

VOLUME 28 NUMBER 3 MAY 2016

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Rabies Surveillance, South Dakota, 2015

Rabies is a serious public health concern in South Dakota. In 2015, 29 animals tested positive for rabies, a +38% increase from the previous year. The 29 rabid animals included 9 domestic animals (6 cattle, 2 cats, 1 dog) and 20 wild animals (14 striped skunks, 5 bats, 1 spotted skunk). No human rabies was reported. South

Dakota's last human rabies case was in 1970.

Animal rabies, South Dakota 2015

Skunk

Dog

Cat

Bat

During 2015, 625 animals tested negative for rabies, including 174 cats, 170 bats, 105 dogs, 77 cattle, 33 raccoons, 14 skunks, 12 deer, 6 goats, 5 sheep, 5 squirrels, 4 horses, 3 coyotes, 3 woodchucks, 2 each badger, fox, gopher, opossum, rat, and 1 each moose, otter, prairie dog and rabbit.

This year animals from 60 of South Dakota's 66 counties were submitted for testing, and 20 counties reported rabid animals. Over the past decade, 2006-2015, rabid animals were reported from 59 of the state's counties, with every county except Ziebach submitting animals for testing. Over the decade 6,740 animals were tested and 352 (5.2%) were rabid

During the past decade 29% of South Dakota's 352 rabies cases were domestic animals, including 24 rabid cats and 16 rabid dogs, many of which were unvaccinated. Rabid livestock included 49 cattle, 9 horses and 3 goats.

Skunks (*Mephitis mephitis*) are the primary rabies reservoir in South Dakota. Over the past decade 49% of skunks tested have been rabid. Bat rabies is also enzootic in South Dakota with 3% bats tested being positive.

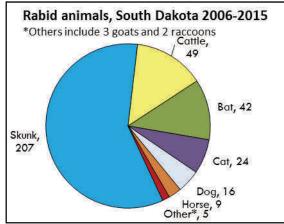
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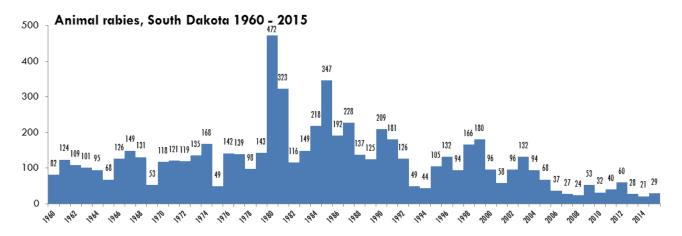
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Although rabies is not enzootic in other South Dakota animals, during the past decade 2 rabid raccoons were detected, likely spillover infections from skunk exposure. In 2015 a rabid spotted skunk (*Spilogale putorius*) was reported.

Two South Dakota laboratories offer rabies testing services: the Animal Disease Research Diagnostic Laboratory (ADRDL) in Brookings and the State Public Health Laboratory (SDPHL) in Pierre. During 2015, 61% of rabies tests were done at ADRDL and 39% at SDPHL. Both laboratories use the direct fluorescent antibody (DFA) technique. Human serum rabies antibody titers may be ordered through SDPHL.



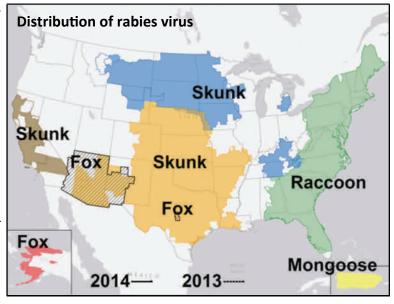
The most recent national animal rabies surveillance data are reported for 2014 (Monroe, et al.). Nationally, there was a -2.8% decrease from the previous year with 6,033 rabid animals rabies reported (7% domestic and 93% wild animals). Nationally, rabid domestic animals included 272 cats, 78 cattle, 59 dogs, 25 horses/mules, 10 sheep/goats and 1 llama. Wild animals testing positive for rabies included 1,822 raccoons, 1,756 bats, 1,588 skunks, 311 foxes, 43 groundhogs, 32 mongooses, 18 bobcats, 9 coyotes, 4 deer, 2 beavers, 2 opossums and 1 otter.



Over the past decade (2006-2015) 25 human rabies cases were reported nationally, including 23 deaths and 2 survivals, which is a 92% case fatality rate. The 25 human rabies cases were from Texas (3), California (4),

Massachusetts (3), Indiana (2), Missouri (2), and 1 each in Louisiana, Maryland, Michigan, Minnesota, New Jersey, New York, North Carolina, South Carolina, Virginia, Wisconsin and Wyoming. Fourteen of the human cases (56%) were associated with bat-rabies virus, 7 (28%) had dog rabies virus (all foreign exposures: Afghanistan, Brazil, Guatemala, Haiti, India, Philippines), 2 raccoon, 1 fox and 1 unknown exposure. One human rabies cases was attributed to an infected kidney transplant.

The case definition of a confirmed animal rabies case is a positive DFA test, performed preferably on central nervous system tissue, or isolation of the rabies virus in cell culture or in a laboratory animal.



Rabies cases by county, South Dakota 2006-2015

COUNTY	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	TOTAL
Aurora	0	0	0	1	0	0	0	0	0	0	1
Beadle	0	1	0	0	0	1	0	1	0	0	3
Bennett	0	0	0	0	0	0	2	3	0	0	5
Bon Homme	2	1	0	0	0	0	0	0	1	0	4
Brookings	2	2	1	1	3	1	4	1	1	2	18
Brown	5	4	2	3	0	0	0	1	0	0	15
Brule	1	0	0	0	1	0	1	0	0	0	3
Buffalo	0	0	0	0	0	0	0	0	0	0	0
Butte	0	0	0	0	0	2	2	0	1	0	5
Campbell	0	0	0	0	0	0	0	0	0	0	0
Charles Mix	0	0	0	2	1	2	3	1	0	0	9
Clark	2	3	3	2	0	0	0	0	0	2	12
Clay	3	0	0	1	0	1	0	0	0	0	5
Codington	0	1	0	2	2	1	1	0	0	1	8
Corson	0	0	0	0	0	0	2	0	0	1	3
Custer	0	0	0	0	0	0	0	0	0	0	0
Davison	1	0	0	0	1	0	1	1	1	0	5
Day	1	0	2	2	2	0	2	2	1	1	13
Deuel	1	1	0	0	0	0	1	0	0	0	3
Dewey	0	0	0	0	0	0	1	2	0	1	4
Douglas	0	0	0	1	0	0	0	0	0	0	1
Edmunds	0	1	1	0	0	0	2	0	1	0	5
Fall River	0	0	0	0	0	0	1	0	0	0	1
Faulk	1	1	0	0	0	1	0	0	0	1	4
Grant	0	0	1	1	0	3	1	1	0	0	7
Gregory	0	0	2	1	0	1	2	0	0	0	6
Haakon	0	0	0	0	0	0	4	0	0	1	5
Hamlin	2	2	2	0	4	1	0	1	1	0	13
Hand	0	0	0	1	0	0	0	0	0	1	2
Hanson	1	0	0	1	0	0	0	0	0	0	2
Harding	0	0	0	2	0	2	1	0	0	0	5
Hughes	1	0	0	1	0	1	0	0	0	0	3
Hutchinson	0	0	1	3	2	0	3	0	0	1	10
Hyde	0	0	0	1	0	0	0	1	0	0	2
Jackson	0	1	0	0	0	0	0	0	0	0	1
Jerauld	1	0	0	0	0	0	0	1	0	0	2
Jones	0	0	0	0	0	0	0	0	0	0	0
Kingsbury	1	1	0	2	2	0	2	2	1	0	11
Lake	0	0	0	6	1 0	0	0	0	1	0	10
Lawrence Lincoln	0	0	0	1	1	1	0	0	0	0	3
Lyman	0	1	0	0	0	2	0	0	0	0	3
Marshall	1	0	1	0	1	1	1	0	0	2	7
McCook	1	0	2	0	0	1	0	0	0	0	4
McPherson	0	1	0	3	1	0	0	1	0	0	6
Meade	1	3	2	2	0	0	2	1	1	0	12
Mellette	1	0	0	0	0	2	0	0	0	0	3
Miner	1	0	0	0	1	1	0	1	0	0	4
Minnehaha	3	0	3	4	3	5	2	2	3	3	28
Moody	1	0	0	0	0	0	0	0	0	0	1
Oglala Lakota	0	0	0	0	0	0	0	0	0	0	0
Pennington	0	0	0	2	0	1	0	0	1	0	4
Perkins	0	0	0	0	0	0	0	3	2	1	6
Potter	0	0	0	0	0	0	0	0	0	0	0
Roberts	0	0	0	1	0	0	2	0	2	4	9
Sanborn	0	0	0	0	0	1	0	0	0	0	1
Spink	0	0	0	3	0	0	1	0	0	0	4
Stanley Stanley	1	0	0	0	0	0	1	0	0	0	2
	1	U	U	U	U	U		U	V	U	<u> </u>
Sully	0	0	0	0	0	0	0	0	1	0	1

COUNTY	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	TOTAL
Tripp	0	1	0	0	1	6	10	0	1	2	21
Turner	0	0	0	3	4	1	0	0	0	1	9
Union	2	1	0	0	0	0	0	0	0	0	3
Walworth	1	1	0	0	0	0	3	0	1	2	8
Yankton	0	0	0	0	1	0	1	1	0	1	4
Ziebach	0	0	0	0	0	0	0	0	0	0	0
TOTAL	38	27	24	53	32	40	60	28	21	29	352

Pet Rabies prevention:

- Vaccinate pet dogs, cats and ferrets.
- Keep pets away from wildlife so they won't be bitten by a rabid animal.
- Call local animal control to remove wild or stray animals, especially if acting strangely.
- If an animal bites your pet, take it to a veterinarian for a rabies booster vaccination.

Human rabies prevention:

- Never touch stray, unfamiliar or wild animals, especially skunks and bats.
- Don't adopt wild animals or bring them into your home.
- Keep your trash cans tightly closed and don't leave pet food out to attract skunks.
- If you are bitten by an animal, consult your physician.
- Post-exposure prophylaxis: rabies immune globulin and 4 doses of rabies vaccine over 14 days.

