

Hospital Discharge Survey, South Dakota, 2000-2009

This report summarizes a decade of South Dakota hospital discharge data from 2000 through 2009. These inpatient data are presented as numbers, percentages and population-based rates for the overall state, four geographic sub-regions, gender, race groups and age groups.

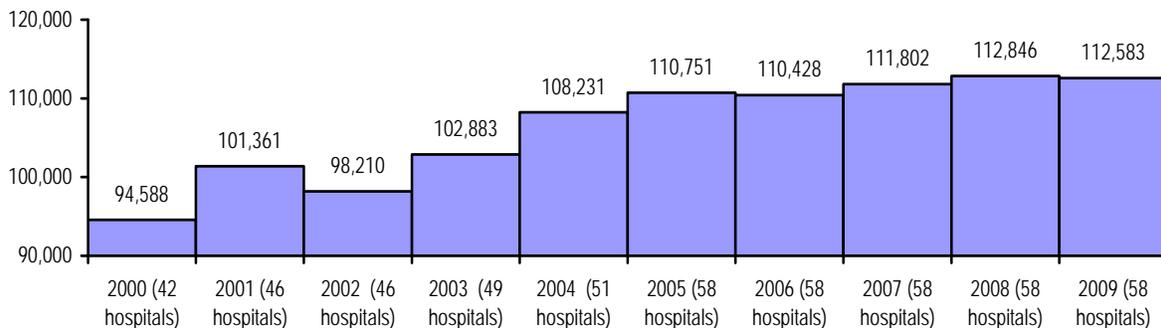
The principal diagnosis hospital discharge data were collected, coded and submitted by South Dakota community and specialty hospitals to the South Dakota Association of Healthcare Organizations (SDAHO). The data were purchased by the South Dakota Department of Health from SDAHO including admission date, age, sex race, county of residence, and diagnosis codes grouped by principal diagnosis based on the International Classification of Diseases 9th Revision (ICD-9). 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, and neither did the South Dakota Human Services Center. South Dakota residents who were hospitalized out of state are not included. The data analysis is done by the South Dakota Department of Health using SAS Enterprise Guide (Version 4.2, SAS Institute, Inc., Cary, NC).

The 4 regions include the following counties which are grouped according to patient county-of-residence and the rates were calculated using the 2009 population estimates as denominators:

1. **Northeast** (population 199,771; 25%): Beadle, Brookings, Brown, Campbell, Clark, Codington, Day, Deuel, Edmunds, Faulk, Grant, Hamlin, Hand, Hughes, Hyde, Kingsbury, Marshall, McPherson, Potter, Roberts, Spink, Sully, Walworth.
2. **Northwest** (population 78,166; 10%): Corson, Butte, Dewey, Haakon, Harding, Lawrence, Meade, Perkins, Stanley, Ziebach.
3. **Southeast** (population 376,092; 46%): Aurora, Bon Homme, Brule, Buffalo, Charles Mix, Clay, Davison, Douglas, Gregory, Hanson, Hutchinson, Jerauld, Lake, Lincoln, McCook, Miner, Minnehaha, Moody, Sanborn, Turner, Union, Yankton.
4. **Southwest** (population 158,354; 19%): Bennett, Custer, Fall River, Jackson, Jones, Lyman, Mellette, Pennington, Shannon, Todd, Tripp.



Figure 1. Number of principal hospital discharges reported, South Dakota, 2000-2009



In the decade 2000-2009 there were 1,063,683 principal hospital discharges, including newborns, reported. Of these 86% were residents of South Dakota and 14% were residents of other states who received health care in South Dakota hospitals. The hospitalization numbers ranged from

94,588 in 2000 to 112,846 in 2008 (Figure 1). During the decade the number of hospitals reporting increased from 42 hospitals in 2000 to 58 in 2005 and thereafter.

The overall discharge rate was 11,284 per 100,000 population per year for South Dakota residents. Fifty-nine percent of the hospitalizations were of female patients and 41% male patients. Females had higher hospitalization rates than males in all disease groups, except congenital anomalies, conditions in the perinatal period, and diseases of the circulatory system.

