

Causes of Death

Selected Causes of Death for South Dakota Residents by Year of Death, 2014-2023 (Excluding Infant Deaths)

Cause of Death	Total	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Total Deaths	83,016	7,427	7,634	7,779	7,897	7,901	8,193	9,776	9,112	8,868	8,429
Heart disease (I00-I09, I11, I13, I20-I51)	17,608	1,695	1,712	1,732	1,708	1,797	1,838	1,818	1,691	1,835	1,782
Cancer (C00-C97)	16,977	1,679	1,632	1,690	1,717	1,631	1,736	1,727	1,740	1,686	1,739
Chronic lower respiratory diseases (J40-J47)	4,622	439	500	427	505	498	521	429	464	415	424
Alzheimer's disease (G30)	4,398	433	421	449	444	437	496	488	396	436	398
Stroke (I60-I69)	3,993	438	381	419	409	386	372	425	391	391	381
COVID-19 (U07)	2,871	0	0	0	0	0	0	1,497	775	448	151
Diabetes (E10-E14)	2,793	223	282	253	262	252	287	329	306	336	263
Chronic liver disease and cirrhosis (K70 & K73-K74)	1,994	128	137	158	152	185	154	235	329	281	235
Dementia (F00-F03)	1,963	188	198	192	183	212	146	194	196	199	255
Accidental falls (W00-W19)	1,937	170	181	185	196	149	202	217	229	219	189
Suicide (X60-X84, Y87.0)	1,779	141	173	161	192	168	185	185	202	192	180
Influenza and pneumonia (J09-J18)	1,753	178	212	195	215	245	188	142	121	127	130
Motor vehicle accidents	1,513	151	143	134	165	155	130	153	172	165	145
Hypertension (I10, I12, I15)	1,107	95	104	92	102	113	126	127	124	122	102
Septicemia (A40-A41)	1,024	80	119	81	100	117	120	104	107	99	97
Parkinson's disease (G20-G21)	906	63	80	86	89	104	91	102	98	99	94
Kidney disease (N00-N07, N17-N19, N25-N27)	794	72	79	92	75	71	72	66	86	79	102
Aspiration pneumonia (J69)	627	71	59	72	55	64	70	57	54	55	70
Accidental drug overdose (X40-X44)	622	46	44	52	54	43	71	70	86	83	73
Malnutrition (E40-E46)	569	16	13	27	17	49	62	86	71	106	122

Cause of Death	Total	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Chronic alcohol abuse (F10)	445	30	36	32	38	34	39	42	73	63	58
Urinary tract infection (N39.0)	415	34	39	44	50	43	40	41	51	42	31
High cholesterol/triglycerides (E78)	408	22	44	36	34	26	44	36	50	48	68
Pulmonary fibrosis (J84.1)	396	45	32	45	34	35	39	39	45	48	34
Homicide (X85-Y09, Y87.1)	376	24	33	36	33	31	30	52	45	53	39
Aortic aneurysm and dissection (I71)	339	29	39	36	37	33	22	44	32	30	37
Paralytic ileus and intestinal obstruction without hernia (K56)	332	26	24	37	34	35	28	33	35	39	41
Gastrointestinal hemorrhage, unspecified (K92.2)	282	24	29	35	31	30	26	36	13	25	33
Peripheral vascular disease, unspecified (I73.9)	254	17	17	32	26	31	20	23	30	26	32
Lewy Body Dementia (G31.8)	249	13	19	27	21	34	23	25	23	33	31
Preleukemia (D46)	247	22	32	26	29	24	31	21	16	28	18
Bowel infarction (Plus other vascular disorders of intestine) (K55)	234	20	20	27	27	23	22	26	27	26	16
Amyotrophic lateral sclerosis (ALS) (G12.2)	226	17	23	29	23	21	18	18	27	24	26
Obesity (E66)	224	10	15	21	20	17	26	21	38	34	22
Congenital malformations, deformations, and chromosomal abnormalities (Q00-Q99)	200	25	11	14	20	23	21	25	25	17	19
Interstitial lung disease (J84.9)	191	14	11	21	23	20	18	22	14	18	30
Senile degeneration of brain (G31.1)	178	3	6	4	5	8	24	20	23	29	56
Undetermined cause of death (R96-R99)	176	48	18	27	7	13	13	10	19	10	11
Anemias (D50-D64)	173	17	22	22	21	15	12	12	15	14	23
Gallstones and other disorders of gallbladder (K80-K82)	150	15	10	12	11	12	19	15	21	18	17
Multiple sclerosis (G35)	143	22	9	21	13	12	13	16	11	12	14
Fatty liver (K76.0)	138	6	9	8	19	5	15	17	16	22	21
Peptic ulcer (K25-K28)	128	11	10	6	13	13	16	16	16	15	12
Senility (R54)	127	10	12	15	9	13	17	10	10	18	13
Cellulitis (L03)	125	8	6	9	12	11	14	17	14	22	12
Enterocolitis due to Clostridium difficile (A04.7)	124	15	17	11	21	9	10	6	12	15	8
Accidental poisoning by and exposure to alcohol (X45)	119	7	9	11	10	11	12	23	15	11	10

Cause of Death	Total	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Accidental exposure to smoke, fire, and flames (X00-X09)	114	5	9	10	19	8	11	11	19	12	10
Bone infection (M86)	113	8	2	10	9	13	14	18	17	10	12
Blood clot (I80)	106	4	7	11	11	12	18	10	15	11	7
Exposure to excessive natural cold (X31)	104	8	5	14	13	13	10	8	9	15	9
Rheumatoid arthritis (M05-M06)	103	6	16	10	16	17	3	6	7	8	14
Accidental drowning (W65-W74)	101	8	11	7	8	11	12	13	13	12	6
Acute pancreatitis (K85)	100	9	7	10	10	8	14	7	10	14	11
Diverticular disease of intestine (K57)	92	14	7	6	5	12	11	9	8	16	4
Viral infection of unspecified site (B34)	92	2	4	8	7	16	11	11	8	12	13
Liver disease, unspecified type (K76.9)	91	7	11	17	9	7	9	7	7	7	10
Epilepsy (G40)	87	5	12	6	9	7	11	5	11	9	12
Viral hepatitis (B15-B19)	86	11	11	11	6	9	7	6	9	7	9
Bloodstream infection (Plus other bacterial infections) (A49)	86	9	8	5	1	7	6	10	11	14	15
Hernia (K40-K46)	85	5	11	6	9	10	5	9	15	8	7
Perforation of intestine (K63.1)	85	9	8	10	6	5	6	14	13	5	9
Events of undetermined intent (Y10-Y34, Y87.2, Y89.9)	85	9	17	4	6	5	12	8	6	10	8
Coagulation defects, purpura, and other hemorrhagic conditions (D65-D69)	84	9	8	12	10	6	6	8	9	10	6
Degenerative diseases of the spine (M40-M54)	80	3	6	10	11	7	9	7	12	9	6
Atherosclerosis (I70)	79	10	17	9	4	9	6	10	5	4	5
Brain damage due to lack of oxygen (G93.1)	78	3	5	6	9	6	9	10	12	11	7
Amyloidosis (E85)	77	5	5	8	2	7	6	12	6	16	10
Cerebral palsy (G80)	72	4	9	10	5	9	5	10	7	6	7
Brain illness/dysfunction (Encephalopathy) (G93.4)	70	4	5	2	6	8	10	7	11	8	9
Frontotemporal dementia (G31.0)	68	7	3	8	8	4	7	9	8	8	6
Choking on food (W79)	68	7	4	10	7	4	7	3	5	8	13
Liver failure (K72)	67	6	6	5	3	7	6	6	11	9	8
Volume depletion (E86)	65	11	8	6	10	2	5	7	5	6	5
Brain dysfunction caused by a chemical imbalance in the blood (E88.9)	65	3	4	0	4	3	5	12	16	9	9
Lung disease (Plus other disorders of lung) (J98.4)	62	5	4	7	7	6	5	4	9	6	9

Cause of Death	Total	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Benign neoplasms (D10-D36)	62	4	9	5	7	1	5	9	12	5	5
Diseases of peritoneum (K65-K67)	59	5	8	5	3	7	4	5	13	5	4
Respiratory failure (J96)	56	1	3	4	3	2	13	9	6	6	9
Enlarged prostate (N40)	53	1	2	2	7	4	10	6	4	8	9
Kidney infection (N10-N12, N13.6, N15.1)	52	1	3	2	4	8	5	3	5	10	11
Chronic drug abuse (F11-F16, F18-F19)	51	7	6	5	6	2	3	3	3	7	9
Sleep apnea (G47.3)	51	5	0	8	3	7	8	3	5	7	5
Scleroderma (M34)	50	7	6	4	7	7	7	6	3	2	1
Disorders of thyroid gland (E00-E07)	49	4	5	2	2	4	6	3	4	10	9
Bone marrow disorders (D47.1)	46	5	5	4	4	4	7	6	2	4	5
Acidosis (E87.2)	46	3	3	4	2	8	6	0	11	2	7
Human immunodeficiency virus (HIV) disease (B20-B24)	44	4	2	6	3	7	7	1	8	5	1
Fungal infection (B35-B49)	43	6	7	6	3	6	2	0	7	4	2
Legal intervention (Y35, Y89.0)	38	3	2	5	4	4	3	2	4	7	4
Accidental discharge of firearms (W32-W34)	38	2	5	5	2	7	0	5	0	7	5
High potassium (E87.5)	36	2	1	3	2	4	7	4	1	5	7
Osteoarthritis (M15-M19)	35	4	2	2	5	5	6	2	4	3	2
Complications of medical and surgical care (Y40-Y84, Y88)	31	3	1	5	3	3	2	4	4	3	3
Kidney stones (N20-N23)	30	2	0	2	1	2	2	6	4	7	4
Polyneuropathies and other disorders of the peripheral nervous system (G60-G64)	29	1	4	1	2	4	3	3	4	4	3
Positional asphyxia (W84)	28	3	1	4	4	4	1	3	2	1	5
Excess sodium in the blood (E87.0)	27	4	4	1	3	1	0	4	3	2	5
Myasthenia gravis (G70.0)	26	2	6	4	3	2	3	1	2	3	0
Meningitis (G00, G03)	26	3	3	1	4	2	5	2	3	1	2
Arterial embolism and thrombosis (I74)	26	2	1	4	3	2	1	2	4	3	4
Choking on any object except food (W80)	26	1	1	2	3	2	0	5	3	2	7
Gastritis and duodenitis (K29)	25	3	5	3	1	2	2	3	4	2	0
Depression (F32)	24	3	1	2	2	1	4	2	5	2	2
Disorders of mineral metabolism (E83)	24	2	1	1	2	0	2	2	4	6	4
Brain and central nervous system neoplasms of unknown behavior (D43)	23	2	2	6	2	1	2	3	3	2	0

Cause of Death	Total	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Esophageal obstruction (K22.2)	22	2	3	4	2	2	4	1	2	1	1
West Nile fever (A92.3)	22	2	1	4	2	3	1	2	2	1	4
Huffing (X46, X47, X49)	22	0	3	2	3	2	2	4	1	1	4
Accidental poisoning and exposure to carbon monoxide (X47)	22	5	1	1	1	1	0	1	4	6	2
Contact with non-agricultural and unspecified machinery (W31)	21	0	1	5	0	1	2	6	2	2	2
Struck by thrown, projected, or falling object (W20)	21	5	2	2	1	2	0	4	2	2	1
Rhabdomyolysis (Plus other disorders of muscle) (M62)	20	2	1	1	1	4	1	0	3	3	4
Pyothorax (J86)	20	1	2	0	2	1	4	4	2	2	2
Explosion (W35-W40)	20	1	0	7	0	1	3	3	0	2	3
Crohn's disease (K50)	20	1	2	2	3	2	0	3	3	4	0
Tuberculosis (A16-A19)	19	2	3	2	4	1	1	1	2	1	2
Fluid overload (E87.7)	19	0	2	3	2	0	0	2	3	3	4
Aircraft accidents (V95)	19	5	1	3	1	3	2	2	0	2	0
Sarcoidosis (D86)	18	1	2	1	2	2	3	0	2	2	3
Contact with agricultural machinery (W30)	18	1	3	2	3	5	0	1	0	1	2
Schizophrenia (F20)	18	4	4	3	2	0	1	0	3	0	1
Flesh-eating disease (M72.6)	16	1	0	0	1	3	2	2	1	4	2
Water transport accidents (V90-V94)	16	0	4	4	0	0	1	1	2	2	2
Immunocompromised condition (D89)	15	1	2	1	2	3	0	1	1	3	1
Exposure to excessive natural heat (X30)	14	1	1	1	2	0	0	3	1	2	3
Abnormal involuntary movements of esophagus (K22.4)	14	1	3	0	0	0	1	1	3	2	3
Acute bronchitis and bronchiolitis (J20-J21)	14	0	3	1	1	0	2	3	1	3	0
Ulcerative colitis (K51)	13	1	0	0	2	1	1	0	2	3	3
Schizoaffective disorders (F25)	12	0	1	0	2	0	0	2	2	1	4
Noninflammatory disorders of female genital tract (N80-N98)	12	1	1	2	1	1	2	0	2	0	2
Acute upper respiratory infections (J00-J06)	12	0	0	4	1	0	2	2	0	2	1
Skin abscess and/or boil (L02)	10	0	0	1	2	1	0	2	2	0	2
Myositis (M60)	10	1	0	1	1	0	4	2	0	1	0

Source: South Dakota Department of Health, Office of Health Statistics

Note: Causes of death in yellow highlight indicate that the largest number of deaths (Highest death rate by at least 5%) in the past 10 years occurred in 2023; causes of death in blue highlight indicate that the smallest number of deaths (Lowest death rate by at least 5%) in the past 10 years occurred in 2023.

