SOUTH DAKOTA DEPARTMENT OF HEALTH

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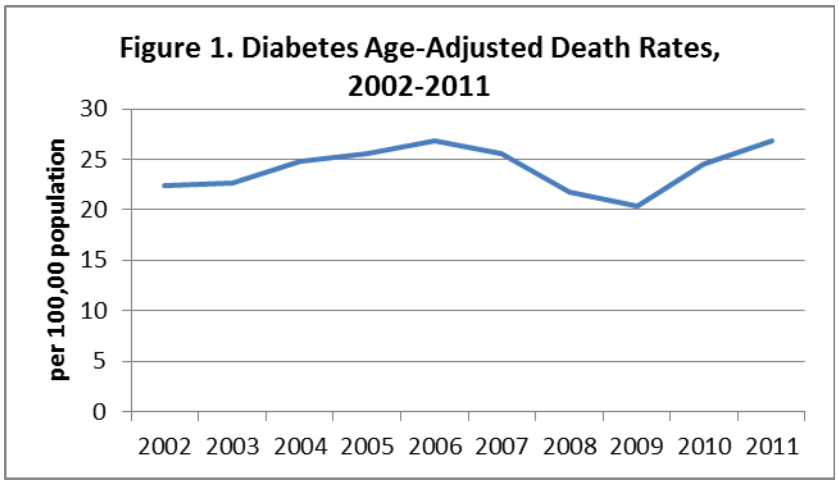
Diabetes and Prevention

Diabetes is an ever increasing public health concern. In 2011, 9.5% (58,000) of South Dakota adults were affected. In comparison, the United States prevalence was 9.5% and the prevalence in other states ranged from 6.7% - 12.4%. Diabetes has been the 7th leading cause of death in South Dakota for the past five years. The age-adjusted death rate has ranged from a low of 20.4 per 100,000 in 2008 to a peak of 26.8 per 100,000 in both 2006 and 2011 (see Figure 1.) Overall, the risk for death among people with diabetes is about twice that of people of similar age, but without diabetes [4].

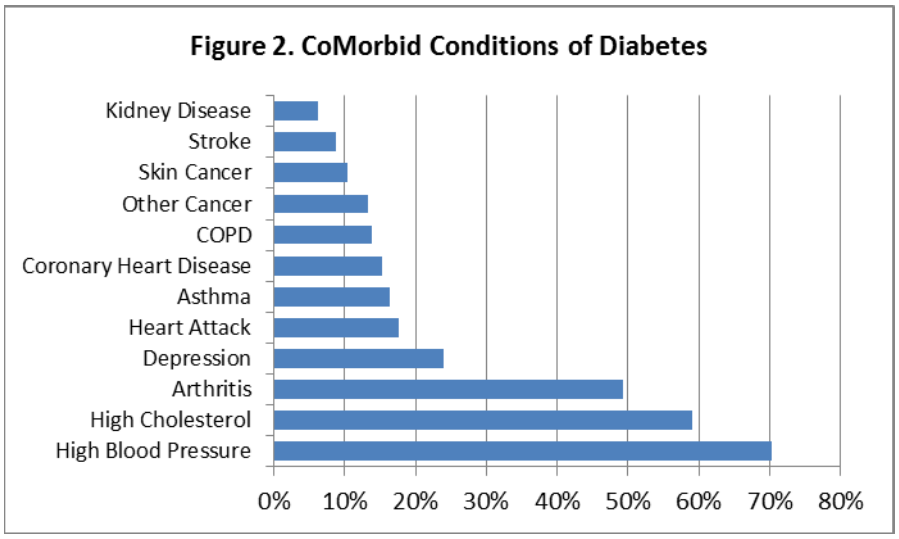
According to the March 22, 2013 issue of the Morbidity and Mortality Weekly Report, approximately one in three U.S. adults over 20 years of age (an estimated 79 million people) have prediabetes, a condition where hemoglobin A1c is higher than normal. Prediabetes increases the risk for developing type 2 diabetes, heart disease, and stroke[1]. In 2011, 4.5% of South Dakota adults had been told they had prediabetes and even more are unaware of their condition.



The major risk factors for developing type II diabetes include family history, age, physical inactivity, and being overweight or obese. In 2011, 54% of South Dakota adults did not meet the recommended 150 minutes of aerobic physical activity per week and 27% did not participate in ANY leisure time physical activity. In addition to not meeting physical activity requirements, 64% of adults are overweight or obese and 33% of school aged children are overweight or obese. Diabetes prevalence also increases with age. Among those 65 and older, 21% have diabetes, while in those under 65 the prevalence of diabetes is 6.7%.

Those with diabetes are 2-4 times more likely to develop heart disease or stroke[4]. Of those with diabetes in South Dakota, 70% have high blood pressure and 59% have high cholesterol, both risk factors for heart disease and stroke. Also of those with diabetes, 18% have experienced a heart attack, 15% have coronary heart disease, and 9% have had a stroke (Figure 2). By controlling blood pressure, the risk of cardiovascular disease (heart disease or stroke) is reduced by 33-50% among those with diabetes [4].

The Centers for Disease Control and Prevention's (CDC) National Diabetes Prevention Program (DPP) aims to prevent or delay Type II Diabetes by teaching participants to make modest behavior changes, such as improving food choices and increasing physical activity to at least 150 minutes per week over the course of the year long program. Research showed that participants in the DPP program who lost 5% - 7% of their body weight through these lifestyle changes, decreased their risk of developing type II diabetes by 58%.[2]



The National DPP is a structured program and must be delivered based on the Diabetes Prevention Program research study. DPP is taught in a group setting by trained lifestyle coaches. DPP consists of 16 core sessions and 6 post-core sessions.[3] The SD DOH, Diabetes Prevention and Control Program is working in conjunction with the CDC, healthcare systems, and community organizations to implement the National DPP to prevent and delay type II diabetes in South Dakota. Sites in SD who have currently been trained to offer DPP are Avera Health- Platte, Sioux Falls, and Yankton, Regional Health- Rapid City and Spearfish, Sanford Health- Sioux Falls and Vermillion, SD Urban Indian Health- Aberdeen and Pierre and YMCA- Rapid City. For additional information, please contact Lexi Haux, South Dakota Diabetes Prevention and Control Program Coordinator, at 605-773-7046 or visit the diabetes website at http://doh.sd.gov/Diabetes/.

1. CDC Morbidity and Mortality Weekly Report, March 22, 2013, Vol. 62, No. 11, http://www.cdc.gov/mmwr/pdf/wk/mm6211.pdf
2. Knowler WC, Barrett-Conner E, Fowler SE, et al; Diabetes Prevention Program Research Group. Reduction in the incidence of type 2 diabetes with lifestyle intervention or metformin. New England Journal of Medicine 2002; 346: pages 393–403
3. Centers for Disease Control. National Diabetes Prevention Program. http://www.cdc.gov/diabetes/prevention/index.htm
4. National Diabetes Fact Sheet, 2011. http://www.cdc.gov/diabetes/pubs/pdf/ndfs_2011.pdf

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CDC honors Sioux Falls physician

The federal Centers for Disease Control and Prevention (CDC) has honored Dr. Wendell Hoffman, Sioux Falls, with a *2013 Childhood Immunization Champion Award*. Dr. Hoffman was recognized as a leading authority on immunization in South Dakota. He was the driving force and managing editor behind the recent edition of the South Dakota medical journal, *The Story of Immunization*. The issue covers a broad range of vaccination related topics and is being recognized in the state and nationally. Read his profile and learn more about the *Childhood Immunization Champion Award* program at www.cdc.gov/vaccines/events/niiw/champions/profiles.html.

The South Dakota Medicine special edition, *The Story of Immunization*, can be found on the State Medical Association's website, https://www.sdsma.org/sdsma.

South Dakota Antibiogram of Selected Pathogens, 2012: Tracking the use and success of antibiotics

The State of South Dakota has made a concerted effort to track the use and success of antibiotics with special consideration of infections caused by antimicrobial resistant bacteria. Of particular public health concern is the emergence of the difficult-to-treat carbapenem-resistant Enterobacteriaceae (CRE) in South Dakota and across the nation in recent years.[1]

Forty-two CLIA certified microbiology laboratories were contacted and asked voluntarily to provide individual or aggregate bacterial sensitivity data from January 1, 2012 through December 31, 2012. Twenty-nine (69%) of the laboratories contacted provided sensitivity data on one or more of the following requested organisms:

Staphylococcus aureus

Klebsiella pneumoniae

Streptococcus pneumoniae

Salmonella spp.

***Streptococcus pyogenes* (Group A strep)**

***Streptococcus agalactiae* (Group B strep)**

Mycobacterium tuberculosis sensitivity data was obtained from the South Dakota Department of Health, State TB Program Coordinator. These data were compiled to create a statewide antibiogram using the methodology described by the Clinical and Laboratory Standards Institute (CLSI), in document M39-A3, *Analysis and Presentation of Cumulative Antimicrobial Susceptibility Test Data Approved Guideline*.[2] Sensitivities were collected from laboratories collectively serving over 2500 beds across South Dakota, representing 88% of all beds from surveyed facilities.

Results for intermediate susceptibilities were excluded due to lack of consistency in reporting. A small number of laboratories reported separate categories for methicillin susceptible (MSSA) and methicillin-resistant *Staphylococcus aureus* (MRSA). MRSA specific isolates were reported separately in the antibiogram, but future antimicrobial surveillance projects may wish to request separate MSSA and MRSA data from all laboratories for a more complete picture of MSSA and MRSA sensitivities.

The cumulative state antibiogram is presented to give South Dakota clinicians, pharmacists and public health officials data to track antimicrobial susceptibility patterns, raise awareness of antimicrobial resistance, and educate on appropriate antimicrobial usage. These data are for surveillance purposes only and should not be used as the primary basis for determining antimicrobial therapy for individual patients.

[1] Vital Signs: Carbapenem-Resistant Enterobacteriaceae. (2013, March 8) *MMWR: Morbidity and Mortality Weekly Report*,*62*(09), 165-170. Retrieved from http://www.cdc.gov/mmwr/

[2] Clinical and Laboratory Standards Institute. Analysis and presentation of Cumulative Antimicrobial Susceptibility Test Data; Approved Guideline—Third Edition. CLSI document M39-A3. Wayne, PA: Clinical and Laboratory Standards Institute 2009.

Author: Collin Michels, South Dakota Department of Health

SOUTH DAKOTA DEPARTMENT OF HEALTH

2012 Antibiogram

	Antibiotic	*Staphylococcus aureus*	Methicillin-resistant *S. aureus*	*Klebsiella pneumoniae*	*Streptococcus pneumoniae*	*Salmonella spp.*	Group A *Streptococcus*	Group B *Streptococcus*	*Mycobacterium tuberculosis*
		% Susceptible (n) number of isolates							
β-Lactam Antibiotics	Ertapenem		14% (467)	99% (337)					
	Imipenem			99% (1881)					
	Meropenem			98% (274)					
	Amoxicillin-Clavulanic Acid	68% (707)							
	Ampicillin/Sulbactam	54% (875)							
	Cefazolin			95% (2688)					
	Cefdinir	82% (363)							
	Cefepime	43% (131)		97% (2094)					
	Cefotaxime	70% (498)		95% (232)	80% (253)				
	Ceftazidime			97% (1927)					
	Ceftriaxone	63% (592)		94% (2167)	94% (1186)	85% (47)			
	Ampicillin	7% (845)				90% (108)	100% (31)	99% (166)	
	Oxacillin	60% (8033)							
	Penicillin	10% (3021)			64% (859)		100% (31)	99% (145)	
Other Antibiotics	Ciprofloxacin	65% (4057)	20% (92)	96% (2941)		98% (53)			
	Levofloxacin	69% (3060)	21% (92)	94% (2580)	98% (900)	100% (90)			
	Ofloxacin				95% (62)				
	Chloramphenicol	94% (455)			95% (146)				
	Clindamycin	74% (3788)	48% (467)				96% (25)	41% (137)	
	Erythromycin	45% (8315)			50% (853)		66% (21)	46% (79)	
	Gentamicin	98% (4318)	99% (92)	98% (3050)					
	Linezolid		100% (467)						
	Nitrofurantoin*	98% (6629)	100% (92)	37% (2473)					
	Rifampin	100% (2438)	100% (92)						100% (14)
	Trimethoprim/Sulfamethoxazole	99% (8739)	99% (467)	92% (2760)	71% (394)	98% (115)			
	Tetracycline	94% (8288)	95% (92)	87% (658)	81% (260)	87% (31)			
	Vancomycin	100% (8847)	100% (467)		100% (343)		100% (26)	98% (225)	
TB	Isoniazid								100% (14)
	Pyrazinamide								100% (14)
	Ethambutol								100% (14)
	Streptomycin								100% (14)

Comments:

This antibiogram relfects data submitted by 29 microbiology laboratories in South Dakota.

These data should not be used for the determination of therapy for individual patients.

Salmonella spp. Antimicrobial treatment for enteric salmonellosis generally is not recommended.

Mycobacterium tuberculosis No cases of multi-drug resistant MTB were reported

*Urine Isolates only

Hospital Discharge and Death by Injury and the Trauma System — South Dakota, 2000–2011

This report summarizes 12 years (2000-2011) of South Dakota hospital discharge data due to traumatic injury and 5 years (2007-2011) of death due to traumatic injury. Inpatient data are presented as numbers, percentages and population-based rates for the overall state, county, gender, race groups and age groups.

The principal diagnosis hospital discharge data were collected, coded and submitted by South Dakota community and specialty hospitals to the South Dakota Association of Healthcare Organizations (SDAHO). The data were purchased by the South Dakota Department of Health from SDAHO including admission date, age, sex race, county of residence, and diagnosis codes grouped by principal diagnosis based on the International Classification of Diseases 9th Revision (ICD-9). ICD-9 Codes from 800.00-959.99 were used and coded by group as listed in the International Classification of Disease 9th Revision. The datasets contained no identifiable patient or hospital-specific information. Federal hospitals did not submit discharge data, i.e., Veterans Administration and Indian Health Service hospitals. South Dakota residents who were hospitalized out of state are not included. Out-of-state residents were also excluded from analysis. The data analysis is done by the South Dakota Department of Health using SAS Enterprise Guide (Version 4.2, SAS Institute, Inc., Cary, NC).

This report includes the first analysis of a recent advancement in South Dakota public health, the South Dakota Statewide Trauma System. In 2008, the South Dakota legislature created the trauma system with a goal of providing superior quality health care to traumatically injured patients in South Dakota. The South Dakota Trauma System, administered through the Department of Health, Office of Rural Health, provides coordinated guidelines and directs protocols for the management of critically injured individuals across South Dakota. The trauma system brings together all hospitals and emergency medical services within the state. In rural areas, patients regularly face long transport times by ground to tertiary-care facilities able to treat complex traumatic injuries. Because of inherently long transport times, it is critically important for compressive transport protocols to be in place. Successful outcomes from traumatic injuries dramatically decrease if definitive care cannot be rapidly provided.

Analyzing hospital discharges in South Dakota gives a fuller picture of trauma activity and guides future traumatic injury surveillance activates. Future analysis would include following traumatically injured patients from their pre-hospital encounter through the rehabilitation period.

The twelve years of hospital discharges for injuries from 2000 to 2011 totaled 51,772 hospitalizations (on average 4314 per year) with 2001 having the most hospital discharges from traumatic injury with 4614 discharges and 2002 with the fewest of discharges with 4111 (Figure 1). Patient age at time of hospital discharge (Figure 2) shows that 48% of all patients discharged from South Dakota hospitals due to injury during 2000-2011 were above 70 years old. The youngest two age groups, from newborn to 9 years old, account for just 3% of the discharges from injury.

