



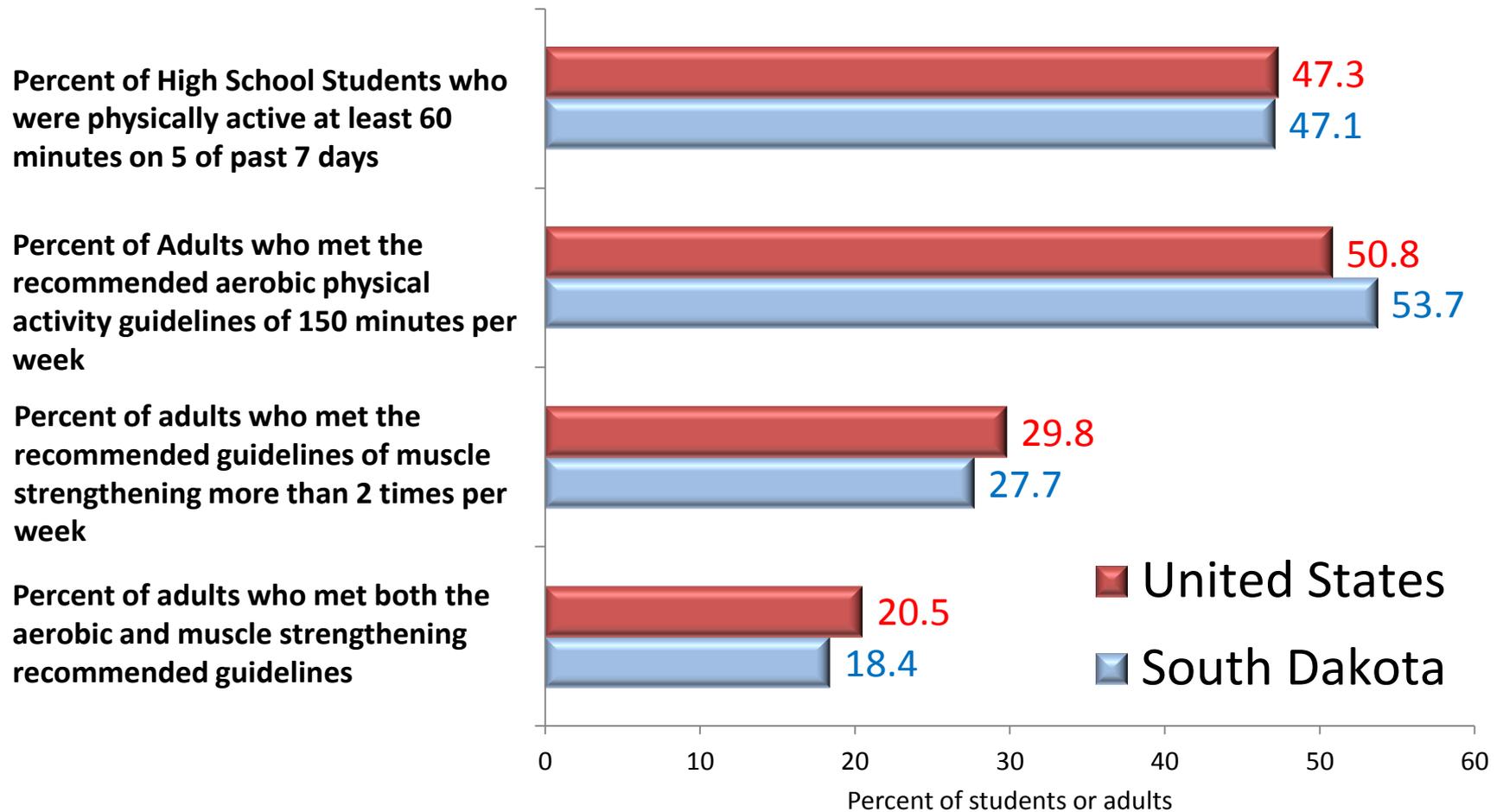
South Dakota Health and Disease Summary

March 2015 South Dakota Department of Health



Painting: Church at Eureka, South Dakota by Sharon Schock www.sharonschock.com

Physical Activity Among South Dakota Youth and Adults, 2013



For more information and resources on physical activity and nutrition visit www.healthysd.gov

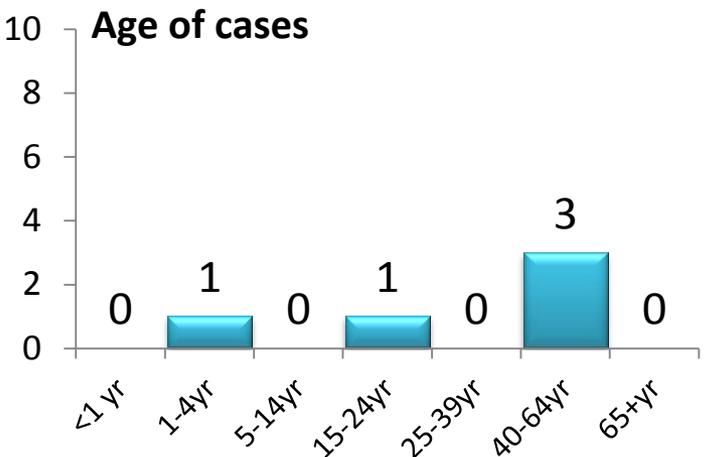
South Dakota infectious disease summary 2015

Disease/Agent	Cases year-to-date	Rate (cases per 100,000 population)	5-yr median cases (2009-2014)	Percent change
Campylobacter	24	2.8	33	-27%
Chlamydia	941	110.3	999	-6%
Cryptosporidiosis	18	2.1	22	-18%
<i>E. coli</i>, shiga toxin-producing	5	0.6	4	+25%
Giardiasis	17	2.0	21	-19%
Gonorrhea	219	25.7	152	+44%
Hepatitis C	122	14.3	97	+26%
HIV, including Stage III (AIDS)	1	0.1	10	-90%
MRSA, invasive	41	4.8	23	+78%
Pertussis	1	0.1	9	-89%
Rabies, animal	5	--	6	-17%
Salmonella	49	5.7	28	75%
Shigella	13	1.5	2	+550%
Syphilis, early (primary, secondary, early latent)	15	1.8	0	--
Tuberculosis, active	4	0.5	4	0%

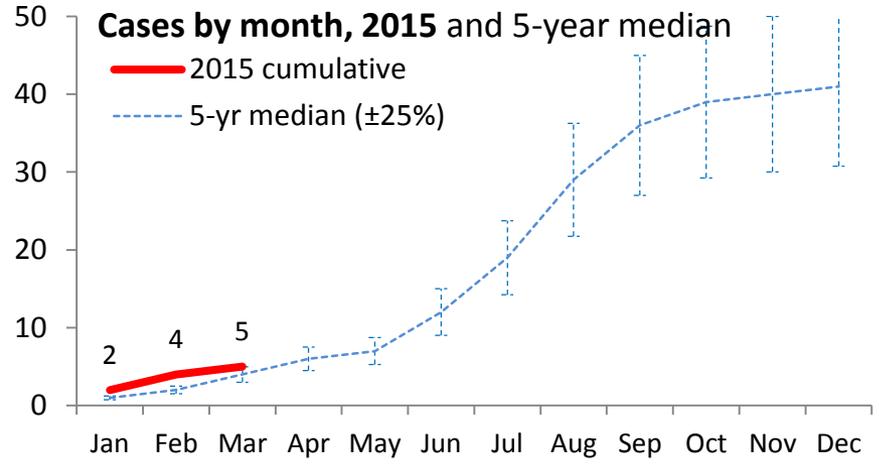
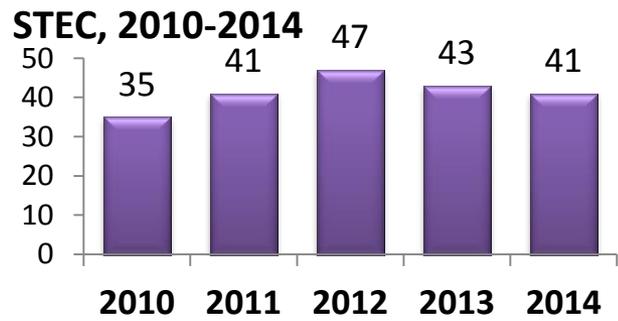
Shiga toxin-producing *E. coli* (STEC)

Infections often include severe stomach cramps, diarrhea (often bloody), and vomiting, some may develop severe illness and hemolytic uremic syndrome (HUS).

Regions	Cases	Rate**
Sioux Falls MSA	3	1.2
Rapid City MSA	0	0.0
Northeast	0	0.0
Southeast	1	0.9
Central	1	1.1
West	0	0.0
South Dakota	5	0.6



**Rate: cases per 100,000 population. MSA: Metropolitan Statistical Area
Counties with cases: (Counties not shown if <10 cases statewide)

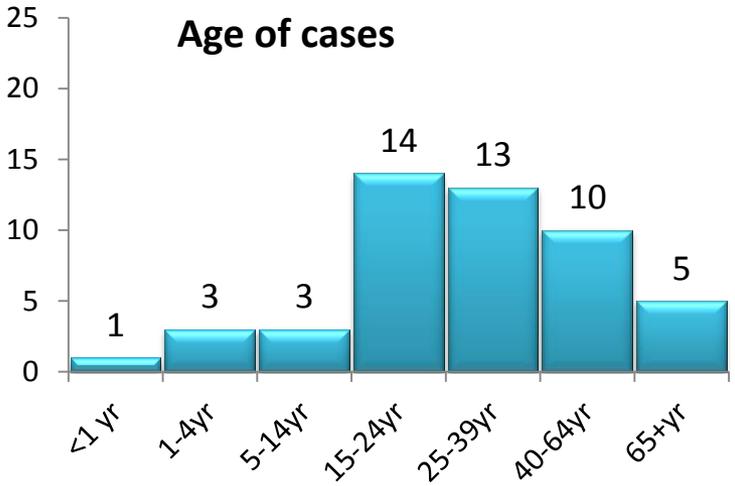


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Salmonella

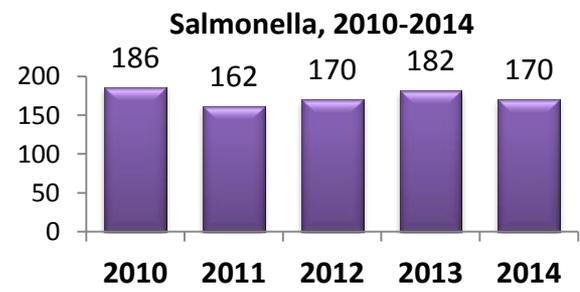
Most persons develop diarrhea, fever, and abdominal cramps 12 to 72 hours after infection. The illness usually lasts 4 to 7 days, and most persons recover without treatment.