CRUDE DEATH RATES FOR THE TOP 20 CAUSES OF DEATH

Figure 1
South Dakota Resident Crude Death Rate Due to Heart Disease by Year of Death, 2014-2023

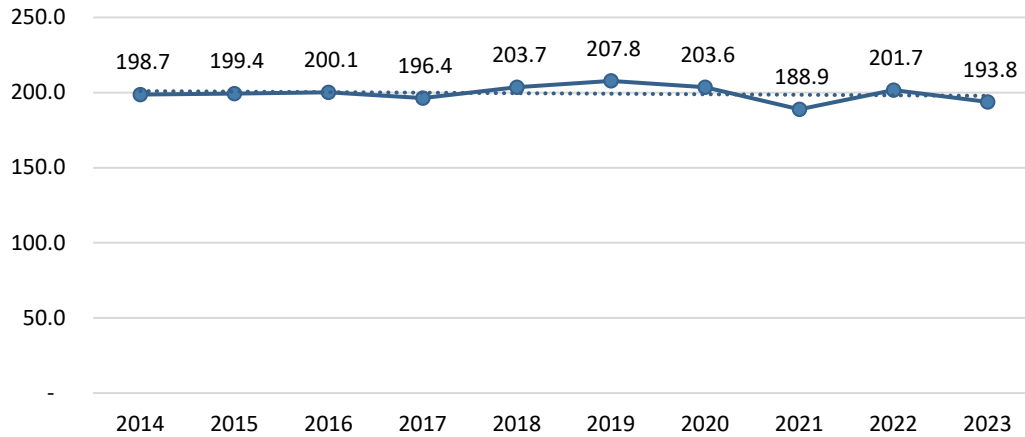


Figure 2
South Dakota Resident Crude Death Rate Due to Cancer by Year of Death, 2014-2023

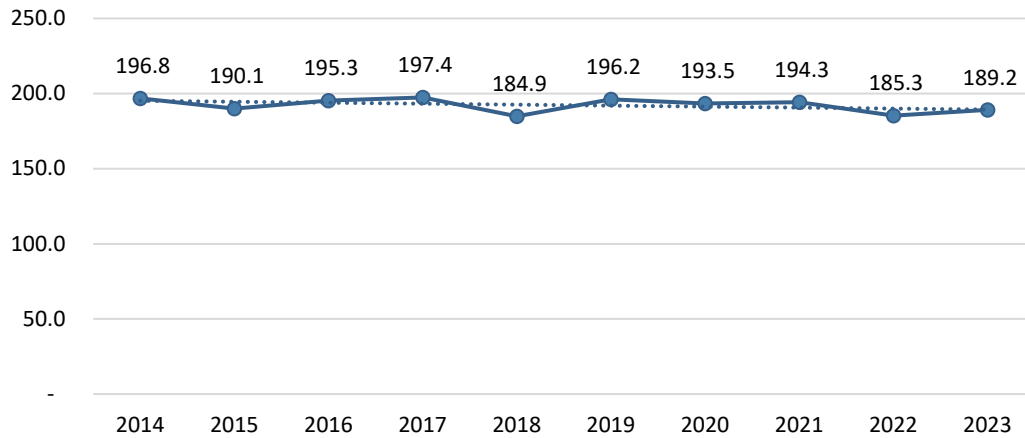
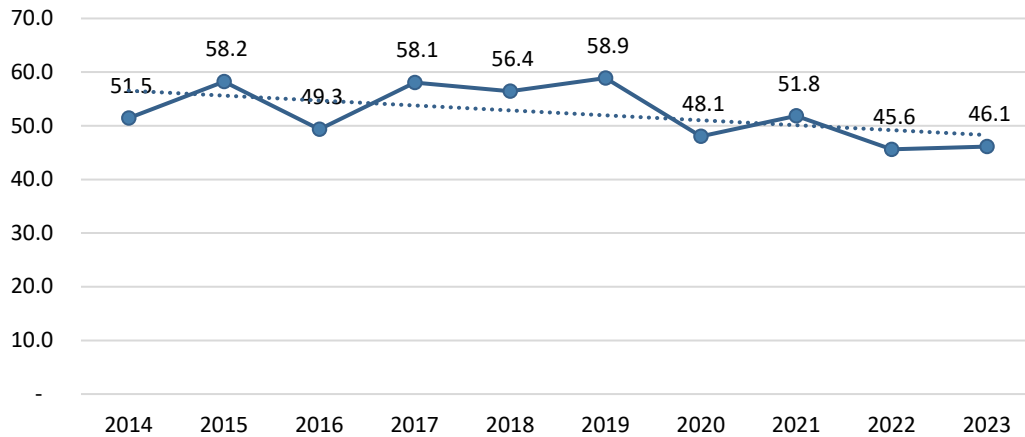


Figure 3
South Dakota Resident Crude Death Rate Due to Chronic Lower Respiratory Diseases by Year of Death, 2014-2023



*Crude Death Rates are per 100,000 population

Figure 4
South Dakota Resident Crude Death Rate Due to Alzheimers Disease by Year of Death, 2014-2023

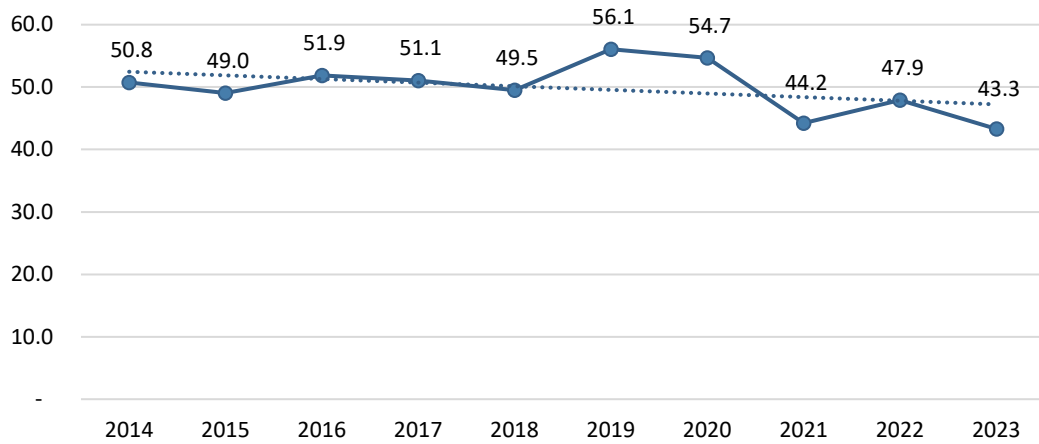


Figure 5
South Dakota Resident Crude Death Rate Due to Stroke by Year of Death, 2014-2023

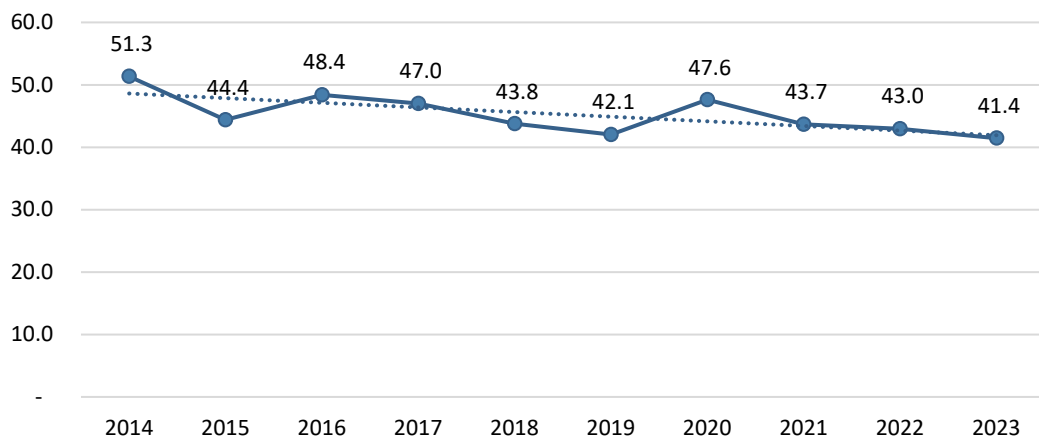
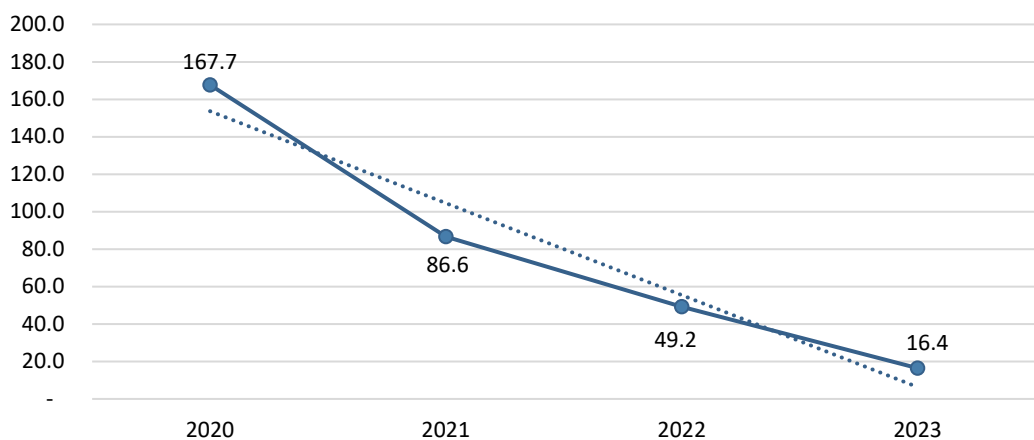


Figure 6
South Dakota Resident Crude Death Rate Due to COVID-19 by Year of Death, 2020-2023



*Crude Death Rates are per 100,000 population

Figure 7
 South Dakota Resident Crude Death Rate Due to Diabetes by Year of Death, 2014-2023

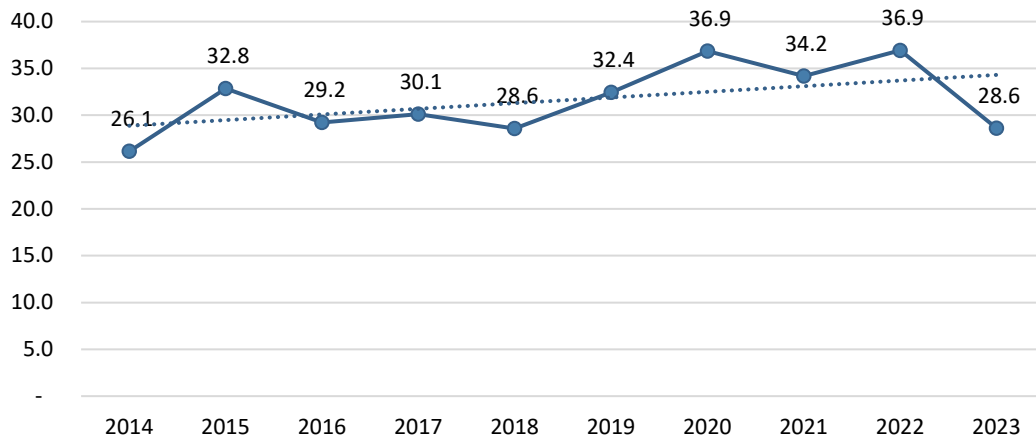


Figure 8
 South Dakota Resident Crude Death Rate Due to Chronic Liver Disease and Cirrhosis by Year of Death, 2014-2023