Figure 1. Hospital discharges from injury by gender — South Dakota, 2000-2011

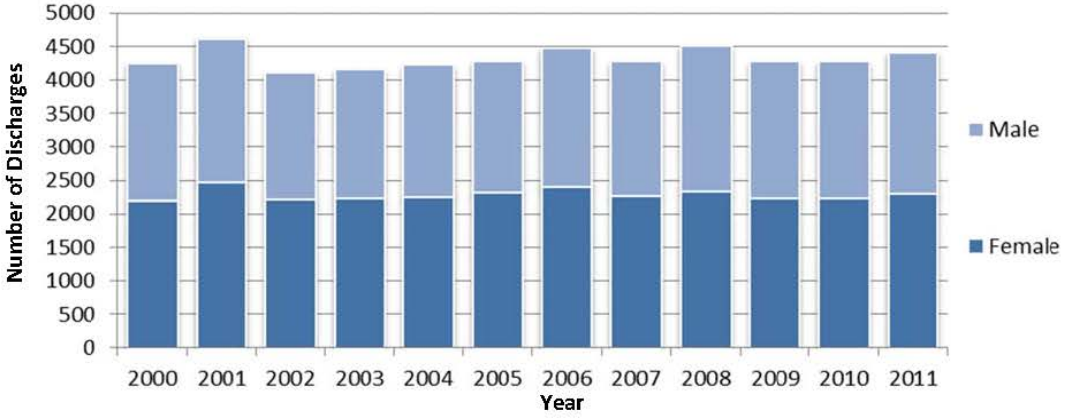
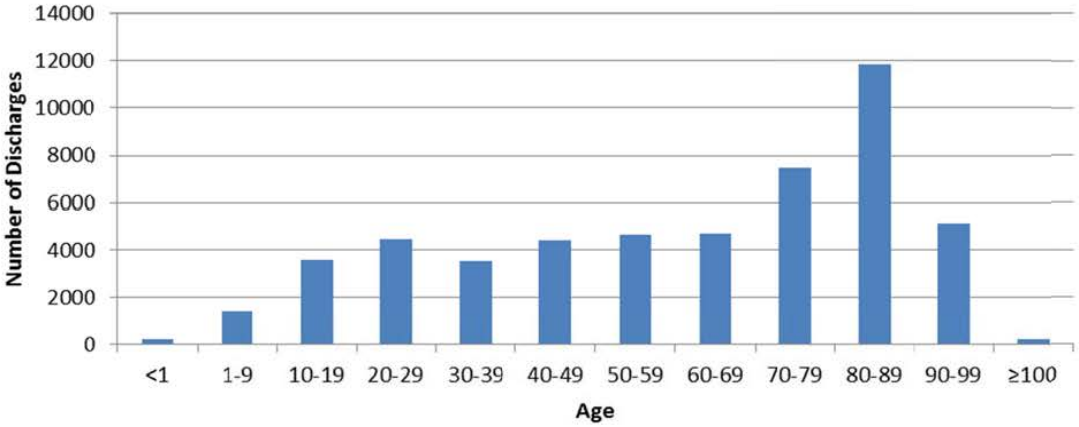


Figure 2. Hospital discharges from injury by age group - South Dakota, 2000-2011



The overall discharge rate was 530 per 100,000 population per year for South Dakota residents. Seventy-nine percent of hospitalizations were White race patients, 11% American Indian, in 8% of cases patient's race was unknown or not reported and in 1% other race was stated (Table 1). 53% of hospitalizations were for female patients and 47% male patients over the 12 year analysis (Table 2).

Table 1. Race of hospitalized patients — South Dakota, 2000-2011

Race	Number	Percent
American Indian	5910	11.4%
White	41084	79.4%
Unknown	4179	8.1%
Other	599	1.2%
Total	51772	100%

Table 2. Gender of hospitalized patients — South Dakota, 2000-2011

Gender	Number	Percent
Female	27326	52.9%
Male	24445	47.2%
Total	51772	100%

Annual rates of hospital discharges by county per 100,000 population were calculated (Table 3 and Map 1 below) which showed Buffalo, Gregory Hutchinson, Douglas, Todd, Tripp, Faulk, Charles Mix, Potter, Miner, Haakon, Hyde, Shannon, Turner, Bennett, and Kingsbury counties had rates in the top quartiles of South Dakota counties.

Table 3. Hospitalization numbers and rates* by county — South Dakota 2000-2011.

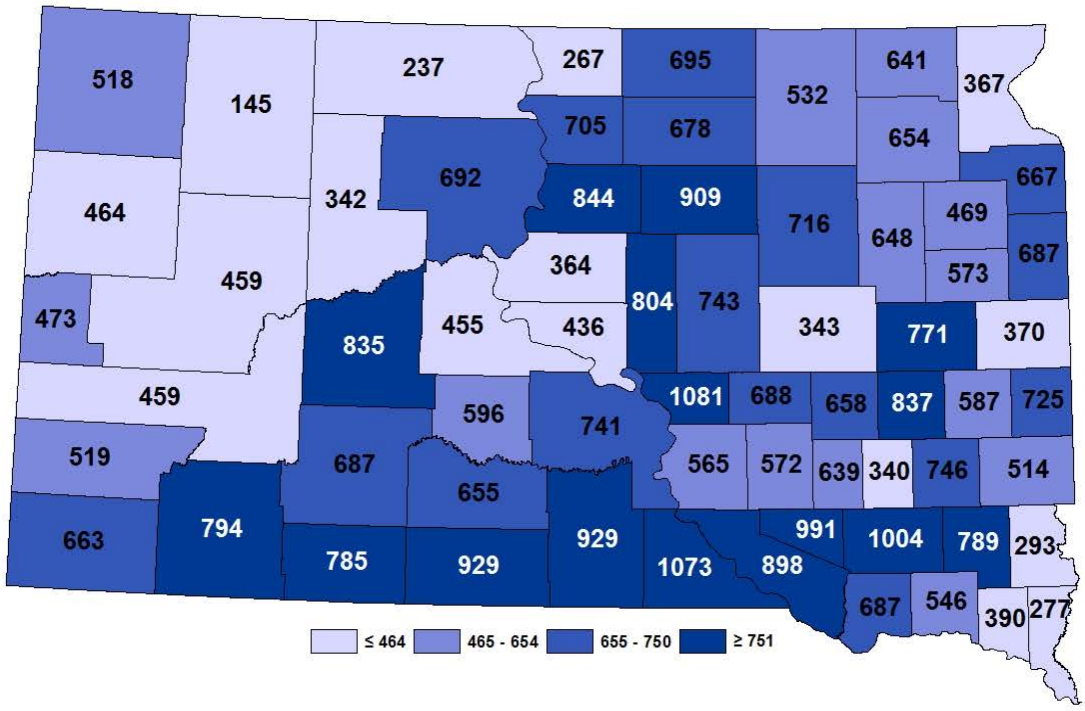
County	Discharges	Population	Rate*
Aurora	186	2,710	572.0
Beadle	717	17,398	343.4
Bennett	323	3,431	784.5
BonHomme	583	7,070	687.2
Brookings	1418	31,965	369.7
Brown	2333	36,531	532.2
Brule	356	5,255	564.5
Buffalo	248	1,912	1080.9
Butte	563	10,110	464.1
Campbell	47	1,466	267.2
Charles Mix	984	9,129	898.2
Clark	287	3,691	648.0
Clay	649	13,864	390.1
Codington	1532	27,227	468.9
Corson	115	4,050	236.6
Custer	512	8,216	519.3
Davison	1495	19,504	638.8
Day	448	5,710	653.8
Deuel	360	4,364	687.4
Dewey	440	5,301	691.7
Douglas	357	3,002	991.0
Edmunds	331	4,071	667.6
Fall River	564	7,094	662.5
Faulk	258	2,364	909.5
Grant	589	7,356	667.3
Gregory	550	4,271	1073.1
Haakon	194	1,937	834.6
Hamlin	406	5,903	573.2
Hand	306	3,431	743.2
Hanson	136	3,331	340.2
Harding	78	1,255	517.9
Hughes	890	17,022	435.7
Hutchinson	885	7,343	1004.4
Hyde	137	1,420	804.0
Jackson	250	3,031	687.3
Jerauld	171	2,071	688.1
Jones	72	1,006	596.4
Kingsbury	476	5,148	770.5
Lake	789	11,200	587.1
Lawrence	1368	24,097	473.1
Lincoln	1577	44,828	293.2
Lyman	334	3,755	741.2
Marshall	358	4,656	640.8
McCook	503	5,618	746.1
McPherson	205	2,459	694.7
Meade	1400	25,434	458.7
Mellette	161	2,048	655.1
Miner	240	2,389	837.2
Minnehaha	10455	169,468	514.1
Moody	564	6,486	724.6
Pennington	5565	100,948	459.4
Perkins	52	2,982	145.3
Potter	236	2,329	844.4
Roberts	447	10,149	367.0
Sanborn	186	2,355	658.2
Shannon	1295	13,586	794.3
Spink	551	6,415	715.8
Stanley	162	2,966	455.2
Sully	60	1,373	364.2
Todd	1072	9,612	929.4
Tripp	629	5,644	928.7
Turner	790	8,347	788.7
Union	479	14,399	277.2
Walworth	460	5,438	704.9
Yankton	1473	22,438	546.3
Ziebach	115	2,801	342.1
South Dakota	**51,772**	**814,180**	**623.7**

*Rate: hospital discharges per 100,000 per year calculated using 2010 census counts.

Counties in the bottom quartile of injury discharge rates were Butte, Pennington, Meade, Stanley, Hughes, Clay, Brookings, Roberts, Sully, Beadle, Ziebach, Hanson, Lincoln, Union, Campbell, Corson and Perkins. Many of the counties with the highest hospitalization rates for traumatic injury come from the southern portion of South Dakota (Shannon, Bennett, Todd, Tripp, Gregory, Charles Mix, Douglas, Hutchinson and Turner Counties). Counties in the Northwestern part of South Dakota have many of the lowest rates (Butte, Perkins, Meade, Ziebach, Haakon, and Corson counties). South Dakota's two largest counties, Minnehaha and Pennington, both fall below the median number of hospitalizations from injury. Because the

analysis does not capture South Dakota residents hospitalized in other states, low rates of hospitalization in border counties may be attributable to patients seeking medical care in to other states. For example, the low rates seen in Perkins, Corson, and Campbell counties may be due to patients seeking medical care in North Dakota. Similarly, many residents of Union County may be hospitalized in Iowa, leading to an artificially low hospitalization rate.

Map1: Annual Hospitalization Rates by County per 100,000 population — South Dakota, 2000-2011



Principal ICD-9 codes were grouped in injury categories (Table 4). Twenty different injury categories were created for this analysis (Table 5). The mean length of hospitalization for all injury conditions over the 12 year period was 5.0 days (SD=7.7). Hospitalizations with principal ICD-9 codes for sprains and strains of joints and adjacent muscles had the shortest length of stay (2.2 days, SD=2.8), and burn injuries had longest length of stay (7.8 days, SD=9.7). Demographic information was obtained from each injury group.

Table 4. Average length of hospital stay in days by injury type, SD, 2000-2011

Injury	Mean (SD)	N
All conditions	5.0 (7.7)	51,772
Burns	7.8 (9.7)	668
Contusion with Intact Skin Surface	3.4 (2.7)	1375
Crushing Injury	4.0 (5.0)	156
Dislocation	3.4 (4.0)	575
Foreign Bodies	3.7 (6.0)	378
Injury to Blood Vessels	6.3 (9.7)	137
Injury to Nerves, Spinal Cord	5.3 (6.4)	156
Internal Injury Thorax, Abdomen or Pelvis	6.5 (6.7)	2320
Intracranial Injury not Including Skull Fracture	6.3 (9.9)	4066
Late Effects of Injuries, Poisonings, Toxic Effects	7.1 (12.0)	45
Lower Limb Fracture	5.2 (5.8)	20,433
Neck or Trunk Fracture	5.7 (7.5)	8104
Open Wound	3.1 (3.5)	959
Open Wound to Lower Limb	5.2 (5.8)	540
Open Wound to Upper Limb	2.8 (3.5)	848
Skull Fracture	5.8 (5.5)	2818
Sprains and Strains of Joints and Adjacent Muscles	2.2 (2.8)	2261
Superficial Injury	3.1 (3.4)	137
Traumatic Complications and Unspecified Injury	3.4 (4.3)	1015
Upper Limb Fracture	3.4 (3.9)	4781

Table 5. ICD-9 Code Groups by Injury

800 - 805	Skull Fracture
805 - 809	Neck or Trunk Fracture
810 - 819	Upper Limb Fracture
820 – 829	Lower Limb Fracture
830 - 839	Dislocation
840 - 848	Sprains and Strains of Joints and Adjacent Muscles
850 - 854	Intracranial Injury not Including Skull Fracture
860 - 869	Internal Injury Thorax, Abdomen or Pelvis
870 - 879	Open Wound
880 - 887	Open Wound to Upper Limb
890 - 897	Open Wound to Lower Limb
900 - 904	Injury to Blood Vessels
905 - 909	Late Effects of Injuries, Poisonings, Toxic Effects
910 - 919	Superficial Injury
920 – 924	Contusion with Intact Skin Surface
925 - 929	Crushing Injury
930 - 939	Foreign Bodies
940 - 949	Burns
950 - 957	Injury to Nerves, Spinal Cord
958 - 959	Traumatic Complications and Unspecified Injury

The following pages summarize each of the 20 injury categories followed by an analysis of deaths from traumatic injury from 2007-2011.

Skull Fractures (ICD-9: 800.00-804.99)

From 2000-2011, a total of 2818 hospitalizations were due to skull fractures. This yields an average of 235 discharges annually. Males were affected more than females (74% vs 26%). Rates of skull fractures were higher in younger populations with 48% of all hospitalizations occurring in patients under 29 years old. American Indian patients consisted of 25% of the patient population and White race patients made up 69%. Average length of hospital stay for skull fracture was 5.5 days (SD=8.5). Many of these skull fracture injuries, especially in younger populations are likely preventable. An important component of trauma systems is to provide preventative education to health care providers and the general public about preventing trauma.

Table 6. Gender of hospitalizations for skull fractures

Gender	Number	Percent
F	739	26.2%
M	2079	73.8%
Total	2818	100%

Table 7. Race of hospitalizations for skull fractures

Race	Number	Percent
American Indian	710	25.2%
White	1940	68.8%
Unknown	108	3.8%
Other	60	2.1%
Total	2818	100%

Figure 3. Hospital discharges from skull fractures—South Dakota, 2000-2011

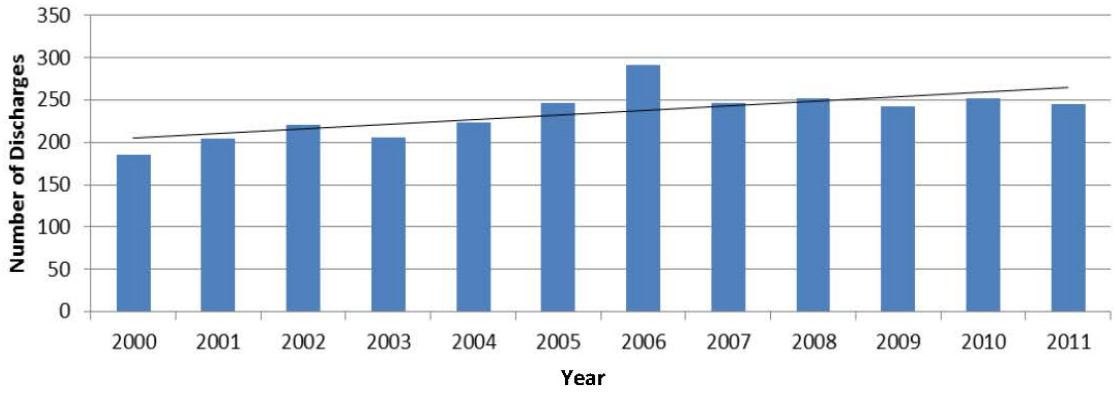
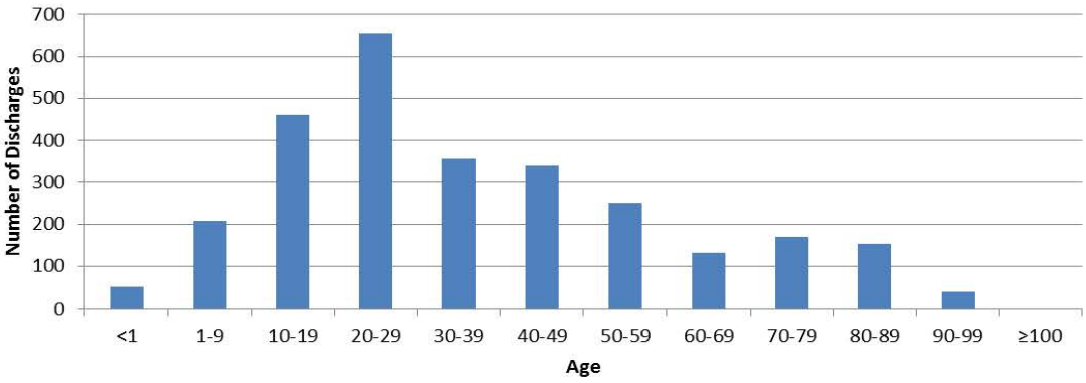


Figure 4. Hospital discharges from skull fractures by age group—South Dakota, 2000-2011



Neck or Trunk Fractures (ICD-9: 805.00-809.19)

From 2000-2011, a total of 8104 hospitalizations were due to Neck or Trunk fractures. This yields an average of 675 discharges annually. Females were affected more than males (57% vs 43%). Rates of neck or trunk fractures were higher in older populations with 60% of all hospitalizations occurring in patients over 70 years old. Many of these accidents, especially in older populations may be preventable falls. An important component of trauma systems is to provide education to health care providers and the general public about ways to prevent certain injuries, like falls, in specific populations. Average length of hospital stay for skull fracture was 5.6 days (SD=7.5).