Regions	Cases	Rate**
Sioux Falls MSA	11	4.4
Rapid City MSA	9	6.7
Northeast	12	7.0
Southeast	5	4.4
Central	12	12.8
West	0	0.0
South Dakota	49	5.7

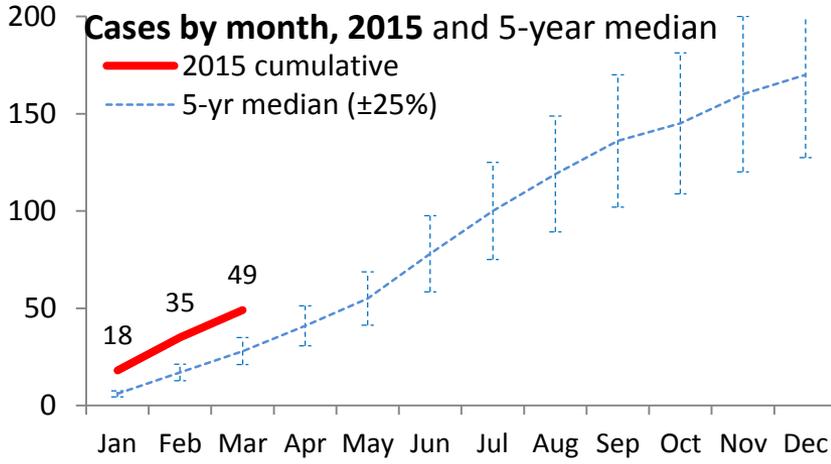


**Rate: cases per 100,000 population. MSA: Metropolitan Statistical Area.

Counties with cases: Aurora*, Brookings 7, Brown*, CharlesMix*, Clark*, Clay*, Dewey*, Edmunds*, Gregory*, Hamlin*, Hand*, Hughes*, Jerauld*, Lincoln*, Meade*, Minnehaha 10, Moody*, Pennington 8, Union*, Yankton* (*counties with ≤5 cases).



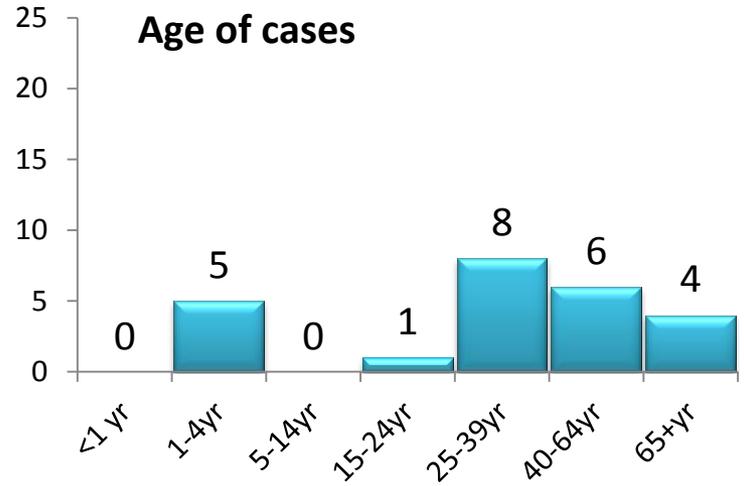
- Salmonella serotype**
- S. Enteritidis 16
 - S. Newport 2
 - S. Saintpaul 2
 - S. Typhimurium 6
 - Other serotypes 23



Campylobacteriosis

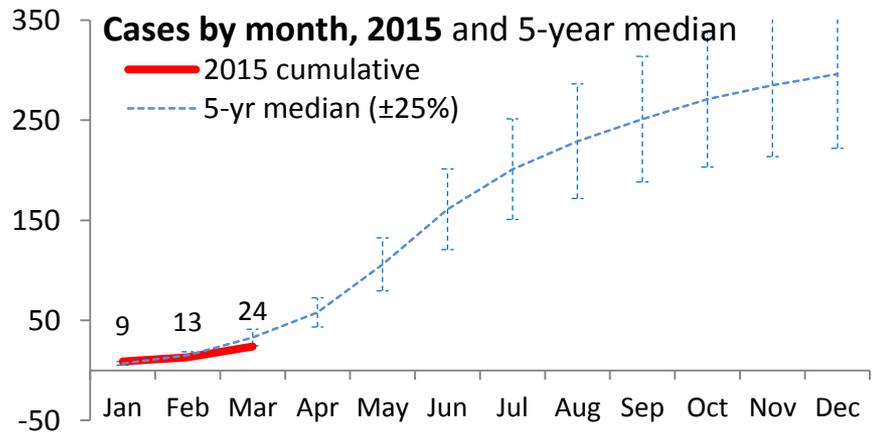
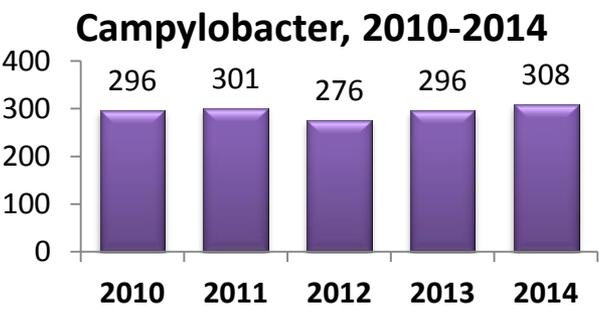
Most people have diarrhea, cramping, abdominal pain, and fever within 2 to 5 days after exposure to *Campylobacter*.

Regions	Cases	Rate**
Sioux Falls MSA	6	2.4
Rapid City MSA	0	0.0
Northeast	7	4.1
Southeast	5	4.4
Central	6	6.4
West	0	0.0
South Dakota	24	2.8



**Rate: cases per 100,000 population. MSA: Metropolitan Statistical Area

Counties with cases: Brookings*, Clark*, Clay*, Codington*, Dewey*, Edmunds*, Faulk*, Hutchinson*, Lincoln*, Minnehaha*, Spink*, Tripp* (*counties with ≤5 cases).

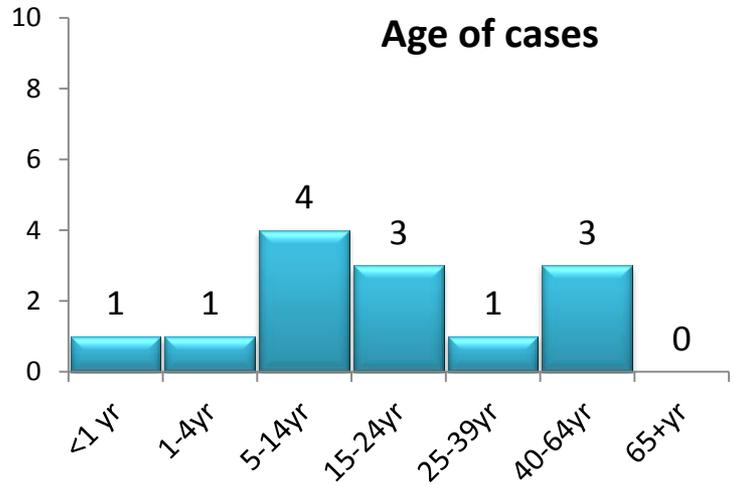
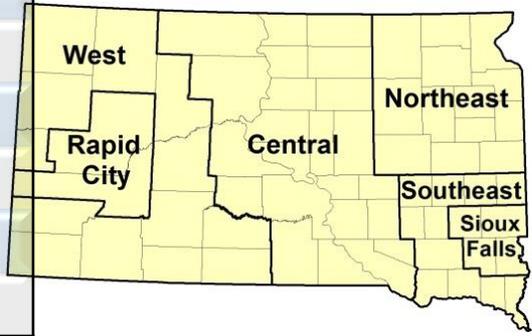


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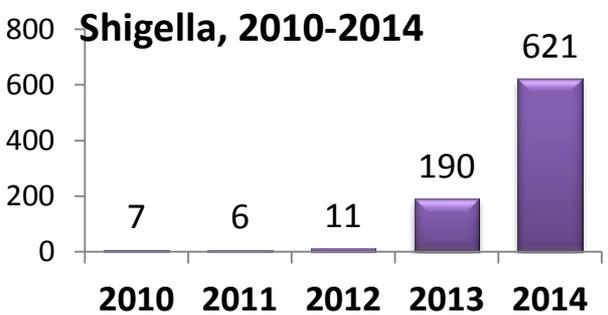
Shigellosis

Symptoms include: diarrhea, fever, and stomach cramps starting a day or two after they are exposed to the bacteria. The diarrhea is often bloody.

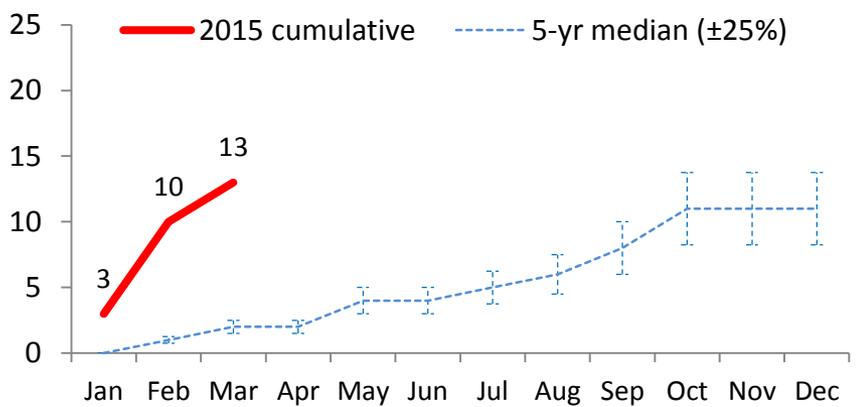
Regions	Cases	Rate**
Sioux Falls MSA	1	0.4
Rapid City MSA	0	0.0
Northeast	3	1.8
Southeast	0	0.0
Central	6	6.4
West	3	3.3
South Dakota	13	1.5



**Rate: cases per 100,000 population. MSA: Metropolitan Statistical Area
Counties with cases: Beadle*, Dewey*, Jerauld*, Minnehaha*, Roberts*, Todd*
 (*counties with ≤5 cases).



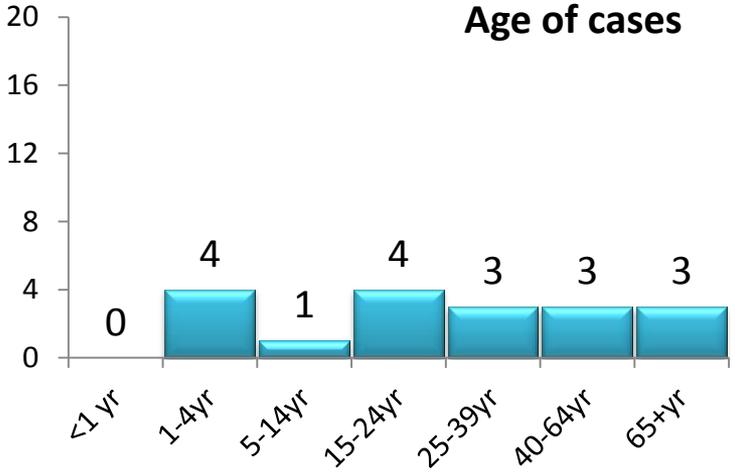
Cases by month, 2015 and 5-year median



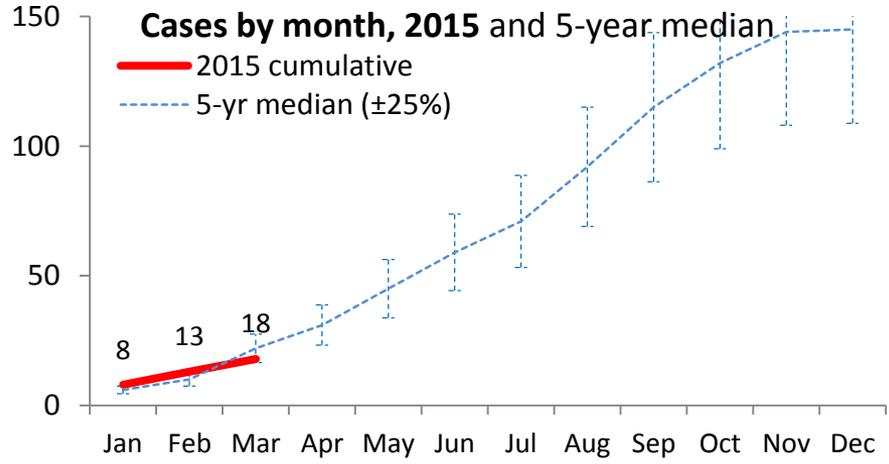
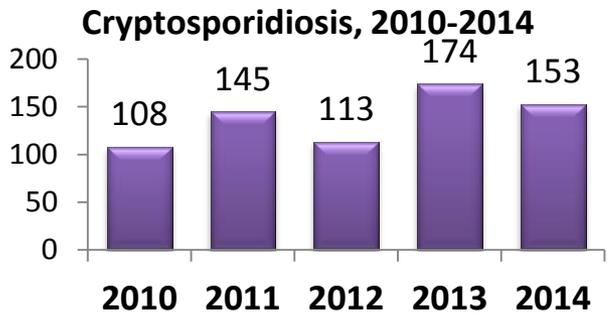
Cryptosporidiosis

Cryptosporidiosis is a diarrheal disease caused by microscopic parasites that can live in the intestine of humans and animals and is passed in the stool of an infected person or animal.