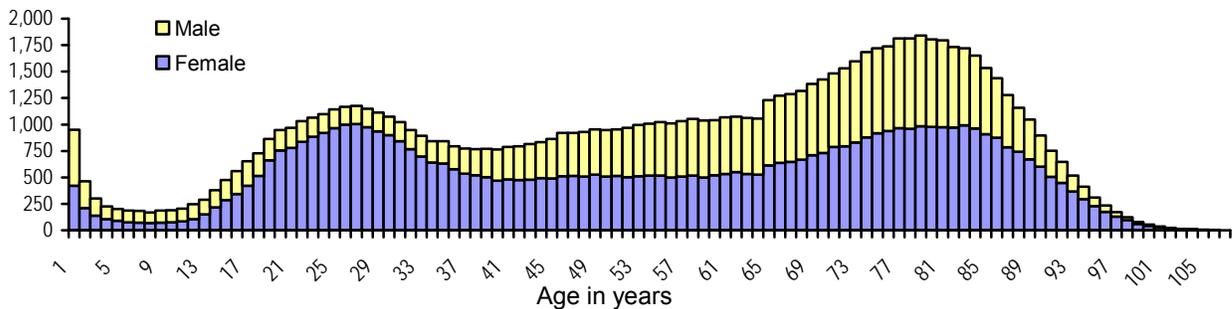
Eighty-one percent of hospitalizations were White race patients, 8% American Indian patients, and less than 1% for any of the other race groups, but 9% of patient’s race were unknown or not reported (Table 1). The rate of American Indian patients is not representative of the full state, since Indian Health Service hospitals did not submit discharge data.

Table 1. Race of hospitalizations, South Dakota, 2000-2009

Race	Number	Percent
White	864,623	81%
American Indian	87,798	8%
African American / Black	6,745	<1%
Asian	3,589	<1%
Hispanic of any Race	798	<1%
Hawaiian/Pacific Islander	11	<1%
Multiracial	821	<1%
Declined	20	<1%
Unknown	99,278	9%
TOTAL	1,063,683	100%

The hospitalization numbers vary by life-stage of the patients (Figure 2 and Table 2). The first year of life has the most hospitalizations with 12% overall and an average of 12,836 per year (infants <1 year not shown in Figure 2). The first day of life (i.e., birth day) accounted 111,057 hospitalizations, which were 10% of all hospitalizations, and 86% of first-year hospitalizations. The elderly age group, 65 years and older, account for 40% of all hospitalizations, followed by middle age adults ages 40-64 years accounting for 22% of hospitalizations.

Figure 2. Average annual hospitalizations by age and sex, South Dakota, 2000-2009 (infants <1 yr not included)



Males were hospitalized at a higher rate than females from birth through age 12 years, thereafter female hospitalization was higher in all age groups, especially during the peak childbearing period, 18-38 years, when the female hospitalization rates were double to nearly six-times the male hospitalization rates. The female hospitalizations were also highly increased over males in the advanced elderly group, 90+ years, likely due to the fewer males remaining in the population. Between ages 12 - 18 years there is a rapid increase in hospitalization due to three causes: mental health disorders in both sexes; complications of pregnancy, childbirth and puerperium among females; and injuries among males. The peak at age 27 years is due to child-bearing. At age 65 years there is a 16.5% increase in hospitalization over the 64 year olds, supposedly due to Medicare accessibility. At age 79 years hospitalizations peaked at an average 1,841 per year. Subsequently, hospitalizations decrease for each age-year until age 107 years. The rarest hospitalizations were among 8-year old girls children with 68 average hospitalizations per year.

Table 2. Age and gender of hospitalizations, South Dakota, 2000-2009

Age group	Male	Percent	Female	Percent	Total	Percent
Infants, <12 months	67,133	52%	61,226	48%	128,359	12%
Pre-school, 1-4 years	10,661	55%	8,714	45%	19,375	2%
School-age, 5-14 years	12,267	55%	10,095	45%	22,362	2%
Youth, 15-24 years	19,861	24%	64,009	76%	83,870	8%
Adults, 25-39 years	29,801	21%	114,945	79%	144,746	14%
Mid-age, 40-64 years	112,111	47%	127,038	53%	239,149	22%
Elderly, ≥65 years	186,305	44%	239,451	56%	425,756	40%
TOTAL	438,139	41%	625,478	59%	1,063,617	100%

The overall leading cause of hospitalization was live birth, including cesarean and non-cesarean delivery, which included 10% of all hospitalizations (Table 3). The next leading causes of hospitalizations were pneumonia and coronary atherosclerosis.