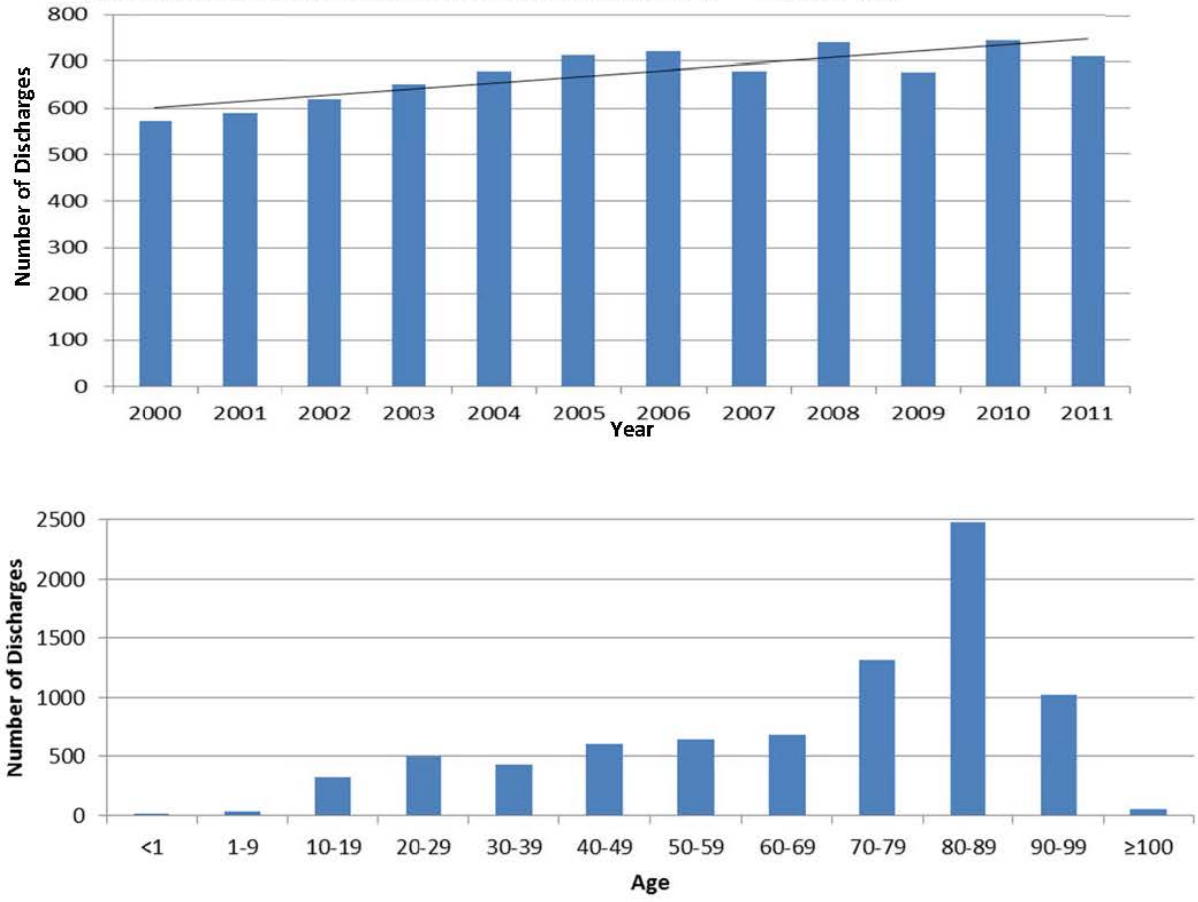
Table 8. Gender of hospitalizations for neck, trunk fractures

Gender	Number	Percent
F	4627	57.1
M	3477	42.9
Total	8104	100%

Table 9. Race of hospitalizations for neck, truck fractures

Race	Number	Percent
American Indian	637	7.8%
White	6825	84.2%
Unknown	584	7.2%
Other	64	0.8%
Total	8104	100%

Figure 5. Hospital discharges from neck or trunk fractures — SD, 2000-2011



Upper Limb Fractures (ICD-9: 805.00-809.19)

From 2000-2011, a total of 4781 hospitalizations were due to Upper Limb fractures. This yields an average of 398 discharges annually. Females were affected more than males (66% vs 38%). Rates of upper limb fractures were higher in older populations with 44% of all hospitalizations occurring in patients over 70 years old. Many of these injuries, especially in older populations may be a result of preventable falls. An important component of trauma systems is to provide education to health care providers and the general public about ways to prevent certain injuries, like falls, in specific populations. Average length of hospital stay for upper limb fracture was 3.4 days (SD=3.9).

Table 10. Gender of hospitalizations for upper limb fractures

Gender	Number	Percent
F	2990	65.5%
M	1791	37.5%
Total	4781	100%

Table 11. Race of hospitalizations for upper limb fractures

Race	Number	Percent
American Indian	483	10.1%
White	3944	82.5%
Unknown	286	6.0%
Other	68	1.4%
Total	4781	100%

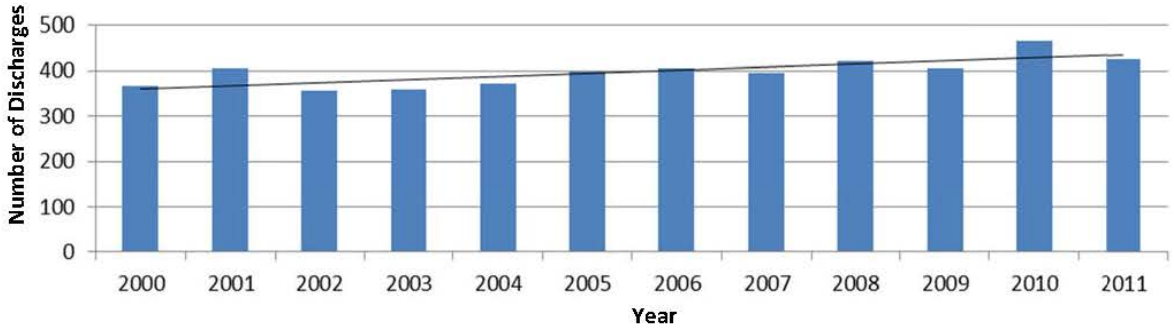
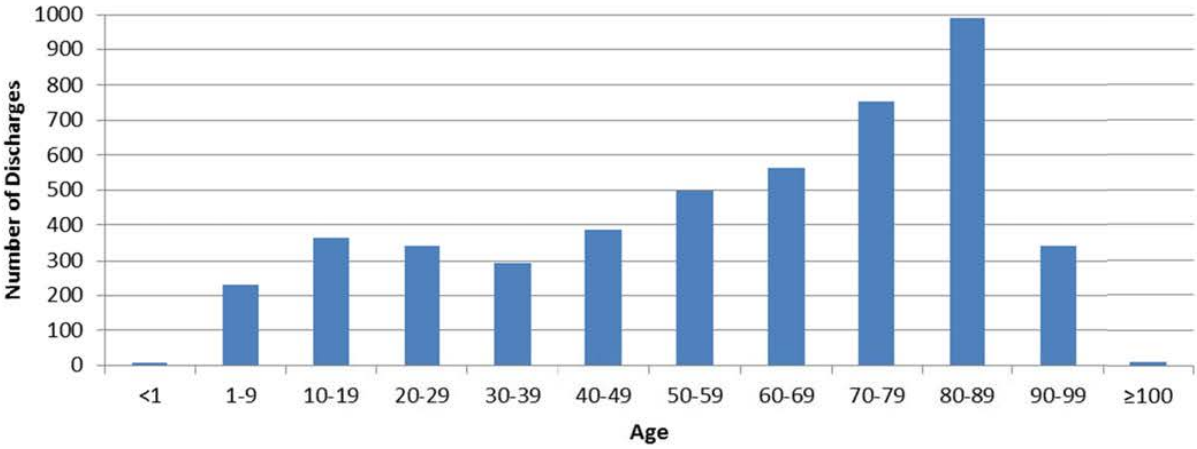


Figure 8. Hospital discharges from upper limb fractures by age — SD, 2000-2011



Lower Limb Fractures (ICD-9: 810.00-819.19)

From 2000-2011, a total of 20,433 hospitalizations were due to lower limb fractures. This yields an average of 1702 discharges annually. Females were affected more than males (63% vs 37%). Rates of lower limb fractures were higher in older populations with 44% of all hospitalizations occurring in patients over 70 years old. Many of these injuries, especially in older populations may be a result of preventable falls. An important component of trauma systems is to provide education to health care providers and the general public about ways to prevent certain injuries, like falls, in specific populations. Average length of hospital stay for lower limb fracture was 3.4 days (SD=3.9).

Table 12. Gender of hospitalizations for lower limb fractures

Gender	Number	Percent
F	12873	63.0%
M	7559	37.0%
Total	20433	100%

Table 13. Race of hospitalizations for lower limb fractures

Race	Number	Percent
American Indian	1649	8.1%
White	16955	83.0%
Unknown	1652	8.1%
Other	177	0.9%
Total	20433	100%

Figure 9. Hospital discharges from lower limb fractures — SD, 2000-2011

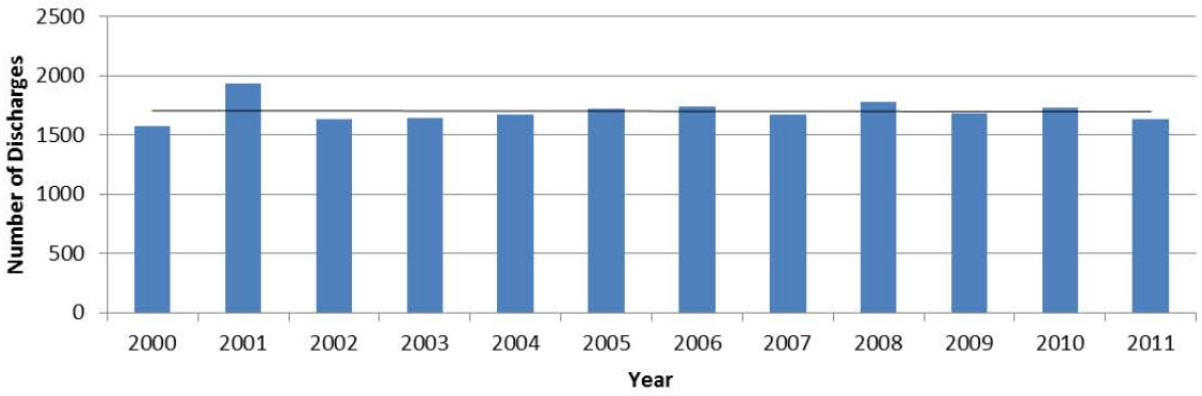
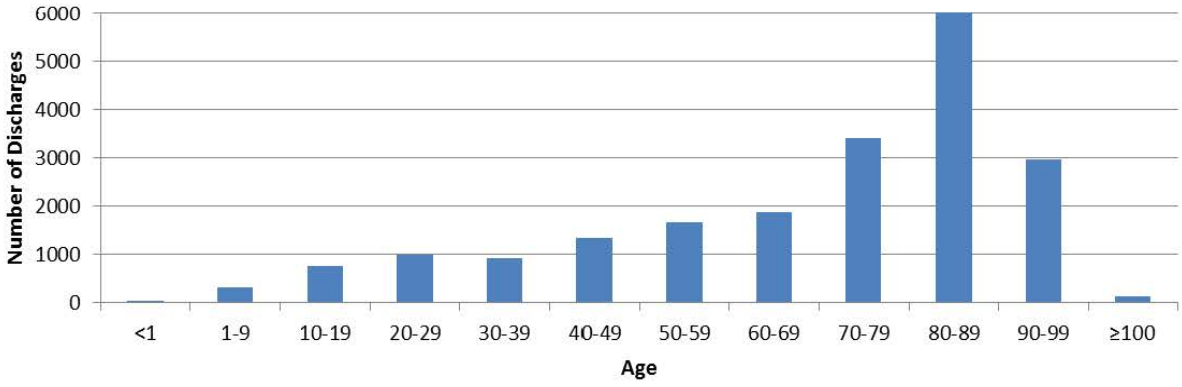


Figure 10. Hospital discharges from lower limb fractures by age group — SD, 2000-2011



Dislocation (ICD-9: 830.00-839.9)

From 2000-2011, a total of 575 hospital discharges were due to dislocations. This yields an average of 48 discharges annually. Males were affected more than females (58% vs 42%). Rates of dislocation were slightly higher in younger populations. Average length of hospital stay for a dislocation was 3.4 days (SD=4.0). Nineteen percent of hospital discharge patients were American Indian while White race patients made up 69% of discharges. Dislocations in younger populations may result from vehicle or non-vehicle accidents while in older populations dislocations may predominantly result from preventable falls.