Regions	Cases	Rate**
Sioux Falls MSA	3	1.2
Rapid City MSA	2	1.5
Northeast	4	2.3
Southeast	5	4.4
Central	1	1.1
West	3	3.3
South Dakota	18	2.1



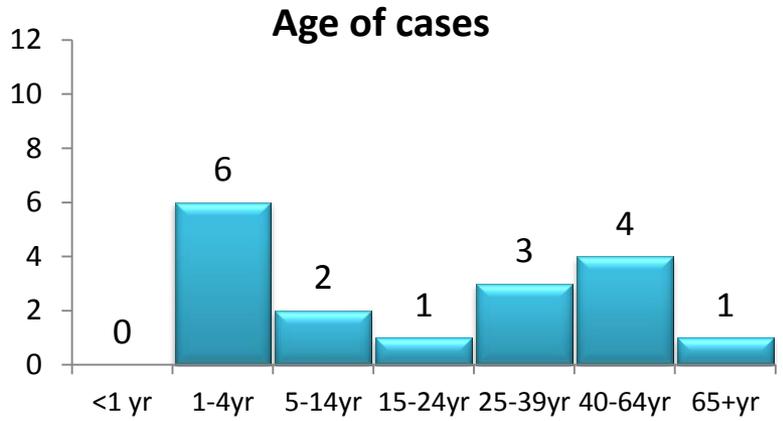
**Rate: cases per 100,000 population. MSA: Metropolitan Statistical Area
Counties with cases: Brookings*, Butte*, Davison*, Faulk*, Hamlin*, Meade*, Minnehaha*, Todd*, Yankton* (*counties with ≤5 cases).



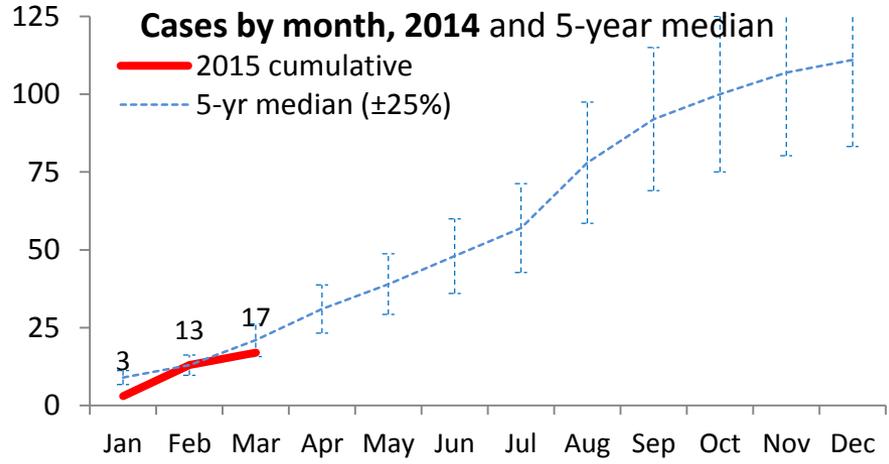
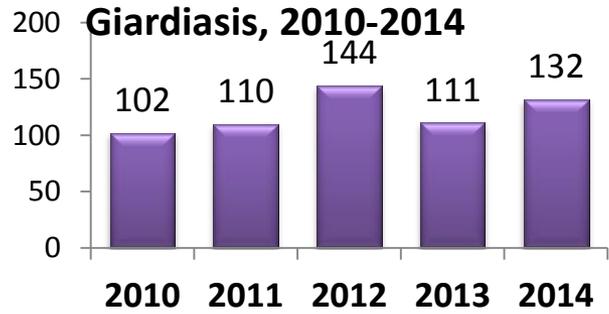
Giardiasis

Symptoms include: diarrhea, gas or flatulence, greasy stool that can float, stomach or abdominal cramps, upset stomach or nausea, dehydration.

Regions	Cases	Rate**
Sioux Falls MSA	6	2.4
Rapid City MSA	0	0.0
Northeast	4	2.3
Southeast	6	5.3
Central	1	1.1
West	0	0.0
South Dakota	17	2.0



**Rate: cases per 100,000 population. MSA: Metropolitan Statistical Area
Counties with cases: Beadle*, Day*, Hanson*, Hughes*, Lake*, Minnehaha* (*counties with ≤5 cases).

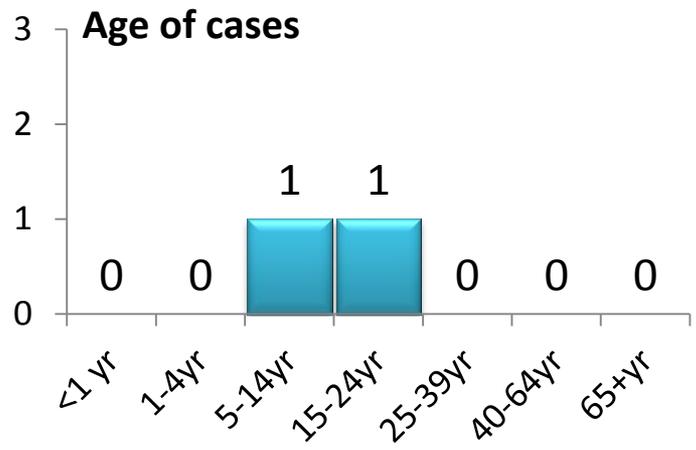
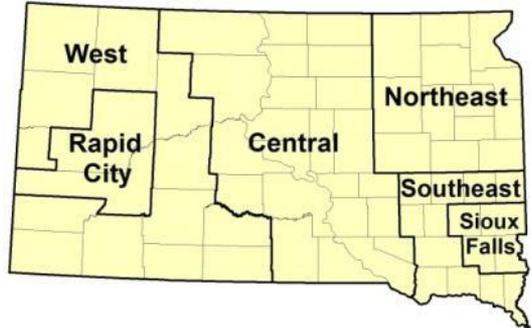


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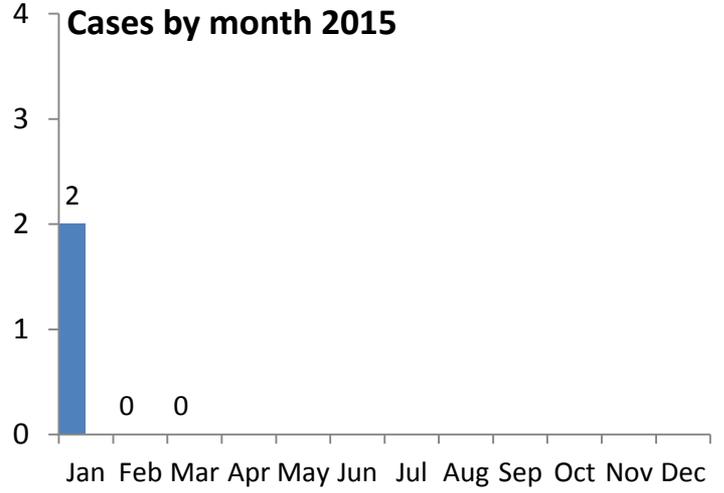
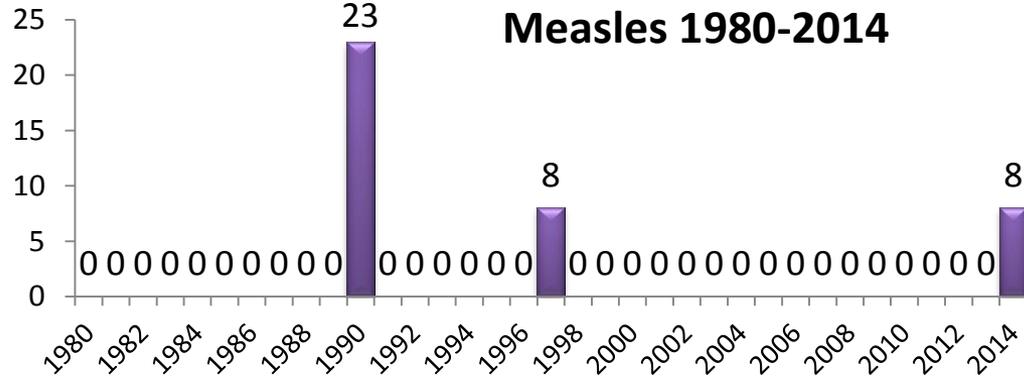
Measles

Acute illness characterized by a prodrome of fever and malaise, cough, coryza and conjunctivitis, followed by a maculopapular rash. Rash usually appears 14 days after exposure.

Regions	Cases	Rate**
Sioux Falls MSA	0	0.0
Rapid City MSA	0	0.0
Northeast	0	0.0
Southeast	1	0.9
Central	1	1.1
West	0	0.0
South Dakota	2	0.2



**Rate: cases per 100,000 population. MSA: Metropolitan Statistical Area
Counties with cases: (Counties not shown if <10 cases statewide).