Rabies by animals tested (P, positive; N, negative), South Dakota 2006-2015

	20	006	20	007	20	800	20	09	20	10	20	11	20	12	20	13	20	14	20	15	TO	ΓAL
Animal	P	N	P	N	P	N	P	N	P	N	P	N	P	N	P	N	P	N	P	N	P	N
Striped skunk	25	22	16	19	16	18	31	26	20	31	20	21	36	39	16	12	12	13	14	14	206	215
Cattle	4	72	2	64	2	61	4	75	5	68	4	70	16	94	5	66	1	81	6	77	49	728
Bat	2	64	4	95	4	120	4	104	3	107	6	115	3	168	5	143	6	161	5	170	42	1247
Cat	5	203	2	224	0	241	4	227	3	199	4	191	2	212	1	206	1	154	2	174	24	2031
Dog	1	129	2	131	0	138	7	152	1	138	3	167	0	126	1	111	0	90	1	105	16	1287
Horse	1	10	0	11	2	6	2	12	0	15	1	14	3	14	0	11	0	10	0	4	9	107
Goat	0	0	1	2	0	2	1	3	0	5	0	2	0	2	0	2	1	3	0	6	3	27
Raccoon	0	52	0	29	0	24	0	27	0	28	2	41	0	45	0	28	0	24	0	33	2	331
Spotted skunk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0
Cervid	0	10	0	5	0	4	0	13	0	12	0	12	0	12	0	7	0	10	0	13	0	98
Muskrat	0	4	0	0	0	7	0	4	0	5	0	13	0	8	0	1	0	2	0	0	0	44
Squirrel	0	6	0	1	0	11	0	5	0	8	0	1	0	1	0	0	0	2	0	5	0	40
Sheep	0	8	0	2	0	3	0	3	0	5	0	0	0	6	0	5	0	1	0	5	0	38
Opossum	0	10	0	2	0	1	0	2	0	0	0	3	0	1	0	2	0	3	0	2	0	26
Mouse	0	0	0	2	0	3	0	1	0	1	0	4	0	5	0	2	0	4	0	0	0	22
Coyote	0	3	0	1	0	5	0	0	0	1	0	3	0	1	0	1	0	3	0	3	0	21
Mustelidae	0	2	0	3	0	3	0	2	0	1	0	3	0	4	0	1	0	1	0	0	0	20
Fox	0	2	0	4	0	2	0	1	0	2	0	2	0	2	0	2	0	0	0	2	0	19
Rat	0	2	0	3	0	1	0	5	0	2	0	2	0	0	0	0	0	1	0	2	0	18
Woodchuck	0	2	0	1	0	1	0	2	0	1	0	1	0	2	0	2	0	2	0	3	0	17
Gopher	0	2	0	1	0	1	0	1	0	3	0	1	0	0	0	1	0	0	0	2	0	12
Rabbit, hare	0	1	0	1	0	0	0	0	0	2	0	0	0	0	0	0	0	2	0	1	0	7
Badger	0	0	0	1	0	0	0	0	0	1	0	1	0	1	0	0	0	0	0	2	0	6
Shrew	0	0	0	0	0	1	0	0	0	2	0	0	0	1	0	0	0	1	0	0	0	5
Beaver	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	3
Pig	0	0	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	0	0	0	0	3
Porcupine	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	1	0	0	0	0	0	3
Prairie dog	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	3
Kangaroo	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Otter	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2
Mountain lion	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	2
Bison	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Gerbil	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Ground squirrel	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Guinea pig	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
TOTAL	38	607	27	606	24	655	53	665	32	639	40	671	60	745	28	607	21	568	29	625	352	6388

Rabies consultations by the South Dakota Department of Health are available seven days a week. Consultations are based on Centers for Disease Control and Prevention (CDC) recommendations*. We strive to recommend appropriate rabies prevention measures and to minimize unnecessary and inappropriate testing and post-exposure prophylactic treatment.

Addresses, telephone numbers and websites

Department of Health (rabies consultations)

615 East Fourth Street
Pierre, SD 57501-1700
Phone: 800-592-1861 or 605-773-3737;
after hours 800-592-1861 or 605-773-3737

 $\underline{\text{https://doh.sd.gov/diseases/infectious/diseasefacts/}}$

rabies.aspx

Department of Health, Public Health Laboratory

(rabies testing) 615 East Fourth Street Pierre, SD 57501-1700

Phone: 800-592-1861 or 605-773-3368

http://doh.sd.gov/Lab/rabies.aspx

South Dakota Bat Group http://sdbwg.org

Animal Disease Research and Diagnostic Laboratory

(rabies testing)
North Campus Drive
South Dakota State University
Brookings, SD 57007-1396
Phone: 605-688-5171
www.sdstate.edu/vs/adrdl

SD Animal Industry Board (livestock and animal veterinary

and regulatory issues)

441 S. Fort Street, Pierre, SD 57501

Phone: 605-773-3321 http://aib.sd.gov

CDC Rabies: www.cdc.gov/rabies

	Post-exposure Prophylaxis for Non-immunized Individuals									
www.cdc.gov/rabies/medical_care/index.html										
Treatment	Regimen									
Wound	All post exposure prophylaxis should begin with immediate thorough cleansing of all wounds with soap and water.									
RIG	If possible, the full dose should be infiltrated around any wound(s) and any remaining volume should be administered IM at an anatomical site distant from vaccine administration. Also, RIG should not be administered in the same syringe as vaccine. Because RIG might partially suppress active production of antibody, no more than the recommended dose should be given.									
Vaccine	HDCV or PCECV 1.0 mL, IM (deltoid area), one each on days 0, 3, 7, and 14.									

	Post-exposure Prophylaxis for Previously Immunized Individuals									
Treatment	Regimen									
Wound	All post exposure prophylaxis should begin with immediate thorough cleansing of all wounds with soap and water.									
cleansing	If available, a virucidal agent such as povidine-iodine solution should be used to irrigate the wounds.									
RIG	RIG should not be administered.									
Vaccine	HDCV or PCECV 1.0 mL, IM (deltoid area), one each on days 0 and 3.									

Human Rabies Vaccines and Immunoglobulin Available in the United States								
Туре	Name	Name Route						
Human Diploid Cell Vaccine (HDCV)	Imovax® Rabies	Intramuscular	Pre-exposure or Post-exposure					
Purified Chick Embryo Cell Vaccine (PCECV)	RabAvert®	Intramuscular	Pre-exposure or Post-exposure					
Human Rabies Im- mune Globulin (RIG)	lmogam® Rabies-HT	Local infusion at wound site, with additional amount intramuscular at site distant from vaccine	Post-exposure					
Human Rabies Im- mune Globulin (RIG)	HyperRab TM S/D	Local infusion at wound site, with additional amount intramuscular at site	Post-exposure					

References and resources

*CDC. Human rabies prevention – United States, 2008 (ACIP). MMWR 2008; 57 (RR-3). <u>www.cdc.gov/mmwr/preview/mmwrhtml/rr5703a1.htm</u>

Compendium of animal rabies prevention and control, 2016. National Association of State Public Health Veterinarians. http://nasphv.org/Documents/NASPHVRabiesCompendium.pdf

Compendium of measures to prevent disease associated with animals in public settings, 2013: National Assoc. of State Public Health Veterinarians. Journal of the American Veterinary Medical Association 243: 1270-1288. http://avmajournals.avma.org/doi/pdf/10.2460/javma.243.9.1270

Monroe, B., P. Yager, J. Blanton, M. Birhane, A. Wadhwa, L. Orciari, B. Peterson and R. Wallace. 2015. Rabies surveillance in the United States during 2014. Journal of the American Veterinary Medical Assoc 248: 777—788. http://avmajournals.avma.org/doi/pdf/10.2460/javma.245.10.1111

South Dakota Rabies Control Laws

RABIES CONTROL STATUE: Chapter 40-12 (Section 12-1, 2, 3, 4, 5, 6)

- 40-12-1. Confinement of animals required in localities where rabies exists -- Neglect as misdemeanor. In localities where rabies exists, the animal industry board may require that any animal deemed likely to spread such disease shall be muzzled, caged, tied or confined in any manner that may be deemed necessary. It is a Class 1 misdemeanor for any owner or person in charge of any animal so ordered to be muzzled, caged, tied or confined, to refuse or neglect to carry out such order.
- 40-12-2. Destruction of rabid animal required. If the animal industry board determines that rabies exists in any animal, the board may kill such animal and any animal there is reason to believe has been bitten by any animal affected with rabies.
- 40-12-4. Definition of terms. Terms used in this chapter mean:
- (1) "Department," the department of health;
- (2) "Owner," any person who has a right of property in a pet, keeps or harbors a pet or who has it in his care or acts as its custodian, or permits a pet to remain on or about any premises occupied by him;
- (3) "Pet," any dog, cat or other species of carnivore kept for domestication or display.
- 40-12-5. Confinement of pet after attack upon person -- Violation as misdemeanor. The department may serve written notice upon the owner of any dog or cat which has attacked or bitten a person to confine the animal at the owner's expense upon his premises or at a city pound or other place designated in the notice for a period of at least ten days after the animal has attacked or bitten any person. The department may examine the animal at any time within the ten-day period of confinement to determine whether such animal shows symptoms of rabies. In the case of any pet other than a dog or cat, which has attacked or bitten a person, the department may serve written notice upon the owner of such animal that the owner shall have the animal euthanized immediately and submit the brain to an approved laboratory for rabies examination. Any owner who fails to comply with a written notice served pursuant to this section is guilty of a Class 1 misdemeanor.
- 40-12-6. Confinement of pet bitten by animal suspected of having rabies -- Violation as misdemeanor. The department may serve written notice upon the owner of a dog or cat known to have been bitten by an animal known or suspected of being affected by rabies, requiring the owner to confine such dog or cat for a period of not less than six months. However, if such dog or cat had been properly treated with an antirabic vaccine, confinement shall be for a period of not less than three months. In the case of any pet other than a dog or cat, the department may serve written notice upon the owner of such animal that the owner shall have the animal euthanized immediately. Any owner who fails to comply with a written notice served pursuant to this section is guilty of a Class 1 misdemeanor.

SHERIFF: Chapter 7-12 (Section 7-12-29) Taking and holding animal suspected of being dangerous -- Formal determination -- Disposal of dangerous animal. The sheriff may take possession of any animal suspected of being dangerous. The sheriff may hold such animal until a formal determination can be made of the extent of the danger such animal posses. If the animal has attacked or bitten a human or an animal pet, the formal determination shall include consultation with the Department of Health for the purposes of rabies control. The sheriff may dispose of any animal so determined to be dangerous.

REPORTABLE DISEASES: Administrative Rule 44:20:01:03 Category I reportable diseases have a potential for epidemic spread or require rapid application of public health measures to prevent a serious threat to public health or safety. Category I reportable diseases include: Rabies, human and animal.

CONTROL MEASURES: Administrative Rule 44:20:03:10 Application of public health measures to animals. The department may instruct a person who owns or is in possession of an animal known or suspected to be a carrier of an infectious agent in public health measures for preventing infection and spread of disease. If the department knows or has reason to believe, because of testing or epidemiological information, that an animal is infected with an infectious agent and is a threat to the public health, it may issue a public health notice directing the person who owns or is in possession of the animal to take one or more of the following actions:

- (1) To examine or test the animal to determine whether it is infected with an infectious agent capable of causing human disease
- (2) To report to an authorized department representative for counseling on methods for preventing transmission of the infectious agent;
- (3) To confine or quarantine the animal for the duration of the incubation period or contagious period;
- (4) To destroy the animal or provide treatment until it is cured or free from the infection and to follow measures for preventing reinfection;
- (5) To cease from specific activities involving the infected animal that endanger the health of others;
- (6) To cooperate with the department in implementation of reasonable public health measures.

Health requirements for dogs and cats on exhibit: Administrative Rule 12:02:10:03 All dogs for exhibition must be accompanied by a health certificate signed by a licensed accredited veterinarian within 30 days before entry to the South Dakota State Fair. The health certificate shall indicate the dates of vaccination for rabies, canine distemper, and canine parvovirus. All vaccines must be current. All cats for exhibition must be accompanied by a health certificate signed by a licensed accredited veterinarian within 30 days before entry to the South Dakota State Fair. The health certificate shall indicate the dates of vaccination for rabies and feline distemper. All vaccines must be current.

Importation of imported cats and dogs: Administrative Rule 12:68:06:09 No person may import any dog or cat over three months of age without certification of a current rabies vaccination. If a dog or cat is imported from an area that is quarantined for rabies, a certifying statement is required from an accredited veterinarian that the dog or cat has not been exposed to rabies. No person may import any dog or cat less than three months of age from an area under quarantine for rabies. A certificate of veterinary inspection is not required for dogs and cats entering the state unless: (a) The animal originates from an area quarantined for rabies; (b) The animal originates from a foreign county; (c) The animal is to remain in the state for 30 days or more; (d) A resident travels with an animal or another state or province and does not return within 30 days; or (e) The state veterinarian determines that it is necessary based on disease information for a time period not to exceed the term of the threat; (3) It is not a violation of this section to bring a dog or cat into the state from a bordering state for the purpose of obtaining any vaccination or other health care from a licensed veterinarian.

Sioux Falls Nurse Receives CDC Childhood Immunization Award

Sioux Falls nurse Tracy Bieber has received a 2016 Childhood Immunization Champion Award from the federal Centers for Disease Control and Prevention (CDC). The annual award recognizes individuals who make outstanding efforts to ensure that children in their communities are fully immunized against 14 preventable diseases before the age of two. The awards are announced each April in conjunction with National Infant Immunization Week.