Table 14. Gender of hospitalizations for dislocations

Gender	Number	Percent
F	242	42.1%
M	333	57.9%
Total	575	100%

Table 15. Race of hospitalizations for dislocations

Race	Number	Percent
American Indian	108	18.8%
White	397	69.0%
Unknown	65	11.3%
Other	5	0.9%
Total	575	100%

Figure 11. Hospital discharges from dislocation — SD, 2000-2011

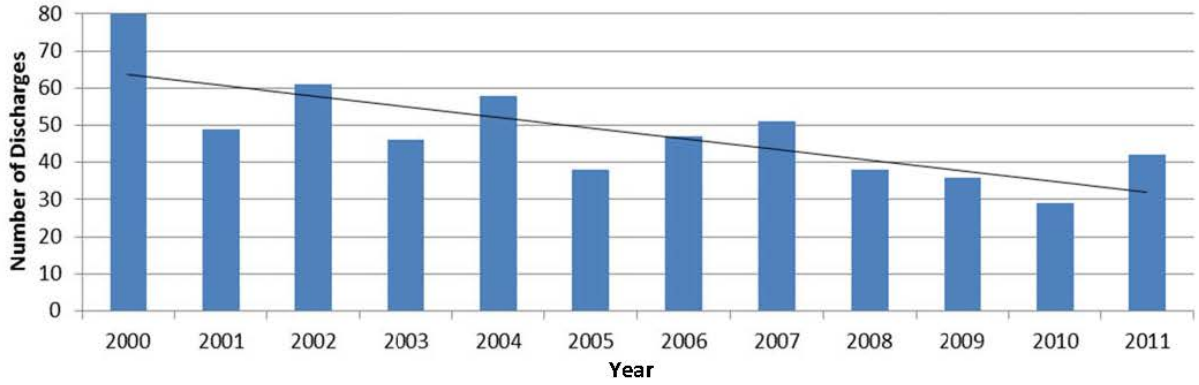
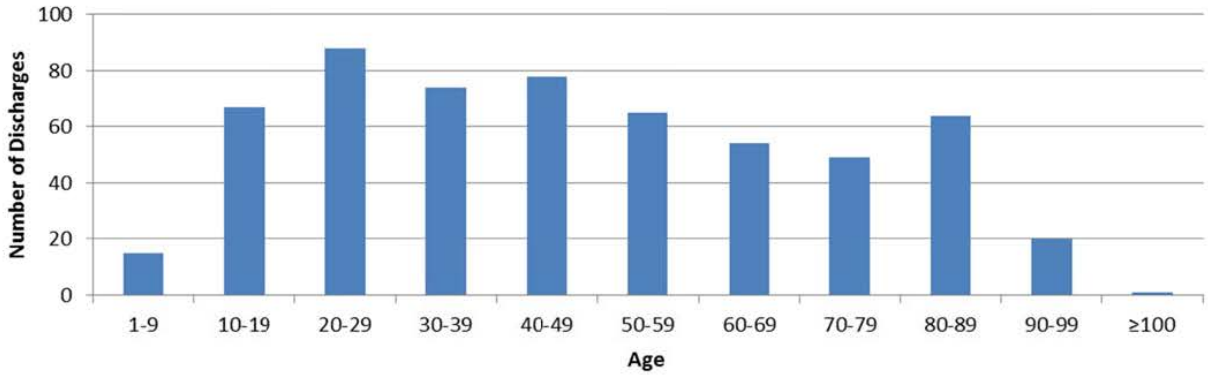


Figure 12. Hospital discharges from dislocation by age group — SD, 2000-2011



Sprains and Strains of Joints and Adjacent Muscles (ICD-9: 840.00-848.99)

From 2000-2011, a total of 2261 hospital discharges were due to sprains and strains. This yields an average of 188 discharges annually. Males were affected more than females (53% vs 47%). Rates of sprains and strains were higher in older populations aged 60-79. Sprains and strains in younger populations may result from vehicle or non-vehicle accidents while in older populations sprains and strains may predominantly result from preventable falls often resulting in other injuries. An important component of the trauma system is providing patient education on preventing fall related injuries.

Average length of hospital stay for a sprains and strains was 2.3 days (SD=2.8).

Table 16. Gender of hospitalizations for sprains and strains

Gender	Number	Percent
F	1055	46.7%
M	1206	53.3%
Total	2261	100%

Table 17. Race of hospitalizations for sprains and strains

Race	Number	Percent
American Indian	79	3.5%
White	1403	62.1%
Unknown	749	33.1%
Other	30	1.3%
Total	2261	100%

Figure 13. Hospital discharges from sprains, strains — SD, 2000-2011

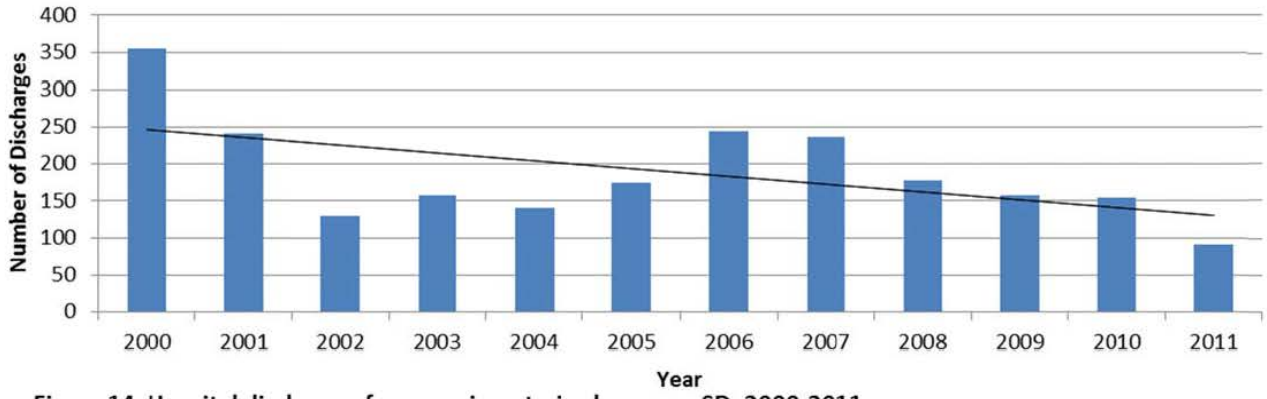
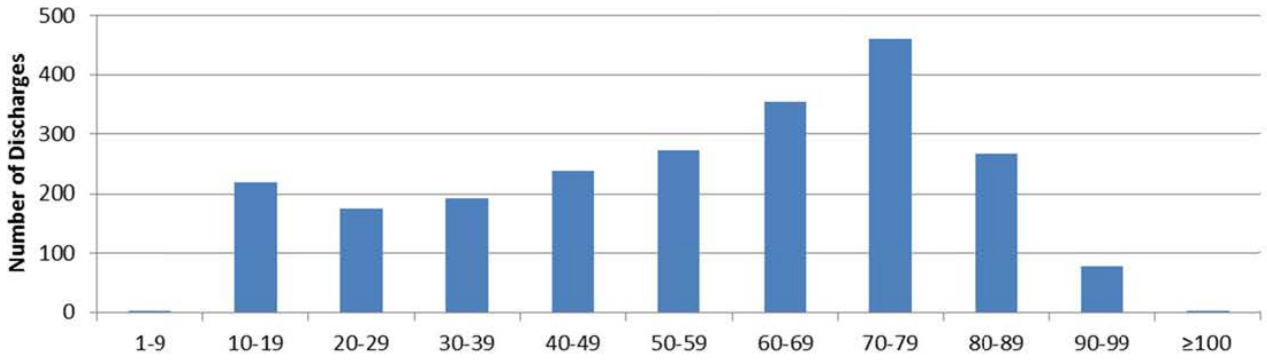


Figure 14. Hospital discharges from sprains, strains by age — SD, 2000-2011



Intracranial Injury not including skull fracture (ICD-9: 850.00-854.19)

From 2000-2011, a total of 4066 hospital discharges were due to intracranial injuries. This yields an average of 339 discharges annually. Males were affected more than females (62% vs 38%). Rates of intracranial injuries were higher in older populations with 38% of cases coming from patients 70 years and older. Intracranial injuries in all populations may occur due to many reasons including traumatic accidents. Average length of hospital stay for intracranial injury was 6.2 days (SD=9.9).

Table 18. Gender of hospitalizations for intracranial injury

Gender	Number	Percent
F	1547	38%
M	2519	62%
Total	4066	100%

Table 19. Race of hospitalizations for intracranial injury

Race	Number	Percent
American Indian	668	16.4%
White	3169	78.0%
Unknown	171	4.2%
Other	58	1.4%
Total	4066	100%

Figure 15. Hospital discharges from intracranial injury — SD, 2000-2011

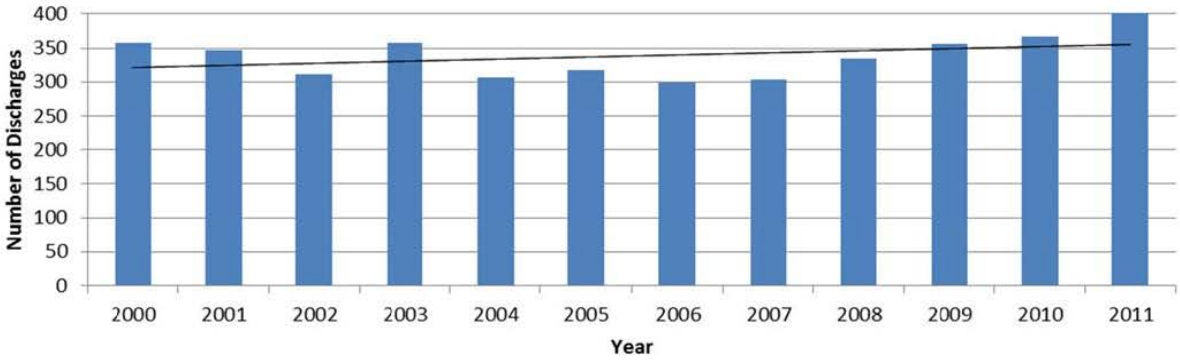
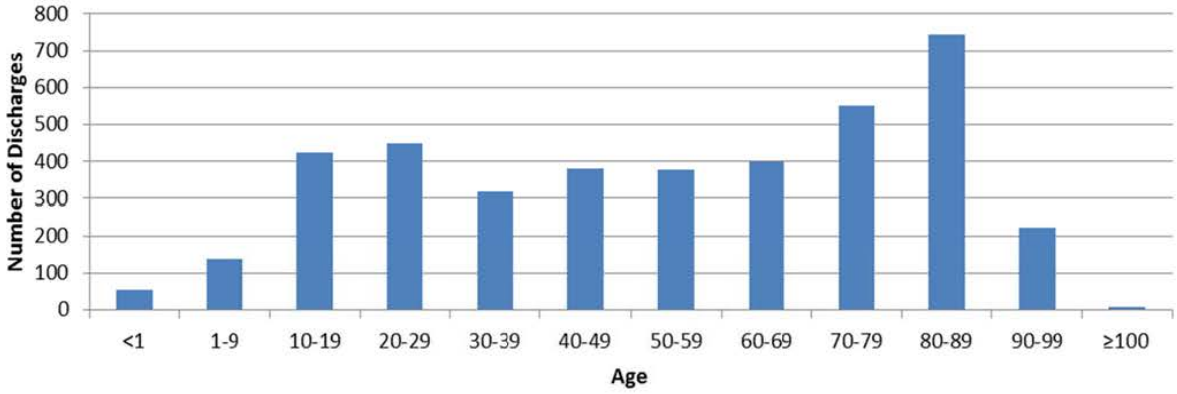


Figure 16. Hospital discharges from intracranial injury by age — SD, 2000-2011



Internal injury thorax, abdomen, pelvis (ICD-9: 860.00-869.19)

From 2000-2011, a total of 2320 hospital discharges were due to thorax, abdomen and pelvis injury. This yields an average of 193 discharges annually. Males were affected more than females (73% vs 27%). Rates of thorax, abdomen and pelvis injuries were higher in younger populations with 33% of cases coming from patients 10-29 years old. White race patients consisted of 75% of the hospitalizations and American Indian patients made up 17%. Thorax, abdomen and pelvis injuries in all populations may occur due to many reasons including traumatic accidents. Average length of hospital stay for a thorax abdomen and pelvis injuries was 6.3 days (SD=6.7).

Table 20. Gender of hospitalizations for thorax, abdomen or pelvis injury

Gender	Number	Percent
F	618	26.7%
M	1702	73.3%
Total	2320	100%

Table 21. Race of hospitalizations for thorax, abdomen or pelvis injury

Race	Number	Percent
American Indian	402	17.3%
White	1741	75.0%
Unknown	142	6.1%
Other	35	1.5%
Total	2320	100%

Figure 17. Hospital discharges from throax, abdomen, pelvis injury — SD, 2000-2011

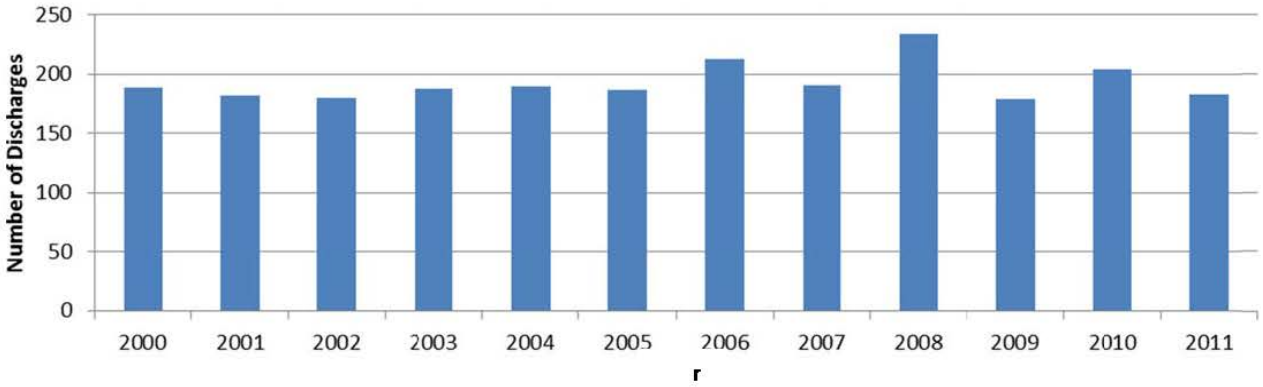
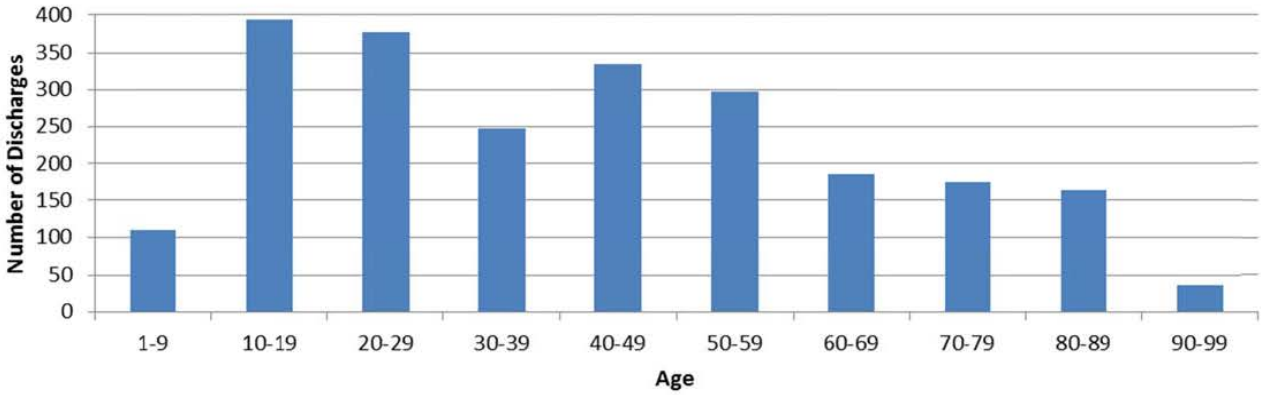


Figure 18. Hospital discharges from throax, abdomen, pelvis injury by age — SD, 2000-2011



Open Wound (ICD-9: 870.00-879.99)

From 2000-2011, a total of 959 hospital discharges were due to open wounds. This yields an average of 80 discharges annually. Males were affected more than females (67% vs 33%). Rates of open wound injuries were higher in younger populations with 33% of cases coming from patients 10-29 years old. Thirty-one percent of patients discharged for open wound injuries were American Indian and 60% were White. Open wound injuries in all populations may occur due to many reasons including traumatic accidents. Average length of hospital stay for open wound injuries was 3.0 days (SD=3.5).