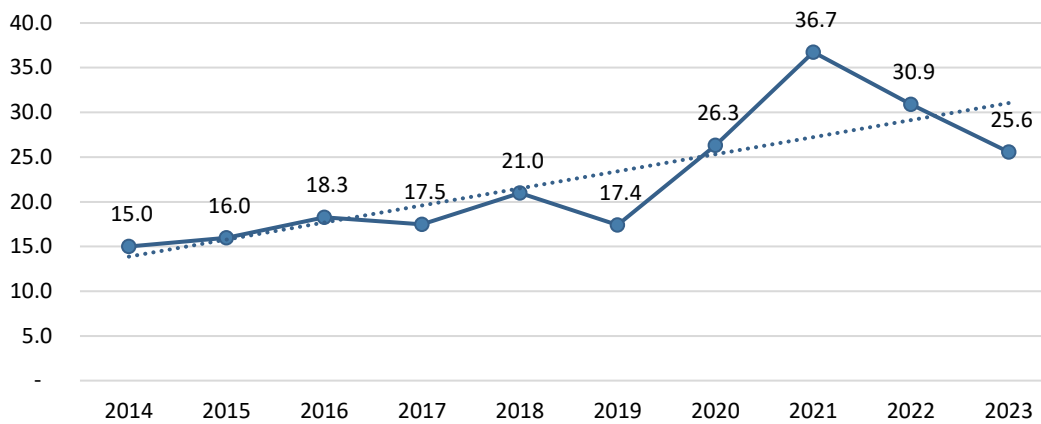
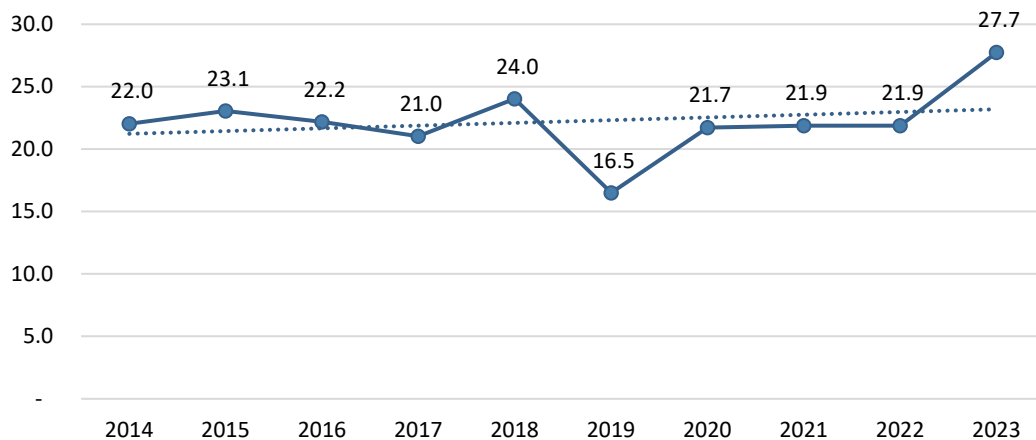


Figure 9
 South Dakota Resident Crude Death Rate Due to Dementia by Year of Death, 2014-2023



*Crude Death Rates are per 100,000 population

Figure 10
 South Dakota Resident Crude Death Rate Due to Accidental Falls by
 Year of Death, 2014-2023

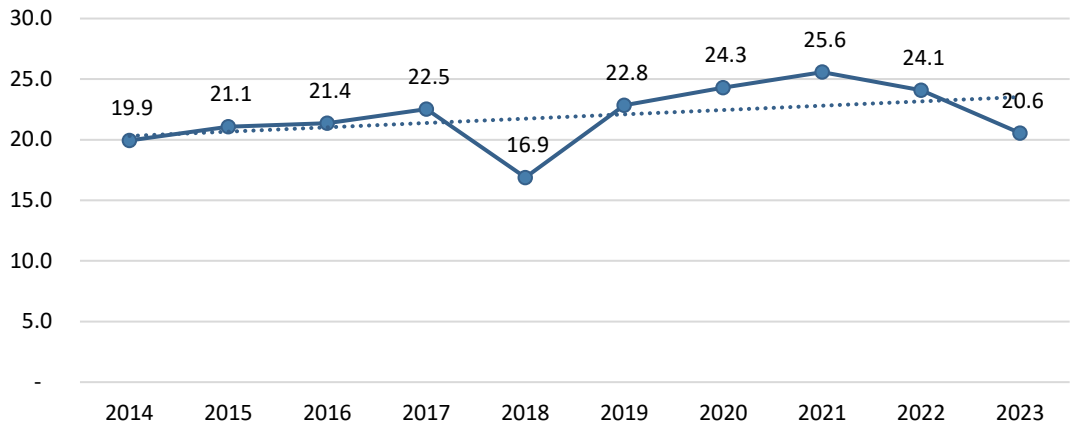


Figure 11
 South Dakota Resident Crude Death Rate Due to Suicide by Year
 of Death, 2014-2023

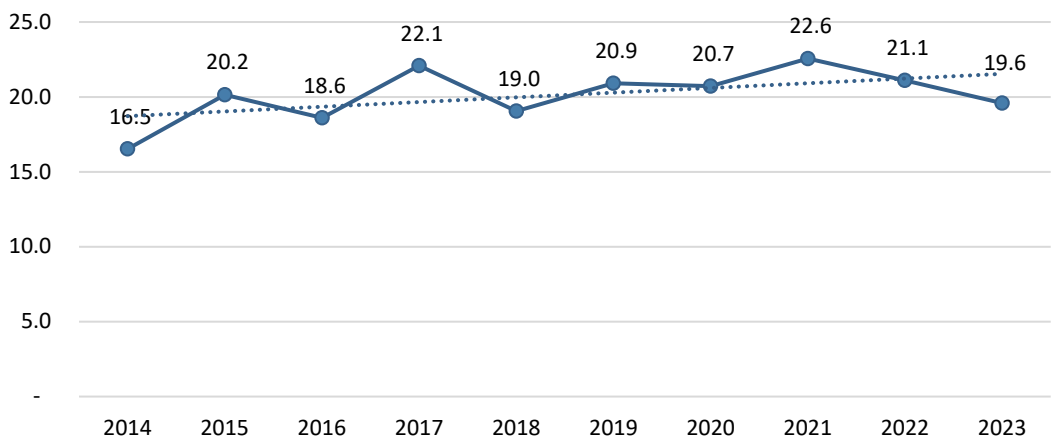
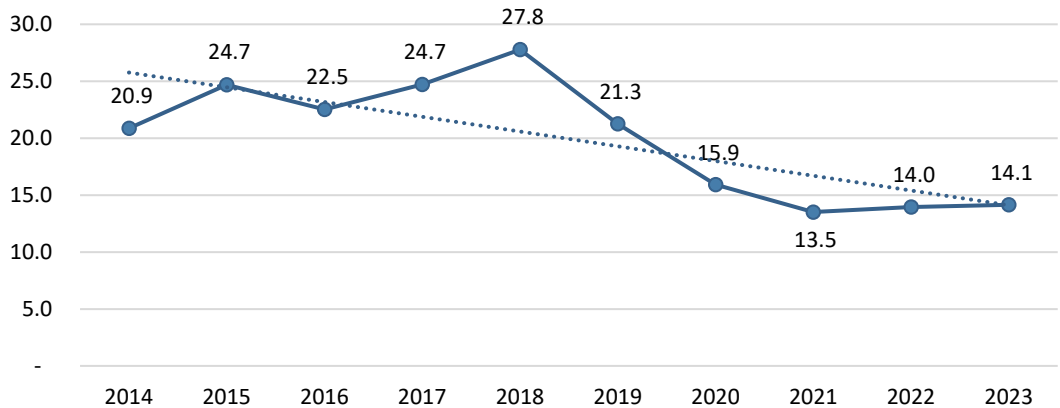


Figure 12
 South Dakota Resident Crude Death Rate Due to Influenza and
 Pneumonia by Year of Death, 2014-2023



*Crude Death Rates are per 100,000 population

Figure 13
 South Dakota Resident Crude Death Rate Due to Motor Vehicle
 Accidents by Year of Death, 2014-2023

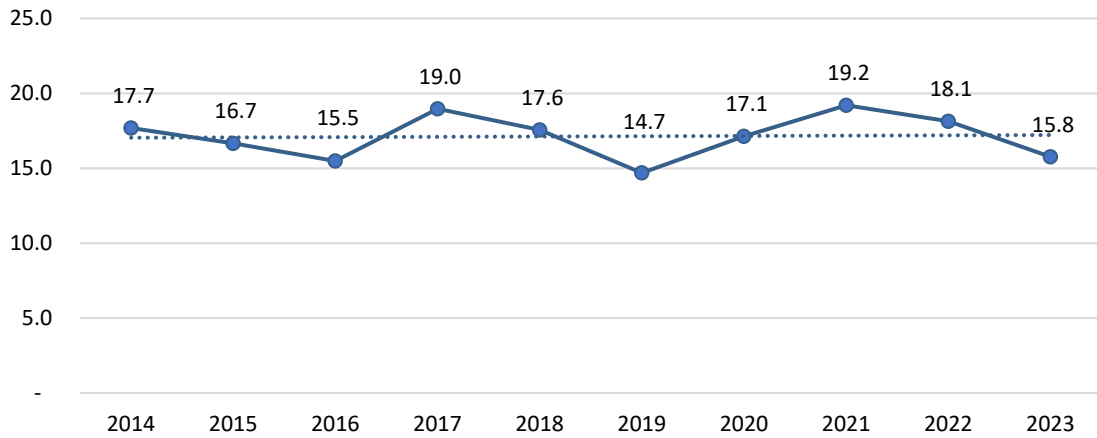


Figure 14
 South Dakota Resident Crude Death Rate Due to Hypertension by
 Year of Death, 2014-2023

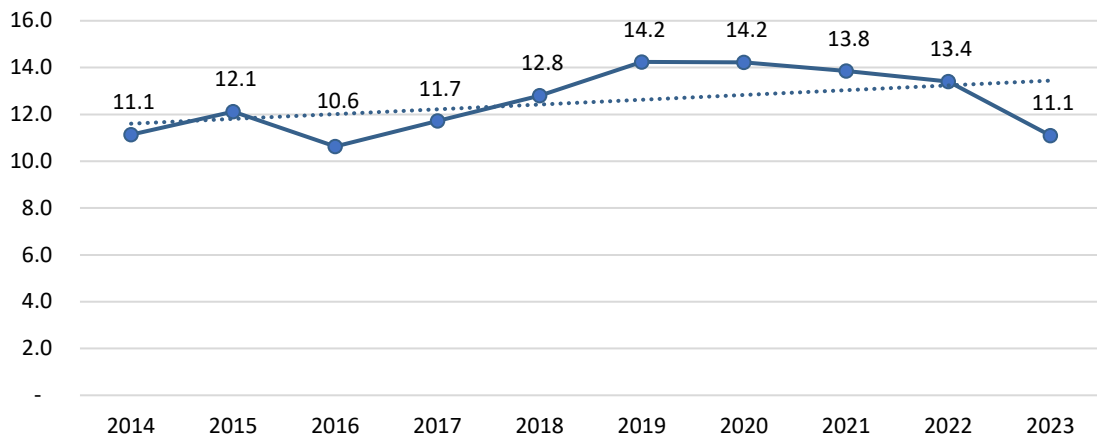
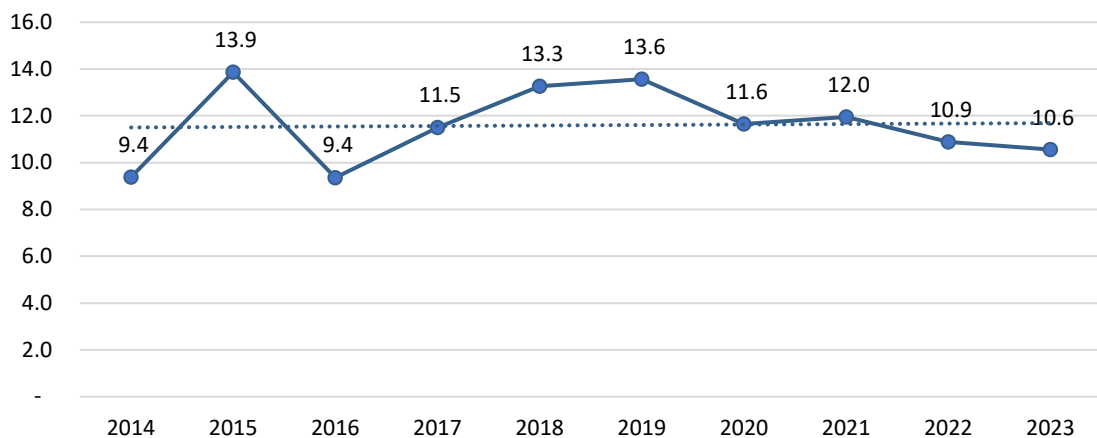


Figure 15
 South Dakota Resident Crude Death Rate Due to Septicemia by Year
 of Death, 2014-2023



*Crude Death Rates are per 100,000 population

Figure 16
 South Dakota Resident Crude Death Rate Due to Parkinson's Disease
 by Year of Death, 2014-2023

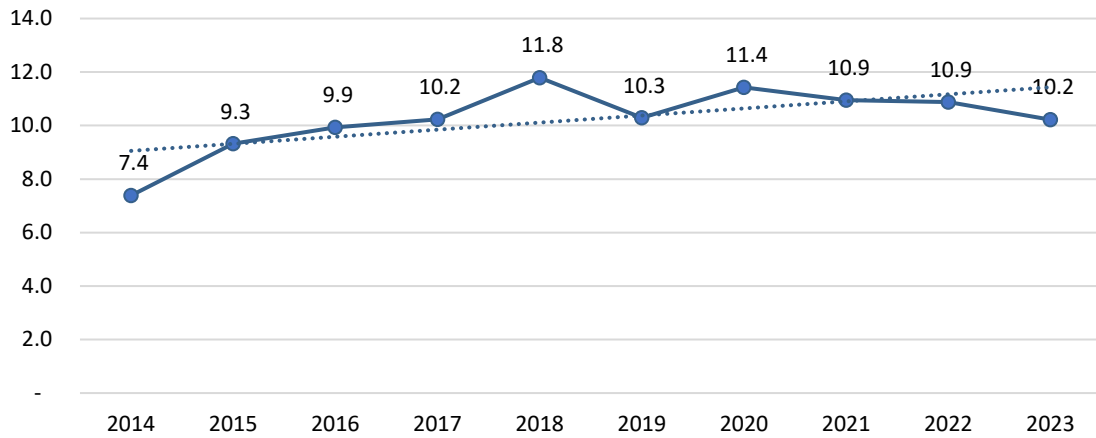


Figure 17
 South Dakota Resident Crude Death Rate Due to Kidney Disease by
 Year of Death, 2014-2023

