SOUTH DAKOTA DEPARTMENT OF HEALTH

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Suicides and Suicide Attempts in Adolescents and Adults Aged 10 Years and Older, South Dakota, 2009-2013

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National Suicide Rates

According to the Centers for Disease Prevention and Control, over 40,000 people die by suicide every year in the United States amounting to approximately one suicide death every 13 minutes. Suicide is the tenth leading cause of death for all ages, the second leading cause of death among persons aged 10-24 years, and the fifth leading cause of death for ages 45-59 years. Ninety percent of people who die by suicide have a diagnosable psychotic disorder at the time of their death. In 2009, 33.3% of suicide decedents tested positive for alcohol, 23.0% for antidepressants, and 20.8% for opiates, including heroin and prescription painkillers.

Suicide rates are expressed as the number of suicide deaths per 100,000 people and reported by age, sex, race/ethnicity, and geographic region/state. The following United States suicide rates are given for 2013:

- By age - highest suicide rate (19.1/100,000) is among people 45-64 years old. The second highest rate (18.6/100,000) is among those 85 years and older. Younger age groups consistently have lower rates than middle-aged or older adults.
- By sex - usually around four times higher in men than women (20.2 vs. 5.5/100,000 respectively). Of suicide deaths in 2013, 77.9% were male and 22.1% were female.
- By race/ethnicity - highest rate is among whites (14.2/100,000) while American Indians and Alaska Natives have the second highest rate (11.7/100,000).
- By region/state - nine states have age-adjusted rates in excess of 18/100,000: Montana (23.7), Alaska (23.1), Utah (21.4), Wyoming (21.4), New Mexico (20.3), Idaho (19.2), Nevada (18.2), Colorado (18.5), and South Dakota (18.2). Five states have age-adjusted suicide rates lower than 9/100,000: District of Columbia (5.8), New Jersey (8.0), New York (8.1), Massachusetts (8.2), and Connecticut (8.7).

Suicides and Attempted Suicides in South Dakota, 2009-2013

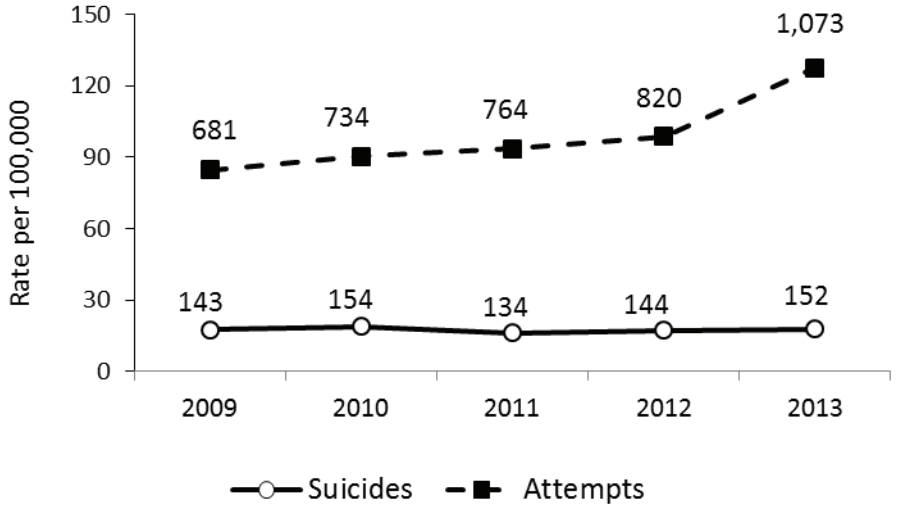
Suicides (completed suicide) and suicide attempts (self-inflicted non-fatal injuries) are serious and preventable public health issues. Suicides were identified by death certificates with cause of death defined using ICD-10 codes of X60 - X84, Y87.0 and Y10 - Y34. Attempted suicides were identified using South Dakota Association of Healthcare Organizations (SDAHO) hospital records and were defined using ICD-9 codes E950.0 - E959.9 and E980.0 - E989.9. The purpose of this bulletin is to provide information on rates and trends of suicides and attempted suicides in South Dakota.