Table 22. Gender of hospitalizations for open wound injury

Gender	Number	Percent
F	317	33.1%
M	642	66.9%
Total	959	100%

Table 23. Race of hospitalizations for open wound injury

Race	Number	Percent
American Indian	301	31.4%
White	576	60.1%
Unknown	53	5.5%
Other	29	3.0%
Total	959	100%

Figure 19. Hospital discharges from open wounds — SD, 2000-2011

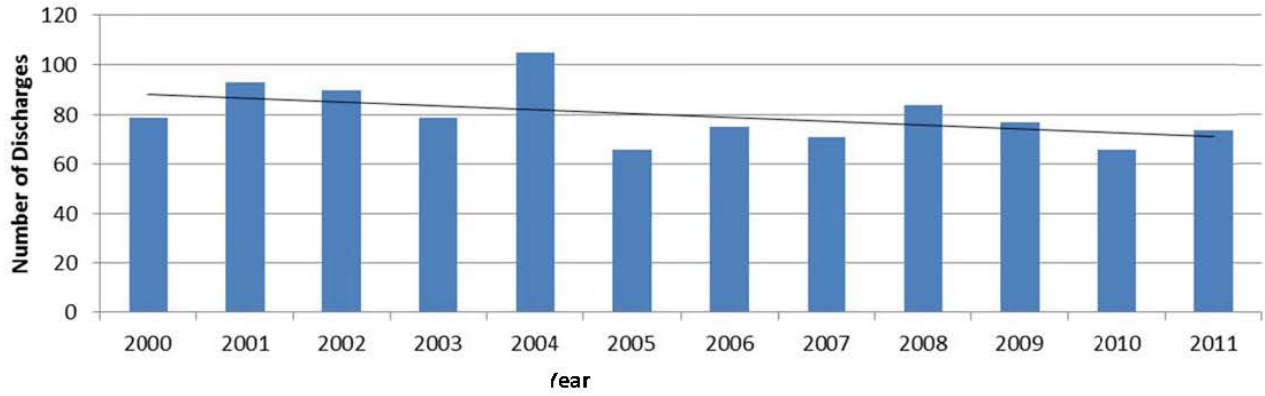
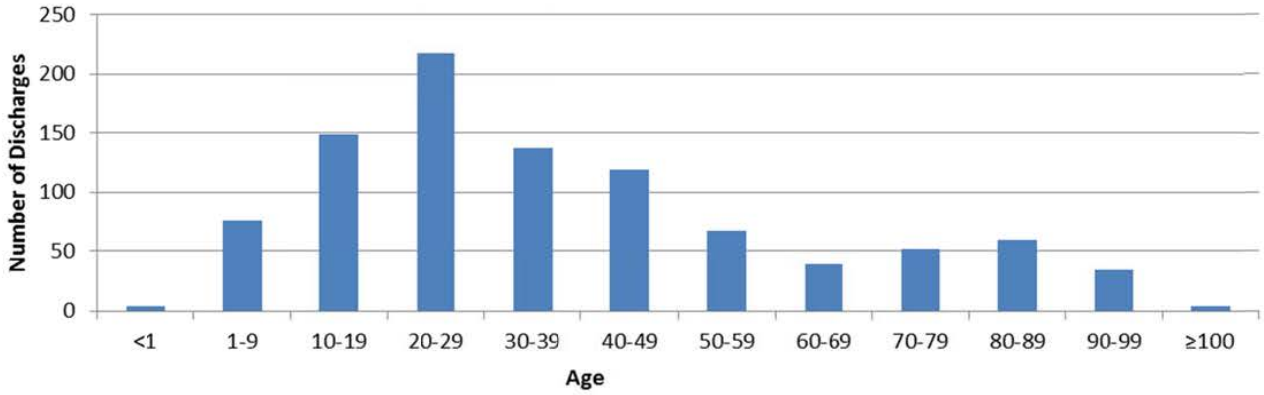


Figure 20. Hospital discharges from open wounds by age — SD, 2000-2011



Open Wound to Upper Limb (ICD-9: 880.00-887.79)

From 2000-2011, a total of 848 hospital discharges were due to open wound to upper limb. This yields an average of 71 discharges annually. Males were affected more than females (73% vs 26%). Rates of open wound to upper limb injuries were higher in younger populations with 26% of cases coming from patients 20-29 years old. White race patients made up 72% of discharges for open wound to upper limb injuries and 22% of patients were American Indian. Open wound to upper limb injuries in all populations may occur due to many reasons including work related or vehicle accidents. Average length of hospital stay for open wound to upper limb injuries was 2.8 days (SD=3.5).

Table 24. Gender of hospitalizations for open wound to upper limb

Gender	Number	Percent
F	226	26.7%
M	662	73.4%
Total	848	100%

Table 25. Race of hospitalizations for open wound to upper limb

Race	Number	Percent
American Indian	187	22.0%
White	608	71.7%
Unknown	40	4.7%
Other	13	1.5%
Total	848	100%

Figure 21. Hospital discharges from open wounds to upper limb — SD, 2000-2011

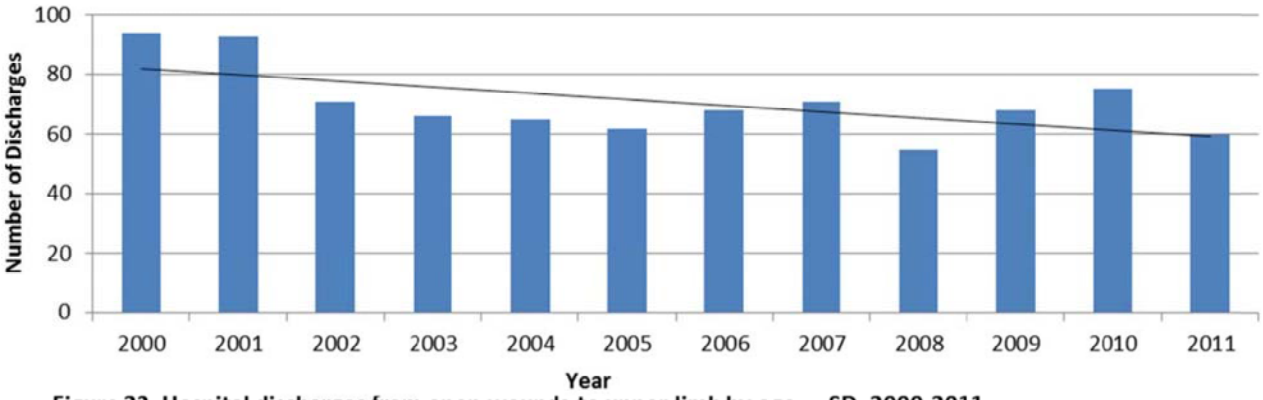
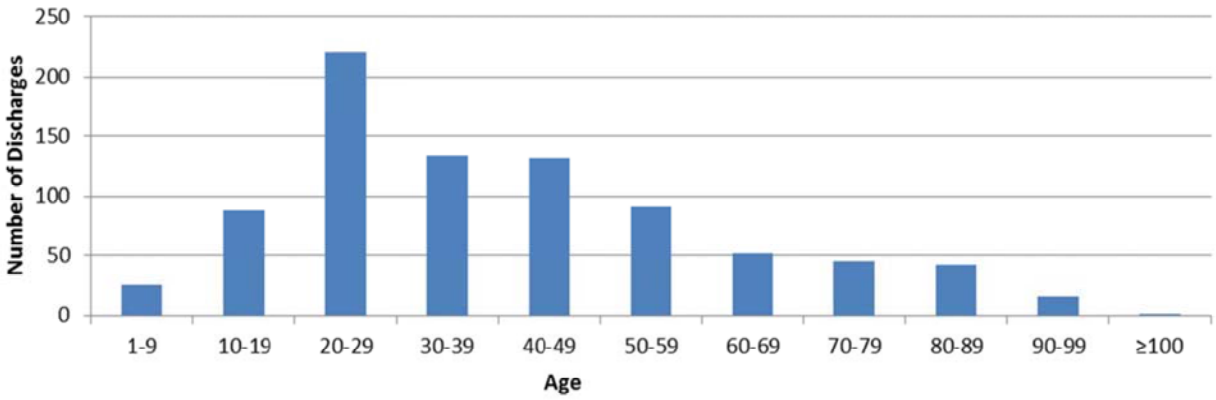


Figure 22. Hospital discharges from open wounds to upper limb by age — SD, 2000-2011



Open Wound to Lower Limb (ICD-9: 890.00-897.79)

From 2000-2011, a total of 540 hospital discharges were due to open wound to lower limb. This yields an average of 45 discharges annually. Males were affected more than females (55% vs 45%). Rates of open wound to lower limb injuries were higher in younger populations with 26% of cases coming from patients 20-29 years old. Open wound to lower limb injuries in all populations may occur due to many reasons including work related or vehicle accidents. Average length of hospital stay for open wound to lower limb injuries was 4.9 days (SD=5.8).

Table 26. Gender of hospitalizations for open wound to lower limb

Gender	Number	Percent
F	241	44.7%
M	299	55.3%
Total	540	100%

Table 27. Race of hospitalizations for open wound to lower limb

Race	Number	Percent
American Indian	93	17.2%
White	402	74.4%
Unknown	37	6.9%
Other	8	1.5%
Total	540	100%

Figure 23. Hospital discharges from open wounds to lower limb — SD, 2000-2011

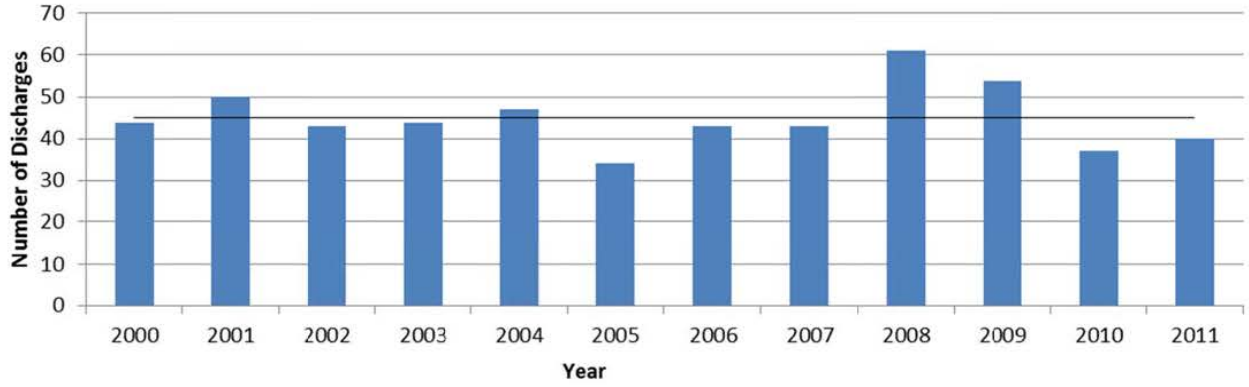
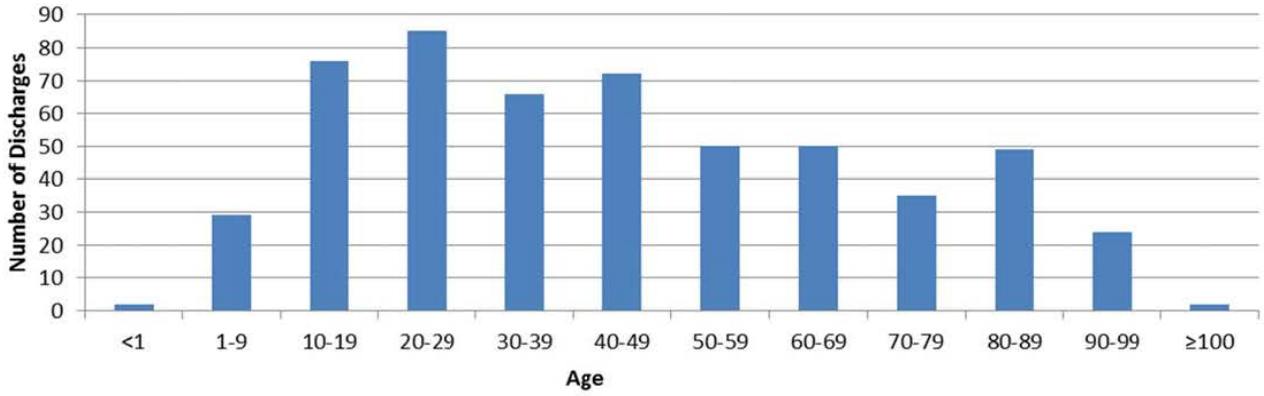


Figure 24. Hospital discharges from open wounds to lower limb by age — SD, 2000-2011



Injury to blood vessels (ICD-9: 900.00-904.99)

From 2000-2011, a total of 137 hospital discharges were due to injuries to blood vessels. This yields an average of 11 discharges annually. Males were affected more than females (80% vs 20%). Rates of injuries to blood vessels were higher in younger populations with 25% of cases coming from patients 20-29 years old. American Indian race patients made up 34% of hospitalizations for blood vessel injury and White race patients 58%. Blood vessel injuries in all populations may occur due to many reasons including work related or vehicle accidents. Average length of hospital stay for injury to blood vessels was 6.2 days (SD=9.7).

Table 28. Gender of hospitalizations for Injury to blood vessels

Gender	Number	Percent
F	27	20%
M	110	80%
Total	137	100%

Table 29. Race of hospitalizations for Injury to blood vessels

Race	Number	Percent
American Indian	46	33.6%
White	79	57.7%
Unknown	8	5.8%
Other	4	2.9
Total	137	100%

Figure 25. Hospital discharges from blood vessel injury — SD, 2000-2011

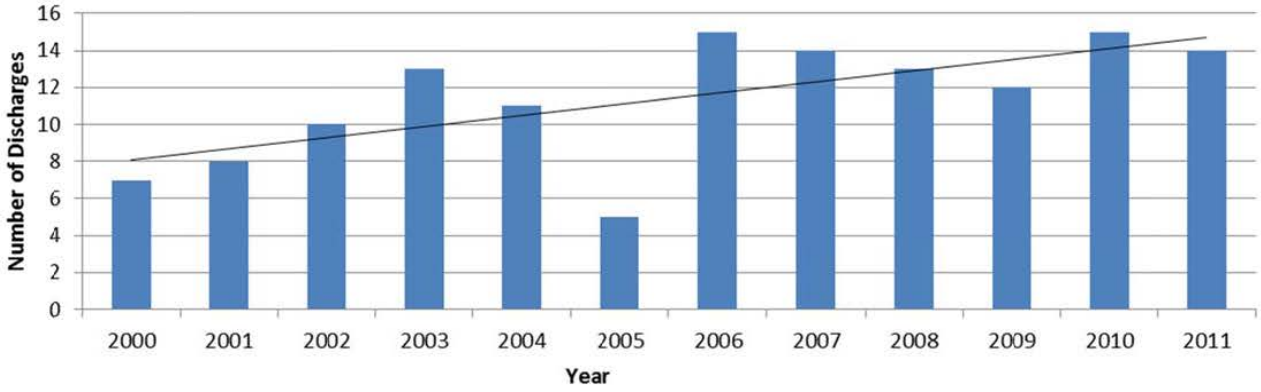
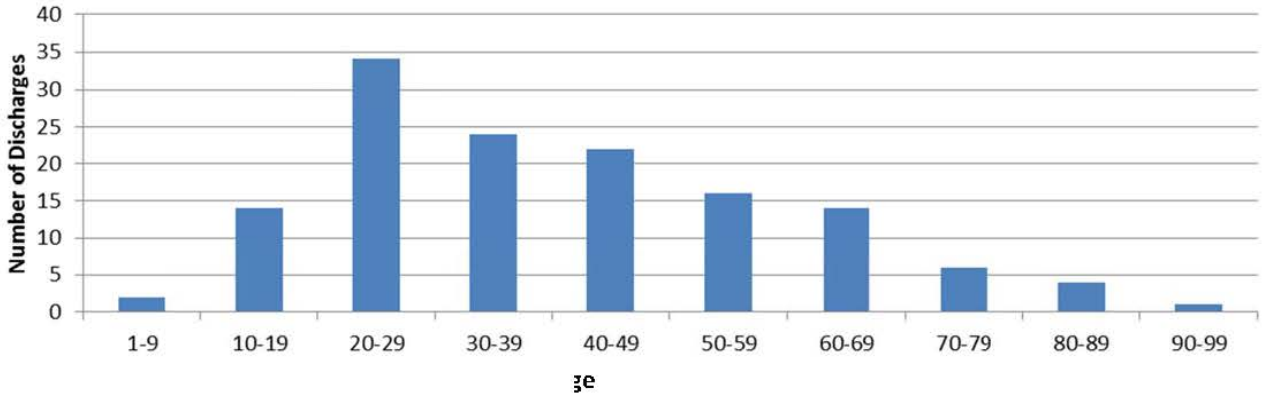


Figure 26. Hospital discharges from blood vessel injury by age — SD, 2000-2011



Late Effects of Injuries, Poisonings, Toxic Effects, and other External Causes (ICD-9 905.00-909.99)

From 2000-2011, a total of 45 hospital discharges were due to late effects of injuries, poisonings, toxic effects and other external causes giving an average of 3.8 discharges annually. The late effects due to injury include sequelae or any other condition appearing after the acute phase of a prior condition. Late effects can be caused by the acute condition directly or occur indirectly due to treatment. Males were slightly more affected more than females (56% vs 44%). Rates of late effects of injury were higher in older populations likely as a result of the comorbidities commonly associated with older populations. Average length of hospital stay for late effects of injury was 7.4 days (SD=12.0).