Table 3. Top specific conditions of hospitalization, South Dakota, 2000-2009

Name (ICD-9 code)	Number	Percent
Single liveborn, without mention of cesarean delivery (V30.00)	79,192	7.5%
Pneumonia, organism unspecified (486)	38,820	3.7%
Single liveborn, cesarean delivery (V30.01)	26,474	2.5%
Coronary atherosclerosis of native coronary artery (414.01)	21,628	2.0%
Congestive heart failure (428.0)	20,062	1.9%
Osteoarthritis, localized, not specified whether primary or secondary, lower leg (715.36)	19,887	1.9%
Care involving rehabilitation procedures, other (V57.89)	12,715	1.2%
Obstructive chronic bronchitis with (acute) exacerbation (491.21)	11,352	1.1%
Previous cesarean delivery, delivered with or without mention of antepartum condition (654.21)	10,778	1.0%

The top 10 leading causes of hospitalizations stratified by age group and gender are shown in Table 4. Throughout the age groups females have an appreciably higher numbers of genitourinary system diseases than males. Males however have considerably higher numbers of hospitalizations related to injury and poisoning than females. In the middle adult group, 40-64 years of age, men had over double the hospitalizations due to diseases of the circulatory system, whereas women had over twice as many cancer hospitalizations than men.

Table 4. Top conditions of hospitalization by age and gender, South Dakota, 2000-2009

Infants <1 year of age	Female	Percent	Male	Percent	TOTAL
Supplementary classification of factors (V01-V89)*	53,319	49%	56,356	51%	109,675
Diseases of the respiratory system (460-519)	2,853	40%	4,285	60%	7,138
Certain conditions originating in perinatal period (760-779)	1,824	43%	2,416	57%	4,240
Symptoms, signs and ill-defined conditions (780-799)	646	45%	787	55%	1,433
Infectious and parasitic diseases (001-139)	603	45%	726	55%	1,329
Congenital anomalies (740-759)	360	32%	765	68%	1,125
Diseases of the digestive system (520-579)	450	42%	630	58%	1,080
Endocrine, nutritional and metabolic, immunity (240-279)	399	46%	477	54%	876
Injury and poisoning (800-999)	144	41%	211	59%	355
Diseases of the genitourinary system (580-629)	266	76%	86	24%	352
Pre-school children 1-4 years of age	Female	Percent	Male	Percent	TOTAL
Diseases of the respiratory system (460-519)	3,874	42%	5,278	58%	9,152
Endocrine, nutritional and metabolic, immunity (240-279)	1,019	50%	1,030	50%	2,049
Infectious and parasitic diseases (001-139)	749	46%	880	54%	1,629
Symptoms, signs and ill-defined conditions (780-799)	684	47%	780	53%	1,464
Injury and poisoning (800-999)	481	41%	684	59%	1,165
Diseases of the digestive system (520-579)	450	47%	509	53%	959
Diseases of the skin and subcutaneous tissue (680-709)	260	52%	242	48%	502
Congenital anomalies (740-759)	206	43%	271	57%	477
Diseases of nervous system & sense organs (320-389)	213	46%	254	54%	467
Diseases of the genitourinary system (580-629)	360	81%	85	19%	445