In 2013, South Dakota had the fourteenth highest suicide rate in the United States (all ages; http://www.suicidology.org/resources/facts-statistics). Understanding demographic characteristics associated with suicide or suicide attempts is important in preventing suicide. Different demographic patterns were observed for suicide vs. attempted suicide in South Dakota in 2009-2013:

- There has been an increase in attempted suicides between 2009 and 2013 (**Figure 1**). This increase has been seen among whites and American Indians (**Figure 2**), and in females and males (**Figure 3**).
- Females have a higher rate of suicide attempts, while males have a higher rate of successful suicides (**Figure 3**).
- Suicide rates remain relatively constant among males' ages 15 to 50 years, while among females there is an increase in the 40-44 year age group (**Figure 4**).
- Suicide attempts decline with age in both sexes (**Figure 5**).
- The majority of suicides among females are by poisoning and hanging, while suicides among males are by firearms and hanging. The majority of suicide attempts in both sexes are by poisoning (**Figure 6**).

Figure 1. Total Suicides and Suicide Attempts, South Dakota, 2009-2013

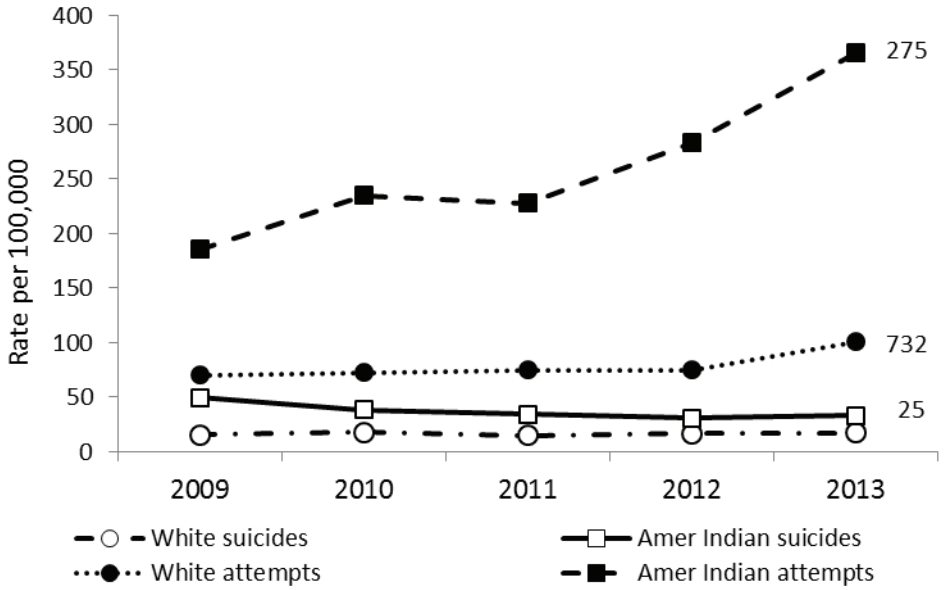
Significant increase over time in attempted suicide.



Source: South Dakota Vital Records and SDAHO Inpatient Outpatient Data Collection System, 2009-2013. Numbers on graph are number of cases.

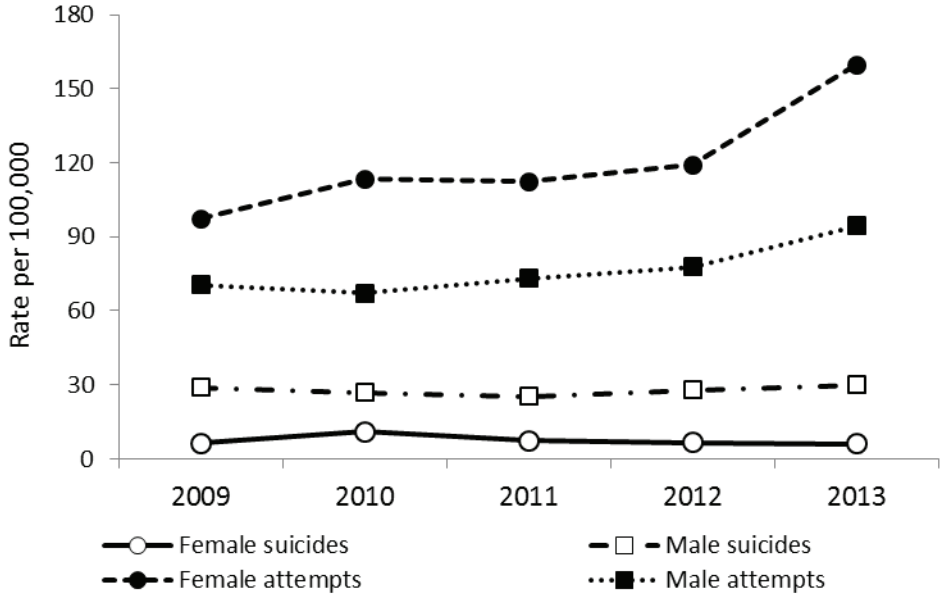
Figure 2. Total Suicides and Suicide Attempts by Race, South Dakota, 2009-2013