Table 30. Gender of hospitalizations for late effects

Gender	Number	Percent
F	20	44.4%
M	25	55.6%
Total	45	100%

Table 31. Race of hospitalizations for late effects

Race	Number	Percent
American Indian	7	15.6%
White	32	71.1%
Unknown	4	8.9%
Other	2	4.4%
Total	45	100%

Figure 27. Hospital discharges from late effects of injuries — SD, 2000-2011

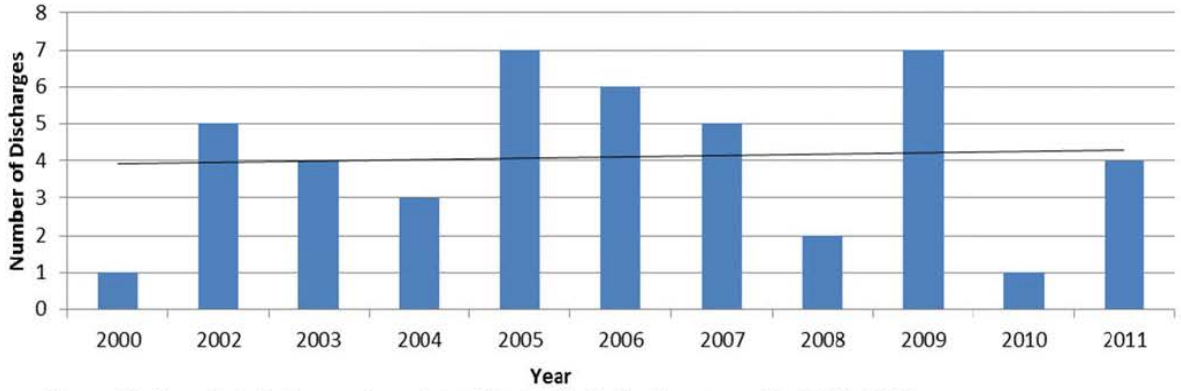
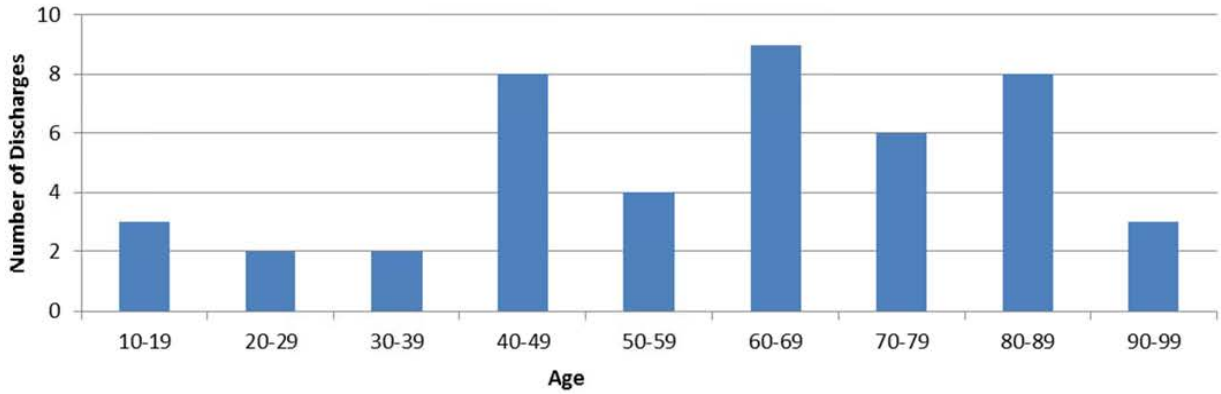


Figure 28. Hospital discharges from late effects of injuries by age — SD, 2000-2011



Superficial Injury (ICD-9: 910.00-919.99)

From 2000-2011, a total of 137 hospital discharges were due to superficial injury. This yields an average of 11 discharges annually. Males were slightly more affected than females (55% vs 45%). Rates of superficial injury were higher in younger populations with 30% of cases coming from patients 1-19 years old. Superficial injuries in all populations may occur due to many reasons including accidents or insect bite resulting in blisters or abrasions. Average length of hospitalization stay for superficial injury was 3.2 days (SD=3.4).

Table 32. Gender of hospitalizations for superficial injury

Gender	Number	Percent
F	67	45%
M	76	55%
Total	137	100%

Table 33. Race of hospitalizations for superficial injury

Race	Number	Percent
American Indian	29	21.2%
White	97	70.1%
Unknown	9	6.6%
Other	2	1.5%
Total	137	100%

Figure 29. Hospital discharges from superficial injury — SD, 2000-2011

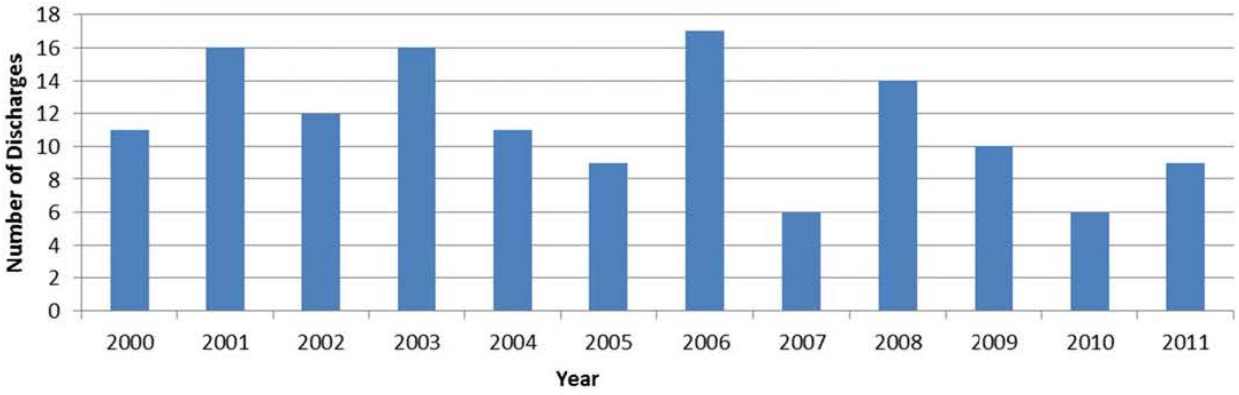
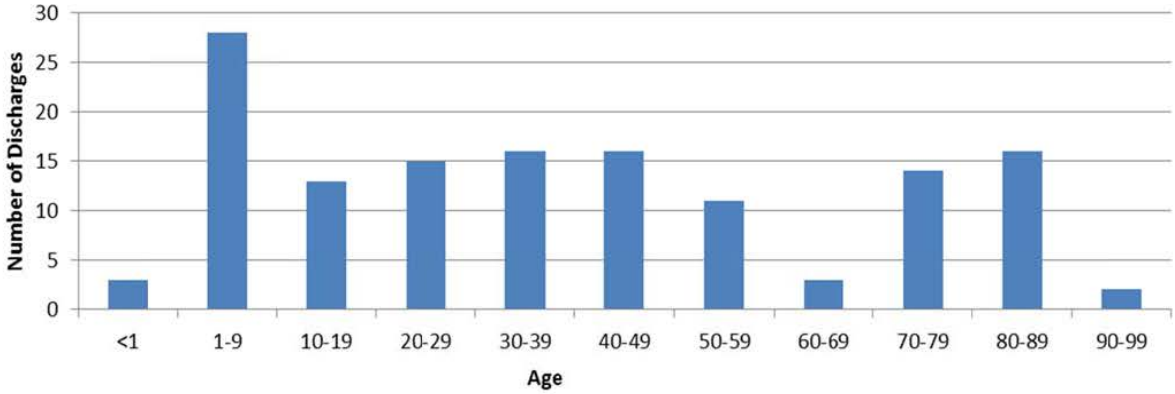


Figure 30. Hospital discharges from superficial injury by age — SD, 2000-2011



Contusion with Intact Skin Surface (ICD-9 910.00-919.99)

From 2000-2011, a total of 1375 hospital discharges were due to contusion injuries. This yields an average of 115 discharges annually. Females were more affected than males (62% vs 38%). Rates of contusion injuries were significantly higher in older populations with 63% of cases coming from patients 70 years old and above. Contusion injuries in all populations may occur due to many reasons including accidental falls especially in older populations. Average length of hospital stay for contusion injuries was 3.4 days (SD=2.7).

Table 34. Gender of hospitalizations for contusion injuries

Gender	Number	Percent
F	848	61.7%
M	527	38.3%
Total	1375	100%

Table 35. Race of hospitalizations for contusion injuries

Race	Number	Percent
American Indian	145	10.6%
White	1107	80.5%
Unknown	110	8.0%
Other	13	1%
Total	1375	100%

Figure 31. Hospital discharges from contusion injuries — SD, 2000-2011

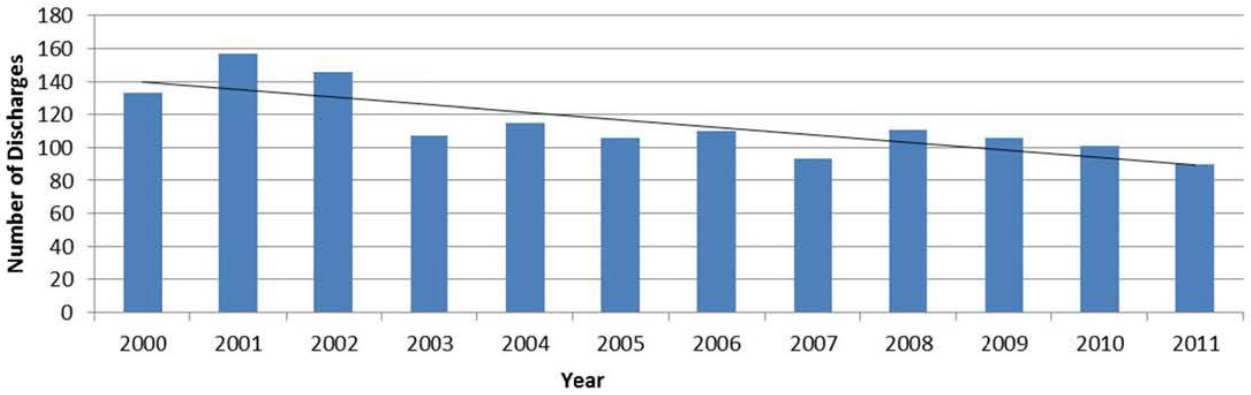
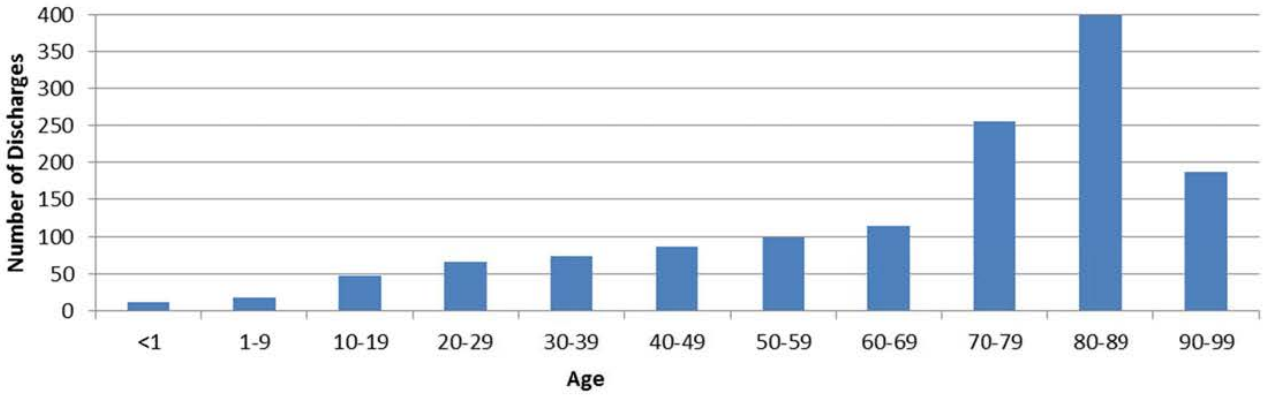


Figure 32. Hospital discharges from contusion injury — SD, 2000-2011



Crushing Injury (ICD-9 910.00-919.99)

From 2000-2011, a total of 156 hospital discharges were due to crush injuries. This yields an average of 13 discharges annually. Males were significantly more affected than females (86% vs 14%). Rates of crush injuries were significantly higher in the working age populations with 67% of cases coming from patients in the 20-59 years old age group. Crush injuries in all populations commonly occur from work or vehicle related accident. Patients with crush injuries can have multiple associated injuries including fractures and internal injuries. Average length of hospital stay for crush injuries was 4.0 days (SD=5.0).