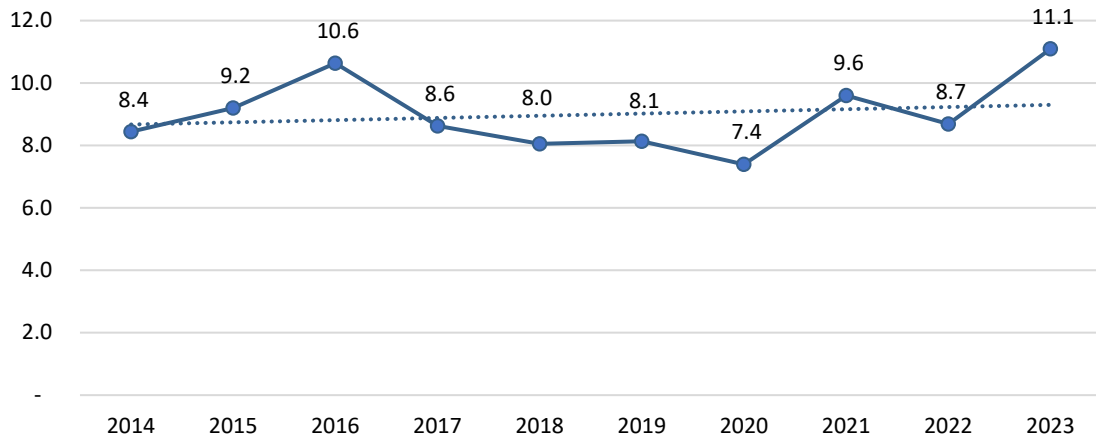
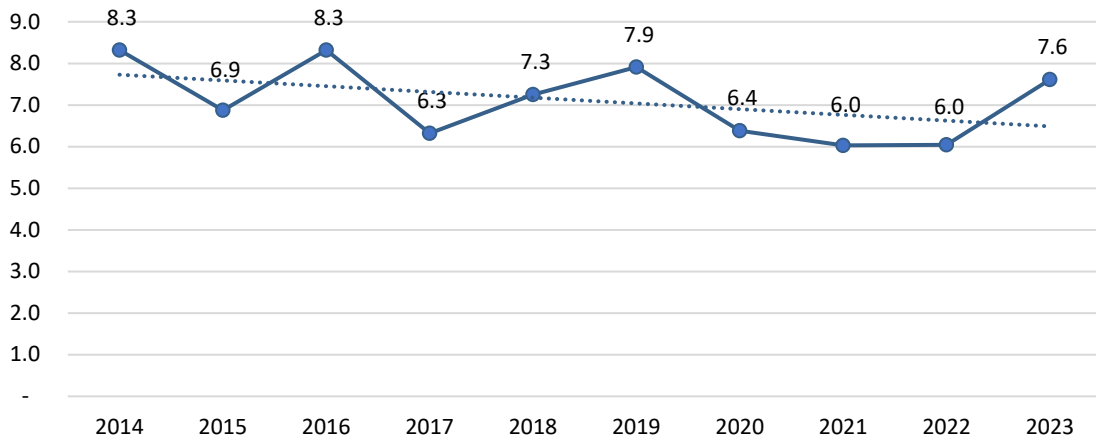


Figure 18
 South Dakota Resident Crude Death Rate Due to Aspiration
 Pneumonia by Year of Death, 2014-2023



*Crude Death Rates are per 100,000 population

Figure 19
 South Dakota Resident Crude Death Rate Due to Accidental Drug
 Overdose by Year of Death, 2014-2023

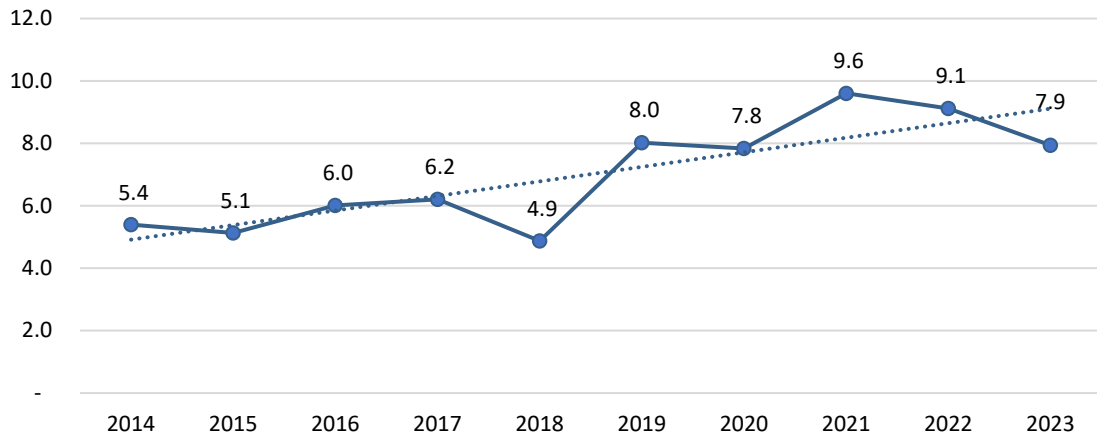
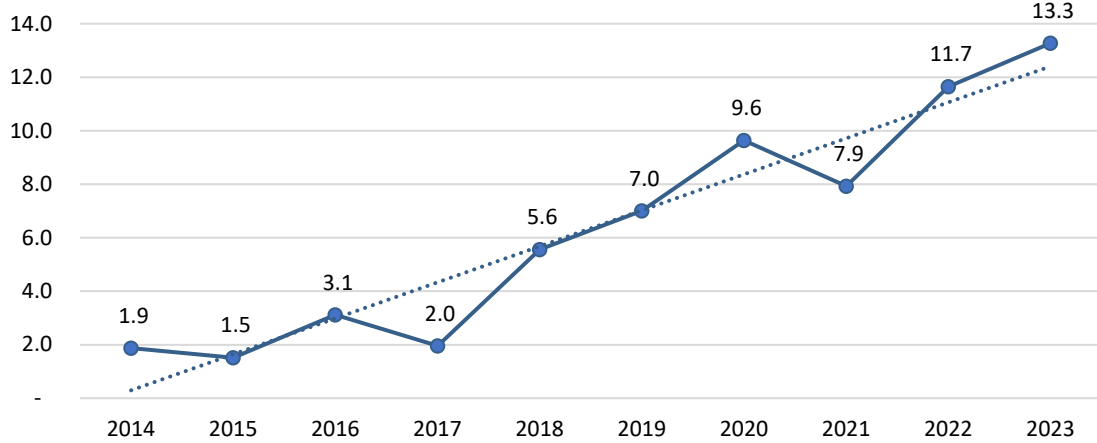


Figure 20
 South Dakota Resident Crude Death Rate Due to Malnutrition by Year
 of Death, 2014-2023



*Crude Death Rates are per 100,000 population

Causes of Death with Extreme Change in 2023

CRUDE DEATH RATES

	Causes of Deaths with a Very Low or Very High Crude Death Rate in 2023 Compared to Previous Years, 2014-2023									
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Dementia (F00-F03)	22.0	23.1	22.2	21.0	24.0	16.5	21.7	21.9	21.9	27.7
Senile degeneration of brain (G31.1)	0.4	0.7	0.5	0.6	0.9	2.7	2.2	2.6	3.2	6.1
Urinary tract infection (N39.0)	4.0	4.5	5.1	5.7	4.9	4.5	4.6	5.7	4.6	3.4
Bowel infarction (Plus other vascular disorders of the intestine) (K55)	2.3	2.3	3.1	3.1	2.6	2.5	2.9	3.0	2.9	1.7

Source: South Dakota Department of Health, Office of Health Statistics

Figure 21
South Dakota Resident Crude Death Rate Due to Dementia by Year of Death, 2014-2023

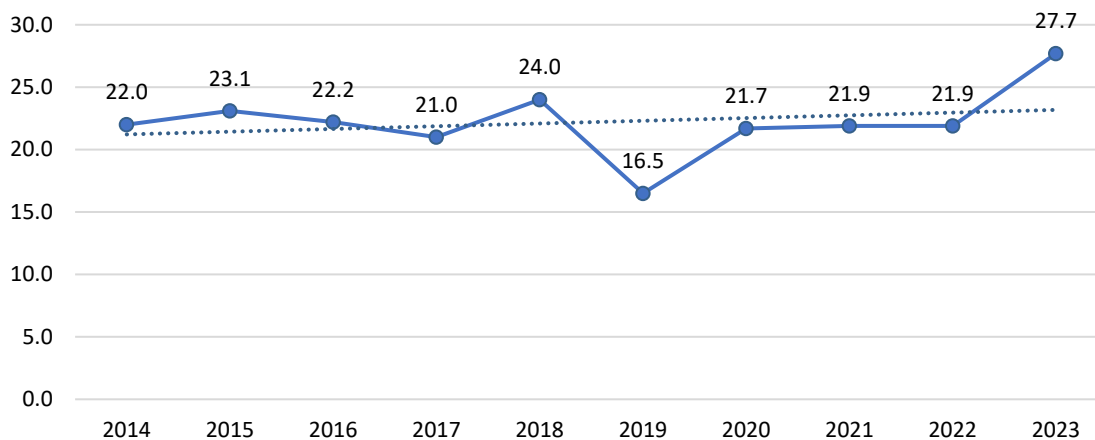
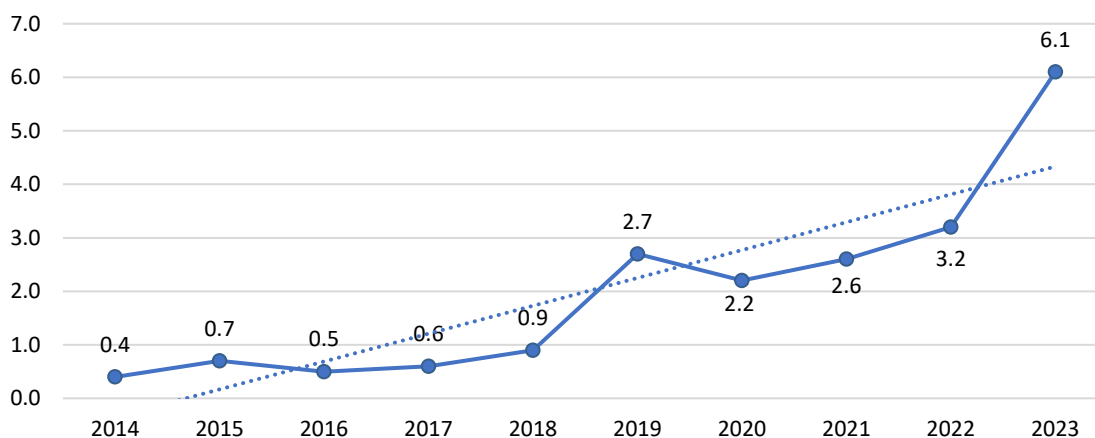


Figure 22
South Dakota Resident Crude Death Rate Due to Senile Degeneration of Brain by Year of Death, 2014-2023



*Crude Death Rates are per 100,000 population

Figure 23
 South Dakota Resident Crude Death Rate Due to Urinary Tract Infection by Year of Death, 2014-2023