Significant increases in attempted suicide in both races.



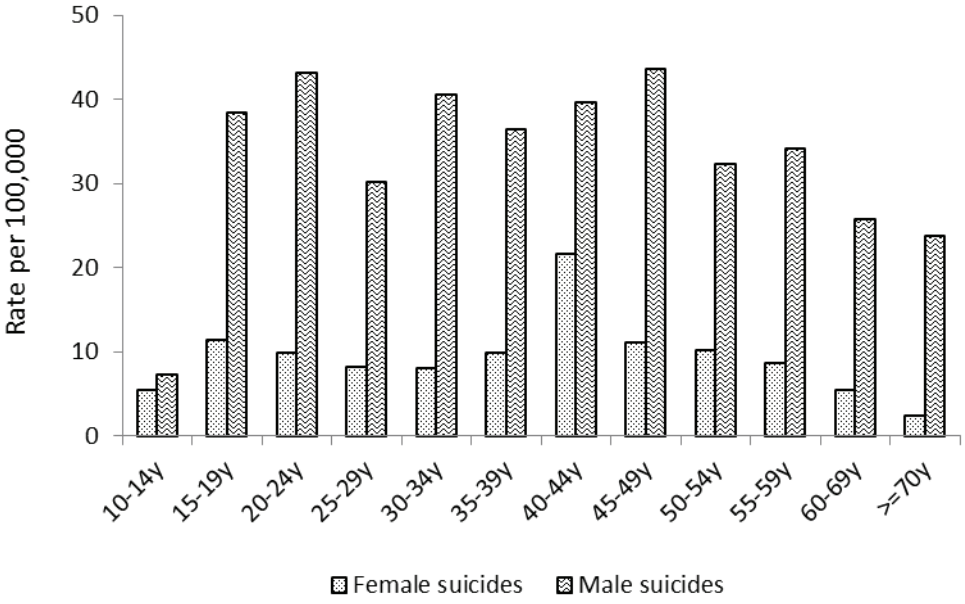
Source: South Dakota Vital Records and SDAHO Inpatient Outpatient Data Collection System, 2009-2013. Numbers on the right are the number of cases in 2013.

Figure 3. Total Suicides and Suicide Attempts by Sex, South Dakota, 2009-2013
Significant increases in attempted suicide in both sexes



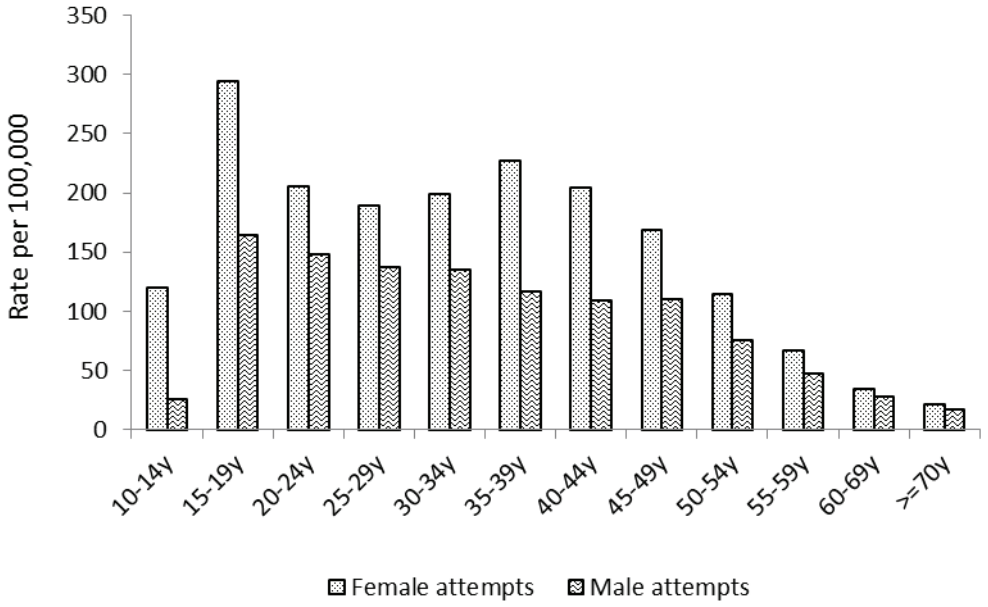
Source: South Dakota Vital Records and SDAHO Inpatient Outpatient Data Collection System, 2009-2013