<u>School-age children 5-14 years of age</u>	<u>Female</u>	<u>Percent</u>	<u>Male</u>	<u>Percent</u>	<u>TOTAL</u>
Mental disorders (290-319)	3,361	44%	4,272	56%	7,633
Diseases of the respiratory system (460-519)	1,458	45%	1,811	55%	3,269
Injury and poisoning (800-999)	974	37%	1,661	63%	2,635
Diseases of the digestive system (520-579)	901	44%	1,158	56%	2,059
Endocrine, nutritional and metabolic, immunity (240-279)	649	51%	619	49%	1,268
Symptoms, signs and ill-defined conditions (780-799)	477	48%	515	52%	992
Infectious and parasitic diseases (001-139)	394	47%	450	53%	844
Diseases of the genitourinary system (580-629)	464	68%	218	32%	682
Diseases of nervous system & sense organs (320-389)	269	52%	246	48%	515
Diseases of the skin and subcutaneous tissue (680-709)	177	38%	283	62%	460
<u>Youth 15-24 years of age</u>	<u>Female</u>	<u>Percent</u>	<u>Male</u>	<u>Percent</u>	<u>TOTAL</u>
Complications of pregnancy, childbirth & puerperium (630-679)	42,589	100%	0	0%	42,589
Mental disorders (290-319)	8,498	55%	7,069	45%	15,567
Injury and poisoning (800-999)	2,716	35%	5,023	65%	7,739
Diseases of the digestive system (520-579)	2,166	54%	1,824	46%	3,990
Diseases of the respiratory system (460-519)	1,241	53%	1,097	47%	2,338
Diseases of genitourinary system (580-629)	1,664	84%	316	16%	1,980
Endocrine, nutritional and metabolic, immunity (240-279)	1,094	60%	717	40%	1,811
Symptoms, signs and ill-defined conditions (780-799)	1,000	61%	645	39%	1,645
Infectious and parasitic diseases (001-139)	611	53%	543	47%	1,154
Supplementary classification of factors (V01-V89)*	491	46%	585	54%	1,076
<u>Adults 25-39 years of age</u>	<u>Female</u>	<u>Percent</u>	<u>Male</u>	<u>Percent</u>	<u>TOTAL</u>
Complications of pregnancy, childbirth & puerperium (630-679)	74,351	100%	0	0%	74,351
Mental disorders (290-319)	8,525	55%	7,044	45%	15,569
Injury and poisoning (800-999)	3,920	41%	5,670	59%	9,590
Diseases of the digestive system (520-579)	4,723	56%	3,689	44%	8,412
Diseases of the genitourinary system (580-629)	6,618	88%	940	12%	7,558
Diseases of musculoskeletal system & connective tissue	2,137	48%	2,282	52%	4,419
Symptoms, signs and ill-defined conditions (780-799)	2,314	56%	1,807	44%	4,121
Endocrine, nutritional and metabolic, immunity (240-279)	2,812	70%	1,219	30%	4,031
Diseases of the respiratory system (460-519)	2,082	56%	1,614	44%	3,696
Diseases of the circulatory system (390-459)	1,416	44%	1,788	56%	3,204
<u>Mid-age 40-64 years of age</u>	<u>Female</u>	<u>Percent</u>	<u>Male</u>	<u>Percent</u>	<u>TOTAL</u>
Diseases of the circulatory system (390-459)	13,561	34%	25,817	66%	39,378
Diseases of the digestive system (520-579)	13,774	52%	12,470	48%	26,244
Diseases of musculoskeletal system & connective tissue	13,984	55%	11,561	45%	25,545
Injury and poisoning (800-999)	10,238	46%	12,086	54%	22,324
Neoplasms (140-239)	12,753	67%	6,249	33%	19,002
Mental disorders (290-319)	10,108	54%	8,727	46%	18,835
Diseases of the respiratory system (460-519)	10,218	55%	8,427	45%	18,645
Diseases of the genitourinary system (580-629)	13,853	77%	4,094	23%	17,947
Symptoms, signs and ill-defined conditions (780-799)	8,404	52%	7,841	48%	16,245
Endocrine, nutritional and metabolic, immunity (240-279)	6,034	60%	3,966	40%	10,000
<u>Elderly ≥65 years of age</u>	<u>Female</u>	<u>Percent</u>	<u>Male</u>	<u>Percent</u>	<u>TOTAL</u>
Diseases of the circulatory system (390-459)	54,161	51%	53,085	49%	107,246
Diseases of the respiratory system (460-519)	29,211	51%	28,247	49%	57,458
Diseases of musculoskeletal system & connective tissue	26,505	63%	15,359	37%	41,864
Diseases of the digestive system (520-579)	24,265	59%	17,178	41%	41,443
Injury and poisoning (800-999)	25,062	64%	14,102	36%	39,164
Symptoms, signs and ill-defined conditions (780-799)	14,448	59%	9,845	41%	24,293
Neoplasms (140-239)	12,674	53%	11,078	47%	23,752
Supplementary classification of factors (V01-V89)*	13,482	60%	9,016	40%	22,498
Diseases of the genitourinary system (580-629)	11,350	55%	9,247	45%	20,597
Endocrine, nutritional and metabolic, immunity (240-279)	8,158	63%	4,770	37%	12,928