Table 36. Gender of hospitalizations for crush injury

Gender	Number	Percent
F	22	14.1%
M	134	85.9%
Total	156	100%

Table 37. Race of hospitalizations for crush injury

Race	Number	Percent
American Indian	12	7.7%
White	129	82.7%
Unknown	13	8.3%
Other	2	1.3%
Total	156	100%

Figure 33. Hospital discharges from crushing injury — SD, 2000-2011

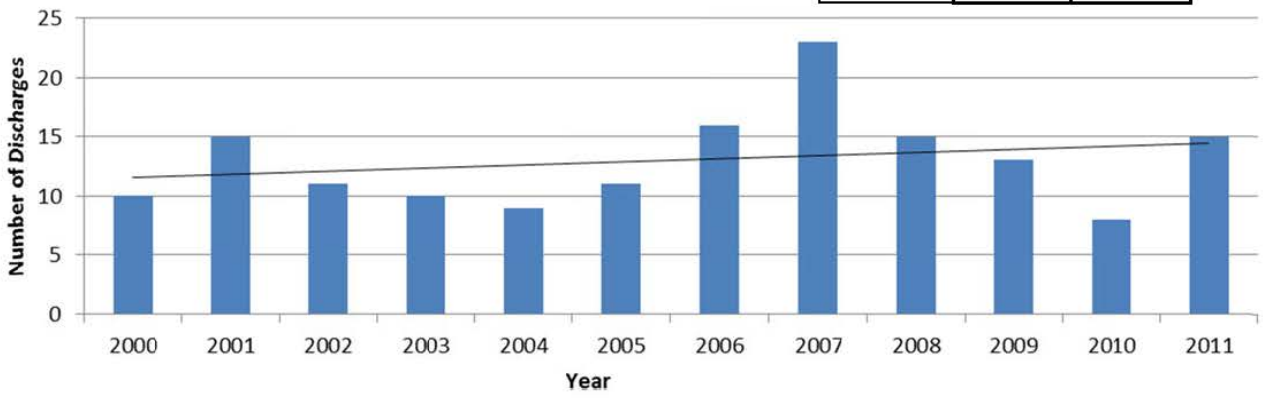
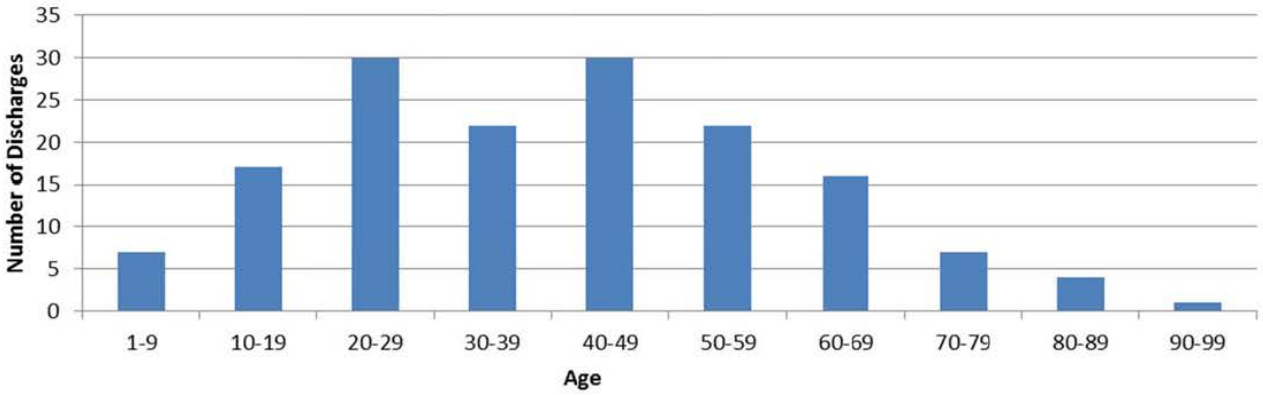


Figure 34. Hospital discharges from crushing injury by age — SD, 2000-2011



Effects of Foreign Body Entering through Orifice (ICD-9 930.00-939.99)

From 2000-2011, a total of 378 hospital discharges were due to foreign body injuries. This yields an average of 32 discharges annually. Males were more affected than females (57% vs 43%). Rates of foreign body injuries were higher in the youngest and oldest populations. Foreign body injuries, like choking, in the youngest and oldest populations are often preventable by improved supervision and education. Average length of hospital stay for foreign body injuries was 3.6 days (SD=6.0).

Table 38. Gender of hospitalizations for foreign body injuries

Gender	Number	Percent
F	161	42.6%
M	217	57.4%
Total	378	100%

Table 39. Race of hospitalizations for foreign body injuries

Race	Number	Percent
American Indian	51	13.5%
White	308	81.5%
Unknown	17	4.5%
Other	2	0.5%
Total	378	100%

Figure 35. Hospital discharges from foreign body injury — SD, 2000-2011

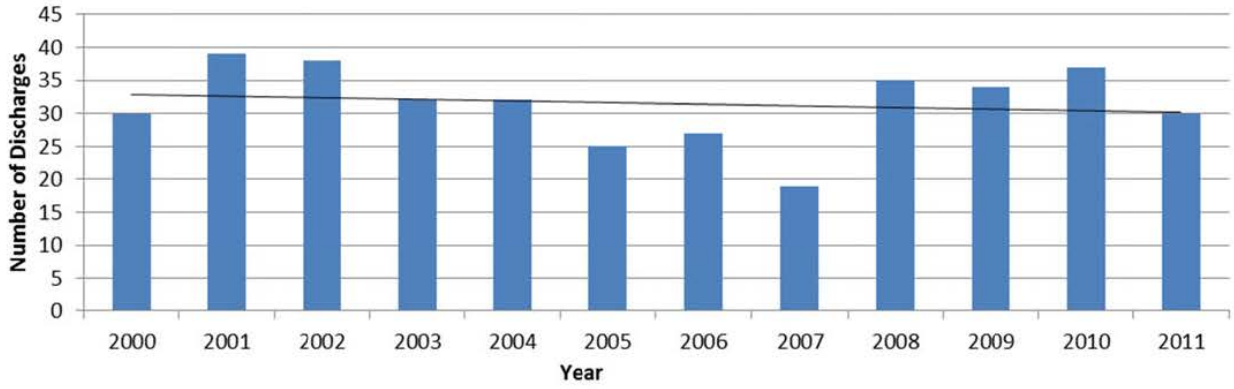
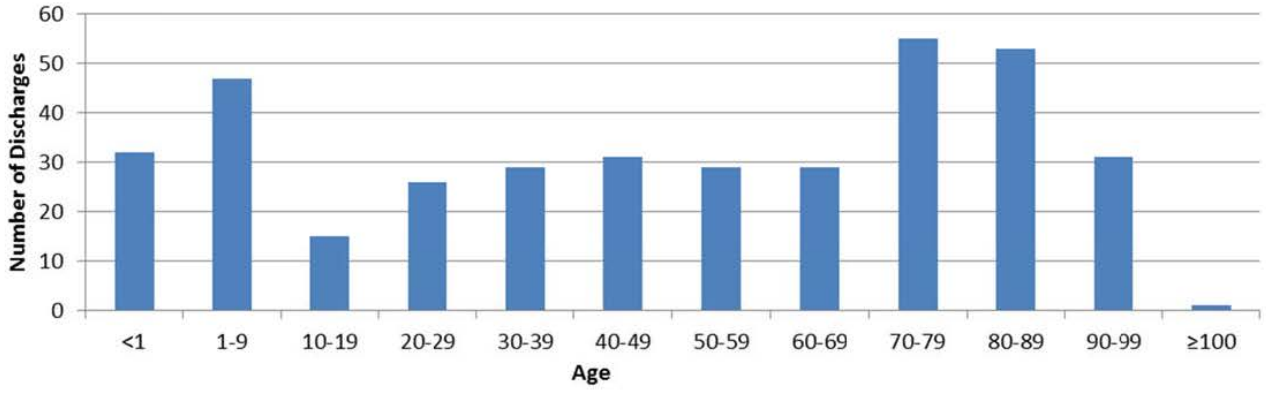


Figure 36. Hospital discharges from foreign body injury by age — SD, 2000-2011



Burns (ICD-9: 940.00-949.949)

From 2000-2011, a total of 668 hospital discharges were due to burn injuries. This yields an average of 56 discharges annually. Males were significantly more affected than females (72% vs 28%). Rates of burn injuries were higher in the youngest populations with 19% of cases coming from patients under 9 years old. White race patients made up 71% of discharges for burns and American Indian patients consisted of 17% of the patient population. Average length of hospital stay for burns was 7.7 days (SD=9.7). An important component of the trauma system is providing patient education on improved care for severely injured patients. Further, the trauma system is also designed to educate on ways to prevent injury.

Table 40. Gender of hospitalizations for burn injuries

Gender	Number	Percent
F	118	28.1%
M	480	71.9%
Total	668	100%

Table 41. Race of hospitalizations for burn injuries

Race	Number	Percent
American Indian	113	16.9%
White	476	71.3%
Unknown	63	9.4%
Other	16	2.4%
Total	668	100%

Figure 37. Hospital discharges from burns — SD, 2000-2011

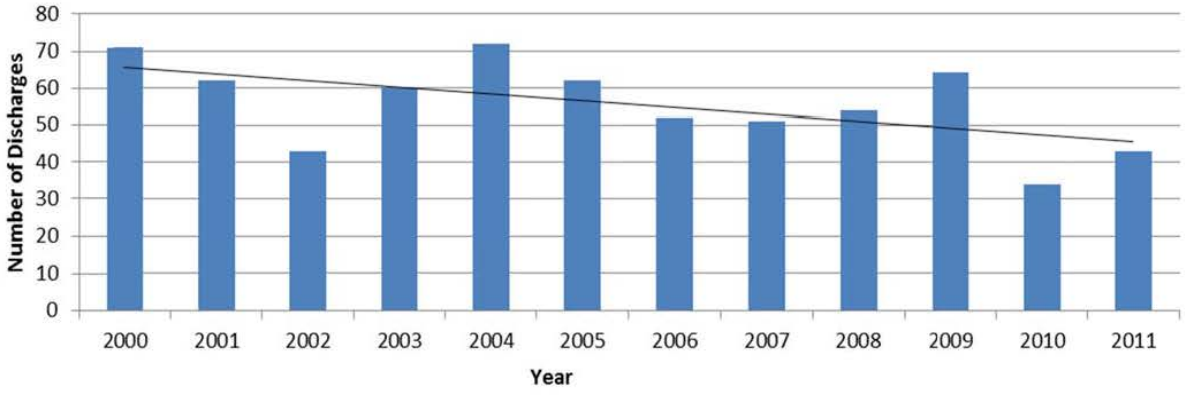
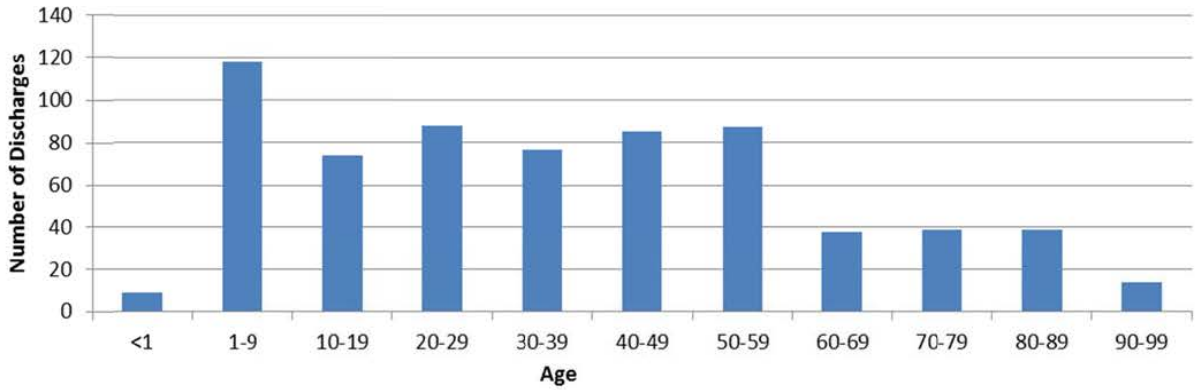


Figure 38. Hospital discharges from burns by age — SD, 2000-2011



Injury to Nerves, Spinal Cord (ICD-9: 950.00-957.99)

From 2000-2011, a total of 156 hospital discharges were due to nerve and spinal cord injuries. This yields an average of 13 discharges annually. Males were more affected than females (73% vs 27%). Rates of nerves and spinal cord injuries were higher in age groups 10-59 as compared to 60 years and older. Nerves and spinal cord injuries in all age groups result from accidents, some of which are preventable. An important component of the trauma system is providing patient education about ways to prevent common injuries especially when those injuries are more prevalent in certain parts of the population. Average length of hospital stay for nerve and spinal cord injuries was 4.7 days (SD=6.4).

Table 42. Gender of hospitalizations for nerve and spinal cord injuries

Gender	Number	Percent
F	42	27%
M	114	73%
Total	156	100%

Table 43. Race of hospitalizations for nerve and spinal cord injuries

Race	Number	Percent
American Indian	32	20.5%
White	116	74.4%
Unknown	7	4.5%
Other	1	0.6%
Total	156	100%

Figure 39. Hospital discharges from nerve and spinal cord injury — SD, 2000-2011

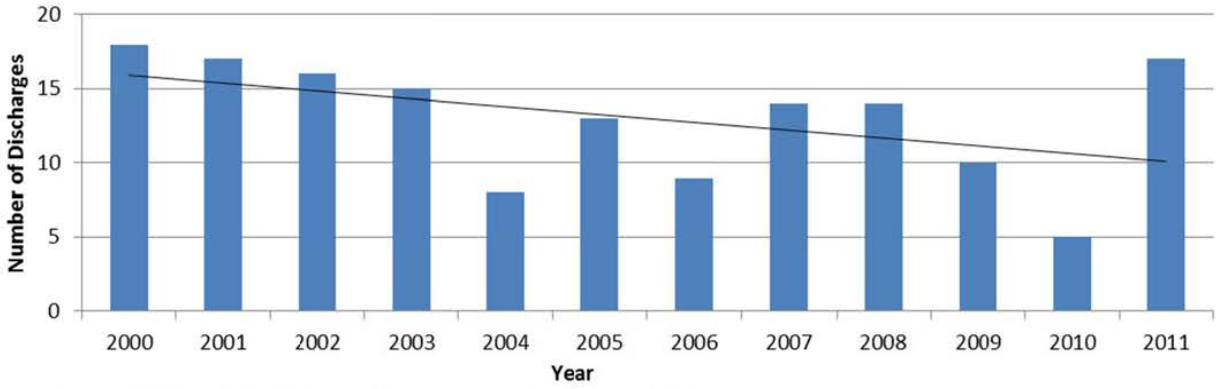
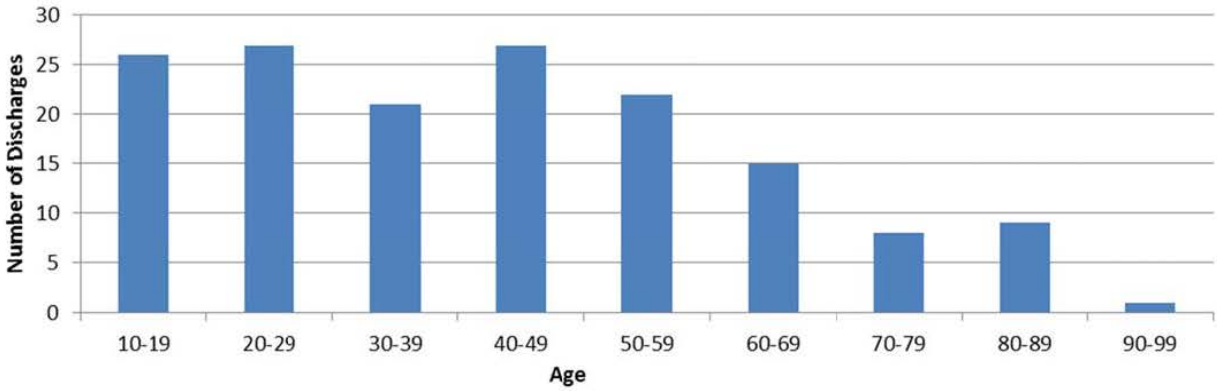


Figure 40. Hospital discharges from nerve and spinal cord injury by age — SD, 2000-2011



Traumatic Complications and Unspecified Injuries (ICD-9: 958.00-959.99)

From 2000-2011, a total of 1015 hospital discharges were due to traumatic complications. This yields an average of 156 discharges annually. Males were slightly more affected than females (53% vs 48%). Rates of traumatic complications were higher in older populations with 28% of patients 80 years old and older. Traumatic complications in all age groups include traumatic related emboli, recurrent hemorrhage, traumatic shock and compartment syndrome. Traumatic complications are often a result of severe traumatic injury with associated injuries. Providing rapid, optimal care to traumatically injured patients is an important component of the trauma system.

Average length of hospital stay for traumatic complications was 3.5 days (SD=4.3).