Figure 4. Total Suicides by Sex and Age, South Dakota, 2009-2013
Males have a higher overall suicide rate than females.



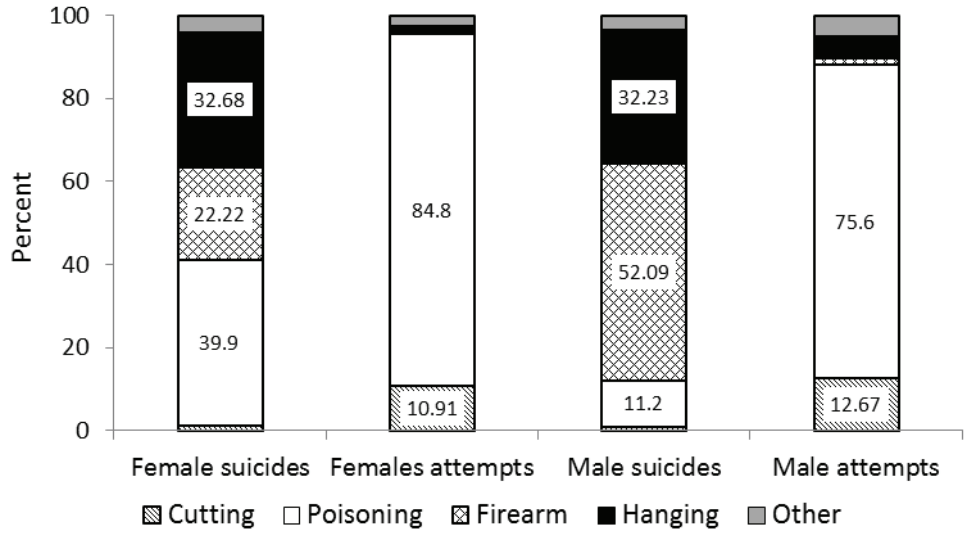
Source: South Dakota Vital Records, 2009-2013

Figure 5. Total Suicide Attempts by Sex and Age, South Dakota, 2009-2013
Females have a higher overall suicide attempt rate than males



Source: SD Association of Healthcare Organizations Inpatient Outpatient Data Collection System, 2009-2013

Figure 6. Total Suicides and Suicide Attempts by Methods, South Dakota, 2009-2013



Source: South Dakota Vital Records and SDAHO Inpatient Outpatient Data Collection System, 2009-2013

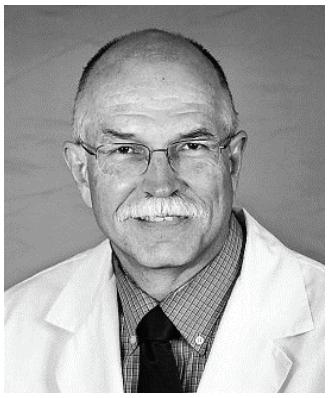
Warning Signs

Warning signs of suicide include a person talking about: killing themselves, having no reason to live, being a burden to others, feeling trapped, or having unbearable pain. Behaviors associated with suicide are increased use of alcohol or drugs, acting recklessly, withdrawing from activities, isolating from family and friends, sleeping too much or too little, visiting or calling people to say goodbye, giving away prized possessions, and aggression. They also may be looking for a way to kill themselves such as searching online for materials or means. Moods associated with suicide are depression, loss of interest, rage, irritability, humiliation, and anxiety.

