

Table 21: Myeloma Incidence and Mortality Summary, 2016

Myeloma §			Incidence			Mortality		
			Total	Male	Female	Total	Male	Female
South Dakota	Total	# Cases / Deaths	76	43	33	50	29	21
		Age-Adjusted Rate	7.3	9.0	6.1	4.8	6.1	3.7
	White	# Cases / Deaths	70	40	30	47	27	20
		Age-Adjusted Rate	7.2	9.0	5.9	4.7	6.0	3.7
	American Indian	# Cases / Deaths	5	2	3	2	1	1
		Age-Adjusted Rate	10.2	12.6	9.7	5.4	4.2	6.3
United States	Total	Age-Adjusted Rate	6.8	8.4	5.5	3.2	4.1	2.6
	White	Age-Adjusted Rate	6.1	7.8	4.7	3.0	3.8	2.4
	American Indian	Age-Adjusted Rate	5.0	0.0	4.0	2.8	3.2	2.5

Rates per 100,000 age-adjusted to 2000 US standard population and 2016 SD estimated population. § can include NOS, multiple, plasma cell and solitary. US rates www.seer.cancer.gov Source: South Dakota Department of Health

Descriptive Epidemiology

Stage at Diagnosis: Stage of disease for myeloma is always distant per the SEER Summary Staging Manual.

Incidence: Myeloma is a systemic malignancy of plasma cells that is highly treatable, but rarely curable. It is potentially curable when it presents as a solitary plasmacytoma of the bone or as an extramedullary plasmacytoma. In South Dakota during 2016, myeloma accounted for 1.6% of total cancer cases reported. The South Dakota 2016 median age at diagnosis was 68 and the United States median age was 69. The national incidence rate is higher in men (8.4) than women (5.5). In South Dakota the incidence rate is also higher in men (9.0) than women (6.1). Myeloma is more common among the elderly. African Americans have approximately twice the incidence and mortality rates of whites.

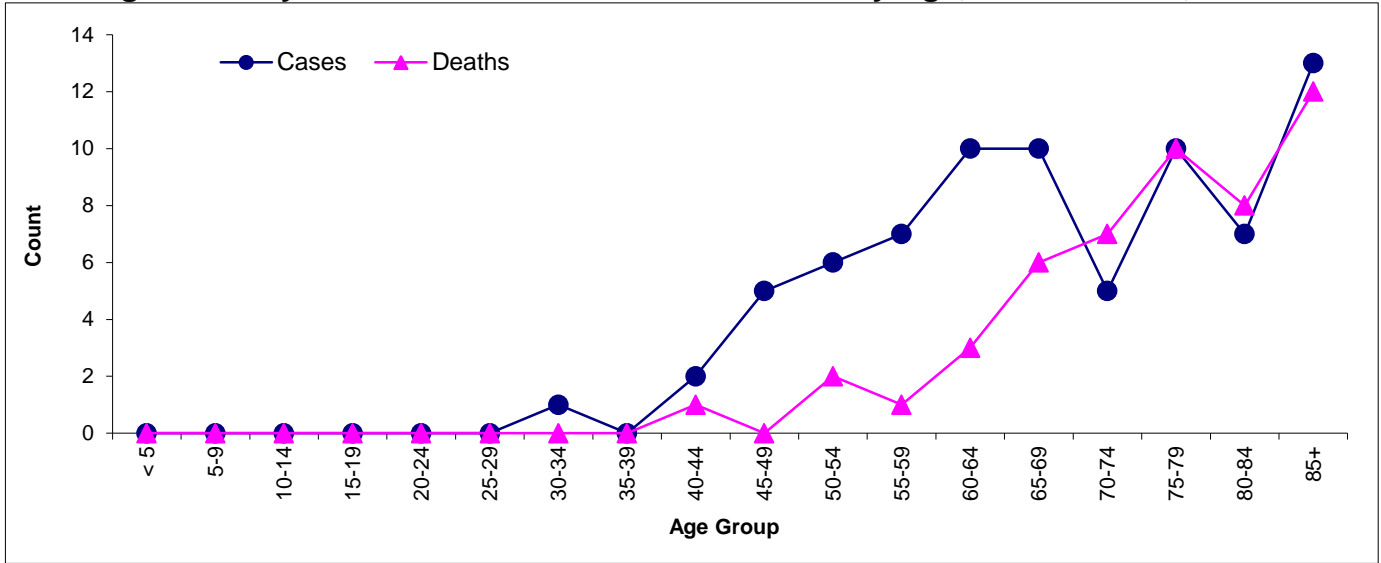
Mortality: The median survival prior to the common use of chemotherapy was about seven months. After the introduction of chemotherapy, prognosis improved significantly with a median survival of 24 to 30 months and a 10-year survival of 3%. During 2016, there were 50 deaths attributed to myeloma in South Dakota. Twenty-nine were male and 21 were female. The mortality rate for South Dakota was 4.8. The rate for men was 6.1 and 3.7 for women.