*Supplementary classifications of factors influencing health status and contact with health service.

Table 5. Hospital discharge disease groups by region, gender, race and age group, South Dakota 2000-2009

Disease group	Total	Regions				Gender		Race			Age group						
		NE	NW	SE	SW	Male	Female	White	Amer Indian	Other	0 yr	1-4 yr	5-14 yr	15-24 yr	25-39 yr	40-64 yr	≥65 yr
Circulatory system	151,047	38,956	9,202	56,136	19,997	81,351	69,691	134,691	7,044	785	164	124	173	753	3,204	39,380	107,249
Musculoskeletal system & connective tissue	73,420	15,519	4,797	26,610	9,522	30,063	43,352	53,810	2,237	331	31	155	459	942	4,420	25,546	41,867
Injury and poisoning	82,975	16,541	5,578	30,927	13,526	39,437	43,535	66,903	8,079	737	355	1,165	2,635	7,739	9,590	22,324	39,167
Endocrine, nutritional, metabolic, & immunity disorders	32,963	7,219	2,090	14,825	4,388	12,798	20,165	27,337	2,807	353	876	2,049	1,268	1,811	4,031	10,000	12,928
Infectious & parasitic diseases	21,538	5,254	1,218	9,163	3,405	10,066	11,472	17,153	2,161	292	1,329	1,629	844	1,154	1,809	5,111	9,662
Neoplasms	46,291	10,995	2,763	17,772	5,960	18,210	28,080	41,136	1,603	305	37	124	193	528	2,654	19,003	23,752
Digestive system	84,188	19,921	5,652	35,959	12,146	37,458	46,729	70,545	6,609	693	1,081	959	2,059	3,990	8,412	26,244	41,443
Mental disorders	65,191	10,096	4,041	27,986	14,590	30,075	35,109	49,829	9,975	1,153	4	129	7,634	15,569	15,570	18,838	7,447
Blood & blood-forming organs	6,653	1,552	555	2,729	986	2,765	3,888	5,532	546	121	66	325	376	304	406	1,592	3,584
Genitourinary system	49,562	11,398	3,371	19,695	7,328	14,986	34,575	41,286	2,704	359	352	445	682	1,980	7,558	17,948	20,597
Nervous system & sense organs	13,635	2,761	723	6,017	2,026	5,941	7,694	11,610	1,079	157	303	467	515	591	1,512	3,662	6,585
Respiratory system	101,699	25,405	6,794	45,083	15,331	50,759	50,937	82,577	9,744	952	7,138	9,152	3,270	2,338	3,697	18,645	57,459
Congenital anomalies	3,145	570	184	1,174	549	1,759	1,386	2,441	390	49	1,125	477	307	188	188	502	358
Pregnancy, childbirth & the puerperium	119,285	24,775	11,100	52,021	20,998	N/A	119,285	90,058	12,943	2,536	2	0	86	42,589	74,351	2,257	0
Skin and subcutaneous tissue	15,464	3,266	961	6,908	2,750	7,535	7,929	12,029	2,123	110	149	502	460	671	1,695	5,111	6,876
Certain conditions originating in the perinatal period	4,289	894	343	1,116	713	2,438	1,849	2,798	704	91	4,242	41	0	4	1	0	1
Symptoms, signs, & ill-defined conditions	50,195	11,536	3,622	21,582	7,882	22,220	27,973	41,965	4,143	485	1,433	1,464	992	1,646	4,121	16,245	24,294
Factors influencing health status & contact with health services	142,143	31,081	11,757	62,087	23,567	70,278	71,829	112,923	12,907	2,455	109,709	168	411	1,076	1,531	6,749	22,499
TOTAL*	1,063,683	237,739	74,751	437,790	165,664	438,139	625,478	864,623	87,798	11,964	128,396	19,375	22,364	83,873	144,750	239,157	425,768