References

http://www.cdc.gov/violenceprevention/pdf/suicide-datasheet-a.pdf
https://www.afsp.org/understanding-suicide/facts-and-figures

Kemp retires from tuberculosis control



The Department of Health offers its thanks to Dr. Earl D. Kemp for his many years of service to tuberculosis control in South Dakota. Dr. Kemp retired in June.

He served as a consultant for the state's Tuberculosis Control Program, providing clinical evaluations for TB patients and linking them to medical services. Dr. Kemp filled that role so many years that the department is unable to document when he actually began contracting with the program. When current TB Control Coordinator Kristin Rounds joined the program in 1993 he was already under contract and had been for many years.

He was recognized as a true TB expert regionally and throughout the state and played a critical role in South Dakota's effort to prevent and control TB. He was in practice at the Center for Family Medicine in Sioux Falls.

Dr. Kemp, the department wishes you well as you retire and thanks you for all your years of service.

South Dakota to begin newborn screening for Severe Combined Immunodeficiency (SCID)

During the 2015 session, legislation was passed expanding the Department of Health's rulemaking authority for newborn screening to include inherited and genetic disorders in addition to the current metabolic disorders. As a result, Severe Combined Immunodeficiency (SCID) will be added to the Newborn Screening for Severe Combined Immunodeficiency (SCID) effective August 9, 2015.

Q: What is Severe Combined Immunodeficiency (SCID)?

Severe Combined Immunodeficiency (SCID) includes a group of rare but serious and potentially fatal, inherited immune disorders in which T lymphocytes fail to develop and B lymphocytes are either absent or compromised. Impairment of both B and T cells leads to the term "combined." Untreated infants develop life-threatening infections due to bacteria, viruses and fungi.

Q: When will SCID screening begin in South Dakota?

The South Dakota Newborn Screening Program has completed the required administrative rule process to begin statewide newborn screening for SCID effective August 9, 2015.

Q: Why screen for SCID?

Early detection of SCID allows for infants to receive necessary life-saving treatment including antibiotics, isolation precautions and a bone marrow or stem cell transplant. If not treated, most infants do not survive past one year of age. The incidence of SCID is estimated to be 1 in 50,000 live births.

Q: How will the Newborn Screening Program screen for SCID?

Screening for SCID involves T-cell receptor excision circle (TREC) analysis. TRECs are a piece of DNA produced during the formation of T cells in the thymus. Although this testing is DNA-based, TREC analysis is not a test for gene mutations. Newborn screening specimen collection and submission will not change from current procedures. All SD newborn screening specimens are submitted to the contracted laboratory, the State Hygienic Laboratory at the University of Iowa (SHL).

Q: What will happen if an infant screens positive for SCID?

The infant's physician, as documented on the specimen collection card, will be notified and consultation provided if further testing is indicated. The notification of positive SCID newborn screening results will occur as it has in the past for the other disorders.

Contact

Questions regarding SCID screening may be directed to the South Dakota Newborn Screening Program, http://doh.sd.gov/family/newborn/metabolic/, ph. 605-773-3361 or 800-738-2301.

New online cancer data tool developed by South Dakota Cancer Registry

By the South Dakota Cancer Registry, South Dakota Department of Health

The South Dakota Cancer Registry (SDCR) has developed the Cancer – County Assessment Tool (CAT). This online tool is available for use at sdcancerstats.org/. It allows for individual county data or a comparison of multiple counties for cancer incidence and mortality information. Available data are based on the five most diagnosed cancers and cancer-related deaths by primary site at the time of diagnosis and the county of residence for South Dakotans. The specific data calculated by CAT are the number of cancer cases, the age-adjusted cancer incidence rates, the number of cancer-related deaths, and the age-adjusted cancer mortality rates. The focus of the data provided is for the most recent available 10-year period and is currently inclusive of diagnosis years 2003-2012.

All cancer data provided by CAT are from the SDCR which is the statewide population-based cancer registry for South Dakota. SDCR cancer data ensures that cancer programming, planning, and decision-making are based on high-quality, complete, and timely surveillance. Please see the SDCR website at getscreened.sd.gov/registry/data/ for its certification information. For more detailed cancer data, see the South Dakota Data Query System at dqs.sd.gov/webApp1/cancer.aspx.