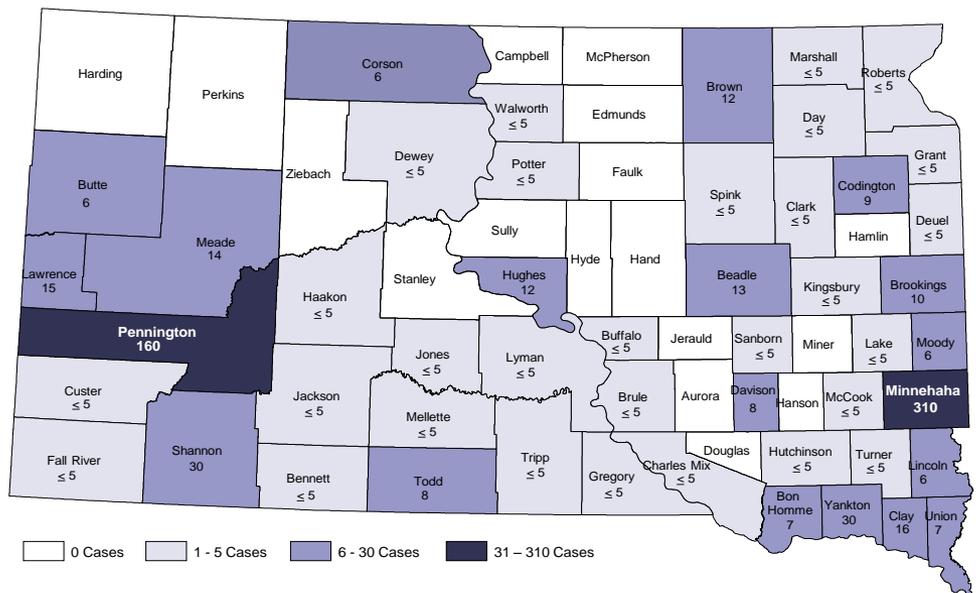


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HIV

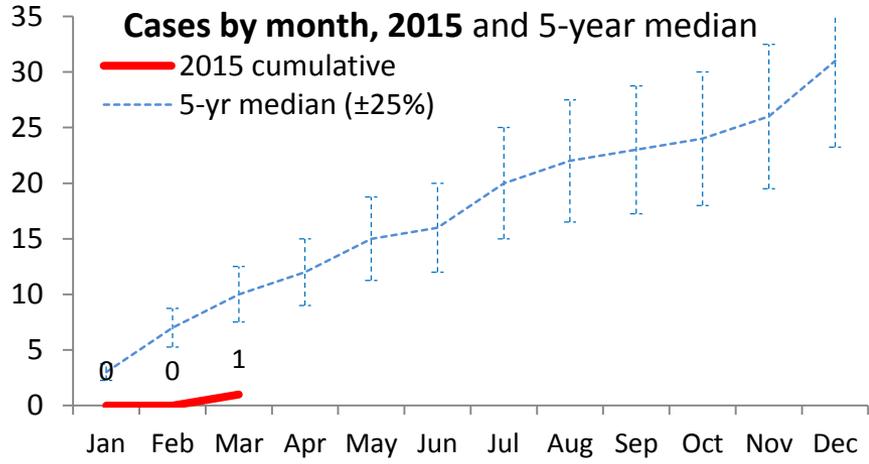
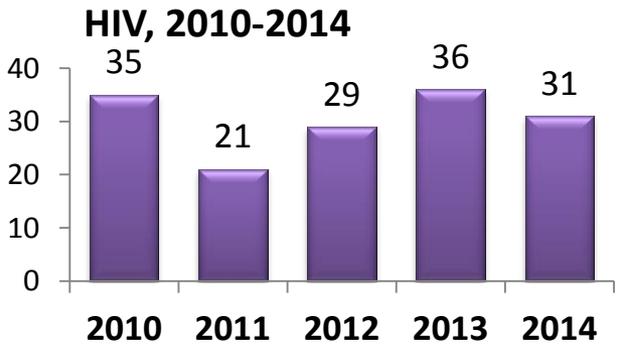
Current medications dramatically improve the health of people with HIV and slow progression to Stage III (AIDS). Treatments need to be taken for the rest of a person's life.

South Dakota Residents Reported Infected with HIV/AIDS:
Cumulative Cases by County, 1985 - 2014



Regions	Cases	Rate*
East River	1	0.2
West River	0	0.0
Total	1	0.1

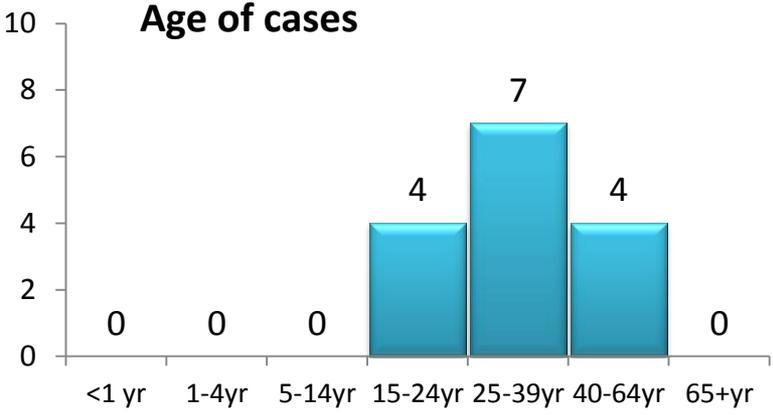
*Rate: cases per 100,000 population.



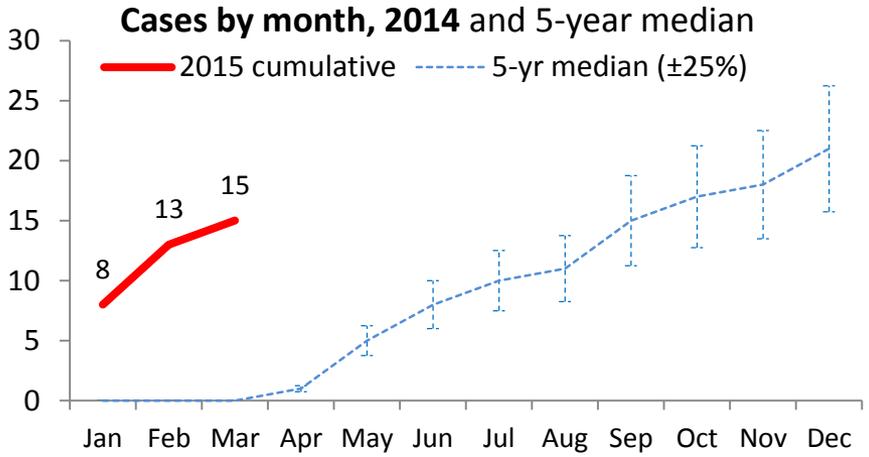
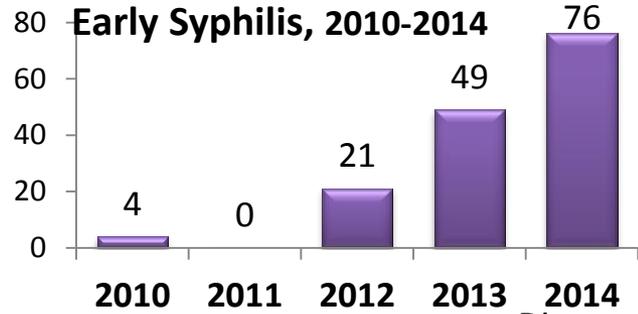
Syphilis (primary, secondary and early latent)

Syphilis is curable in early stages. Signs and symptoms of syphilis include a firm, round, and painless sore on genitals, anus, or mouth; or a rash on the body, including on palms of hands or soles of feet. Later stages can cause brain damage, heart disease, blindness and death.

Regions	Cases	Rate**
Sioux Falls MSA	4	1.6
Rapid City MSA	1	0.8
Northeast	1	0.6
Southeast	1	0.9
Central	7	7.5
West	1	1.1
South Dakota	15	1.8



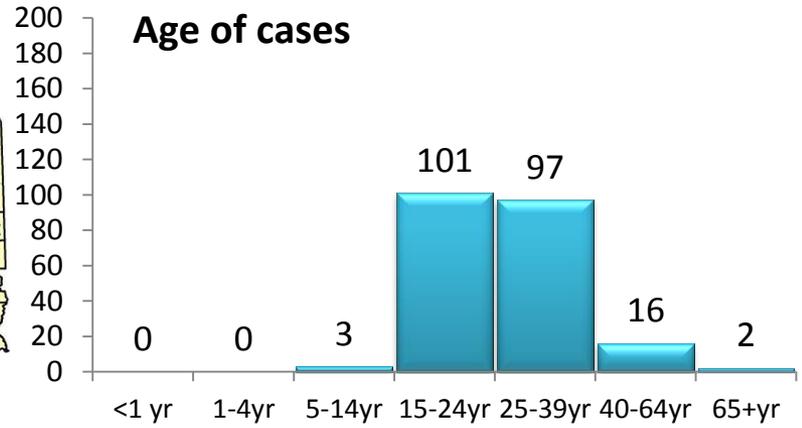
**Rate: cases per 100,000 population. MSA: Metropolitan Statistical Area
Counties with cases: Corson*, Dewey*, Grant*, Meade*, Minnehaha*, OglalaLakota*, Union* (*counties with ≤5 cases).



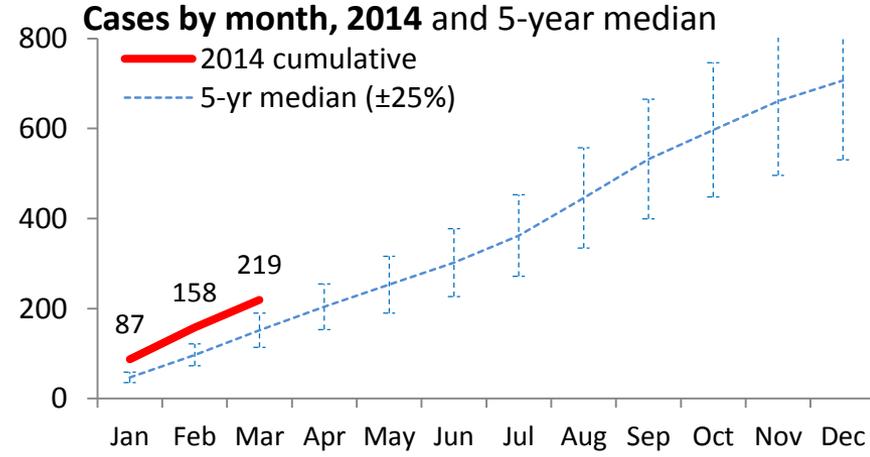
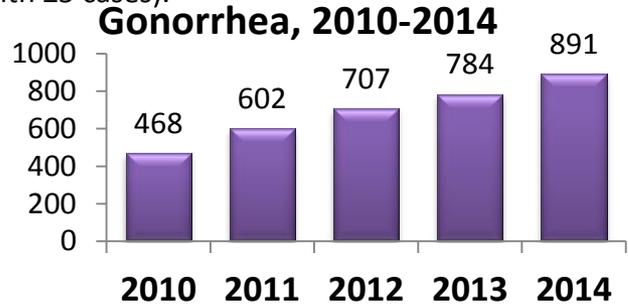
Gonorrhea

Symptoms vary depending on what part of the body is infected (anus, eyes, mouth, genitals, or throat). Gonorrhea can impact a one's ability to have children if left untreated.

Regions	Cases	Rate**
Sioux Falls MSA	72	29.0
Rapid City MSA	41	30.3
Northeast	7	4.1
Southeast	16	14.2
Central	28	29.9
West	55	59.7
South Dakota	219	25.7



**Rate: cases per 100,000 population. MSA: Metropolitan Statistical Area
Counties with cases: Brookings*, Brown*, Brule*, Buffalo*, Butte*, CharlesMix*, Clay*, Codington*, Corson*, Custer*, Davison*, Dewey 17, Haakon*, Hamlin*, Jackson*, Lawrence*, Lincoln 7, Lyman*, Meade*, Mellette*, Minnehaha 63, Moody*, OglalaLakota 26, Pennington 39, Roberts*, Todd 22, Turner*, Union*, Walworth*, Yankton8, Ziebach*
 (*counties with ≤5 cases).