Bieber is the Enterprise Immunization Strategy Manager for the Sanford Health System and an authority figure for vaccine related issues for hundreds of facilities in several states. She has developed an Immunization Program within the Sanford Health System to ensure consistency in vaccine storage and handling practices as well as reminder and recall procedures to increase and maintain immunization coverage rates for all ages.



"Tracy sees immunization as her life's work and takes advantage of every opportunity to promote vaccination and its critical role in preventing disease," said Tim Heath, immunization coordinator for the Department of Health.

Heath noted that she currently chairs the Sioux Falls Area Immunization Coalition and is leading the effort to bring health systems, the department and vaccine providers together to coordinate the state's first ever immunization conference.

"Ensuring that every child is vaccinated on schedule is critical to protecting our children, schools, and communities from outbreaks of serious diseases," said Dr. Amanda Cohn, a pediatrician at CDC and the executive secretary of the Advisory Committee on Immunization Practices. "We could not achieve our goal of protecting children without those committed individuals who promote immunizations at the state and local levels."

Read Bieber's profile and learn more about the *Childhood Immunization Champion Award* program at http://www.cdc.gov/vaccines/champions.

South Dakota Strategic Plan 2015-2020—Smoking Dashboard

Reduce the percentage of adults that currently smoke from 18.6% in 2014 to 14.5% by 2020

South Dakota Percent	South Dakota 2020 Target	U.S. Percent
18.6%	14.5%	16.8%
(2014)		(2014)

Significance:

Cigarette smoking is the single most preventable cause of death and disease in the U.S. Cigarette smoking causes approximately 1,100 deaths each year in South Dakota – nearly 3 people each day. Half of all long-term smokers die prematurely from smoking-related causes. The health consequences of tobacco use include heart disease, multiple types of cancer, lung and respiratory disease, negative reproductive effects, and the worsening of chronic health conditions such as diabetes and asthma.

Tobacco use costs South Dakota \$373 million in health care expenditures and another \$233 million in lost productivity each year. The portion of this cost covered by the state Medicaid program is \$68 million. These amounts do not include health costs caused by exposure to secondhand smoke, smoking-caused fires, smokeless tobacco use, or cigar/pipe smoking.

Even though tobacco use rates are slowly declining among the population overall, the rates are still troubling among several groups who are disproportionately affected by tobacco.

- Most smokers begin smoking as children and almost all first tobacco use occurs before age 18. Smoking prevalence among South Dakota's high school students is 16.5%. If current trends continue, more than 21,000 South Dakota kids alive today will die prematurely of tobacco-caused diseases. According to CDC, 16.7% of young adults (age 18-24) smoke nationwide vs. 16.4% in South Dakota. (2014 data)
- American Indians in South Dakota are much more likely to have smoked cigarettes than whites 43% vs. 16.8%
- The Medicaid population smoking prevalence is 44% vs. the overall state rate of 18.6% (2014 data)
- The rate of adult pregnant women smoking in South Dakota is 14.8%. Parental smoking is a risk factor for SIDS, complications from prematurity and low birth weight, and other pregnancy problems. (2014 data)

Definition: Percent of adults who currently smoke cigarettes

Data Source: Behavioral Risk Factor Surveillance System (BRFSS)

Statistical Trend: 60 55.2 50 43.8 43 42.8 40 30 21.1 22 18.6 _{16.8} 19.6 18.5 17.2 20 10 0 2011 2012 2013 2014 ■ Total ■White ■American Indian

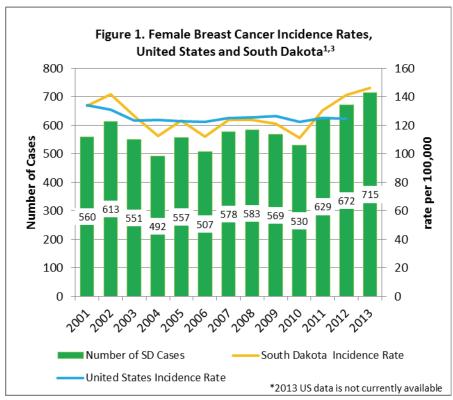
Date Last Updated: 12/23/2015

For more information see the Department of Health's strategic plan website at http://doh.sd.gov/strategicplan/.

Female Breast Cancer Incidence Rates in South Dakota

South Dakota had the highest incidence of female breast cancer in the nation in 2012. In the U.S. there were 224,147 women diagnosed in 2012; 672 of those cases were South Dakota residents. This resulted in a 2012 female breast cancer incidence rate of 141.4 per 100,000 in South Dakota, while the U.S. rate was 122.2¹. Among the American Indian population in South Dakota the age-adjusted incidence rate in 2012 was 123.7 and

the incidence rate for white women was 144.1. Although South Dakota's incidence of newly diagnosed breast cancers was highest in the nation its mortality rate ranked 39^{th.} The age-adjusted mortality rate in South Dakota was 19.1, slightly lower than the U.S rate of 21.3 per 100,000¹. Other than skin cancer, breast cancer is the most commonly diagnosed cancer in women regardless of race or ethnicity in the U.S and in South Dakota.

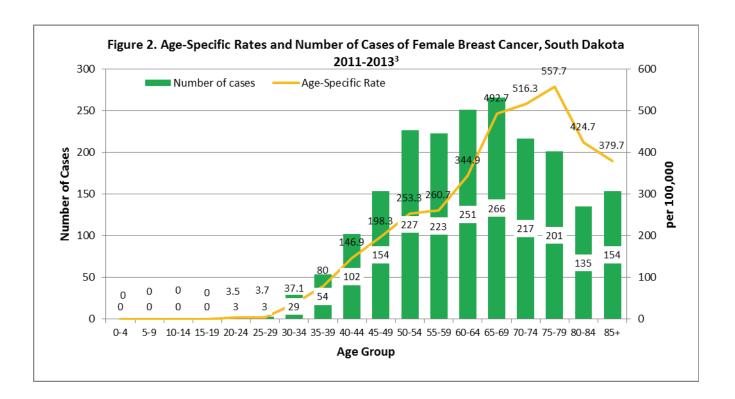


The risk for breast cancer increases with age. Other risk factors include: personal history, family history, long-term use of hormone replacement therapy, treatment with radiation therapy to the breast/chest, exposure to diethylstilbestrol (DES-synthetic form of estrogen), dense breast tissue, and drinking alcohol².

The median age at diagnosis in 2012 was 63 (range 24-102 years). Figure 2 (next page) combines the 3 most recent years of data (2011-2013) for more stable age-specific rates. The highest age specific rate was in the 75-79 year old age group where the age specific rate was 557.7 per 100,000 population. It is also important to note the number of breast cancer cases increases steadily up to age 69, then declines.

- 1. United States Cancer Statistics, 2012. CDC. https://nccd.cdc.gov/uscs/cancersrankedbystate.aspx
- 2. Breast Cancer. CDC. http://www.cdc.gov/cancer/breast/
- 3. South Dakota Department of Health, South Dakota Cancer Registry
- South Dakota Department of Health, Office of Health Statistics. Behavioral Risk Factor Surveillance System
- South Dakota Comprehensive Control Plan http://www.cancersd.com/pdfs/SDOH-2977-REVCancerPlanReport-2.pdf

Age-Adjusted Fe Incidence and Mo		
Incluence and IVI	Inci-	Mortality
	dence	Rate
State	Rate	
South Dakota	141.4	19.1
Hawaii	139.8	16.0
Rhode Island	138.2	18.0
Washington	137.2	17.9
Massachusetts	136.8	19.3
Connecticut	136.4	19.0
New Hampshire	132.8	19.0
District of Columbia	130.3	31.1
New Jersey	129.9	22.6
Vermont	129.0	19.4
Pennsylvania	128.2	22.4
Minnesota	128.0	18.0
South Carolina	126.9	22.3
New York	126.4	20.7
Illinois	126.0	22.9
Wisconsin	125.4	20.5
Oregon	125.3	20.3
North Carolina	125.2	21.4
Maryland Kansas	124.9 124.7	23.7 22.9
Missouri	124.7	22.9
Michigan	124.4	22.4
Delaware	123.7	22.1
Virginia	123.7	21.2
Kentucky	123.6	23.2
North Dakota	123.6	16.8
Idaho	123.4	15.8
Colorado	122.6	20.3
Georgia	122.5	21.6
United States	122.2	21.3
Alaska	121.6	17.5
Louisiana	121.4	24.2
California	121.0	21.1
Tennessee	120.8	22.8
Ohio	120.2	22.7
Maine	120.0	17.2
Alabama	119.8	22.8
Indiana	118.6	21.7
Nebraska	118.2	21.2
Mississippi	116.8	25.1
Utah	115.8	20.5
Oklahoma	115.7	23.5
West Virginia	115.2	22.3
lowa	114.5	20.2
Montana	114.1	20.4
Florida	114.1	20.5
New Mexico	113.9	17.8
Texas	110.8	21.1 23.2
Arkansas	109.2	19.1
Arizona	107.2	15.5
Wyoming Rates per 100,000 por		15.5



Prevention and early detection are key to breast cancer survival. Every woman should talk to her doctor for individualized screening recommendations. Mammography is the best way to detect breast cancer early and having regular mammograms can lower the risk of dying from breast cancer². In South Dakota in 2014, 75% of women age 40 and older reported having had a mammogram in the past 2 years. This is up slightly from the 2012 rate of 73.5%⁴. The 2014 rate was also higher than the U.S median of 73%. The South Dakota Comprehensive Cancer Control Program has set a 2020 goal of 81% of women 40 and older having a mammogram in the past 2 years⁵.

While the age-adjusted incidence rate has increased since 2010 (Figure 1.), the mortality rate has remained relatively stable. Although it is not clear what specific factors are driving the recent increase in breast cancer incidence, a high incidence with a relatively low mortality rate suggests that breast cancers are being found, diagnosed and treated early enough to prevent death. With the continued increase in incident cases in 2013, the Department of Health will continue to closely assess the rates of female breast cancer. As the population ages it is important to continue to increase mammography rates given early detection is key to survival. Other factors which can lower the risk of breast cancer include maintaining a healthy weight, exercising, getting enough sleep, and abstaining from or limiting alcoholic drinks to no more than one per day².

^{1.} United States Cancer Statistics, 2012. CDC. https://nccd.cdc.gov/uscs/cancersrankedbystate.aspx

Breast Cancer. CDC. http://www.cdc.gov/cancer/breast/

^{3.} South Dakota Department of Health, South Dakota Cancer Registry

^{4.} South Dakota Department of Health, Office of Health Statistics. Behavioral Risk Factor Surveillance System

^{5.} South Dakota Comprehensive Control Plan http://www.cancersd.com/pdfs/SDOH-2977-REVCancerPlanReport-2.pdf



A program of the South Dakota Department of Health

The South Dakota Department of Health participates in the National Breast and Cervical Cancer Early Detection Program¹. Since March 1997, South Dakota's All Women Count! Program has enrolled and helped over 24,000 women receive life-saving breast and cervical cancer screening services. South Dakota women who are age 30-64 and income eligible are able to receive breast and cervical cancer screenings at over 200+ participating provider sites located across South Dakota.

Since 1997, 47,595 clinical breast exams and 25,993 mammograms have been provided to South Dakota women. Of the total mammograms, 3,789 were abnormal (14%), and 231 breast cancer cases were diagnosed (6%).

The success of the All Women Count! Program would not be possible without the assistance of the 200+ participating provider sites located across South Dakota who enroll and provide life-saving breast and cervical cancer screening services to eligible women. In addition, in partnership with the South Dakota Department of Social Services, an eligible woman is enrolled into the Medicaid program to receive treatment if she receives a breast or cervical cancer diagnosis and qualifies for Medicaid.

The Department of Health and its All Women Count! Program encourage providers talk to their patients about breast and cervical cancer screening. Early detection saves lives.

To learn more about the All Women Count! Program call 1-800-738-2301 or visit https://getscreened.sd.gov/count/.

1. National Breast and Cervical Cancer Early Detention Program, CDC http://www.cdc.gov/cancer/nbccedp/

Colorectal Cancer in South Dakota, 2013

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

The 2013 colorectal cancer data has been released. For 2009-2013, the average number of new colorectal cancer cases per year was 437 and the average number of annual deaths due to colorectal cancer was 158.