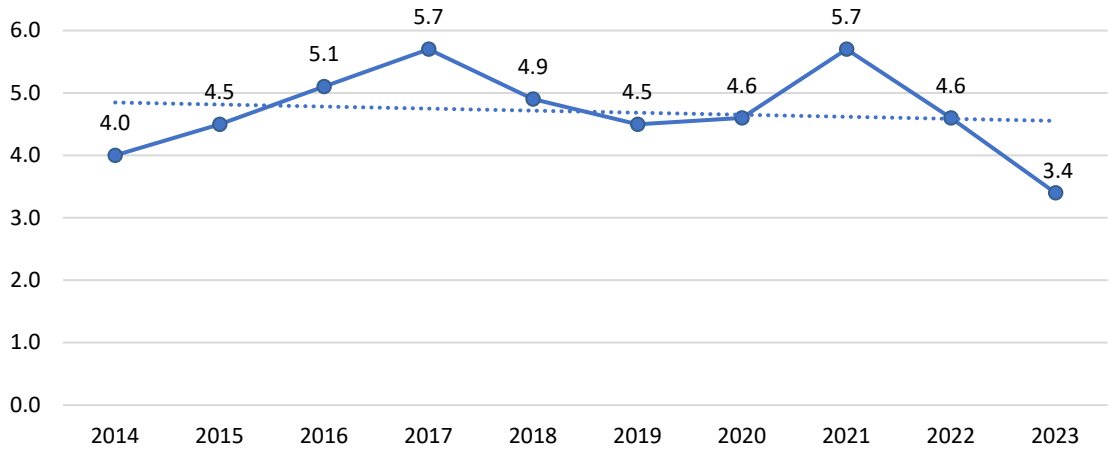
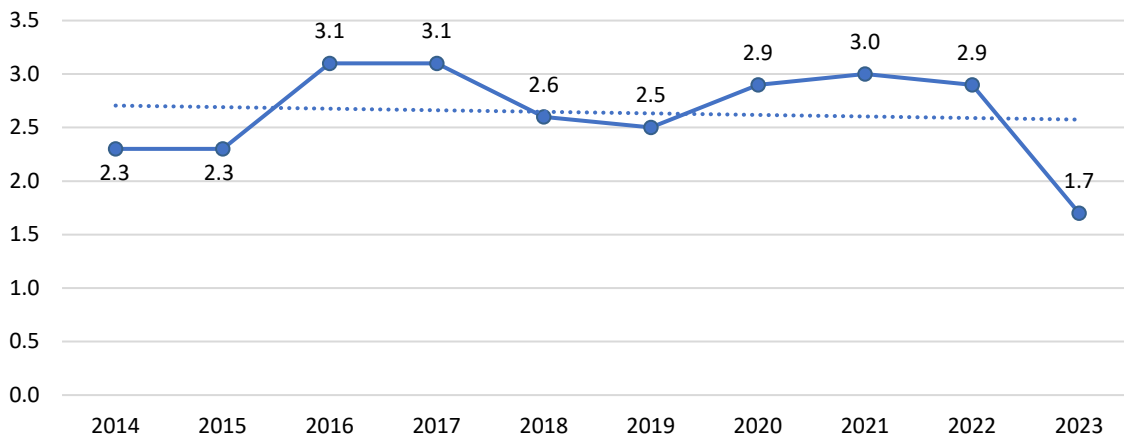


Figure 24
 South Dakota Resident Crude Death Rate Due to Bowel Infarction (plus other vascular disorders of the intestine) by Year of Death, 2014-2023



*Crude Death Rates are per 100,000 population

MEDIAN AGE AT DEATH

	Median Age at Death										
	2014-2023	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Dementia (F00-F03)	90	89	89	90	90	90	89	89	90	89	90
Senile degeneration of brain (G31.1)	89	88	91	88	95	89	88	92	91	91	87
Urinary tract infection (N39.0)	86	87	89	87	86	87	87	87	86	85	81
Bowel infarction (Plus other vascular disorders of the intestine) (K55)	77	82	80	83	76	79	74	76	75	74	78

Source: South Dakota Department of Health, Office of Health Statistics

Figure 25
South Dakota Resident Median Age at Death for Dementia, 2014-2023

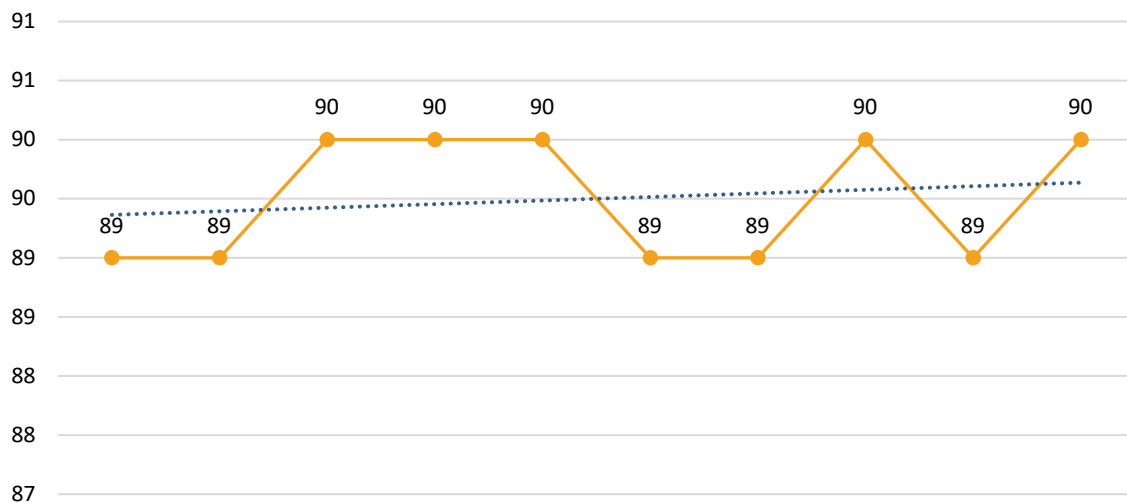


Figure 26
South Dakota Resident Median Age at Death for Senile Degeneration of Brain, 2014-2023

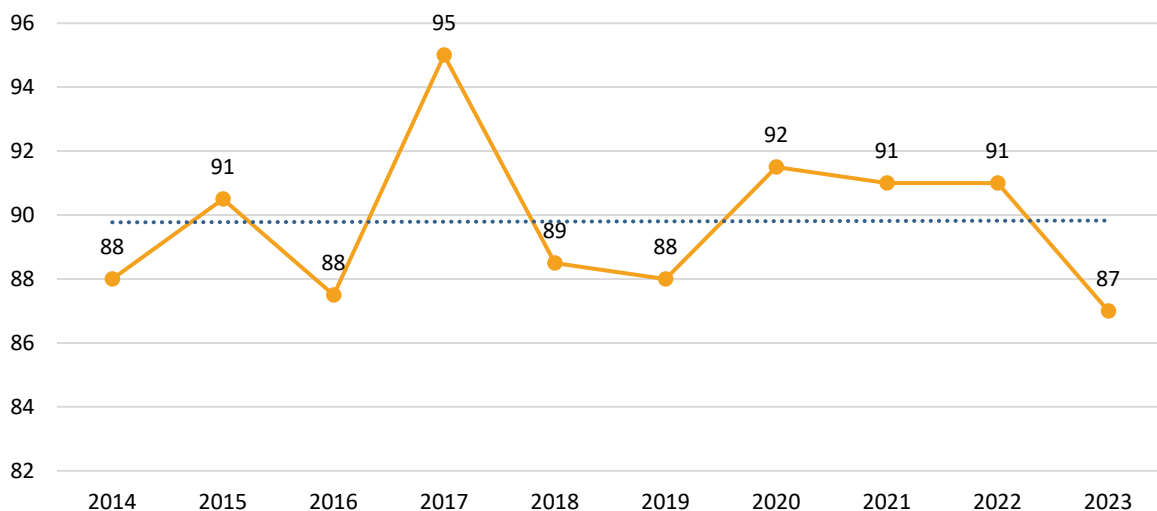


Figure 27
 South Dakota Resident Median Age at Death for Urinary Tract Infection,
 2014-2023

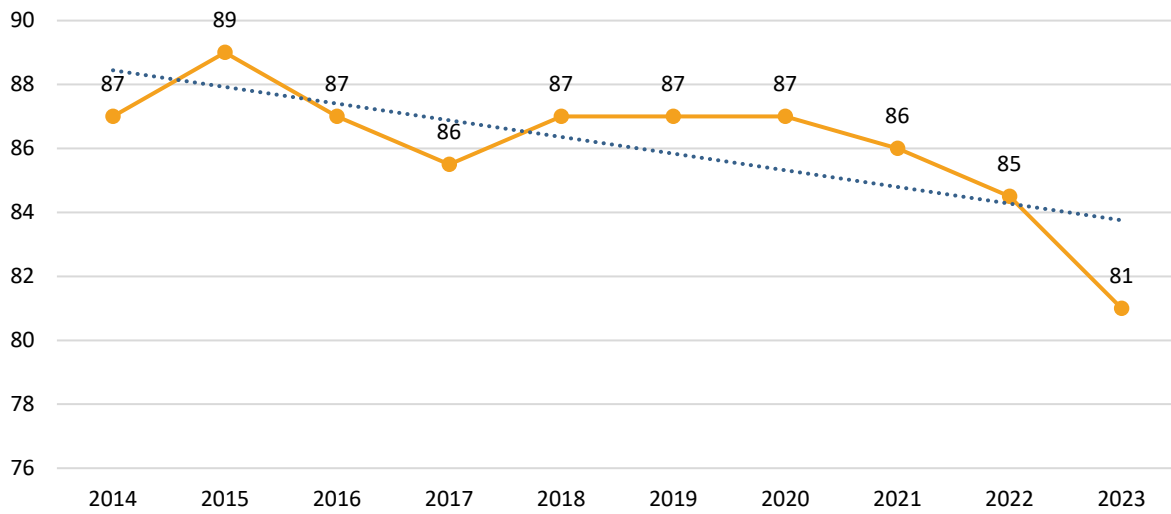
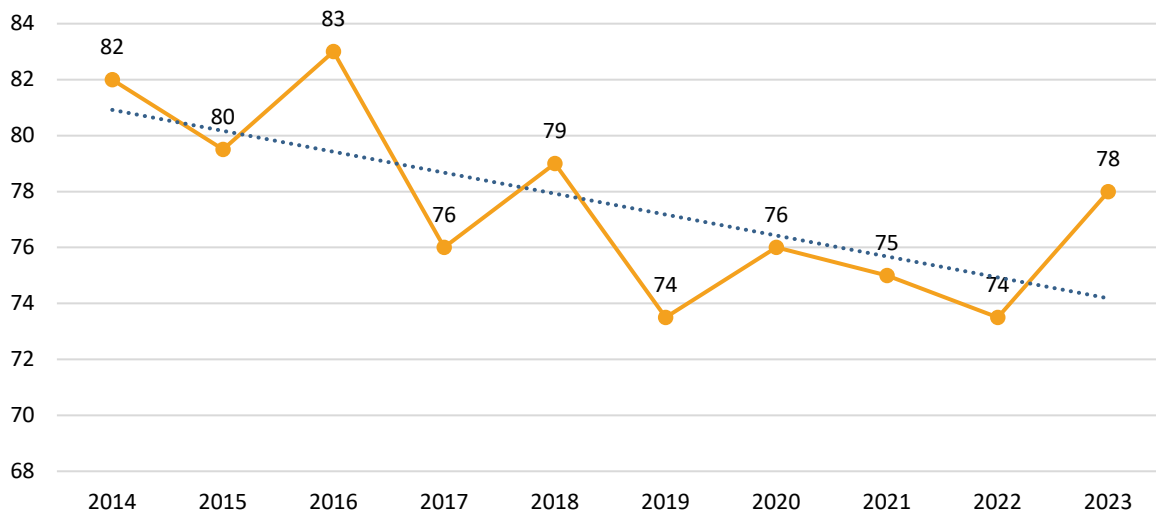


Figure 28
 South Dakota Resident Median Age at Death for Bowel Infarction (plus
 other vascular disorders of the intestine), 2014-2023



CHRONIC DISEASE, CONDITION, BEHAVIOR, AND SHORT-TERM COMORBIDITIES

South Dakota Resident Deaths Due to Dementia with Most Prevalent Chronic Disease, Condition, Behavior, and Short-Term Comorbidities Listed, 2014-2023	Total Deaths	% of Dementia Deaths	% of All Deaths
Dementia (F00-F03)	1,963		
Chronic Disease/Condition/Behavior Comorbidity			
Heart disease (I00-I09, I11, I13, I20-I51)	615	31%	24%
Hypertension (I10, I12, I15)	554	28%	19%
Cerebrovascular disease (I60-I69)	348	18%	4%
Diabetes (E10-E14)	230	12%	10%
Senility (R54)	152	8%	2%
High cholesterol/triglycerides (E78)	103	5%	4%
Cancer (C00-C97)	75	4%	3%
Short-Term Comorbidity Condition at Death			
Malnutrition (E40-E46)	227	12%	4%
Failure to thrive (R62.8)	211	11%	2%
Influenza and pneumonia (J09-J18)	186	9%	7%
Urinary tract infection (N39.0)	131	7%	2%
Aspiration pneumonia (J69)	106	5%	2%
Dysphagia (R13)	102	5%	2%
Volume depletion (E86)	64	3%	1%
Respiratory arrest (R09.2)	55	3%	2%

Source: South Dakota Department of Health, Office of Health Statistics

South Dakota Resident Deaths Due to Senile Degeneration of Brain with Most Prevalent Chronic Disease, Condition, Behavior, and Short-Term Comorbidities Listed, 2014-2023	Total Deaths	% of Senile Degeneration of Brain Deaths	% of All Deaths
Senile Degeneration of brain (G31.1)	178		
Chronic Disease/Condition/Behavior Comorbidity			
Hypertension (I10, I12, I15)	55	31%	19%
Heart disease (I00-I09, I11, I13, I20-I51)	47	26%	24%
Kidney disease (N00-N07, N17-N19, N25-N27)	31	17%	15%
Dementia (F00-F03)	31	17%	5%
Diabetes (E10-E14)	23	13%	10%
Cerebrovascular disease (I60-I69)	16	9%	4%
Short-Term Comorbidity Condition at Death			
Malnutrition (E40-E46)	28	16%	4%
Dysphagia (R13)	11	6%	2%