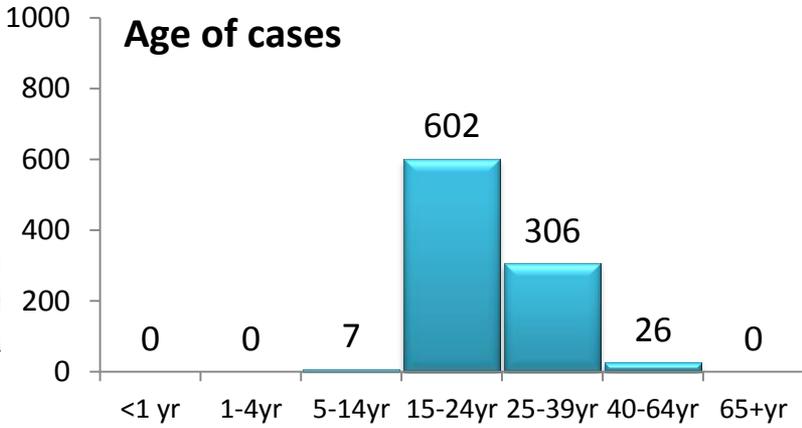


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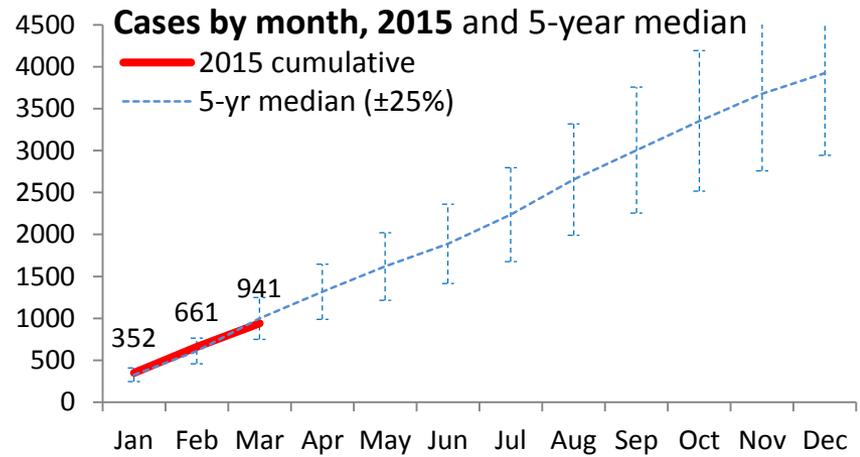
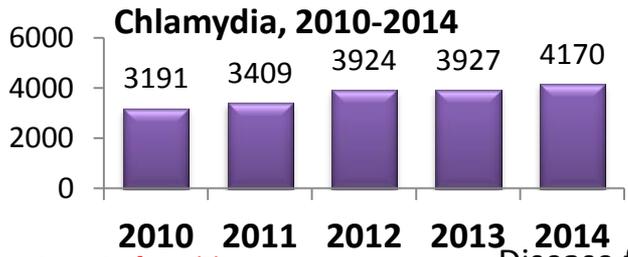
Chlamydia

Most people who have chlamydia don't know it since the disease often has no symptoms. Chlamydia is the most commonly reported STD in the United States and South Dakota.

Regions	Cases	Rate**
Sioux Falls MSA	287	116
Rapid City MSA	163	121
Northeast	129	75
Southeast	71	63
Central	108	115
West	180	195
South Dakota	941	110



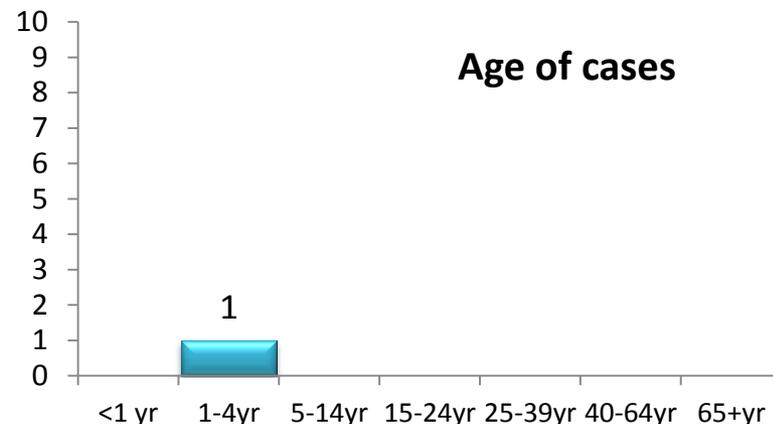
**Rate: cases per 100,000 population. MSA: Metropolitan Statistical Area
Counties with cases: Beadle 9, Bennett*, BonHomme*, Brookings 28, Brown 34, Brule*, Buffalo 7, Butte*, Charles Mix 17, Clark*, Clay 17, Codington 18, Corson 13, Custer*, Davison 15, Day*, Deuel*, Dewey 28, Douglas*, Edmunds*, Fall River 6, Grant*, Haakon*, Hamlin*, Hand*, Hanson*, Hughes 17, Hutchinson*, Jackson 6, Jerauld*, Jones*, Kingsbury*, Lake 7, Lawrence 27, Lincoln 20, Lyman 8, Marshall*, Meade 22, Mellette*, Minnehaha 264, Moody 7, Oglala Lakota 71, Pennington 141, Perkins*, Roberts 19, Spink*, Todd 45, Tripp*, Turner*, Union 6, Walworth 8, Yankton 11, Ziebach* (*counties with ≤5 cases).



Pertussis (whooping cough)

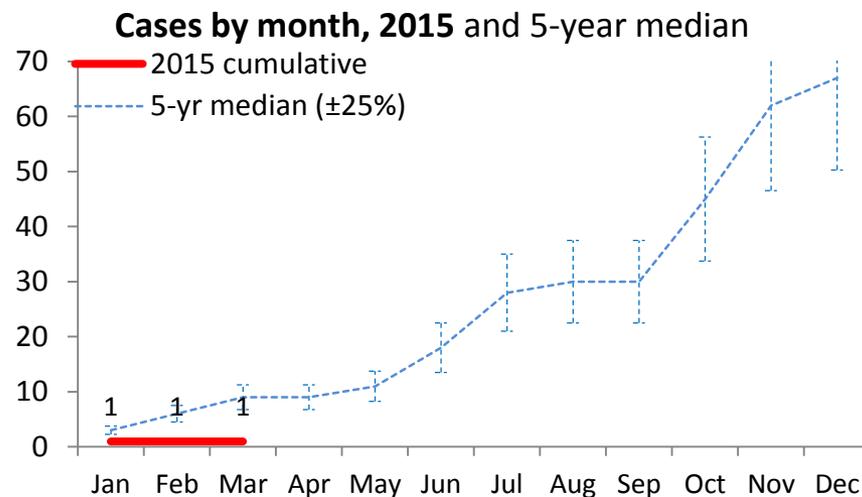
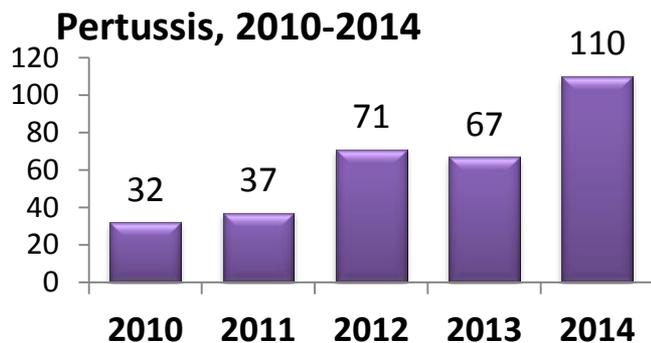
Pertussis is known for uncontrollable, violent coughing which often makes it hard to breathe.

Regions	Cases	Rate**
Sioux Falls MSA	0	0.0
Rapid City MSA	0	0.0
Northeast	0	0.0
Southeast	0	0.0
Central	1	1.1
West	0	0.0
South Dakota	1	0.1



**Rate: cases per 100,000 population. MSA: Metropolitan Statistical Area.

Counties with cases: (Counties not shown if <10 cases statewide).

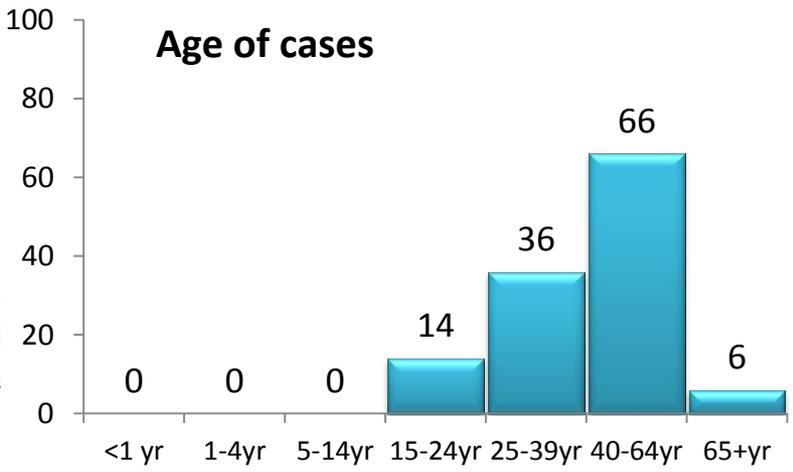


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Hepatitis C

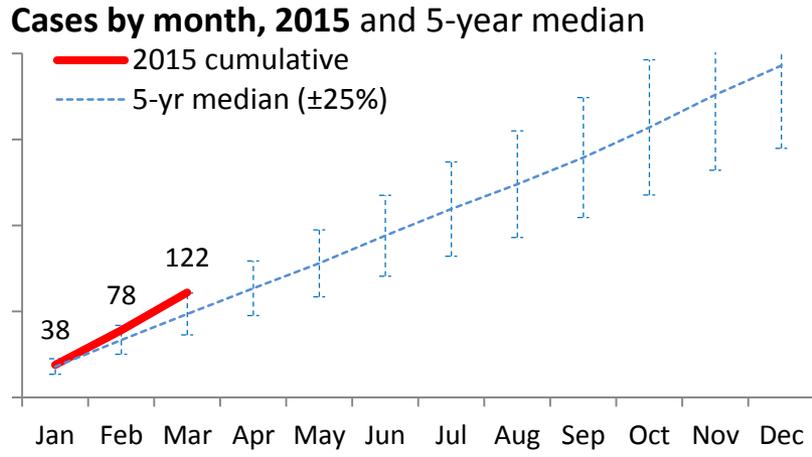
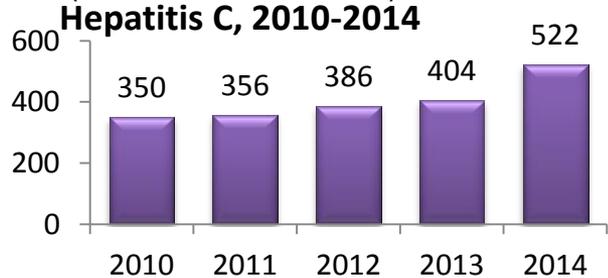
Hepatitis C virus infection is the most common chronic bloodborne infection in the United States and South Dakota.