Incidence 2013 Mortality 2013

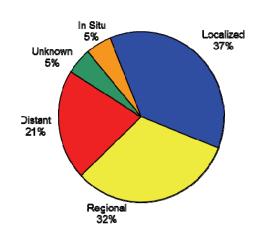
Number of cases		Number of deaths	
Total	413	Total	166
Males	206	Males	89
Females	207	Females	77
White	384	White	148
American Indian	24	American Indian	17
Median age at diagnosis	70 yrs	Median age at death	75 yrs
Mode	63 yrs	Mode	75 yrs
Age range at diagnosis	23-98 yrs	Age range at death	41-98 yrs
SD age-adjusted incidence rate	40.7	SD age-adjusted death rate	16.5
US SEER age-adjusted incidence rate	e (2012) *39.7	US SEER age-adjusted death rate (20°	12) *14.7

Rates per 100,000 US 2000 Standard Population and SD 2013 Estimated Population *2013 US SEER age-adjusted rates not available.

Source: South Dakota Department of Health

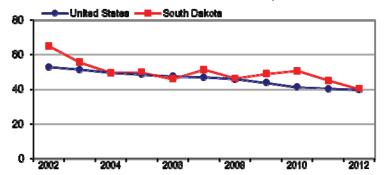
The graph at the right displays the Surveillance Epidemiology and End Results (SEER) Summary Stage at diagnosis for 2013 colorectal cancer cases in South Dakota. As shown, over half of the cases were diagnosed at the more advanced stages of regional and distant. Patient survival rates decline when diagnosed at a more advanced stage as illustrated in the table below for cases diagnosed nationally in years 2005-2011.

Stage at Diagnosis	5-Year Relative Survival, 2005-2011
Localized	90.1%
Regional	70.8%
Distant	13.1%
Unknown	34.5%



Source: South Dakota Department of Health

Colorectal Cancer Incidence Rates, US and SD

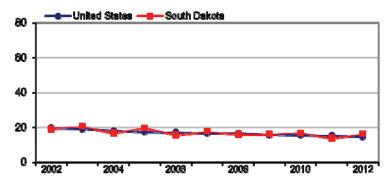


Rates per 100,000 US 2000 Standard Population and SD Estimated Population US rates are provided by SEER www.seer.cancer.gov Source: South Dakota Department of Health

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As more South Dakotans participate in recommended colorectal cancer screenings, the mortality rates will decrease. During screenings, precancerous polyps are removed to prevent cancer. The age-adjusted colorectal cancer mortality rates are shown below for the United States and South Dakota for 2002-2012.

Colorectal Cancer Mortality Rates, US and SD



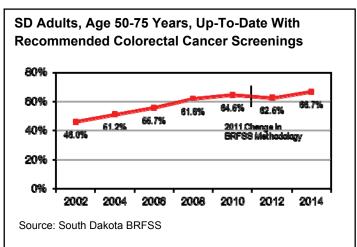
Rates per 100,000 US 2000 Standard Population and SD Estimated Population US rates are provided by SEER www.seer.cancer.gov Source: South Dakota Department of Health

Colorectal Cancer Screening Recommendations

The U.S. Preventative Services Task Force (USPSTF) recommends screening for colorectal cancer using high-sensitivity fecal occult blood testing (FOBT), sigmoidoscopy with interval FOBT, or colonoscopy for adults beginning at age 50 and continuing until age 75 years. The Behavioral Risk Factor Surveillance System (BRFSS) data for colorectal cancer screening participation of South Dakotans ages 50 to 75 years is displayed in the figures below. One in three South Dakotans do not participate in the USPSTF recommended colorectal cancer screenings.

SD Adults, Age 50-75 Years, 2014 Colorectal Cancer Screening Participation By Test Type

Participated in Screening		No Partici- pation in Screen- ing
Blood Stool Test Only	2.8%	
Sigmoidoscopy/Colonoscopy Only	58.6%	
Both - Blood Stool Test and Sigmoidoscopy/Colonoscopy	5.3%	
Total	66.7%	33.3%

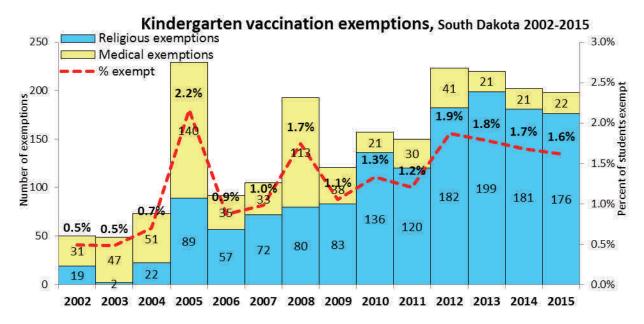


For additional information, please contact Kay Dosch, SD Cancer Registry Coordinator, at 605-773-6345 or 800-592-1861 or see the website at http://getscreened.sd.gov/registry/ under the Data & Publications tab for the entire colorectal cancer monograph.

Kindergarten Vaccination: Healthy Kids, Healthy Families, Healthy Schools, Healthy Communities, Healthy South Dakota

Places where children gather, like schools and child daycares, are ideal places for disease transmission. Diseases such as measles, whooping cough, chicken pox, mumps, polio, rubella, hepatitis A and diphtheria were once common childhood scourges in South Dakota. Today vaccines prevent these diseases and protect the public's health.

For the 2015-2016 kindergarten class 366 South Dakota schools submitted vaccination audit data. Six percent of schools had <80% MMR (measles, mumps, rubella) coverage, which is precarious. South Dakota's overall coverage rate for MMR vaccine was 96.5%, the DTaP (diphtheria, tetanus, pertussis) coverage rate was 96.4%, and the varicella (chicken pox) coverage rate was 96.0%, all excellent rates, all exceeding the 95% goal, and all above the national rates. CDC. Vaccination coverage among children in kindergarten – United States, 2014-15 school year. MMWR 64, 897-904.



South Dakota allows medical and religious exemption from school vaccination requirements (see box, page 21). For the 2015-2016 school year there were 22 medical exemptions and 176 religious exemptions for the state's kindergarten class. Over the past several years the number of religious exemptions has increased dramatically from 2 exemptions in 2003 exemptions to 176 presently, but there was no change in state law covering exemptions during those years.

Vaccination and exemption rates by school kindergarten, South Dakota 2015-2016

County	School	Students	DTaP-4	Polio-4	MMR-2	Varicella-2	HBV-3	HAV-2	Exempts
Total South Dakota		12,191	96.4%	96.3%	96.5%	96%	94.4%	63.5%	1.6%
Aurora	Plankinton Elementary	21	95.2%	95.2%	95.2%	95%	95.2%	90.5%	0.0%
Aurora	Stickney/Corsica Elementary	21	100%	100%	100%	100%	100%	85.7%	0.0%
Aurora	White Lake Elementary	<10	100%	100%	100%	100%	100%	100%	0.0%
Aurora County	Total County	49	98.0%	98.0%	98.0%	98%	98.0%	89.8%	0.0%
Beadle	Buchanan Elementary	234	91.5%	93.2%	94.4%	93%	97.0%	85.0%	0.4%
Beadle	Hitchcock-Tulare Elementary	<10	100%	100%	100%	100%	100%	88.9%	0.0%
Beadle	Holy Trinity Elementary	19	100%	100%	100%	100%	100%	0.0%	0.0%
Beadle	Huron Colony Elementary	<10	100%	100%	100%	100%	100%	0.0%	0.0%
Beadle	Iroquois School	17	88.2%	88.2%	88.2%	94%	100%	88.2%	0.0%
Beadle	James Valley Christian	23	82.6%	82.6%	82.6%	83%	82.6%	78.3%	13.0%
Beadle	Pearl Creek Colony	<10	0.0%	0.0%	0%	50%	100%	50.0%	0.0%
Beadle	Riverside Colony	<10	100%	100%	100%	100%	100%	100%	0.0%
Beadle	Sunny Plains Christian	<10	100%	100%	100%	100%	100%	0.0%	0.0%

