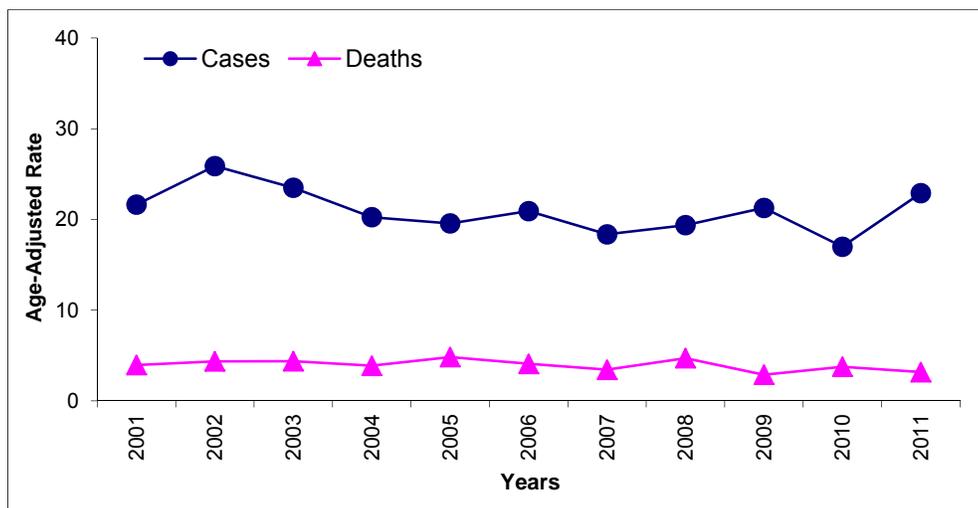
**Figure 17: Bladder Cancer Cases and Deaths by Year, South Dakota, 2001 - 2011**



Bladder cancer cases in 2011 tied an all-time high of 221 cases, the same as in 2002, after an all-time low in 2010 of 163 cases.

Source: South Dakota Department of Health

**Figure 18: Bladder Cancer 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