Table 44. Gender of hospitalizations for traumatic complications

Gender	Number	Percent
F	482	47.5%
M	533	52.5%
Total	1015	100%

Table 45. Race of hospitalizations for traumatic complications

Race	Number	Percent
American Indian	164	16.2%
White	780	76.9%
Unknown	61	6%
Other	10	1%
Total	1015	100%

Figure 41. Hospital discharges from traumatic complications — SD, 2000-2011

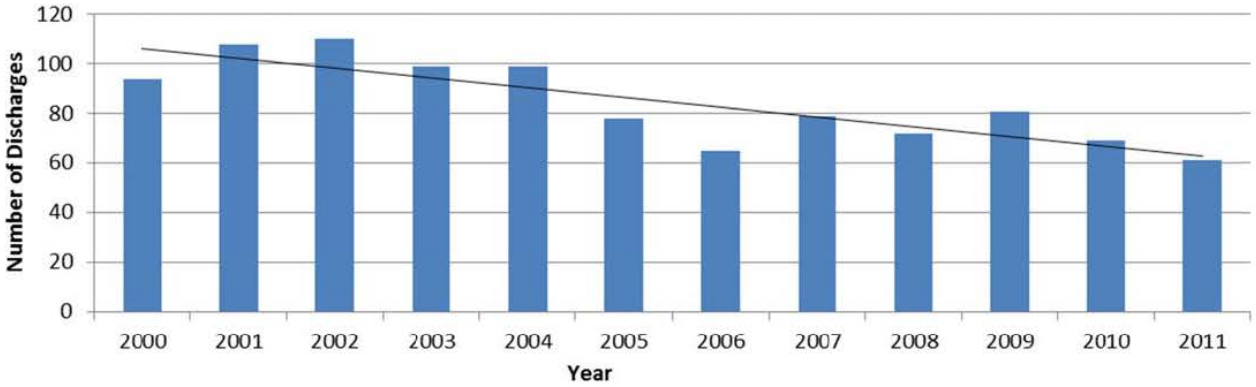
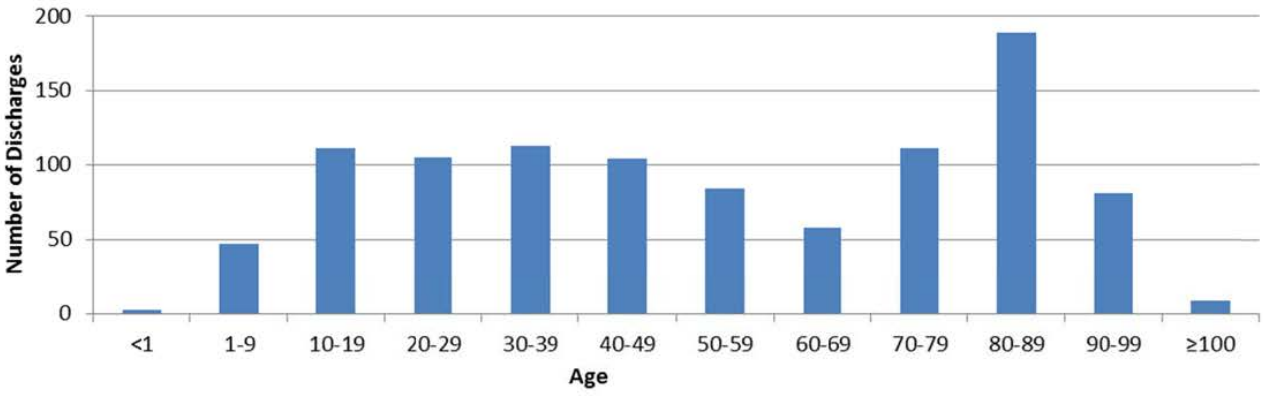


Figure 42. Hospital discharges from traumatic complications by age — SD, 2000-2011



Deaths from Injury 2007-2011 (ICD-10: V00-Y99)

From 2007-2011, a total of 2695 deaths in South Dakota occurred as a result of traumatic injury. This yields an average of 539 annually. Males were more affected than females (67% vs 33%) (Table 46). Seventy-eight percent of trauma related deaths were in White population while 21% were American Indian (Table 47). International Classification of Disease 10th edition (ICD-10) codes were used to group traumatic injury into *vehicle accidents* (V00-V89) and *other traumatic accidents* (V90-Y99).

Figure 43. Trauma related deaths by gender, SD, 2007-2011

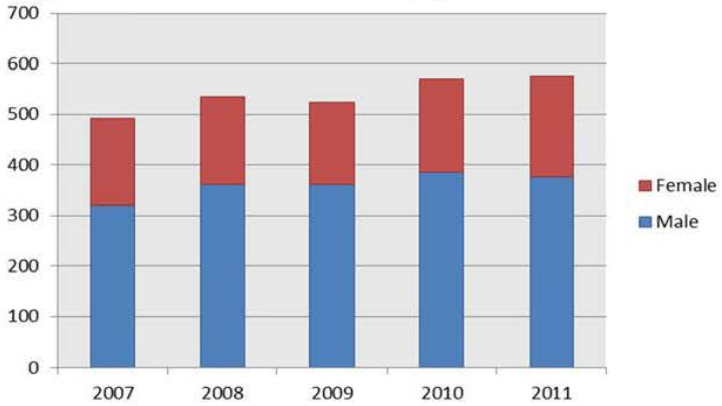


Table 46. Gender of trauma related death, 2007-2011

Gender	Number	Percent
F	889	33%
M	1806	67%
Total	2695	100%

Figure 44. Trauma related deaths by age group, SD, 2007-2011

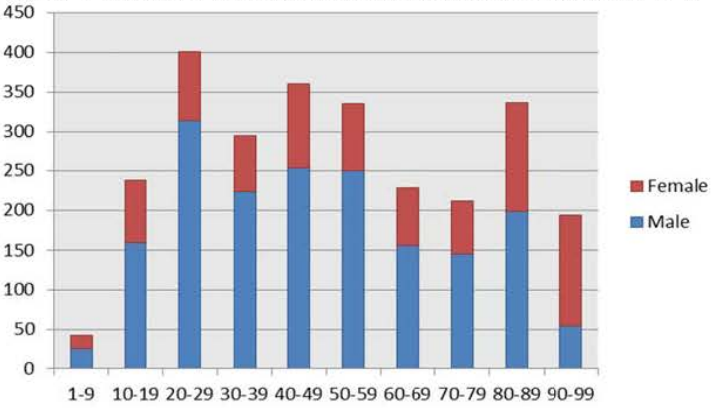


Table 47. Race for trauma related death

Race	Number	Percent
American Indian	568	21.1%
White	2092	77.6%
Unknown	4	0.2%
Other	31	1.2%
Total	1015	100%

Figure 44 shows the distribution of deaths from traumatic injuries in various age groups from 2007-2011. Ages 20-29 had the highest rates of death from traumatic injury over the five years with 401 injuries.

Figure 45. Type of accident by year, SD, 2007-2011

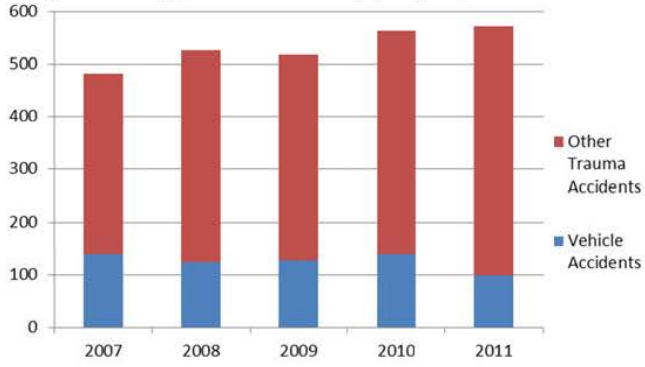
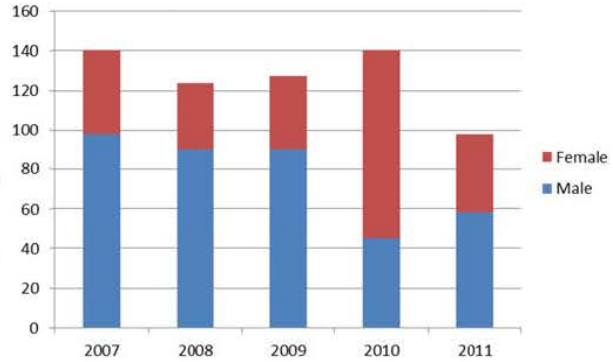


Figure 46. Vehicle accidents by gender, SD, 2007-2011



Author: Collin Michels, South Dakota Department of Health

South Dakota Department of Health – Infectious Disease Surveillance

Selected Morbidity Report, 1 January – 30 April 2013

(provisional numbers) see http://doh.sd.gov/ID/site.aspx

	Disease	2013 year-to-date	5-year median	Percent change
Vaccine-Preventable Diseases	Diphtheria	0	0	n/a
	Tetanus	0	0	n/a
	Pertussis	9	6	+50%
	Poliomyelitis	0	0	n/a
	Measles	0	2	n/a
	Mumps	0	2	n/a
	Rubella	0	0	n/a
	Haemophilus influenza type b	0	0	n/a
Sexually Transmitted Infections and Blood-borne Diseases	HIV infection	16	7	+129%
	Hepatitis B, acute	1	1	n/a
	Chlamydia	1,305	1,028	+27%
	Gonorrhea	189	129	+47%
	Syphilis, early	4	0	n/a
Tuberculosis	Tuberculosis	3	5	-40%
Invasive Bacterial Diseases	Meningococcal, invasive	3	1	+200%
	Invasive Group A *Streptococcus*	0	0	n/a
Enteric Diseases	*E. coli*, Shiga toxin-producing	5	6	-17%
	Campylobacteriosis	46	58	-21%
	Salmonellosis	46	38	+21%
	Shigellosis	2	1	+100%
	Giardiasis	22	26	-15%
	Cryptosporidiosis	25	28	-11%
	Hepatitis A	0	1	n/a
Vector-borne Diseases	Animal Rabies	9	11	-18%
	Tularemia	0	0	n/a
	Rocky Mountain Spotted Fever	1	2	-50%
	Malaria (imported)	1	0	+100%
	Hantavirus Pulmonary Syndrome	1	0	+100%
	Lyme disease	4	1	+300%
	West Nile Virus disease	0	0	n/a
Other Diseases	Legionellosis	2	1	+100%
	Streptococcus pneumonia, invasive	50	40	+25%
	Additionally, the following were reported: Chicken Pox (11); Dengue Fever (1); Haemophilus influenza (1); Hepatitis B, chronic (17); MRSA, invasive (36); Typhoid (2).			

Communicable diseases are obligatorily reportable by physicians, hospitals, laboratories, and institutions. The **Reportable Diseases List** is found at http://doh.sd.gov/Disease/report.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".

Reportable Diseases – South Dakota 2013

Effective 1 July 2013

+Category I diseases: *Report immediately* on suspicion of disease
Category II diseases: Report within 3 days
★Send isolate to SD Public Health Laboratory

+Anthrax (*Bacillus anthracis*★)
Anaplasmosis (*Anaplasma phagocytophilum)*
Arboviral encephalitis, meningitis and **infection** (West Nile, St. Louis, Eastern equine, Western equine, California, Japanese, Powassan, LaCrosse)
Babesiosis (*Babesia spp*)
+Botulism (*Clostridium botulinum*)
+Brucellosis (*Brucella species*★)
Campylobacteriosis (*Campylobacter species*)
Chancroid (*Haemophilus ducreyi*)
Chicken pox/Varicella (*Herpesvirus*)
Chlamydia infections (*Chlamydia trachomatis*)
Cholera (*Vibrio cholerae*)
Cryptosporidiosis (*Cryptosporidium parvum*)
Cyclosporiasis (*Cyclospora cayetanensis*)
Dengue viral infection (*Flavivirus*)
+Diphtheria (*Corynebacterium diphtheriae*★)
Drug resistant organisms:
- **Carbapenem-resistant *Enterobacteriaceae*** (CRE)
- **Methicillin-resistant *Staphylococcus aureus*** (MRSA), invasive
- **Vancomycin–intermediate** (VISA) and **–resistant** (VRSA)★***Staphylococcus aureus***

+*E. coli*, shiga toxin-producing (*Escherichia coli*★), includes *E. coli O157:H7, O26, O111, O103* and others.
Ehrlichiosis (*Ehrlichia species*)
+Influenza, novel strains★
Influenza: including hospitalizations, deaths, lab confirmed cases (culture, DFA, PCR), weekly aggregate totals of rapid antigen positive (A and B) and total tested
Giardiasis (*Giardia lamblia / intestinalis)*
Gonorrhea (*Neisseria gonorrhoeae*)
***Haemophilus influenzae* type b**★**,** invasive
Hantavirus pulmonary syndrome (*Hantavirus*)
Hemolytic uremic syndrome
Hepatitis, viral, acute **A, B** and **C**; chronic **B** and **C**; and perinatal **B**

Human immunodeficiency virus (HIV) infection, also including:
- Stage III, Acquired immunodeficiency syndrome, (AIDS)
- CD4 counts in HIV infected persons,
- HIV viral loads, and
- pregnancy in HIV infected females

Legionellosis (*Legionella species*)
Leprosy/Hansen's disease (*Mycobacterium leprae)*
Listeriosis (*Listeria monocytogenes*★)
Lyme disease (*Borrelia burgdorferi*)
Malaria (*Plasmodium species*)
+Measles (*Paramyxovirus*)
+Meningococcal disease, invasive (*Neisseria meningitidis*★)
Mumps (*Paramyxovirus*)
Pertussis (Whooping cough) (*Bordetella pertussis*)
+Plague (*Yersinia pestis*★)
+Poliomyelitis, paralytic and nonparalytic (*Poliovirus*)
Psittacosis (*Chlamydophila psittaci*)
Q fever (*Coxiella burnetii*)
+Rabies, human and animal (*Rhabdovirus*)
Rocky Mountain spotted fever (*Rickettsia rickettsii*)
+Rubella and congenital rubella syndrome (*Togavirus*)
+SARS (Severe Acute Respiratory Syndrome, *Coronavirus*)
Salmonellosis (*Salmonella species*★)
Shigellosis (*Shigella species*★)
+Smallpox (*Variola*★)
***Streptococcus pneumoniae*,** invasive

Syphilis (*Treponema pallidum*) including primary, secondary, latent, early latent, late latent, neurosyphilis, late non-neurological, stillbirth, and congenital
Tetanus (*Clostridium tetani*)
Toxic shock syndrome (Streptococcal and non-Streptococcal)
Transmissible spongiform encephalopathies, such as Creutzfeldt-Jakob disease
Trichinosis (*Trichinella spiralis*)
Tuberculosis, active disease (*Mycobacterium tuberculosis*★ *or Mycobacterium bovis*★);
Tuberculosis, latent infection (in certain high risk persons: foreign-born <5 yrs in US, close contacts, diabetes, renal dialysis, children <5 yrs, and certain medical conditions)
+Tularemia (*Francisella tularensis*★)
Typhoid (*Salmonella typhi*★)
Vaccine Adverse Events
+Viral Hemorrhagic Fevers (Filoviruses, Arenaviruses)
+Yellow fever (*Flavivirus*)

+Outbreaks of:
+Acute upper respiratory illness;
+Diarrheal disease;
+Foodborne disease;
+Healthcare-associated infections;
+Illnesses in child care setting;
+Rash illness;
+Waterborne disease.

+Syndromes suggestive of **bioterrorism** and other **public health threats**
+Unexplained illnesses or **deaths** in human or animal

The South Dakota Department of Health is authorized by SDCL 34-22-12 and ARSD 44:20 to collect and process mandatory reports of communicable diseases by physicians, hospitals, laboratories, and other institutions.

How to report:

Secure website: sd.gov/diseasereport
Telephone: 605-773-3737 or **800-592-1861** for communicable disease staff person during business hours, or **800-592-1804** confidential answering device,
After hours emergency Category I diseases, call **605-773-3737** or **800-592-1861**
Fax: 605-773-5509
Mail or **courier** to: Infectious Disease Surveillance, Department of Health, 615 East 4th Street, Pierre, SD 57501; marked *"Confidential Disease Report"*

What to report: Reports must include as much of the following as known:
- Disease or condition,
- Date of disease onset,
- Relevant lab results & specimen collect date,
- Case name, age, birth date, sex, race, address, occupation,
- Attending physician's name, address and phone number,
- Name and phone number of person making report.

SOUTH DAKOTA DEPARTMENT OF HEALTH

CANCER (SDCL 1-43-14) Report to SD Cancer Registry, call 800-738-2301

South Dakota
GREAT FACES. GREAT PLACES.