Regions	Cases	Rate**
Sioux Falls MSA	30	12.1
Rapid City MSA	22	16.3
Northeast	12	7.0
Southeast	18	16.0
Central	24	25.6
West	14	15.2
South Dakota	122	14.1



**Rate: cases per 100,000 population. MSA: Metropolitan Statistical Area

Counties with cases: Bennett*, BonHomme*, Brookings*, Brown*, Butte*, CharlesMix*, Clay*, Codington*, Corson 9, Custer*, Davison*, Day*, Hughes*, Hutchinson*, Jackson*, Jerauld*, Kingsbury*, Lake*, Lawrence*, Lincoln*, Lyman*, Meade*, Miner*, Minnehaha 28, Moody*, Oglala Lakota*, Pennington 18, Roberts 5, Todd*, Tripp*, Union*, Walworth*, Yankton*, Ziebach* (*counties with ≤5 cases).



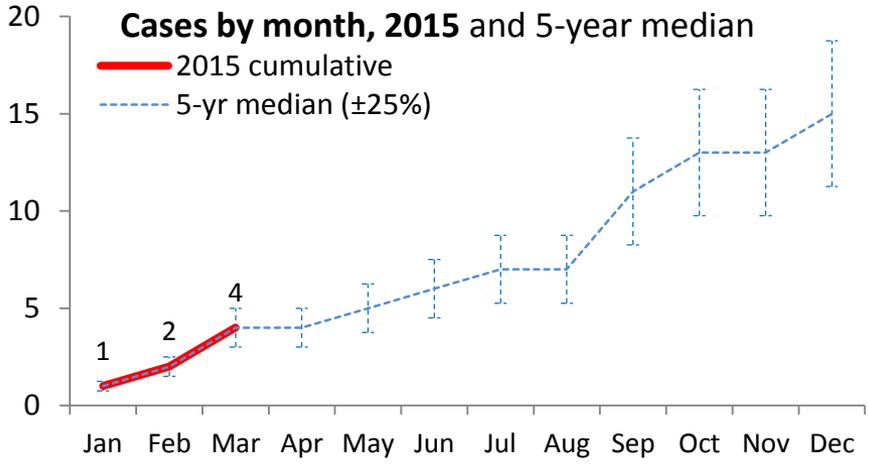
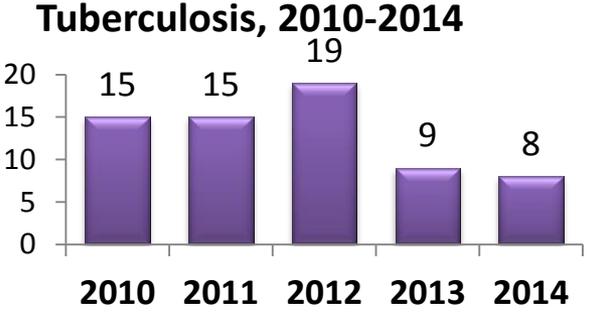
Tuberculosis

Symptoms of TB disease include: bad cough 3 weeks or longer, pain in the chest, coughing up blood or sputum, weakness or fatigue, weight loss, chills, fever, sweating at night.

Regions	Cases	Rate**
Sioux Falls MSA	0	0.0
Rapid City MSA	1	0.8
Northeast	0	0.0
Southeast	0	0.0
Central	0	0.0
West	3	3.2
South Dakota	4	0.5



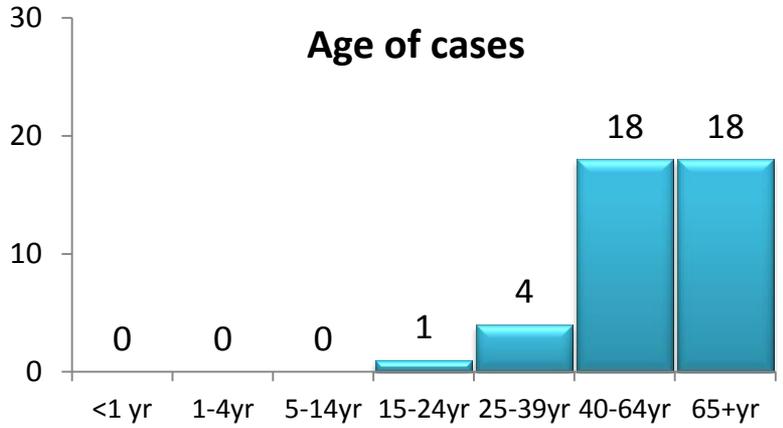
**Rate: cases per 100,000 population.
MSA: Metropolitan Statistical Area
Counties not shown if <10 cases statewide



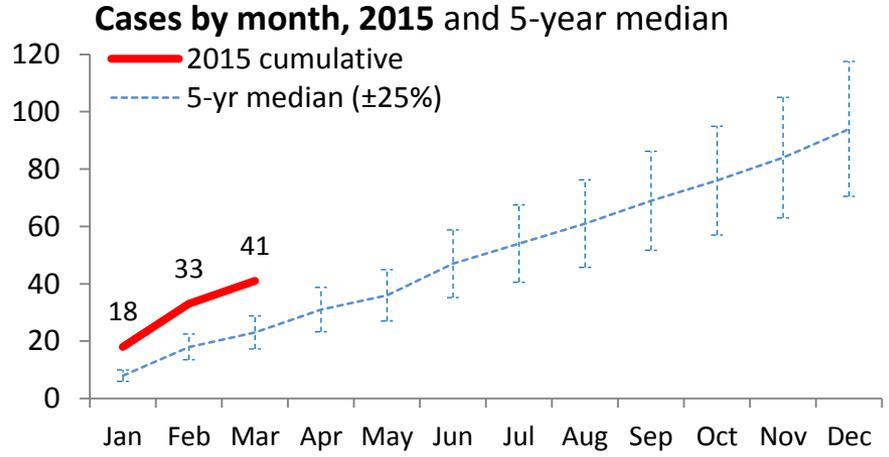
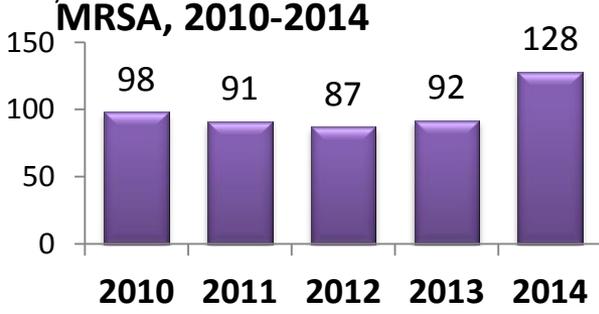
MRSA

Invasive methicillin-resistant *Staphylococcus aureus*

Regions	Cases	Rate**
Sioux Falls MSA	10	4.0
Rapid City MSA	5	3.7
Northeast	0	0.0
Southeast	3	2.7
Central	11	11.7
West	12	13.0
South Dakota	41	4.8



**Rate: cases per 100,000 population. MSA: Metropolitan Statistical Area
Counties with cases: Aurora*, Bennett*, BonHomme*, CharlesMix*, Davison*, Dewey*, FallRiver*, Hughes*, Jackson*, Lawrence*, Lincoln*, McPherson*, Meade*, Mellette*, Minnehaha 7, Oglala Lakota*, Pennington*, Potter*, Stanley*, Todd*, Yankton*, Ziebach* (*counties with ≤5 cases).

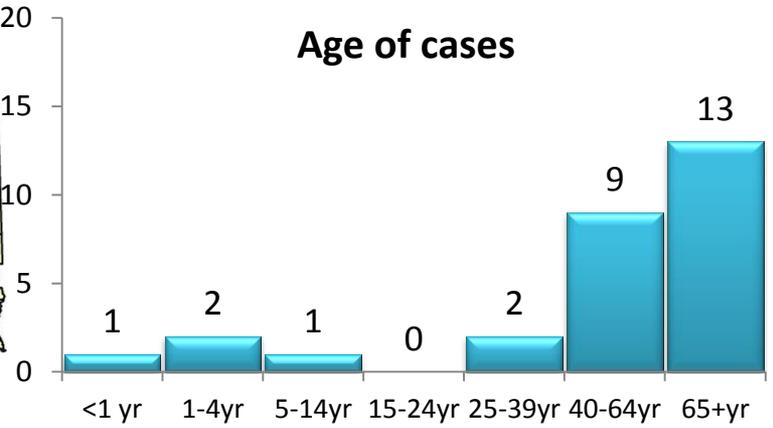


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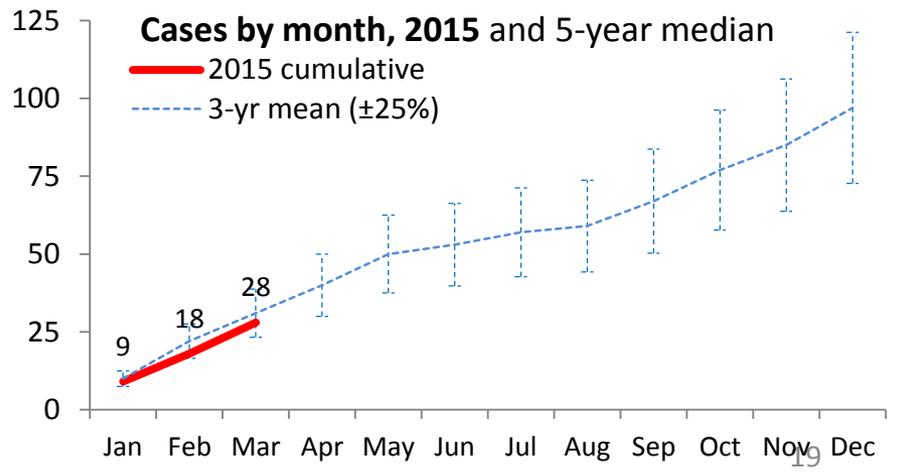
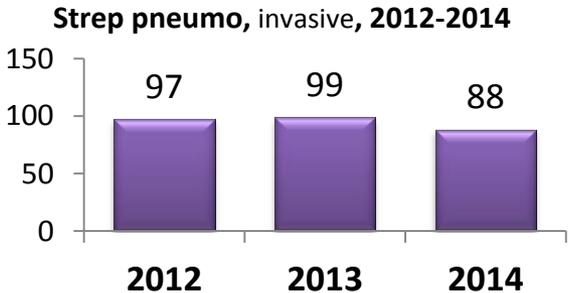
Streptococcus pneumoniae (invasive)

Death occurs in 14% of hospitalized adults with invasive disease. Neurologic sequelae and learning disabilities can occur in meningitis patients.

Regions	Cases	Rate**
Sioux Falls MSA	5	2.0
Rapid City MSA	10	7.4
Northeast	2	1.2
Southeast	3	2.7
Central	6	6.4
West	2	2.2
South Dakota	28	3.3



**Rate: cases per 100,000 population. MSA: Metropolitan Statistical Area
Counties with cases: Brown*, Clark, Corson*, Davison*, Dewey*, Edmunds*, Hughes*, Meade*, Mellette*, Minnehaha*, Oglala Lakota*, Pennington 9, Perkins*, Tripp* (*counties with ≤5 cases).