Source: South Dakota Department of Health, Office of Health Statistics

South Dakota Resident Deaths Due to Urinary Tract Infection with Most Prevalent Chronic Disease, Condition, Behavior, and Short-Term Comorbidities Listed, 2014-2023	Total Deaths	% of Urinary Tract Infection Deaths	% of All Deaths
Urinary tract Infection (N39.0)	415		
Chronic Disease/Condition/Behavior Comorbidity			
Heart disease (I00-I09, I11, I13, I20-I51)	134	32%	24%
Kidney disease (N00-N07, N17-N19, N25-N27)	121	29%	15%
Diabetes (E10-E14)	62	15%	10%
Cancer (C00-C97)	18	4%	3%
Chronic liver disease and cirrhosis (K70 & K73-K74)	12	3%	1%
Short-Term Comorbidity Condition at Death			
Septicemia (A40-A41)	274	66%	6%
Bacterial infection of unspecified site (A49)	28	7%	1%
Failure to thrive (R62.8)	14	3%	2%
Shock (R57)	13	3%	2%
Aspiration pneumonia (J69)	13	3%	2%
Acidosis (E87.2)	12	3%	1%
Acute kidney injury (N28.8)	12	3%	1%
Brain dysfunction caused by a chemical imbalance in the blood (E88.9)	12	3%	1%

Source: South Dakota Department of Health, Office of Health Statistics

South Dakota Resident Deaths Due to Bowel Infarction (plus other vascular disorders of the intestine) with Most Prevalent Chronic Disease, Condition, Behavior, and Short-Term Comorbidities Listed, 2014-2023	Total Deaths	% of Bowel Infarction Deaths	% of All Deaths
Bowel infarction (Plus other vascular disorders of the intestine) (K55)	234		
Chronic Disease/Condition/Behavior Comorbidity			
Heart disease (I00-I09, I11, I13, I20-I51)	77	33%	24%
Kidney disease (N00-N07, N17-N19, N25-N27)	65	28%	15%
Atherosclerosis (I70)	20	9%	1%
Chronic lower respiratory diseases (J40-J47)	20	9%	8%
Cancer (C00-C97)	14	6%	3%
Diseases of peritoneum (K65-K67)	13	6%	0.5%
Short-Term Comorbidity Condition at Death			
Septicemia (A40-A41)	97	41%	6%
Respiratory failure (J96)	34	15%	13%
Influenza and pneumonia (J09-J18)	18	8%	7%
Perforation of intestine (K63.1)	17	7%	0.2%
Gastrointestinal hemorrhage (K92.2)	14	6%	2%
Acidosis (E87.2)	13	6%	1%
Shock (R57)	13	6%	2%
Paralytic ileus and intestinal obstruction without hernia (K56)	11	5%	1%

Source: South Dakota Department of Health, Office of Health Statistics

Heart Disease Deaths

South Dakota Resident Heart Disease Deaths by Type of Heart Disease and Year of Death, 2014-2023 Excluding Infant Deaths

Type of Heart Disease	Total	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Total	17,608	1,695	1,712	1,732	1,708	1,797	1,838	1,818	1,691	1,835	1,782
Coronary artery disease (I20-I25)	11,480	1,182	1,210	1,139	1,110	1,181	1,188	1,136	1,105	1,181	1,048
Hypertensive heart disease (I11)	1,428	104	121	117	140	158	147	171	135	173	162
Heart failure (I50)	776	48	50	91	63	77	79	99	70	76	123
Atrial fibrillation and flutter (I48)	600	47	44	44	58	65	72	83	67	55	65
Aortic stenosis (Plus other nonrheumatic aortic valve disorders) (I35)	592	44	65	58	59	57	62	54	53	66	74
Cardiomyopathy (I42)	503	66	44	55	49	48	62	42	50	51	36
Pulmonary heart disease and diseases of pulmonary circulation (I26-I28)	492	57	41	61	52	53	48	44	36	46	54
Hypertensive heart and kidney disease (I13)	369	16	20	25	38	30	50	42	45	46	57
Endocarditis, valve unspecified (I38)	172	20	14	23	13	17	15	19	24	17	10
Chronic rheumatic heart diseases (I05-I09)	134	18	6	16	18	6	15	16	7	16	16
Cardiomegaly (Enlarged heart) (I51.7)	118	14	11	14	12	12	8	15	13	13	6
Nonrheumatic mitral valve disorders (I34)	105	3	11	12	13	7	10	9	14	11	15
Cardiac arrhythmia, unspecified type (I49.9)	77	11	6	7	13	8	5	7	3	4	13
Cardiac arrest (I46)	59	4	9	8	5	9	3	4	7	3	7
Acute and subacute endocarditis (I33)	52	2	6	2	5	10	7	6	3	3	8
Atrioventricular and left bundle-branch block (I44)	44	4	2	3	7	5	7	6	2	3	5
Pulseless electrical activity (I45.8)	36	0	1	2	3	8	5	4	3	4	6
Paroxysmal tachycardia (I47)	31	1	1	3	1	6	1	4	3	6	5
Ventricular fibrillation and flutter (I49.0)	27	1	2	0	3	3	2	2	1	6	7
Myocarditis (Inflammation of the heart muscle) (I51.4)	23	3	6	0	0	3	1	4	1	3	2
Sick sinus syndrome (I49.5)	22	5	2	1	2	1	3	3	2	3	0
Heart block (I45.9)	10	1	1	0	1	0	2	0	0	1	4
All other forms of heart disease	58	6	2	6	6	4	10	2	7	6	9
Unspecified type of heart disease (I51.6, I51.8, I51.9)	400	38	37	45	37	29	36	46	40	42	50

Source: South Dakota Department of Health, Office of Health Statistics

Note: The causes of death in yellow highlight indicate that the largest number of deaths (Highest death rate by at least 5%) in the past 10 years occurred in 2023; the causes of death in blue highlight indicate that the smallest number of deaths (Lowest death rate by at least 5%) in the past 10 years occurred in 2023.

CRUDE DEATH RATES

	Causes of Heart Disease Deaths with a Very Low or Very High Crude Death Rate in 2023 Compared to Previous Years, 2014-2023									
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Coronary artery disease (I20-I25)	138.5	140.9	131.6	127.6	133.9	134.3	127.3	123.4	129.8	114.0
Heart failure (I50)	5.6	5.8	10.5	7.2	8.7	8.9	11.1	7.8	8.4	13.4
Cardiomegaly (Enlarged heart) (I51.7)	1.6	1.3	1.6	1.4	1.4	0.9	1.7	1.5	1.4	0.7

Source: South Dakota Department of Health, Office of Health Statistics

Figure 29
South Dakota Resident Crude Death Rates for Coronary Artery Disease, 2014-2023

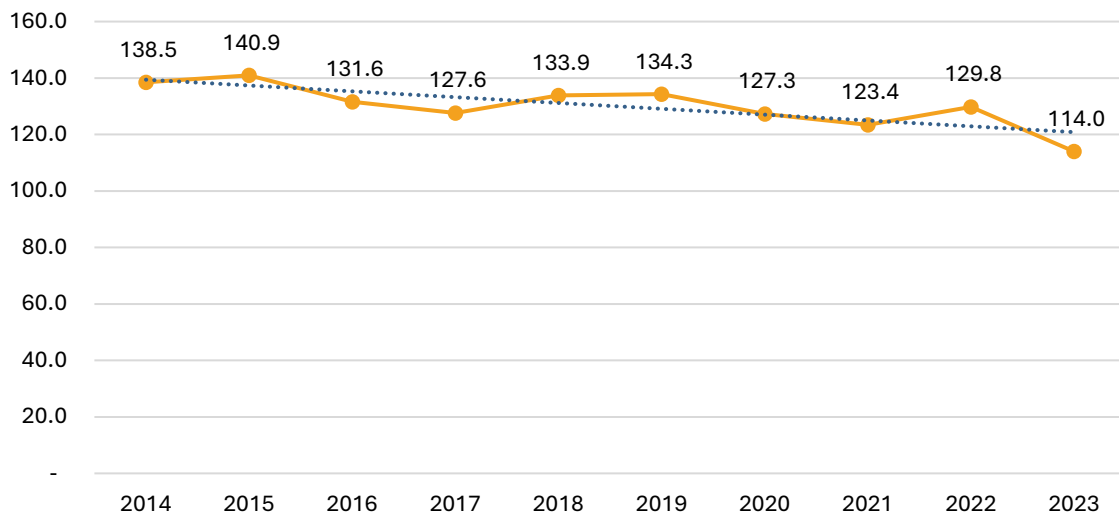
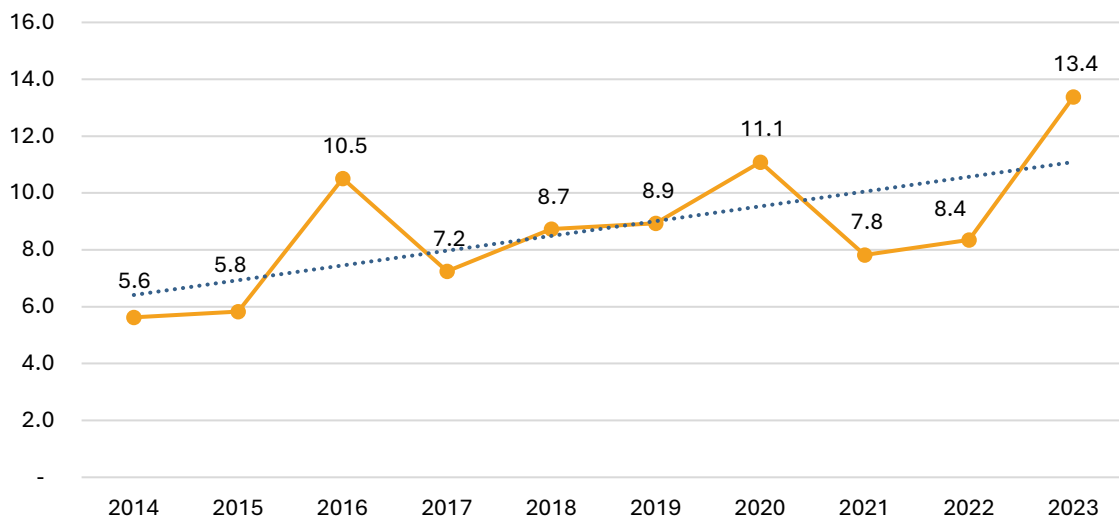
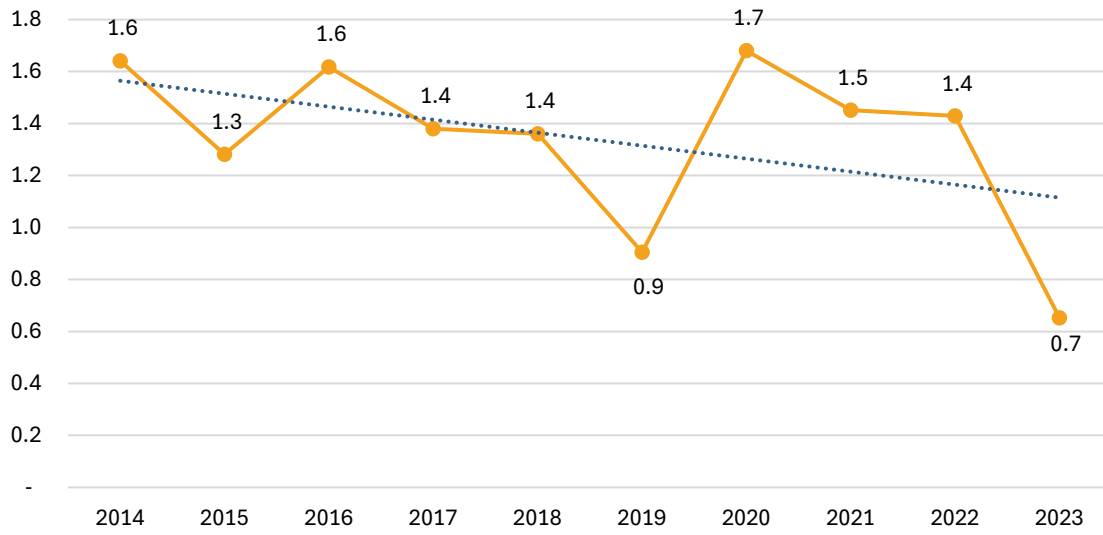


Figure 30
South Dakota Resident Crude Death Rates for Heart Failure, 2014-2023



*Crude Death Rates are per 100,000 population

Figure 31
South Dakota Resident Crude Death Rates for Cardiomegaly (Enlarged Heart), 2014-2023



*Crude Death Rates are per 100,000 population

MEDIAN AGE AT DEATH

	Median Age at Death										
	2014-2023	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Heart failure (I50)	88	89	89	87	90	86	88	87	87	88	87
Coronary artery disease (I20-I25)	80	82	83	80	81	80	79	79	77	79	77
Cardiomegaly (Enlarged heart) (I51.7)	50	53	50	53	54	53	59	48	45	49	40

