BLADDER

Table 12: Bladder Incidence and Mortality Summary, 2016

<table>
<thead>
<tr>
<th>Bladder Cancer</th>
<th>Incidence</th>
<th>Mortality</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Male</td>
</tr>
<tr>
<td></td>
<td># Cases / Deaths</td>
<td>Age-Adjusted Rate</td>
</tr>
<tr>
<td>South Dakota</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>220</td>
<td>160</td>
</tr>
<tr>
<td>White</td>
<td>20.5</td>
<td>32.8</td>
</tr>
<tr>
<td>American Indian</td>
<td>212</td>
<td>156</td>
</tr>
<tr>
<td>Age-Adjusted Rate</td>
<td>20.9</td>
<td>33.7</td>
</tr>
<tr>
<td>United States</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>19.0</td>
<td>32.9</td>
</tr>
<tr>
<td>White</td>
<td>20.8</td>
<td>35.9</td>
</tr>
<tr>
<td>American Indian</td>
<td>9.5</td>
<td>16.8</td>
</tr>
</tbody>
</table>


Figure 15: Bladder Cancer Stage at Diagnosis, South Dakota, 2016

Source: South Dakota Department of Health

Descriptive Epidemiology

**Stage at Diagnosis:** Cancer is categorized as noninvasive and invasive. There were 135 noninvasive bladder cancers reported in 2016. There were 84 invasive. More than half, 62%, of bladder cancer cases in South Dakota 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 2016, it was estimated that almost 77,000 cases of bladder cancer would be diagnosed in the United States. There were 220 cases of bladder cancer reported in South Dakota. There were 160 men and 60 women diagnosed with bladder cancer in 2016. Statistically, men were diagnosed about three times as often as women. There were only six American Indian cases diagnosed in 2016. In the United States it was the eighth most frequent cancer. In South Dakota it was the sixth most frequent cancer diagnosed.

**Mortality:** 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 75 and above have the highest mortality. In 2016, the South Dakota mortality rate was 4.3 compared to the US rate of 4.4.

**Risk and Associated Factors:** Bladder cancer was one of the first malignancies associated with industrialization. Cigarette smoking increases the risk of 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 recommendations for prevention.
Figure 16: Bladder Cancer Number of Cases and Deaths by Age, South Dakota, 2016

Figure 17: Bladder Cancer Cases and Deaths by Year, South Dakota, 2001 - 2016

Bladder cancer cases increased from 2015 but not as high as 2011 with 234 cases.

Figure 18: Bladder Cancer Age-Adjusted Rates, Cases, and Deaths by Year, South Dakota, 2001 - 2016

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