County	School	Students	DTaP-4	Polio-4	MMR-2	Varicella-2	HBV-3	HAV-2	Exempts
Total South Dakota		12,191	96.4%	96.3%	96.5%	96%	94.4%	63.5%	1.6%
Beadle	Wolsey-Wessington Elementary.	19	94.7%	94.7%	94.7%	95%	94.7%	0.0%	0.0%
Beadle County	Total County	328	91.2%	92.4%	93.3%	93%	96.3%	73.8%	1.2%
Bennett	American Horse	17	94.1%	94.1%	82.4%	82%	100%	94.1%	0.0%
Bennett	Batesland Elementary	21	100%	100%	100%	100%	100%	100%	0.0%
Bennett Bon Hommo	Martin Elementary	13	100%	100%	100%	98%	100%	97.7% 61.5%	0.0%
Bon Homme Bon Homme	Avon Elementary Hutterische Colony	<10	100%	100%	100%	100%	100%	0.0%	0.0%
Bon Homme	Scotland Elementary	12	100%	100%	100%	100%	100%	83.3%	0.0%
Bon Homme	Springfield Elementary	<10	100%	100%	100%	100%	100%	57.1%	0.0%
Bon Homme	Tabor Elementary	<10	100%	100%	100%	100%	100%	33.3%	0.0%
Bon Homme	Tyndall Elementary	18	100%	100%	100%	100%	100%	33.3%	0.0%
Bon Homme County	Total County	60	100%	100%	100%	100%	100%	50.0%	0.0%
Brookings	Dakota Prairie	121	92.6%	92.6%	93.4%	93%	93.4%	0.0%	0.8%
Brookings	Deubrook Elementary	20	100%	100%	100%	100%	100%	0.0%	0.0%
Brookings	Elkton Elementary	25	92.0%	96.0%	100%	96%	96.0%	0.0%	0.0%
Brookings	Hillcrest Elementary	70	94.3%	92.9%	95.7%	96%	94.3%	0.0%	0.0%
Brookings	Medary Elementary	84	91.7%	90.5%	90.5%	88%	89.3%	0.0%	2.4%
Brookings	Newdale Colony	<10	16.7%	0.0%	33.3%	0%	33.3%	0.0%	66.7%
Brookings	Norfeld Colony	<10	100%	100%	100%	100%	100%	0.0%	0.0%
Brookings	Red Willow Colony	<10	100%	100%	100%	100%	100%	0.0%	0.0%
Brookings	Rolland Colony	<10	100%	66.7%	100%	767%	66.7%	0.0%	0.0%
Brookings	Sioux Valley Elementary	41	90.2%	92.7%	97.6%	98%	87.8%	0.0%	0.0%
Brookings	Volga Christian Elementary	<10	100%	100%	100%	100%	100%	0.0%	0.0%
Brookings County	Total County Aberdeen Christian	380	91.8%	91.3%	93.7%	97%	91.6%	0.0%	1.8%
Brown Brown	CC Lee Elementary	15 65	80.0% 100%	80.0% 100%	73.3% 100%	73% 100%	86.7% 100%	53.3% 49.2%	26.7% 0.0%
Brown	Frederick Area Elementary	<10	88.9%	88.9%	88.9%	89%	88.9%	11.1%	0.0%
Brown	Groton Elementary	50	98.0%	98.0%	96.0%	96%	98.0%	42.0%	2.0%
Brown	Hutterville Colony	<10	100%	100%	100%	200%	100%	0.0%	0.0%
Brown	Lincoln Elementary	70	98.6%	98.6%	100%	100%	100%	68.6%	0.0%
Brown	May Overby Elementary	71	98.6%	100%	100%	99%	100%	60.6%	0.0%
Brown	OM Tiffany Elementary	70	100%	100%	98.6%	99%	100%	51.4%	1.4%
Brown	Roncalli Primary Elementary	41	97.6%	97.6%	95.1%	95%	100%	51.2%	0.0%
Brown	Simmons Elementary	62	100%	100%	100%	100%	96.8%	46.8%	0.0%
Brown	Trinity Lutheran Elementary	<10	100%	100%	100%	100%	100%	75.0%	0.0%
Brown	Warner	22	90.9%	90.9%	95.5%	91%	100%	31.8%	0.0%
Brown County	Total County	481	97.9%	98.1%	97.7%	98%	98.8%	51.8%	1.2%
Brule	Chamberlain Elementary	79	100%	100%	100%	100%	100%	100%	0.0%
Brule	Grass Ranch Colony	<10	100%	100%	100%	100%	100%	0.0%	0.0%
Brule	Kimball Elementary	28	100%	100%	100%	100%	96.4%	96.4%	0.0%
Brule County	Total County	112	100%	100%	100%	100%	99.1%	94.6%	0.0%
Buffalo County	Crow Creek Elementary	28 19	100%	96.4%	100%	100%	100%	100%	0.0%
Butte Butte	Newell Elementary North Park Elementary	110	89.5% 96.4%	89.5% 95.5%	89.5% 96.4%	89% 96%	89.5% 89.1%	78.9% 71.8%	0.0% 1.8%
Butte County	Total County	129	95.3%	93.5%	95.3%	95%	89.1%	71.8% 72.9 %	1.6%
Campbell County	Herreid Elementary	<10	100%	100%	100%	100%	100%	0.0%	0.0%
Charles Mix	Andes Central Elementary	24	100%	100%	100%	96%	100%	87.5%	0.0%
Charles Mix	Cedar Grove Colony	<10	75.0%	75.0%	75.0%	75%	75.0%	0.0%	0.0%
Charles Mix	Lakeview Colony School	<10	100%	100%	100%	100%	100%	88.9%	0.0%
Charles Mix	Marty Elementary	14	78.6%	78.6%	92.9%	93%	100%	78.6%	0.0%
Charles Mix	Platte Colony Elementary	<10	100%	100%	100%	100%	100%	0.0%	0.0%
Charles Mix	Platte/Geddes Elementary	46	93.5%	93.5%	93.5%	93%	95.7%	54.3%	6.5%
Charles Mix	Wagner Elementary	76	100%	100%	96.1%	97%	100%	94.7%	5.3%
Charles Mix County	Total County	175	96.0%	96.0%	95.4%	95%	98.3%	78.3%	4.0%
Clark	Clark Elementary	34	94.1%	94.1%	94.1%	94%	97.1%	29.4%	0.0%
Clark	Collins Colony	<10	50.0%	50.0%	50.0%	50%	100%	0.0%	0.0%
Clark	Fordham Elementary	<10	50.0%	50.0%	50.0%	50%	50.0%	0.0%	50.0%
Clark	Hillcrest Colony School	<10	80.0%	80.0%	80.0%	80% 100%	100%	80.0%	0.0%
Clark	Mayfield Colony	<10	100%	100%	100%	100%	100%	0.0%	0.0% 0.0%
Clark Clark	Shamrock Colony Silver Lake Colony	<10 <10	0.0% 100%	0.0% 100%	0.0% 100%	0% 100%	0.0% 100%	0.0% 83.3%	0.0%
Clark	Willow Lake Elementary	19	100%	100%	100%	100%	100%	36.8%	0.0%
Clark County	Total County	72	90.3%	90.3%	90.3%	90%	94.4%	36.1%	2.8%
Clay	Austin Elementary	79	100%	100%	100%	100%	100%	88.6%	0.0%
Clay	Irene/Wakonda Elementary	24	87.5%	87.5%	83.3%	83%	95.8%	83.3%	4.2%
Clay	St Agnes Elementary	20	100%	95.0%	100%	100%	100%	90.0%	0.0%
Clay County	Total County	123	97.6%	96.7%	96.7%	97%	99.2%	87.8%	0.8%
	•		100%	100%		100%			0.0%
Codington	Florence Elementary	23	100%	100%	100%	100%	100%	26.1%	0.0%

County	School	Students	DTaP-4	Polio-4	MMR-2	Varicella-2	HBV-3	HAV-2	Exempts
Total South Dakota		12,191	96.4%	96.3%	96.5%	96%	94.4%	63.5%	1.6%
Codington	Florence Elementary	23	100%	100%	100%	100%	100%	26.1%	0.0%
Codington	Henry Elementary	16	100%	100%	100%	100%	100%	50.0%	0.0%
Codington	Immaculate Conception	28	100%	100%	100%	100%	96.4%	28.6%	0.0%
Codington	Jefferson Elementary	80 76	97.5%	97.5% 100%	97.5% 100%	98%	98.8% 98.7%	32.5% 28.9%	1.3%
Codington Codington	Lincoln Elementary McKinley Elementary	44	100% 97.7%	97.7%	97.7%	100% 98%	100%	56.8%	0.0% 2.3%
Codington	Mellette Elementary	43	100%	100%	95.3%	95%	100%	44.2%	2.3%
Codington	Roosevelt Elementary	44	100%	100%	100%	100%	100%	36.4%	0.0%
Codington	St Martins Elementary	18	100%	100%	100%	100%	100%	16.7%	0.0%
Codington	Watertown Christian	11	90.9%	90.9%	90.9%	91%	90.9%	9.1%	9.1%
Codington	Waverly/South Shore	21	100%	100%	100%	100%	100%	28.6%	0.0%
Codington County	Total County	404	99.0%	99.0%	98.5%	99%	99.0%	34.7%	1.0%
Corson	Bullhead Elementary	<10	100%	100%	100%	100%	100%	0.0%	0.0%
Corson	McIntosh Elementary	<10	100%	100%	100%	100%	100%	0.0%	0.0%
Corson	McLaughlin Elementary	28	100%	100%	100%	100%	100%	0.0%	0.0%
Corson	Sitting Bull Elementary	<10	120.0%	120.0%	120.0%	120%	120.0%	0.0%	0.0%
Corson	Wakpala Total County	13 60	84.6% 98.3%	84.6% 98.3%	100% 101.7%	100% 102%	100% 101.7%	0.0% 0.0%	0.0% 0.0%
Corson Custer	Total County Custer Elementary	44	100%	100%	101.7%	102%	95.5%	59.1%	0.0%
Custer	Hermosa Elementary	18	94.4%	94.4%	94.4%	94%	88.9%	55.6%	5.6%
Custer	Spring Creek/Elk Mountain	<10	50.0%	50.0%	50.0%	50%	50.0%	0.0%	50.0%
Custer County	Total County	64	96.9%	96.9%	96.9%	97%	92.2%	56.3%	3.1%
Davison	Ethan Elementary	15	93.3%	93.3%	93.3%	93%	86.7%	80.0%	6.7%
Davison	Gertie Belle Rogers	75	98.7%	98.7%	98.7%	99%	98.7%	89.3%	1.3%
Davison	John Paul II	27	96.3%	96.3%	96.3%	96%	96.3%	92.6%	3.7%
Davison	LB Williams Elementary	83	94.0%	94.0%	94.0%	94%	96.4%	0.0%	0.0%
Davison	Longfellow Elementary	67	98.5%	100%	100%	100%	98.5%	85.1%	1.5%
Davison	Mitchell Christian	11	81.8%	81.8%	81.8%	82%	72.7%	72.7%	18.2%
Davison	Mt Vernon Elementary	12	100%	100%	100%	100%	91.7%	91.7%	0.0%
Davison County	Total County	290	96.2%	96.6%	96.6%	97%	95.9%	62.1%	2.1%
Day Day	Enemy Swim Day School Waubay Elementary	22 14	95.5% 100%	95.5% 100%	95.5% 100%	95% 100%	100% 100%	100% 64.3%	4.5% 0.0%
Day	Webster Elementary	42	100%	100%	100%	100%	100%	64.3%	0.0%
Day County	Total County	78	98.7%	98.7%	98.7%	99%	100%	74.4%	1.3%
Deuel County	Deuel/Clear Lake School	33	100%	97.0%	97.0%	97%	100%	51.5%	3.0%
Dewey	Eagle Butte Primary	117	95.7%	97.4%	97.4%	97%	99.1%	97.4%	0.9%
Dewey	Timber Lake Elementary	27	92.6%	92.6%	92.6%	93%	92.6%	88.9%	7.4%
Dewey	Tiospaye Topa Elementary	13	100%	100%	100%	100%	100%	100%	0.0%
Dewey County	Total County	157	95.5%	96.8%	96.8%	97%	98.1%	96.2%	1.9%
Douglas	Armour Elementary	16	100%	100%	100%	100%	100%	0.0%	0.0%
Douglas	Dakota Christian Elementary	<10	75.0%	75.0%	75.0%	75%	75.0%	25.0%	25.0%
Douglas County	Total County	20	95.0%	95.0%	95.0%	95%	95.0%	5.0%	5.0%
Edmunds	Bowdle Elementary	<10	100%	100%	100%	100%	100%	77.8%	0.0%
Edmunds	Deerfield Colony	<10	100%	100%	100%	100%	100%	25.0%	0.0%
Edmunds Edmunds	Edmunds Central	<10	100%	100%	100%	100% 100%	100%	71.4%	0.0%
Edmunds Edmunds	Holy Cross Elementary Ipswich Elem.	<10 21	100% 85.7%	100% 85.7%	100% 85.7%	100% 86%	100% 85.7%	100% 61.9%	0.0% 14.3%
Edmunas Edmunds	Pembrook Colony	<10	0.0%	0.0%	0.0%	0%	0.0%	0.0%	50.0%
Edmunds	Plainview/Rosette Colony	<10	100%	100%	100%	100%	100%	100%	0.0%
Edmunds County	Total County	47	89.4%	89.4%	89.4%	89%	89.4%	63.8%	8.5%
Fall River	Bethesda Lutheran	<10	50.0%	50.0%	50.0%	0%	0.0%	0.0%	50.0%
Fall River	Edgemont Elementary	<10	100%	100%	100%	100%	100%	71.4%	0.0%
Fall River	Hot Springs Elementary	55	96.4%	92.7%	92.7%	95%	90.9%	78.2%	5.5%
Fall River	Oelrichs Elementary	<10	66.7%	33.3%	66.7%	67%	100%	100%	0.0%
Fall River County	Total County	67	94.0%	89.6%	91.0%	91%	89.6%	76.1%	6.0%
Faulk	Blumengard Colony	<10	100%	100%	100%	100%	100%	100%	0.0%
Faulk	Brentwood Colony	<10	100%	100%	100%	100%	80.0%	40.0%	0.0%
Faulk	Evergreen Colony	<10	0.0%	0.0%	0.0%	0%	75.0%	25.0%	0.0%
Faulk Faulk	Faulkton Elementary Thunderbird Colony	15 <10	93.3% 100%	93.3% 100%	93.3% 100%	93% 100%	93.3% 100%	60.0% 100%	6.7% 0.0%
Faulk County	Total County	33	84.8%	84.8%	84.8%	85%	90.9%	63.6%	0.0% 3.0 %
Grant	Big Stone City Elementary	14	92.9%	92.9%	92.9%	93%	100%	42.9%	7.1%
Grant	Grant-Deuel Elementary	<10	66.7%	66.7%	66.7%	67%	66.7%	0.0%	33.3%
Grant	Koch Elementary	52	100%	100%	100%	100%	100%	48.1%	0.0%
Grant	St Lawrence Elementary	13	92.3%	92.3%	92.3%	92%	92.3%	53.8%	7.7%
Grant County	Total County	82	96.3%	96.3%	96.3%	96%	97.6%	46.3%	3.7%
Gregory	Burke Elementary	16	100%	100%	93.8%	75%	100%	31.3%	0.0%
Gregory	Gregory Elementary	22	100%	95.5%	95.5%	91%	100%	50.0%	0.0%
Gregory	Bonesteel-Fairfax	<10	88.9%	88.9%	88.9%	89%	100%	66.7%	0.0%
Gregory County	Total County	47	97.9%	95.7%	93.6%	85%	100%	46.8%	0.0%