Source: South Dakota Department of Health, Office of Health Statistics

Figure 32

South Dakota Resident Median Age at Death for Heart Failure, 2014-2023

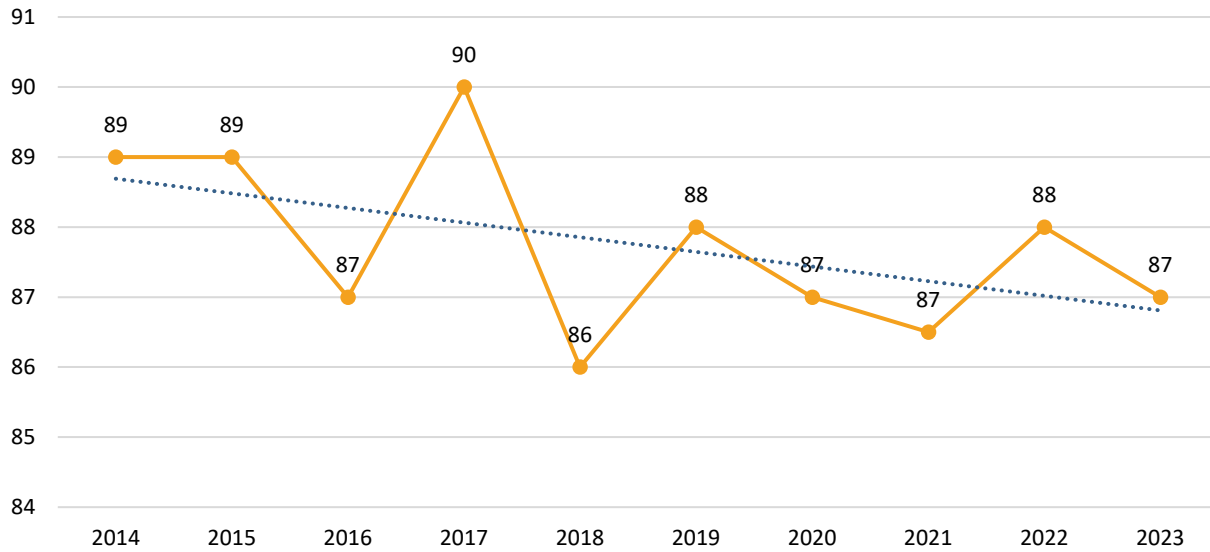


Figure 33

South Dakota Resident Median Age at Death for Coronary Artery Disease, 2014-2023

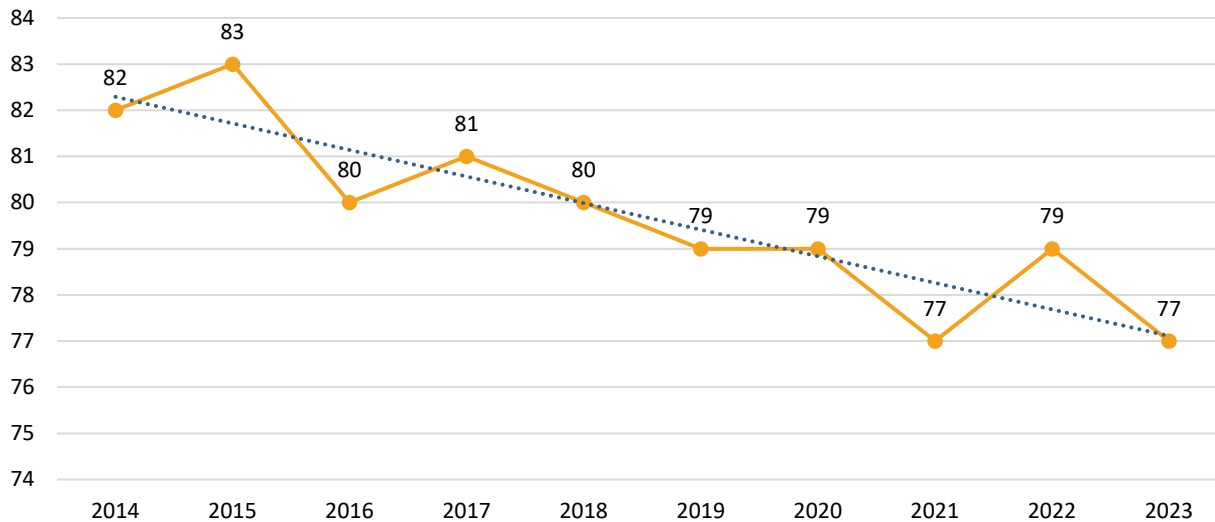
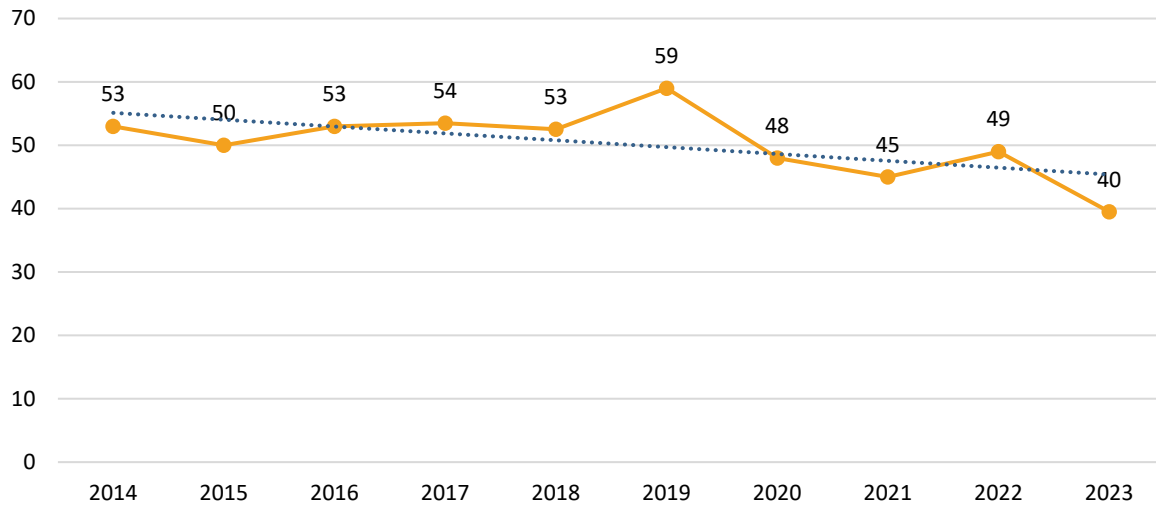


Figure 34
South Dakota Resident Median Age at Death for Cardiomegaly (Enlarged Heart), 2014-2023



CHRONIC DISEASE, CONDITION, BEHAVIOR, AND SHORT-TERM COMORBIDITIES

South Dakota Resident Deaths Due to Coronary Artery Disease with Most Prevalent Chronic Disease, Condition, Behavior, and Short-Term Comorbidities Listed, 2014-2023	Total Deaths	% of Coronary Artery Disease Deaths	% of All Deaths
Coronary artery disease (I20-I25)	11,480		
Chronic Disease/Condition/Behavior Comorbidity			
Hypertension	3,435	30%	19%
Diabetes	1,697	15%	10%
Chronic lower respiratory diseases	1,290	11%	8%
High cholesterol/triglycerides	903	8%	4%
Cerebrovascular disease	599	5%	4%
Cancer	488	4%	3%
Obesity	297	3%	2%
Short-Term Comorbidity Condition at Death			
Shock (R57)	381	3%	2%

Source: South Dakota Department of Health, Office of Health Statistics

South Dakota Resident Deaths Due to Heart Failure with Most Prevalent Chronic Disease, Condition, Behavior, and Short-Term Comorbidities Listed, 2014-2023	Total Deaths	% of Heart Failure Deaths	% of All Deaths
Heart failure (I50)	776		
Chronic Disease/Condition/Behavior Comorbidity			
Kidney disease	183	24%	15%
Chronic lower respiratory diseases	89	11%	8%
Diabetes	82	11%	10%
Senility	79	10%	2%
Atherosclerosis	40	5%	1%
Cancer	29	4%	3%
Short-Term Comorbidity Condition at Death			
Respiratory failure (J96)	177	23%	13%
Asphyxia (R09.0)	37	5%	2%
Shock (R57)	33	4%	2%
Pleural effusion (J90)	23	3%	1%
Failure to thrive (R62.8)	23	3%	2%
Abnormalities of breathing (R06)	23	3%	1%
Pulmonary edema (J81)	23	3%	1%
Respiratory arrest (R09.2)	21	3%	2%

Source: South Dakota Department of Health, Office of Health Statistics

South Dakota Resident Deaths Due to Cardiomegaly with Most Prevalent Chronic Disease, Condition, Behavior Comorbidities Listed, 2014-2023	Total Deaths	% of Cardiomegaly Deaths	% of All Deaths
Cardiomegaly (Enlarged heart) (I51.7)	118		
Chronic Disease/Condition/Behavior Comorbidity			
Chronic alcohol abuse (F10)	13	11%	1%

Source: South Dakota Department of Health, Office of Health Statistics

Cancer Deaths

South Dakota Resident Cancer Deaths by Site/Type of Cancer and Year of Death, 2014-2023 Excluding Infant Deaths

Site/Type of Cancer	Total	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Total	16,975	1,679	1,632	1,690	1,717	1,631	1,736	1,727	1,740	1,686	1,737
Lung, trachea, and bronchus cancer (C33-C34)	4,042	439	424	420	421	396	430	372	387	388	365
Colorectal cancer (C18-C21)	1,641	186	168	163	158	169	153	157	160	145	182
Pancreas cancer (C25)	1,290	118	109	128	124	116	142	128	136	140	149
Female breast cancer (C50)	1,038	100	104	109	102	112	106	115	97	101	92
Prostate cancer (C61)	921	75	90	107	71	92	86	95	104	93	108
Leukemia (C91-C95)	737	90	66	60	62	58	73	88	83	78	79
Liver/bile duct cancer (C22)	671	58	53	73	61	56	65	86	84	74	61
Non-Hodgkin's lymphoma (C82-C85)	583	52	55	55	71	56	69	64	63	33	65
Brain cancer (C71)	525	52	54	49	58	47	60	50	58	51	46
Esophagus cancer (C15)	500	41	53	36	60	49	54	48	49	57	53
Kidney cancer (C64)	482	40	37	49	43	46	63	46	57	41	60
Bladder cancer (C67)	421	39	39	47	48	34	43	37	45	50	39
Ovarian cancer (C56)	374	41	25	36	51	48	35	39	30	32	37
Multiple myeloma and immunoproliferative neoplasms (C88 & C90)	371	27	30	50	43	39	35	47	30	38	32
Malignant melanoma of the skin (C43)	255	31	24	20	26	34	17	20	29	30	24
Lip, oral cavity, and pharynx cancer (C00-C14)	252	23	18	25	28	18	23	29	28	29	31
Uterine cancer (C54-C55)	248	24	22	21	34	21	30	21	18	27	30
Stomach cancer (C16)	213	24	27	20	20	20	23	18	28	15	18
Smooth muscle cancer, fatty tissue cancer (Plus other cancer of connective and soft tissue) (C49)	146	13	22	16	16	14	11	9	15	16	14
Skin cancer (excluding melanomas) (C44)	110	14	10	5	7	12	12	15	12	10	13
Cervical cancer (C53)	94	11	5	5	11	9	10	12	13	7	11
Larynx cancer (C32)	84	4	7	5	7	8	7	15	13	12	6
Gallbladder cancer (C23)	71	8	7	6	7	3	6	11	2	14	7
Small intestine cancer (C17)	70	6	7	10	9	7	6	8	5	4	8
Mesothelioma (C45)	61	5	7	6	5	4	3	8	3	12	8
Bile duct (outside the liver) cancer (C24)	59	4	5	7	5	5	7	6	7	9	4
Digestive cancer of unspecified organs (C26)	51	8	3	4	2	7	7	9	3	1	7

Site/Type of Cancer	Total	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Retroperitoneum and peritoneum cancer (C48)	49	5	3	4	2	6	7	7	5	7	3
Thyroid cancer (C73)	49	9	2	8	4	7	2	4	2	3	8
Vulva cancer (C51)	42	2	2	3	4	3	5	7	5	7	4
Bone and articular cartilage cancer (C40-C41)	39	7	2	2	6	4	4	3	4	5	2
Abdomen cancer (C76.2)	33	4	3	5	2	3	6	1	2	1	6
Adrenal gland cancer (C74)	25	1	3	6	2	2	2	1	2	2	4
Hodgkin's disease (C81)	19	0	5	1	1	2	4	3	0	3	0
Ureteral cancer (C66)	13	1	2	1	2	0	2	0	2	2	1
Vaginal cancer (C52)	13	0	0	0	2	1	4	2	1	2	1
Eye cancer (C69)	13	2	3	2	0	2	2	1	1	0	0
Fallopian tube cancer (C57.0)	12	2	1	0	3	0	1	1	2	0	2
Penile cancer (C60)	12	1	0	1	1	0	1	0	4	3	1
Urethral cancer (C68.0)	12	3	4	2	1	0	1	0	0	1	0
Head, face, and neck cancer (C76.0)	11	0	3	0	0	1	0	0	2	2	3
Testicular cancer (C62)	11	1	1	1	1	2	4	0	0	1	0
Male breast cancer (C50)	11	1	0	2	4	1	1	1	0	1	0
Sinus cancer (C31)	10	3	0	0	1	0	1	1	1	2	1
Cancer of independent (primary) multiple sites (C97)	148	11	18	14	10	14	14	21	16	12	18
Secondary cancer (C78-C79)	208	15	21	24	24	16	18	22	19	24	25
All other cancers	95	8	6	10	13	9	8	8	18	10	5
Cancer, without specification of site (C80)	840	70	82	72	84	78	73	91	95	91	104

Source: South Dakota Department of Health, Office of Health Statistics

Note: Causes of death in blue highlight indicate that the smallest number of deaths (Lowest death rate by at least 5%) in the past 10 years occurred in 2023.