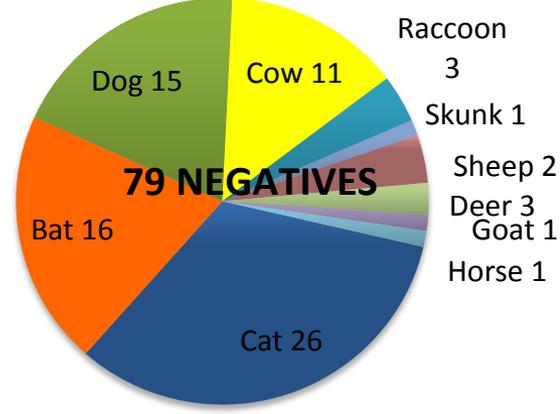
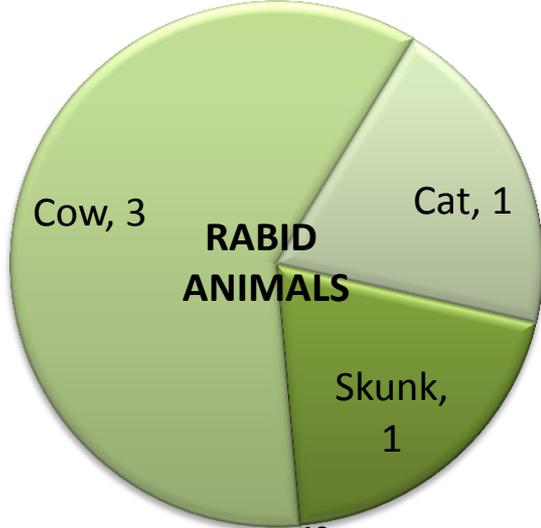


Rabies

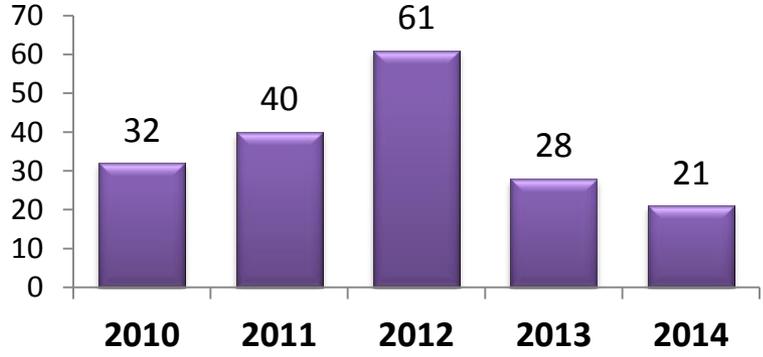
Rabies is a fatal, but preventable, viral disease of mammals most often transmitted through the bite of a rabid animal.

County: rabid animals 5

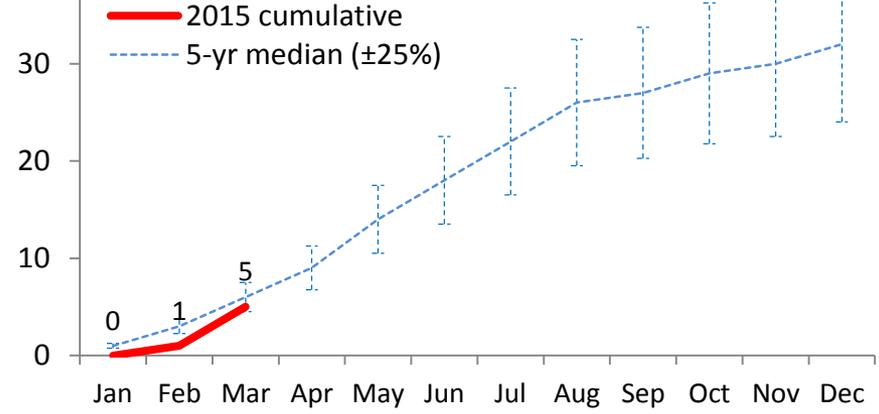
- Brookings: cat 1
- Clark: cow 1
- Marshall: skunk 1
- Roberts: cow 1
- Yankton: cow 1



Rabies, 2010-2014



Cases by month, 2015 and 5-year median



Disease fact sheets: <https://doh.sd.gov/diseases/infectious/diseasefacts/rabies.aspx> 20

Healthcare Associated Infections, South Dakota

- 14 of 17 SD facilities participating in the National Healthcare Safety Network (NHSN) report to the Dept of Health.
- 3 target areas:
 - *Clostridium difficile* infections;
 - Bloodstream MRSA (methicillin-resistant *Staphylococcus aureus*);
 - Central line associated bloodstream infections (CLABSI).
- Reports 1 January – 31 March 2015:
 - *C. difficile*: 122 cases reported (48 hospital onset,).
 - MRSA (bloodstream): 8 (1 hospital onset, 7 community onset).
 - CLABSI: 7 cases reported.

Please see www.cdc.gov/nhsn

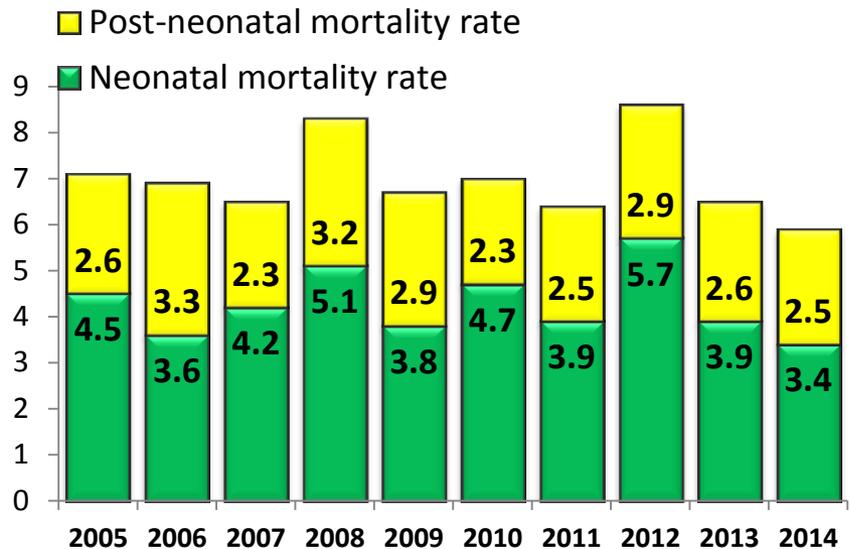
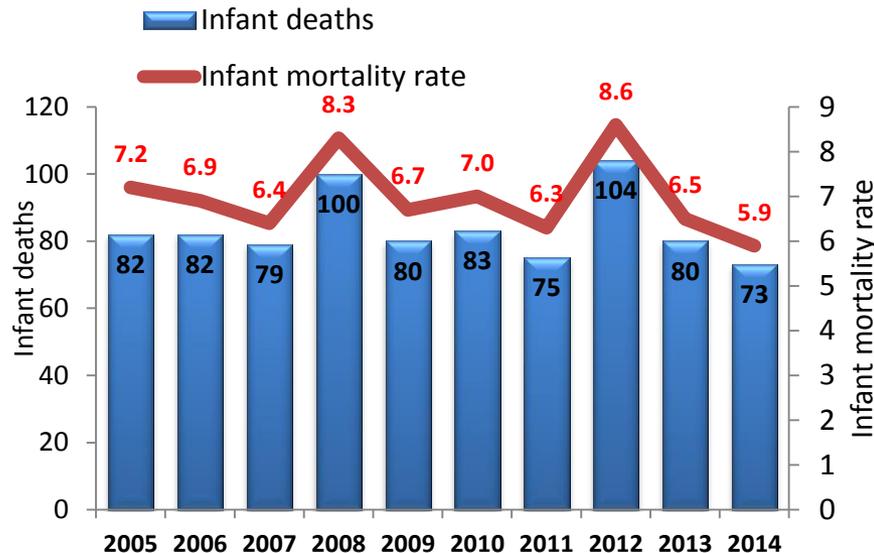
Other diseases, South Dakota, year-to-date 2014

Disease	Total cases YTD	5-yr median (2009-2013)	Regions					
			Sioux Falls MSA	Rapid City MSA	Northeast	Southeast	Central	West
Chicken pox	8	10	4	0	1	1	0	2
Carbapenem-resistant Enterobacteriaceae CRE	6	1	0	0	4	0	0	2
Hepatitis A	0	0	0	0	0	0	0	0
Hepatitis B, chronic	3	14	2	0	1	0	0	0
Legionnaires' disease	1	1	0	1	0	0	0	0
Meningococcal, invasive	0	1	0	0	0	0	0	0
Q Fever	0	1	0	0	0	0	0	0
Strep pneumo, invasive	28	22	5	10	2	3	6	2
Tetanus	1	0	0	0	0	0	0	1