County	School	Students	DTaP-4	Polio-4	MMR-2	Varicella-2	HBV-3	HAV-2	Exempts
Total South Dakota	Concor	12,191	96.4%	96.3%	96.5%	96%	94.4%	63.5%	1.6%
Haakon	King (Milesville) Elementary	<10	66.7%	66.7%	100%	100%	66.7%	33.3%	0.0%
Haakon	Midland Elementary	<10	100%	100%	100%	100%	100%	83.3%	0.0%
Haakon County	Total County	<10	88.9%	88.9%	100%	100%	88.9%	66.7%	0.0%
Hamlin	Castlewood Elementary	18	100%	100%	100%	100%	100%	33.3%	0.0%
Hamlin	Estelline Elementary	20	100%	95.0%	95.0%	100%	95.0%	40.0%	5.0%
Hamlin	Hamlin Elementary	57	100%	98.2%	100%	100%	98.2%	28.1%	0.0%
Hamlin County	Total County	95	100%	97.9%	98.9%	100%	97.9%	31.6%	1.1%
Hand	Miller Elementary	44	97.7%	97.7%	97.7%	98%	88.6%	38.6%	2.3%
Hand Hand	Millerdale Colony Sunshine Bible Academy	<10 <10	85.7% 100%	85.7% 100%	85.7% 100%	86% 100%	85.7% 100%	0.0% 0.0%	14.3% 0.0%
Hand County	Total County	53	96.2%	96.2%	96.2%	96%	88.7%	32.1%	3.8%
Hanson	Emery Elementary	12	100%	100%	100%	100%	100%	75.0%	0.0%
Hanson	Hanson Elementary	28	85.7%	89.3%	89.3%	89%	85.7%	82.1%	7.1%
Hanson	Millbrook Colony	<10	100%	100%	100%	100%	100%	100%	0.0%
Hanson	Oaklane Elementary	<10	100%	100%	100%	200%	100%	100%	0.0%
Hanson	Rosedale Colony	<10	100%	100%	100%	100%	100%	100%	0.0%
Hanson County	Total County	47	91.5%	93.6%	93.6%	102%	91.5%	83.0%	4.3%
Harding	Buffalo Elementary	15	100%	100%	86.7%	87%	100%	100%	0.0%
Harding	Camp Crook Elementary	<10	100%	100%	100%	100%	100%	0.0%	0.0%
Harding	Ludlow Elementary	<10	100%	100%	100%	100%	100%	100%	0.0%
Harding County	Total County	17	100%	100%	88.2%	88%	100%	94.1%	11.8%
Hughes	Blunt Elementary	<10	0.0%	100%	100%	100%	100%	75.0%	0.0%
Hughes	Buchanan Elementary For His Glory	65 <10	98.5%	98.5%	98.5%	94%	96.9%	44.6%	1.5% 0.0%
Hughes Hughes	Jefferson Elementary	<10 69	100% 92.8%	100% 92.8%	100% 95.7%	100% 93%	100% 92.8%	100% 46.4%	0.0%
Hughes	Kennedy Elementary	65	100%	100%	100%	98%	100%	50.8%	0.0%
Hughes	St Joseph Elementary	29	100%	96.6%	96.6%	97%	96.6%	34.5%	0.0%
Hughes County	Total County	233	95.7%	97.0%	97.9%	95%	96.6%	46.4%	0.4%
Hutchinson	Clearfield Colony	<10	50.0%	50.0%	50.0%	50%	50.0%	0.0%	0.0%
Hutchinson	Freeman Elementary	23	100%	100%	100%	100%	91.3%	65.2%	0.0%
Hutchinson	Jamesville Colony	<10	100%	100%	100%	100%	100%	0.0%	0.0%
Hutchinson	Maxwell Colony	18	100%	100%	100%	100%	100%	44.4%	0.0%
Hutchinson	Menno Elementary	19	100%	100%	100%	100%	100%	57.9%	0.0%
Hutchinson	New Elm Spring Colony	<10	100%	100%	100%	100%	100%	100%	0.0%
Hutchinson	Old Elm Spring Colony	<10	100%	100%	100%	100%	100%	100%	0.0%
Hutchinson Hutchinson	Parkston Elementary	25 <10	88.0% 88.9%	88.0% 88.9%	88.0% 88.9%	92% 89%	92.0% 88.9%	72.0% 0.0%	0.0% 0.0%
Hutchinson	Tripp-Delmont Elementary Tschetter Colony	<10	100%	100%	100%	100%	100%	80.0%	0.0%
Hutchinson	Wolf Creek Colony	<10	100%	100%	100%	100%	100%	0.0%	0.0%
Hutchinson County	Total County	121	95.9%	95.9%	95.9%	97%	95.0%	53.7%	0.0%
Hyde County	Highmore-Harrold	21	100%	100%	100%	100%	95.2%	28.6%	0.0%
Jackson	Crazy Horse Elementary	30	100%	100%	100%	97%	100%	100%	0.0%
Jackson	Interior Elementary	<10	100%	100%	100%	67%	100%	100%	0.0%
Jackson	Kadoka Elementary	14	100%	92.9%	92.9%	86%	100%	85.7%	0.0%
Jackson	Longvalley Elementary	<10	100%	100%	100%	100%	100%	100%	0.0%
Jackson County	Total County	53	100%	98.1%	98.1%	92%	100%	96.2%	0.0%
Jerauld 	Spring Valley Colony	<10	100%	100%	100%	100%	100%	66.7%	0.0%
Jerauld	Wessington Springs	30	96.7%	96.7%	100%	100%	100%	80.0%	0.0%
Jerauld County	Total County	33	97.0%	97.0%	100%	100%	100%	78.8%	0.0%
Jones County Kingsbury	Jones County Elementary Arlington Elementary	17	66.7% 100%	66.7% 100%	75.0% 100%	75% 100%	91.7% 100%	41.7% 64.7%	8.3% 0.0%
Kingsbury	Lake Preston Elementary.	<10	100%	100%	100%	100%	100%	42.9%	0.0%
Kingsbury	Laura Ingalls Wilder	15	100%	100%	100%	100%	100%	33.3%	0.0%
Kingsbury County	Total County	39	100%	100%	100%	100%	100%	48.7%	0.0%
Lake	Camridge Colony	<10	100%	100%	100%	100%	100%	0.0%	0.0%
Lake	Chester Elementary	23	91.3%	91.3%	91.3%	91%	100%	39.1%	4.3%
Lake	Gracevale Colony	<10	50.0%	50.0%	50.0%	50%	50.0%	0.0%	0.0%
Lake	Madison Central	90	97.8%	96.7%	97.8%	97%	96.7%	47.8%	0.0%
Lake 	Madison Christian School	<10	100%	100%	100%	100%	100%	33.3%	0.0%
Lake	Oldham-Ramona Elementary	<10	100%	100%	100%	100%	100%	57.1%	0.0%
Lake	Rustic Acres	<10	100%	100%	100%	100%	100%	0.0%	0.0%
Lake	Rutland Elementary	13	100%	84.6%	92.3%	77% 100%	100%	46.2%	15.4%
Lake Lake	Spring Lake St Thomas Elementary	<10 <10	100% 88.9%	100% 88.9%	100% 88.9%	100% 89%	100% 88.9%	0.0% 44.4%	0.0% 11.1%
Lake County	Total County	157	96.2%	88.9% 94.3 %	88.9% 95.5 %	89% 94%	96.8%	44.4% 42.7 %	2.5%
Lawrence	Deadwood-Lead	45	93.3%	93.3%	95.6%	96%	80.0%	62.2%	2.2%
Lawrence	Mountain View Elementary	179	91.6%	91.6%	92.7%	91%	88.8%	74.3%	5.6%
Lawrence County	Total County	224	92.0%	92.0%	93.3%	92%	87.1%	71.9%	4.9%
Lincoln	Baan Dek Montessori	<10	87.5%	87.5%	75.0%	88%	75.0%	75.0%	0.0%
Lincoln	EO Lawrence (Canton)	58	96.6%	98.3%	100%	100%	100%	100%	1.7%
Lincoln	Harrisburg Endeavor	70	95.7%	97.1%	91.4%	91%	95.7%	77.1%	0.0%