For additional information, please contact Kay Dosch, South Dakota Cancer Registry Coordinator, at 605-773-6345 or 800-592-1861. The SDCR is funded with a grant from the Centers for Disease Control and Prevention – grant number U58/DP003943.

Epi Listserv available

To receive regular infectious disease related updates, including monthly surveillance summaries, subscribe to the Department of Health's Epi Listserv. Go to https://listserv.sd.gov/scripts/wa.exe?A0=SDEPI, click on the subscribe link and follow the prompts.

Updated state plans for tobacco and oral health

The *2015-2020 South Dakota Tobacco Control State Plan* has been updated with current data on various objectives for reducing tobacco use and preventing tobacco-related illness and mortality. You can find the new plan at www.befreesd.com/about by clicking the About Us link and then selecting State Plan. Contact Kiley Hump, Tobacco Control Program Director, at 773-2891 for more information.

The *Oral Health Plan for South Dakota 2015-2020* provides an updated blueprint for improving oral health, and ultimately overall health for South Dakotans. View the plan at doh.sd.gov/prevention/OralHealth/. For additional oral health information contact Julie Ellingson, Oral Health Coordinator, at 773-7150.

Electronic access to South Dakota Public Health Bulletin

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Back issues of the Bulletin are archived at http://doh.sd.gov/resources/bulletin.aspx.

South Dakota Department of Health – Infectious Disease Surveillance

Selected Morbidity Report, 1 January – 31 May 2015

(provisional numbers) see http://doh.sd.gov/statistics/disease-surveillance/

	Disease	2015 year-to-date	5-year median	Percent change
Vaccine-Preventable Diseases	Diphtheria	0	0	n/a
	Tetanus	1	0	n/a
	Pertussis	4	11	-64%
	Poliomyelitis	0	0	n/a
	Measles	2	0	n/a
	Mumps	0	0	n/a
	Rubella	0	0	n/a
	Haemophilus influenza type b	0	0	n/a
Sexually Transmitted Infections and Blood-borne Diseases	HIV infection	7	15	-53%
	Hepatitis B, acute	0	0	0%
	Chlamydia	1598	1618	-1%
	Gonorrhea	404	253	+60%
	Syphilis, early	20	5	+300%
Tuberculosis	Tuberculosis	8	5	+60%
Invasive Bacterial Diseases	Meningococcal, invasive	0	2	-200%
	Invasive Group A *Streptococcus*	55	50	n/a
Enteric Diseases	*E. coli*, Shiga toxin-producing	13	7	+86%
	Campylobacteriosis	88	106	-17%
	Salmonellosis	84	55	+53%
	Shigellosis	99	4	+>1000%
	Giardiasis	32	39	-18%
	Cryptosporidiosis	39	45	-13%
	Hepatitis A	0	0	0%
Vector-borne Diseases	Animal Rabies	10	14	-29%
	Tularemia	0	2	n/a
	Rocky Mountain Spotted Fever	0	0	0%
	Malaria (imported)	1	0	n/a
	Hantavirus Pulmonary Syndrome	0	0	0%
	Lyme disease	0	0	0%
	West Nile Virus disease	0	0	0%
Other Diseases	Legionellosis	1	2	-50%
	Streptococcus pneumoniae, invasive	51	40	+28%
	Additionally, the following were reported: Chicken Pox (11); CRE (16); Hep B, acute (1); Hep B, chronic (8); Hep C (222); MRSA, invasive (63); Q Fever (2)			

Communicable diseases are obligatorily reportable by physicians, hospitals, laboratories, and institutions. The **Reportable Diseases List** is found at http://doh.sd.gov/diseases/infectious/reporting-communicable-diseases.aspx or upon request. Diseases are reportable by telephone, fax, mail, website, or courier.

Secure website: www.state.sd.us/doh/diseasereport

Telephones: 24 hour answering device 1-800-592-1804; for a live person at any time call 1-800-592-1861; after hours emergency 605-280-4810.

Fax 605-773-5509.

Mail in a sealed envelope addressed to the DOH, Office of Disease Prevention, 615 E. 4th Street, Pierre, SD 57501, marked "Confidential Medical Report".