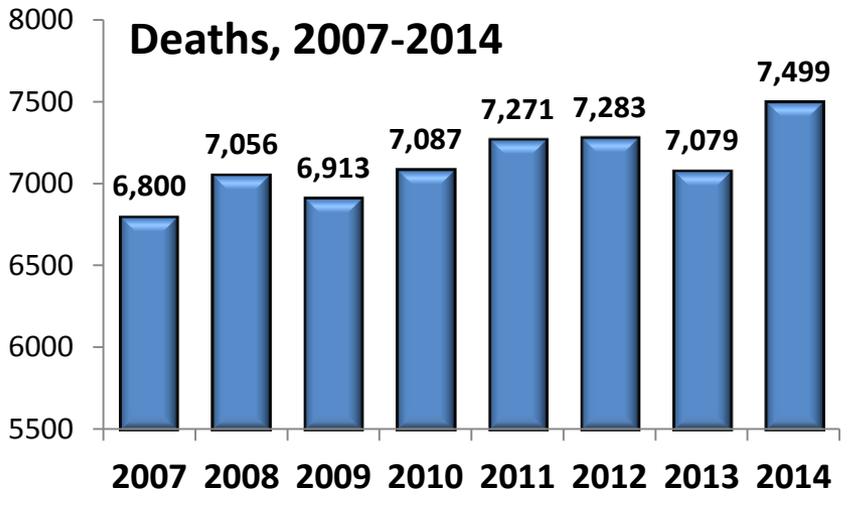
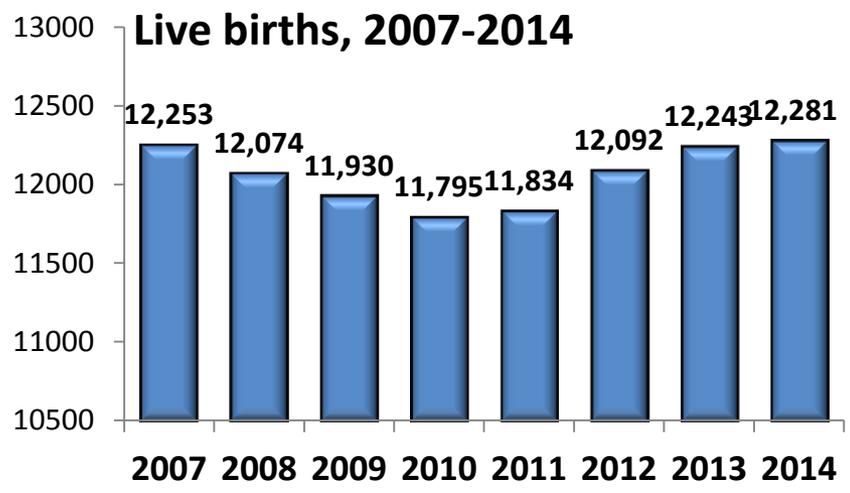
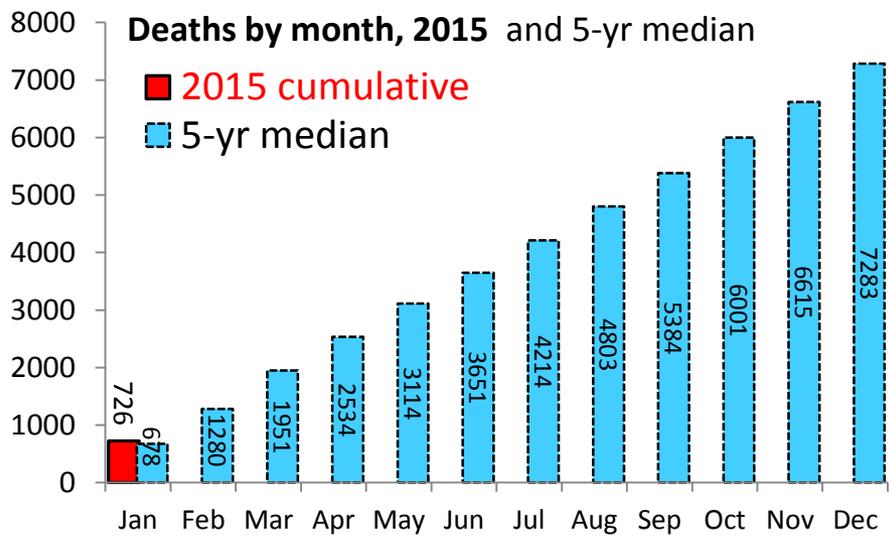
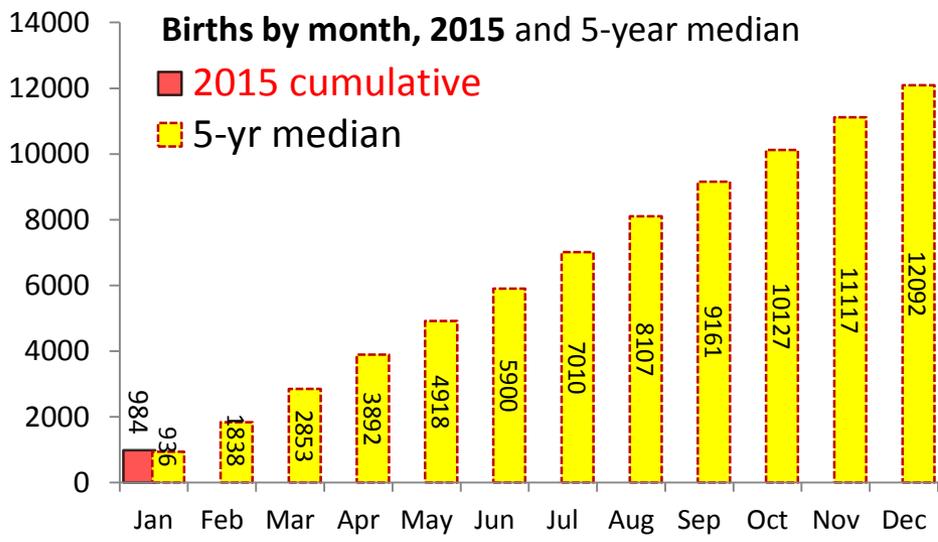


2014 Infant mortality in South Dakota

- 73 infant deaths reported to the South Dakota Department of Health.
- 12,281 live births reported.
- 5.9 infant mortality rate (deaths per 1,000 live births).
 - (4.4 White, 12.2 American Indian).
- 3.4 neonatal mortality rate. 2.5 post-neonatal mortality rate.
- 72.2% received first trimester prenatal care.
- 14.8% of mothers smoked cigarettes during pregnancy.



Births and deaths, South Dakota, 2015



*2012 numbers provisional

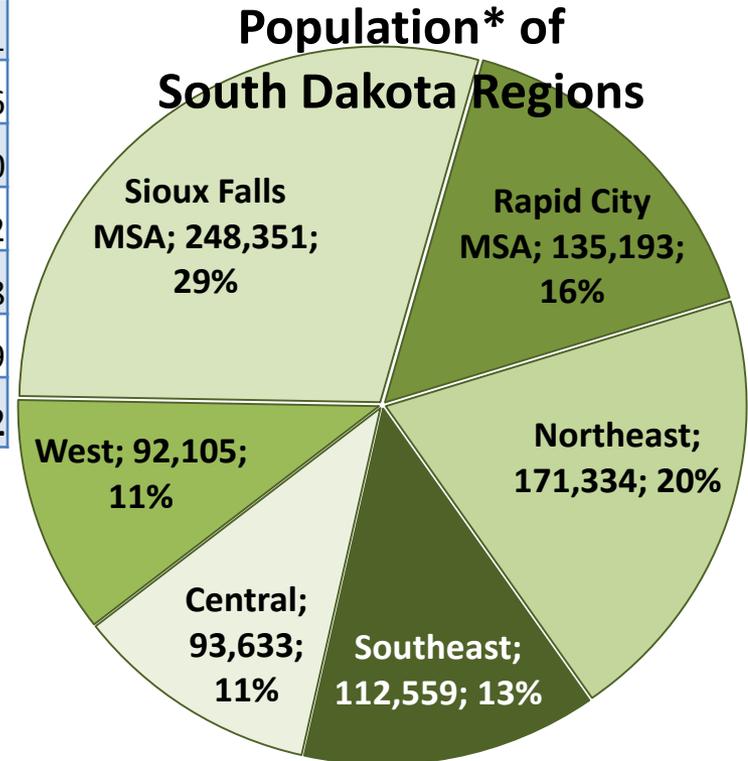
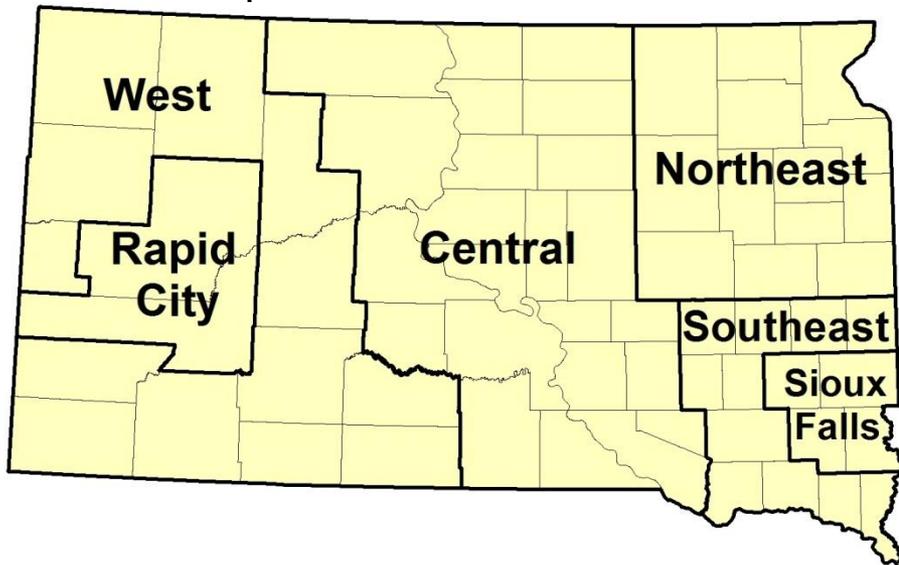
South Dakota, diseases past 10 years, 2005 – 2014

Reportable Diseases	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Campylobacteriosis	244	219	235	262	298	296	301	276	295	308
Chlamydia	2701	2633	2612	2919	3016	3191	3409	3924	3,927	4,170
Cryptosporidiosis	31	86	169	88	138	108	146	113	174	153
<i>E. coli</i> , shiga toxin-producing	29	50	47	53	71	35	41	47	43	41
Giardiasis	118	97	104	136	112	102	110	144	111	132
Gonorrhea	351	367	254	382	345	468	602	707	784	891
Hantavirus pulmno syndrome	2	2	1	0	0	0	1	1	0	0
Hepatitis A	1	9	7	3	3	1	2	0	4	3
Hepatitis C	207	355	317	365	381	349	356	390	405	522
HIV, including Stage III (AIDS)	33	34	25	34	21	35	21	29	36	31
Legionellosis	21	5	4	3	2	9	2	9	7	10
Measles	0	0	0	0	0	0	0	0	0	8
Meningococcal disease	4	4	3	3	5	0	3	0	4	2
MRSA, invasive	47	50	87	76	91	98	91	87	92	128
Mumps	0	296	6	1	2	2	0	0	0	0
Pertussis	183	26	61	68	58	32	37	70	67	110
Q Fever	2	2	1	1	9	4	1	2	4	5
Rabies, animal	68	38	27	24	53	32	40	60	28	21
Salmonellosis	160	135	172	152	198	186	162	170	182	170
Shigellosis	131	389	122	76	4	7	6	11	190	621
Syphilis, early	0	19	11	4	2	4	0	21	49	76
Tuberculosis	16	14	13	16	18	15	15	19	9	8
Tularemia	8	5	7	10	5	11	8	5	7	5
West Nile neuroinvasive	35	38	48	11	6	4	0	62	57	12

South Dakota Regions

Region	Population	%	Area (sq miles)	Density (people per sq mile)
Sioux Falls MSA*	248,351	29.1%	3,141	79.1
Rapid City MSA*	135,193	15.8%	6,247	21.6
Northeast	171,334	20.1%	12,277	14.0
Southeast	112,559	13.2%	5,863	19.2
Central	93,633	11.0%	24,860	3.8
West	92,105	10.8%	23,508	3.9
South Dakota	853,175	100%	75,896	11.2

*Metropolitan Statistical Area



*US Census Bureau, 2014 population estimate

Reportable Diseases List

<http://doh.sd.gov/diseases/infectious/reporting-communicable-diseases.aspx>

Monthly surveillance reports

<http://doh.sd.gov/statistics/disease-surveillance>

How to report infectious diseases

1. Secure disease reporting website: <https://sd.gov/diseasereport>
2. Telephone: **1-800-592-1804** confidential recorder; or **1-800-592-1861** or **605-773-3737** for a disease surveillance person during normal business hours; after hours to report Category I diseases or other emergencies, call **605-280-4810**.
3. Fax: **605-773-5509**
4. Mail or courier, address to: Infectious Disease Surveillance, Office of Disease Prevention, Department of Health, 615 East 4th Street, Pierre, SD 57501; marked "*Confidential Disease Report*"

Department of Health publications

- Infectious disease report: <http://doh.sd.gov/statistics/disease-surveillance/>
- Public Health Bulletin: <http://doh.sd.gov/resources/bulletin.aspx>
- Adult Risk Behaviors: <http://doh.sd.gov/statistics/2010BRFSS/>
- Youth Risk Behaviors (Dept of Education): <http://doe.sd.gov/schoolhealth/yrbs.asp>