These rates compare to United States mortality rates of 3.2 overall, 4.1 for men and 2.6 for women.

Risk and Associated Factors: The etiology of myeloma is relatively unknown. There are many research studies evaluating the exposure of individuals with myeloma to various substances.

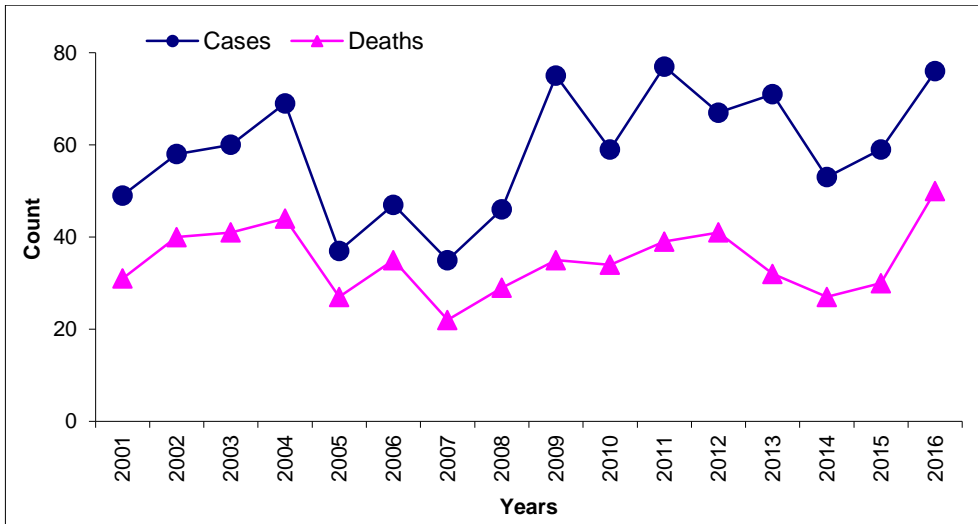
Early Detection and Prevention: There is no known test for screening for early detection. Some cases of myeloma progress very slowly, and they are referred to as smoldering or indolent myeloma. The presence of plasma cells and proteinuria do not automatically lead to myeloma, but it can be an early symptom. This disease is often asymptomatic in early stages of the disease. Myeloma is most often diagnosed clinically by radiological procedures and through cytology.

Figure 50: Myeloma Number of Cases and Deaths by Age, South Dakota, 2016



Source: South Dakota Department of Health

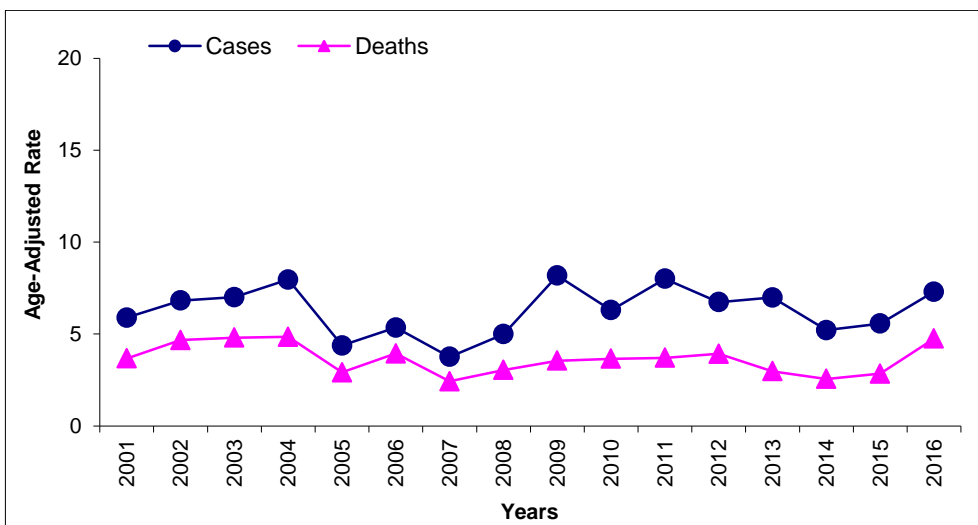
Figure 51: Myeloma Cancer Cases and Deaths by Year, South Dakota, 2001 - 2016



Source: South Dakota Department of Health

The incidence count for myeloma cancers took a sharp drop from 2004 to 2005 and 2013 to 2014, with an all-time high in 2011. Death counts were at an all-time high in 2016.

Figure 52: Myeloma 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