CRUDE DEATH RATES

	Causes of Cancer Deaths with a Very Low Crude Death Rate in 2023 Compared to Previous Years, 2014-2023									
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Lung, trachea, and bronchus cancer (C33-C34)	51.5	49.4	48.5	48.4	44.9	48.6	41.7	43.2	42.6	39.7
Female breast cancer (C50)	23.6	24.4	25.4	23.7	25.6	24.2	26.0	22.0	22.6	20.4

Source: South Dakota Department of Health, Office of Health Statistics

Figure 35
South Dakota Resident Crude Death Rates for Lung, Trachea, and Bronchus Cancer, 2014-2023

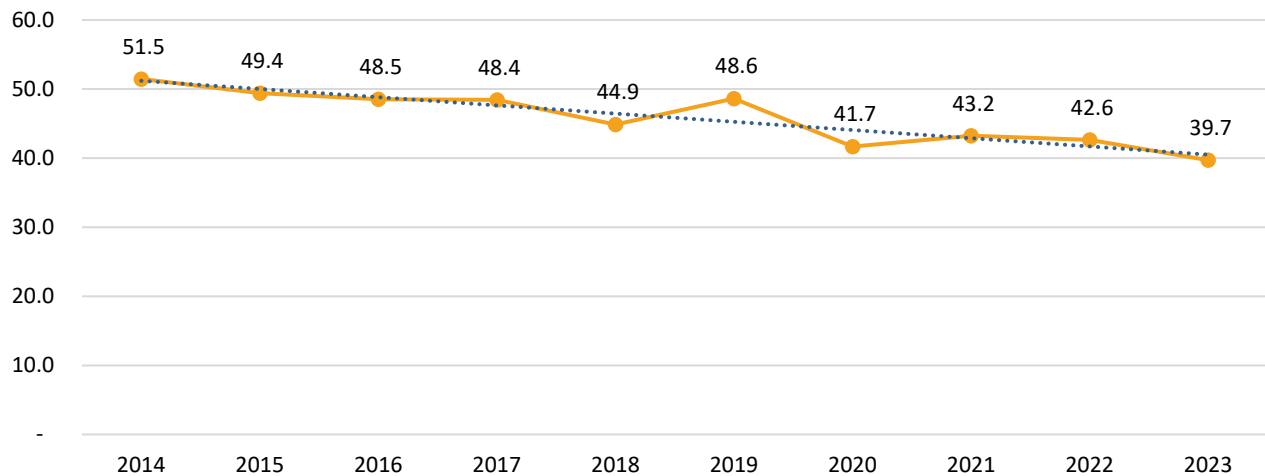
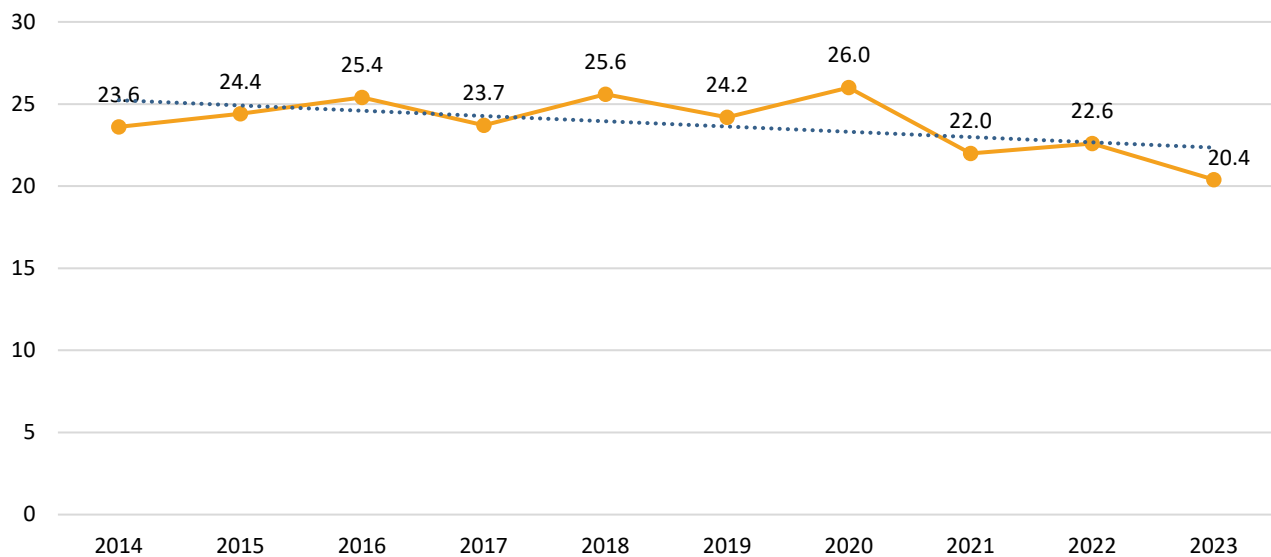


Figure 36
South Dakota Resident Crude Death Rates for Female Breast Cancer, 2014-2023



MEDIAN AGE AT DEATH

	Median Age at Death										
	2014-2023	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Lung, trachea, and bronchus cancer (C33-C34)	73	73	73	74	73	73	74	73	74	74	74
Female breast cancer (C50)	72	75	68	73	70	73	75	72	70	74	72

Source: South Dakota Department of Health, Office of Health Statistics

Figure 37
South Dakota Resident Median Age at Death for Lung, Trachea, and Bronchus Cancer, 2014-2023

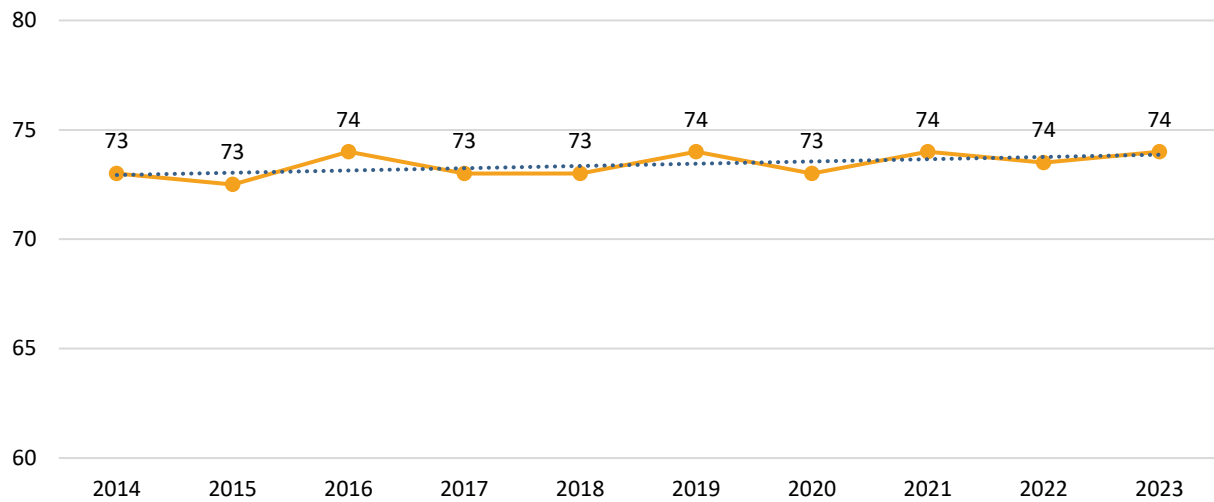
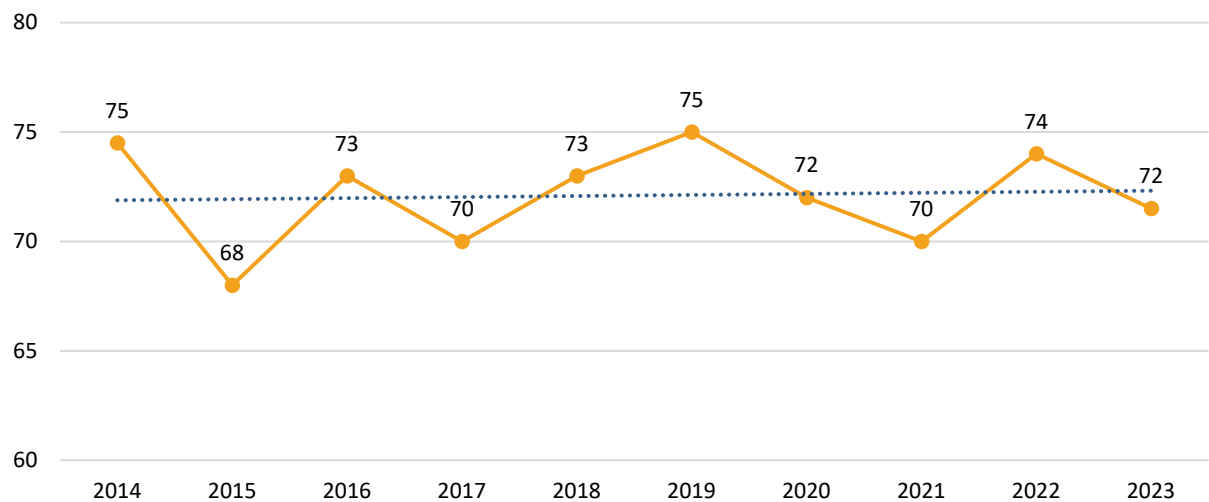


Figure 38
South Dakota Resident Median Age at Death for Female Breast Cancer, 2014-2023



CHRONIC DISEASE, CONDITION, BEHAVIOR, AND SHORT-TERM COMORBIDITIES

South Dakota Resident Deaths Due to Lung, Trachea, and Bronchus Cancer with Most Prevalent Chronic Disease, Condition, Behavior, and Short-Term Comorbidities Listed, 2014-2023	Total Deaths	% of Lung, Trachea, Bronchus Cancer Deaths	% of All Deaths
Lung, trachea, and bronchus cancer (C33-C34)	4,042		
Chronic Disease/Condition/Behavior Comorbidity			
Chronic tobacco use	2,768	68%	19%
Chronic lower respiratory diseases	877	22%	8%
Short-Term Comorbidity Condition at Death			
Respiratory failure (J96)	682	17%	13%
Influenza and pneumonia (J09-J18)	321	8%	7%
Malnutrition (E40-E46)	219	5%	4%
Respiratory arrest (R09.2)	122	3%	2%
Pleural effusion (J90)	95	2%	1%

Source: South Dakota Department of Health, Office of Health Statistics

South Dakota Resident Deaths Due to Female Breast Cancer with Most Prevalent Chronic Disease, Condition, Behavior, and Short-Term Comorbidities Listed, 2014-2023	Total Deaths	% of Female Breast Cancer Deaths	% of All Deaths
Female breast cancer (C50)	1,038		
Chronic Disease/Condition/Behavior Comorbidity			
No comorbidities occurring at a higher rate than for all deaths	-	-	-
Short-Term Comorbidity Condition at Death			
Malnutrition (E40-E46)	49	5%	4%
Pleural effusion (J90)	29	3%	1%
Liver failure (K72)	28	3%	2%

Source: South Dakota Department of Health, Office of Health Statistics

Chronic Lower Respiratory Disease Deaths

South Dakota Resident Chronic Lower Respiratory Disease Deaths by Year of Death, 2014-2023 Excluding Infant Deaths

Cause of Death	Total	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Total	4,622	439	500	427	505	498	521	429	464	415	424
Chronic obstructive pulmonary disease, unspecified (J44.9)	3,129	298	326	282	359	335	345	296	308	296	284
Chronic obstructive pulmonary disease with acute lower respiratory infection (J44.0)	779	96	113	70	81	86	91	62	71	51	58
Emphysema (J43)	266	16	23	26	19	31	30	25	42	24	30
Chronic obstructive pulmonary disease with acute exacerbation (J44.1)	241	14	14	16	23	27	37	25	25	21	39
Asthma (J45-J46)	109	10	13	16	12	7	8	13	8	15	7
Chronic obstructive pulmonary disease with asthma, bronchitis, and/or emphysema (J44.8)	54	4	9	8	4	4	7	6	5	4	3
Bronchiectasis (J47)	28	0	1	7	4	3	3	1	3	3	3
Bronchitis (J40-J42)	16	1	1	2	3	5	0	1	2	1	0

Source: South Dakota Department of Health, Office of Health Statistics

Pneumonia and Influenza Deaths

South Dakota Resident Pneumonia and Influenza Deaths by Year of Death, 2014-2023 Excluding Infant Deaths

Cause of Death	Total	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Total	1,753	178	212	195	215	245	188	142	121	127	130
Pneumonia (J12-J18)	1,506	165	173	186	179	195	160	124	118	95	111
Influenza (J09-J11)	247	13	39	9	36	50	28	18	3	32	19

Source: South Dakota Department of Health, Office of Health Statistics