County	School	Students	DTaP-4	Polio-4	MMR-2	Varicella-2	HBV-3	HAV-2	Exempts
Total South Dakota	School	12,191	96.4%	96.3%	96.5%	96%	94.4%	63.5%	1.6%
Lincoln	Harrisburg Explorer	58	96.6%	94.8%	96.6%	97%	94.8%	79.3%	1.7%
Lincoln	Harrisburg Freedom	82	98.8%	98.8%	98.8%	99%	98.8%	97.6%	1.2%
Lincoln	Harrisburg Journey	81	100%	100%	100%	99%	98.8%	79.0%	0.0%
Lincoln	Harrisburg Liberty	74	98.6%	98.6%	98.6%	99%	98.6%	82.4%	1.4%
Lincoln	Lennox Elementary	68	100%	100%	100%	99%	98.5%	79.4%	1.5%
Lincoln	Tea Elementary	153	95.4%	95.4%	93.5%	95%	94.8%	72.5%	3.9%
Lincoln Lincoln County	Worthing Elementary Total County	19 671	100% 97.5%	100% 97.6%	94.7% 96.6%	95% 97%	100% 97.0%	84.2% 82.0%	5.3% 1.8%
Lyman	Kennebec Elementary	17	88.2%	82.4%	88.2%	88%	88.2%	70.6%	11.8%
Lyman	Lower Brule Elementary	30	83.3%	80.0%	83.3%	87%	100%	90.0%	0.0%
Lyman	Presho Elementary	15	100%	93.3%	93.3%	100%	93.3%	53.3%	0.0%
Lyman County	Total County	62	88.7%	83.9%	87.1%	90%	95.2%	75.8%	3.2%
Marshall	Britton-Hecla Elementary	33	100%	97.0%	97.0%	97%	100%	45.5%	3.0%
Marshall	Langford Elementary	12	83.3%	83.3%	83.3%	83%	91.7%	58.3%	16.7%
Marshall	Newport Colony	<10	100%	100%	100%	100%	100%	0.0%	0.0%
Marshall	Sunset Colony	<10	100%	100%	100%	100%	100%	50.0%	0.0%
Marshall	Westwood Colony	<10	100%	100%	100%	100%	100%	0.0%	0.0%
Marshall County McCook	Total County Bridgewater Elementary	57	96.5% 90.0%	94.7% 90.0%	94.7% 100%	95% 100%	98.2% 80.0%	40.4% 70.0%	5.3% 0.0%
McCook	Canistota Elementary	18	94.4%	88.9%	94.4%	83%	88.9%	0.0%	5.6%
McCook	Golden View Colony	<10	100%	100%	100%	100%	100%	0.0%	0.0%
McCook	McCook Central	34	85.3%	85.3%	88.2%	88%	94.1%	73.5%	5.9%
McCook	Montrose School	23	95.7%	95.7%	95.7%	96%	100%	95.7%	0.0%
McCook	Orland Colony	<10	83.3%	66.7%	66.7%	67%	83.3%	0.0%	16.7%
McCook	St Mary's-Salem	<10	100%	100%	100%	100%	100%	83.3%	0.0%
McCook County	Total County	100	91.0%	89.0%	92.0%	90%	93.0%	59.0%	4.0%
McPherson	Eureka Elementary	10	100%	100%	100%	100%	100%	0.0%	0.0%
McPherson	Grassland Colony	<10	100%	100%	100%	100%	100%	0.0%	0.0%
McPherson	Leola Elementary	10	90.0%	90.0%	100%	100%	100%	0.0%	0.0%
McPherson McPherson	Longlake Colony	<10 <10	100% 0.0%	100% 0.0%	100% 0.0%	100% 0%	100% 50.0%	0.0% 0.0%	0.0% 0.0%
McPherson County	Spring Creek Colony Total County	31	83.9%	83.9%	87.1%	87%	93.5%	0.0%	0.0%
Meade	Atall Elementary	<10	100%	50.0%	100%	100%	100%	100%	0.0%
Meade	Elm Spring	<10	100%	100%	100%	100%	100%	66.7%	0.0%
Meade	Enning/Union Center	<10	100%	100%	100%	100%	100%	71.4%	0.0%
Meade	Faith Elementary	<10	100%	100%	100%	100%	100%	66.7%	0.0%
Meade	Hereford Elementary	<10	100%	100%	100%	100%	100%	100%	0.0%
Meade	Maurine Elementary	<10	100%	100%	100%	100%	100%	100%	0.0%
Meade	Opal	<10	100%	100%	100%	100%	100%	100%	0.0%
Meade	Piedmont/Stagebarn	82	92.7%	92.7%	92.7%	93%	80.5%	74.4%	6.1%
Meade	Sturgis/Frances Case	139	95.7%	95.7%	96.4%	95%	87.1%	78.4%	0.7%
Meade	Takini Elementary	10	100%	100%	90.0%	100%	100%	100%	0.0%
Meade Meade County	Whitewood Elementary Total County	12 273	83.3% 94.9%	83.3% 94.5%	83.3% 94.9%	83% 95%	66.7% 86.1%	66.7% 77.7%	16.7% 2.9%
Mellette	Norris Elementary	13	100%	100%	100%	100%	100%	92.3%	0.0%
Mellette	White River Elementary	25	92.0%	92.0%	92.0%	80%	92.0%	72.0%	0.0%
Mellette	Wood Elementary	<10	100%	100%	100%	100%	100%	100%	0.0%
Mellette County	Total County	39	94.9%	94.9%	94.9%	87%	94.9%	79.5%	0.0%
Miner	Howard Elementary	26	100%	100%	100%	100%	100%	76.9%	0.0%
Miner	Shannon Colony	<10	100%	100%	100%	100%	100%	100%	0.0%
Miner County	Total County	30	100%	100%	100%	100%	100%	80.0%	0.0%
Minnehaha	All City Elementary	25	92.0%	92.0%	88.0%	88%	84.0%	76.0%	12.0%
Minnehaha Minnehaha	Anne Sullivan Elementary	105 35	99.0%	99.0%	99.0%	99%	90.5%	0.0%	1.0% 0.0%
Minnehaha Minnehaha	Baltic Elementary Bethel Lutheran School	<10	97.1% 100%	100% 100%	100% 100%	100% 100%	97.1% 66.7%	74.3% 66.7%	0.0%
Minnehaha	Brandon Elementary	102	98.0%	98.0%	98.0%	95%	98.0%	68.6%	2.0%
Minnehaha	Christ the King Elementary	16	93.8%	93.8%	100%	94%	87.5%	62.5%	0.0%
Minnehaha	Christian Center Elementary	19	84.2%	84.2%	84.2%	79%	84.2%	63.2%	15.8%
Minnehaha	Cleveland Elementary	87	100%	100%	100%	100%	96.6%	82.8%	0.0%
Minnehaha	Dell Rapids Elementary	52	96.2%	96.2%	98.1%	96%	92.3%	57.7%	1.9%
Minnehaha	Discovery Elementary	162	98.1%	98.1%	98.8%	99%	96.3%	72.8%	0.0%
Minnehaha	Elementary Immersion Center	23	78.3%	91.3%	95.7%	78%	87.0%	0.0%	0.0%
Minnehaha	Eugene Field Elementary	102	100%	100%	99.0%	99%	100%	0.0%	0.0%
Minnehaha	Fred Assam Elementary	68	92.6%	92.6%	94.1%	94%	91.2%	77.9%	5.9%
Minnehaha Minnehaha	Garfield Elementary	77 33	98.7% 93.9%	100%	98.7%	99% 97%	90.9%	0.0% 54.5%	0.0% 3.0%
Minnehaha Minnehaha	Garretson Elementary Good Shepard Lutheran	33 <10	93.9% 100%	97.0% 100%	97.0% 83.3%	97% 100%	100% 100%	54.5% 83.3%	0.0%
Minnehaha	Harvey Dunn Elementary	111	98.2%	100%	99.1%	98%	95.5%	0.0%	0.0%
Minnehaha	Harvey Dunn Elementary	111	98.2%	100%	99.1%	98%	95.5%	0.0%	0.0%
Minnehaha	Hawthorne Elementary	57	96.5%	96.5%	96.5%	96%	94.7%	82.5%	0.0%
Minnehaha	Hayward Elementary	114	99.1%	99.1%	98.2%	98%	97.4%	88.6%	0.0%
	>1 = =:ee		- 3.2/0	/ 0	- 3.270	20,0	/ 0		3.3,0

County	School	Students	DTaP-4	Polio-4	MMR-2	Varicella-2	HBV-3	HAV-2	Exempts
Total South Dakota Minnehaha	Halv Cairit Cabaal	12,191 34	96.4%	96.3% 100%	96.5%	96% 100%	94.4%	63.5%	1.6% 0.0%
Minnehaha	Holy Spirit School Horace Mann Elementary	19	100% 100%	100%	100% 100%	100%	97.1% 100%	88.2% 0.0%	0.0%
Minnehaha	John F Kennedy	104	98.1%	97.1%	98.1%	98%	97.1%	71.2%	1.9%
Minnehaha	John Harris Elem.	108	99.1%	99.1%	99.1%	99%	93.5%	83.3%	0.9%
Minnehaha	Laura B Anderson	59	91.5%	93.2%	93.2%	93%	91.5%	83.1%	5.1%
Minnehaha	Laura Wilder Elementary	80	95.0%	95.0%	96.3%	96%	92.5%	73.8%	3.8%
Minnehaha	Lowell Elementary	81	92.6%	90.1%	95.1%	95%	95.1%	77.8%	2.5%
Minnehaha	Oscar Howe Elementary	94	98.9%	98.9%	98.9%	99%	95.7%	76.6%	1.1%
Minnehaha	Renberg Elementary	35	100%	100%	100%	100%	97.1%	0.0%	0.0%
Minnehaha	RF Pettigrew Elementary	145	98.6%	97.2%	98.6%	99%	89.7%	62.8%	0.0%
Minnehaha	Robert Bennis Elementary	94	97.9%	97.9%	97.9%	98%	94.7%	67.0%	2.1%
Minnehaha	Robert Frost Elementary	130	93.8%	93.1%	93.1%	93%	92.3%	1.5%	5.4%
Minnehaha Minnehaha	Rosa Parks Elementary SF Christian School	132 91	99.2% 95.6%	99.2% 95.6%	99.2% 95.6%	99% 93%	90.2% 92.3%	79.5% 69.2%	0.8% 4.4%
Minnehaha	SF Lutheran Elementary	19	78.9%	68.4%	84.2%	68%	73.7%	73.7%	5.3%
Minnehaha	St Katharine Drexel School	25	100%	100%	100%	100%	96.0%	76.0%	0.0%
Minnehaha	St Lambert Elementary	20	95.0%	95.0%	80.0%	80%	90.0%	75.0%	5.0%
Minnehaha	St Mary's	44	100%	100%	97.7%	98%	100%	86.4%	0.0%
Minnehaha	St Mary's-Dell Rapids	10	100%	100%	100%	100%	100%	80.0%	0.0%
Minnehaha	St Michaels Elementary	32	100%	100%	100%	103%	100%	87.5%	0.0%
Minnehaha	Susan B Elementary	83	95.2%	95.2%	96.4%	96%	91.6%	79.5%	0.0%
Minnehaha	Terry Redlin Elementary	88	95.5%	97.7%	96.6%	98%	96.6%	81.8%	0.0%
Minnehaha	Tri-Valley Elementary	83	96.4%	96.4%	98.8%	99%	97.6%	69.9%	1.2%
Minnehaha	Valley Springs Elementary	23	95.7%	95.7%	95.7%	96%	95.7%	56.5%	4.3%
Minnehaha	West Central Hartford	75	94.7%	94.7%	93.3%	93%	97.3%	70.7%	2.7%
Minnehaha	West Central Humboldt	14	100%	100%	100%	100%	100%	85.7%	0.0%
Minnehaha County	Total County	2,919	96.9%	97.0%	97.3%	97%	94.3%	59.6%	1.6%
Moody	Colman-Egan Elementary	20	100%	100%	100%	165%	100%	NA	0.0%
Moody Moody	Flandreau Elementary Pleasant Valley Elementary	52 <10	94.2% 100%	94.2% 100%	98.1% 100%	96% 100%	94.2% 100%	NA 0.0%	0.0% 0.0%
Moody County	Total County	73	95.9%	95.9%	98.6%	115%	95.9%	0.0%	0.0%
Oglala Lakota	Little Wound Elementary	53	98.1%	98.1%	98.1%	96%	98.1%	96.2%	1.9%
Oglala Lakota	Oglala Loneman	27	66.7%	74.1%	70.4%	70%	88.9%	51.9%	0.0%
Oglala Lakota	Our Lady of Lourdes	16	93.8%	93.8%	93.8%	88%	93.8%	62.5%	0.0%
Oglala Lakota	Pine Ridge Elementary	66	93.9%	93.9%	93.9%	94%	93.9%	93.9%	0.0%
Oglala Lakota	Porcupine Elementary	28	92.9%	96.4%	89.3%	89%	100%	96.4%	0.0%
Oglala Lakota	Red Cloud Elementary	23	100%	91.3%	100%	96%	95.7%	91.3%	0.0%
Oglala Lakota	Red Shirt Table	<10	85.7%	85.7%	85.7%	86%	0.0%	0.0%	0.0%
Oglala Lakota	Rockyford Elementary	43	100%	100%	100%	200%	100%	100%	0.0%
Oglala Lakota	Wolf Creek Elementary	104	98.1%	98.1%	99.0%	11%	99.0%	94.2%	1.0%
Oglala Lakota	Wounded Knee Elementary	30	100%	93.3%	93.3%	97%	100%	100%	0.0%
Oglala Lakota County	Total County	397	95.0%	94.7%	94.7%	82%	95.5%	89.7%	0.5%
Pennington	Badger Clarke/Carrousel	264	98.5%	99.2%	99.2%	99%	46.6%	45.1%	0.8%
Pennington Pennington	Big White Black Hawk	<10 84	100% 96.4%	100% 96.4%	100% 96.4%	100% 96%	100% 96.4%	50.0% 92.9%	0.0% 3.6%
Pennington	Calvary Christian	24	83.3%	83.3%	83.3%	71%	79.2%	70.8%	12.5%
Pennington	Canyon Lake	105	90.5%	90.5%	90.5%	90%	91.4%	82.9%	1.0%
Pennington	Children's Home	<10	88.9%	88.9%	88.9%	100%	88.9%	88.9%	0.0%
Pennington	Corral Drive Elementary	77	100%	100%	100%	100%	97.4%	87.0%	0.0%
Pennington	General Beadle	75	100%	100%	100%	100%	100%	94.7%	0.0%
Pennington	Grandview Elementary	70	95.7%	95.7%	95.7%	96%	94.3%	81.4%	1.4%
Pennington	Hill City Elementary	36	94.4%	97.2%	97.2%	97%	91.7%	77.8%	2.8%
Pennington	Horace Mann	67	98.5%	97.0%	98.5%	99%	97.0%	92.5%	1.5%
Pennington	Knollwood Heights	68	100%	100%	100%	100%	97.1%	91.2%	0.0%
Pennington	Meadowbrook Elementary	99	99.0%	99.0%	99.0%	99%	96.0%	87.9%	0.0%
Pennington	New Underwood	11	100%	100%	100%	100%	100%	100%	0.0%
Pennington Pennington	Pinedale Elementary Rapid Valley Elementary	69 102	100% 98.0%	100% 97.1%	100% 98.0%	100% 98%	97.1% 90.2%	85.5% 85.3%	0.0% 2.0%
Pennington Pennington	Robbinsdale Elementary	81	100%	97.1% 100%	98.0%	98%	90.2%	85.3% 97.5%	1.2%
Pennington	South Canyon Elementary	45	88.9%	88.9%	88.9%	89%	86.7%	80.0%	8.9%
Pennington	South Park	50	100%	100%	100%	100%	98.0%	92.0%	0.0%
Pennington	St Elizabeth Seton	46	100%	100%	100%	100%	97.8%	84.8%	0.0%
Pennington	St Paul's	<10	88.9%	88.9%	88.9%	89%	100%	88.9%	0.0%
Pennington	Valley View	102	99.0%	98.0%	99.0%	101%	99.0%	86.3%	1.0%
Pennington	Wall Elementary	16	100%	100%	100%	100%	100%	93.8%	0.0%
Pennington	Woodrow Wilson	62	93.5%	93.5%	91.9%	94%	88.7%	82.3%	3.2%
Pennington	Zion Lutheran	17	100%	100%	100%	100%	100%	94.1%	0.0%
Pennington County	Total County	1,590	97.4%	97.4%	97.5%	97%	87.1%	80.4%	1.4%
Perkins	Bison Elementary	<10	100%	100%	100%	89%	100%	77.8%	0.0%
Perkins	Lemmon Elementary	31	96.8%	96.8%	96.8%	97%	96.8%	96.8%	3.2%
Perkins County	Total County	40	97.5%	97.5%	97.5%	95%	97.5%	92.5%	2.5%

County	School	Students	DTaP-4	Polio-4	MMR-2	Varicella-2	HBV-3	HAV-2	Exempts
Total South Dakota	Concor	12,191	96.4%	96.3%	96.5%	96%	94.4%	63.5%	1.6%
Potter	Gettysburg Elementary	17	100%	100%	100%	100%	100%	29.4%	0.0%
Potter	Hoven Elementary	<10	100%	100%	100%	100%	100%	44.4%	11.1%
Potter County	Total County	26	100%	100%	100%	100%	100%	34.6%	3.8%
Roberts	New Effington Elementary	<10	100%	100%	100%	100%	100%	100%	0.0%
Roberts	Rosholt Elementary	17	100%	100%	100%	100%	88.2%	70.6%	0.0%
Roberts	Sisseton Elementary	82	100%	100%	98.8%	99%	97.6%	85.4%	1.2%
Roberts	Summit Elementary	18	94.4%	94.4%	94.4%	94%	94.4%	44.4%	0.0%
Roberts	Tiospa Zina Elementary	28	100%	100%	100%	100%	100%	100%	0.0%
Roberts	Wilmot Elementary	<10	88.9%	88.9%	88.9%	89%	88.9%	55.6%	0.0%
Roberts County	Total County	161	98.8%	98.8%	98.1%	98%	96.3%	80.7%	0.6%
Sanborn	Liberty Elementary	74	98.6%	98.6%	97.3%	99%	97.3%	97.3%	1.4%
Sanborn	Sanborn Central	12	100%	100%	100%	100%	100%	100%	0.0%
Sanborn	Upland Colony	<10	100%	100%	100%	100%	75.0%	0.0%	0.0%
Sanborn	Woonsocket Elementary	13	100%	100%	100%	100%	100%	100%	0.0%
Sanborn County	Total County	103	99.0%	99.0%	98.1%	99%	97.1%	94.2%	1.0%
Spink	Camrose Colony	<10	100%	100%	100%	100%	100%	0.0%	0.0%
Spink Spink	Clark Colony Elementary	<10	100%	100%	100%	100%	100%	0.0%	0.0%
Spink Spink	Doland Elementary	<10 <10	100%	100%	100%	100%	100%	0.0%	0.0%
Spink Spink	Glendale Colony Hillside Colony	<10	100% 100%	100% 100%	100% 100%	100% 100%	100% 100%	0.0%	0.0% 0.0%
Spink	Northwestern Elementary	20	100%	100%	100%	100%	95.0%	0.0%	0.0%
Spink	Redfield Elementary	43	100%	100%	100%	100%	100%	0.0%	0.0%
Spink Spink	Spink Colony	<10	100%	100%	100%	100%	100%	0.0%	0.0%
Spink County	Total County	79	100%	100%	100%	100%	98.7%	0.0%	0.0%
Stanley County	Stanley County Elementary	37	97.3%	97.3%	94.6%	95%	100%	64.9%	0.0%
Sully County	Onida Elementary	13	84.6%	76.9%	76.9%	77%	84.6%	15.4%	7.7%
Todd	He Dog Elementary	19	94.7%	100%	100%	100%	94.7%	94.7%	0.0%
Todd	Klein Elementary	<10	100%	100%	100%	100%	100%	0.0%	0.0%
Todd	Lakeview Elementary	<10	85.7%	85.7%	100%	100%	100%	57.1%	0.0%
Todd	Littleburg Elementary	<10	100%	100%	100%	100%	100%	100%	0.0%
Todd	North Elementary	104	99.0%	99.0%	99.0%	99%	99.0%	98.1%	0.0%
Todd	Okreek Elementary	<10	100%	100%	100%	100%	100%	100%	0.0%
Todd	Rosebud Elementary	47	89.4%	89.4%	89.4%	89%	100%	87.2%	0.0%
Todd	Spring Creek Elementary	<10	100%	100%	100%	88%	100%	100%	0.0%
Todd	St Francis Elementary	34	91.2%	91.2%	91.2%	91%	94.1%	88.2%	0.0%
Todd County	Total County	234	95.3%	95.7%	96.2%	96%	98.3%	92.7%	0.0%
Tripp	Colome Elementary	<10	100%	100%	100%	100%	100%	33.3%	0.0%
Tripp	Winner Elementary	86	91.9%	90.7%	91.9%	92%	91.9%	19.8%	0.0%
Tripp	Total County	95	92.6%	91.6%	92.6%	93%	92.6%	21.1%	0.0%
Turner	Cameron Colony	<10	100%	100%	100%	67%	66.7%	33.3%	0.0%
Turner	Centerville Elementary	24	100%	100%	100%	100%	100%	79.2%	0.0%
Turner	Marion Elementary	13	100%	100%	100%	92%	100%	61.5%	0.0%
Turner	Parker Elementary	32	93.8%	93.8%	93.8%	94%	87.5%	75.0%	6.3%
Turner	Viborg/Hurley Elementary	21	95.2%	95.2%	100%	90%	95.2%	61.9%	0.0%
Turner County	Total County	93	96.8%	96.8%	97.8%	94%	93.5%	69.9%	2.2%
Union	Alcester Elementary	19 51	100%	94.7%	94.7%	95% 96%	100%	84.2%	5.3%
Union Union	Beresford Elementary Dakota Valley Elementary	51 92	94.1% 100%	94.1% 100%	94.1% 100%	96% 100%	90.2% 96.7%	88.2% 92.4%	5.9% 0.0%
Union	Elk Point-Jefferson	92 45	100%	100%	100%	100%	100%	77.8%	0.0%
Union Union County	Total County	45 207	98.6%	98.1%	98.1%	99%	96.1%	77.8% 87.4%	0.0% 1.9%
Walworth	Mobridge Freeman Davis	61	96.7%	96.7%	96.7%	97%	96.7%	0.0%	3.3%
Walworth	Selby Elementary	13	84.6%	84.6%	84.6%	85%	84.6%	0.0%	15.4%
Walworth County	Total County	7 4	94.6%	94.6%	94.6%	95%	94.6%	0.0%	5.4%
Yankton	Beadle Elem	56	98.2%	100%	100%	98%	100%	67.9%	0.0%
Yankton Yankton	Gayville-Volin Elementary	26	100%	100%	100%	98% 100%	100%	53.8%	0.0%
Yankton Yankton	Lincoln Elementary	62	100%	100%	100%	100%	100%	62.9%	0.0%
Yankton	Sacred Heart (St Bens)	25	96.0%	100%	100%	100%	100%	44.0%	0.0%
Yankton	Stewart Elementary	50	98.0%	98.0%	96.0%	96%	98.0%	60.0%	2.0%
Yankton	Webster Elementary	19	94.7%	94.7%	94.7%	95%	94.7%	52.6%	5.3%
Yankton County	Total County	238	98.3%	99.2%	98.7%	98%	99.2%	59.7%	0.8%
Ziebach County	Dupree Elementary	28	92.9%	96.4%	92.9%	93%	100%	100%	0.0%
	p. cccc		3=.370	33.170	32.370	55/6	20070	20070	3.370

^{*}DTaP-4 (Diphtheria-Tetanus-Pertussis x4); Polio-4, MMR-2 (Measles-Mumps-Rubella x2;, Varicella x2 includes those with history of chicken pox); HBV-3 (Hepatitis B x3); HAV-2 (Hepatitis A x2); Exempts (medical and religious exemptions).

^{**}For schools with a kindergarten class of less than 10 students, the number has been redacted to <10.

South Dakota School Entry Vaccination Statue. 13-28-7.1. Tests and immunizations for communicable diseases required for admission to school or early childhood program—Exceptions—Rules. Any pupil entering school or an early childhood program in this state, shall, prior to admission, be required to present to the appropriate school authorities certification from a licensed physician that the child has received or is in the process of receiving adequate immunization against poliomyelitis, diphtheria, pertussis, rubeola, rubella, mumps, tetanus, and varicella, according to recommendations provided by the Department of Health. The Department of Health may modify or delete any of the required immunizations. As an alternative to the requirement for a physician's certification, the pupil may present: (1) Certification from a licensed physician stating the physical condition of the child would be such that immunization would endanger the child's life or health; or (2) A written statement signed by one parent or guardian that the child is an adherent to a religious doctrine whose teachings are opposed to such immunization; or (3) A written statement signed by one parent or guardian requesting that the local health department give the immunization because the parents or guardians lack the means to pay for such immunization. The Department of Health may promulgate reasonable rules, in accordance with chapter 1-26, to require compliance and documentation of adequate immunization, to define appropriate certification, and to specify standard procedure. Source: SL 1971, ch141; SL 1972, ch97; SL 1978, ch114; SL 1992, ch129; SL 2000, ch83, § 1; SL 2005, ch101, §

South Dakota Department of Health - Infectious Disease Surveillance

Selected Morbidity Report, 1 January – 30 April 2016

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

	Disease	2016 year-to- date	5-year median	Percent change					
	Diphtheria	0	0	n/a					
	Tetanus	0	0	n/a					
	Pertussis	6	6	0%					
Vaccine-Preventable Diseases	Poliomyelitis	0	0	n/a					
	Measles	2	0	n/a					
	Mumps	0	0	n/a					
	Rubella	0	0	n/a					
	Haemophilus influenza type b	10	0	n/a					
Convoller Transcription	HIV infection	9	7	+29%					
Sexually Transmitted	Hepatitis B, acute	2	1	+100%					
Infections	Chlamydia	1466	1334	+10%					
and	Gonorrhea	415	238	+74%					
Blood-borne Diseases	Syphilis, early	14	6	+133%					
Tuberculosis	Tuberculosis	5	4	+25%					
Invasive Bacterial Disease	Meningococcal, invasive	1	1	0%					
	E. coli, Shiga toxin-producing	12	6	+100%					
	Campylobacteriosis	112	54	+107%					
Enteric	Salmonellosis	53	44	+20%					
	Shigellosis	6	2	+200%					
Diseases	Giardiasis	31	26	+19%					
	Cryptosporidiosis	45	31	+45%					
	Hepatitis A	0	0	n/a					
	Animal Rabies	4	10	-60%					
	Tularemia	0	0	0%					
Vector-borne	Rocky Mountain Spotted Fever	0	0	0%					
	Malaria (imported)	3	1	+200%					
Diseases	Hantavirus Pulmonary Syndrome	0	0	0%					
	Lyme disease	1	0	100%					
	West Nile Virus disease	0	0	0%					
	Legionellosis	0	0	0%					
Other Diseases	Zika	0	0	n/a					
other biseases	Additionally, the following were reported: Chicken Pox (14); CRE (15); Hep B, chronic (14); Hep C (255); MRSA, invasive (53); Q fever (1).								

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".

3,200 copies of this Bulletin were printed by the Department of Health at a cost of \$0. __ per copy.