*Subtotals may not add up to total due to missing or unknown gender or race values, or out-of-state region residence.

The overall rate of hospitalization for South Dakota residents was 0.11 hospitalizations per person per year. Generally, the county's number of hospitalizations (Table 6 and map below) is in direct relation to the size of the population, with Minnehaha and Pennington counties having the most hospitalizations. There is variation in hospitalization rates with Gregory and Buffalo counties having the highest rates (0.23 hospitalizations per person per year) and Perkins County having a nearly 10-times lower hospitalization rate. The counties with the highest hospitalization rates are in the central swath of the state. The counties with the lowest hospitalization rates (Perkins, Campbell, Corson and Union) are all counties without hospitals and bordering other states. Some of the county numbers maybe lower than expected because their local hospital did not submit discharge data to SDAHO for all 10 years, or an IHS facility may be the main hospital in their area.

Table 6. Hospitalization numbers and rates* by county, South Dakota 2000-2009.

<u>County</u>	<u>Discharges</u>	<u>Population</u>	<u>Rate*</u>	<u>County</u>	<u>Discharges</u>	<u>Population</u>	<u>Rate*</u>
Aurora	3,820	2,710	0.14	Jackson	3,265	3,031	0.11
Beadle	12,657	17,398	0.07	Jerauld	2,915	2,071	0.14
Bennett	4,788	3,431	0.14	Jones	1,113	1,006	0.11
BonHomme	10,284	7,070	0.15	Kingsbury	7,579	5,148	0.15
Brookings	26,291	31,965	0.08	Lake	12,706	11,200	0.11
Brown	45,903	36,531	0.13	Lawrence	21,191	24,097	0.09
Brule	7,393	5,255	0.14	Lincoln	31,871	44,828	0.07
Buffalo	4,362	1,912	0.23	Lyman	5,472	3,755	0.15
Butte	9,351	10,110	0.09	Marshall	6,454	4,656	0.14
Campbell	722	1,466	0.05	McCook	7,318	5,618	0.13
Charles Mix	18,613	9,129	0.20	McPherson	3,392	2,459	0.14
Clark	4,746	3,691	0.13	Meade	25,405	25,434	0.10
Clay	12,236	13,864	0.09	Mellette	2,162	2,048	0.11
Codington	30,340	27,227	0.11	Miner	3,635	2,389	0.15
Corson	2,029	4,050	0.05	Minnehaha	205,764	169,468	0.12
Custer	7,639	8,216	0.09	Moody	8,877	6,486	0.14
Davison	28,334	19,504	0.15	Pennington	104,557	100,948	0.10
Day	7,090	5,710	0.12	Perkins	731	2,982	0.02
Deuel	6,075	4,364	0.14	Potter	4,228	2,329	0.18
Dewey	7,554	5,301	0.14	Roberts	9,816	10,149	0.10
Douglas	5,597	3,002	0.19	Sanborn	3,443	2,355	0.15
Edmunds	5,560	4,071	0.14	Shannon	11,774	13,586	0.09
Fall River	8,119	7,094	0.11	Spink	11,454	6,415	0.18
Faulk	4,458	2,364	0.19	Stanley	3,107	2,966	0.10
Grant	8,498	7,356	0.12	Sully	1,344	1,373	0.10
Gregory	9,778	4,271	0.23	Todd	8,574	9,612	0.09
Haakon	2,961	1,937	0.15	Tripp	8,950	5,644	0.16
Hamlin	6,939	5,903	0.12	Turner	11,932	8,347	0.14
Hand	5,339	3,431	0.16	Union	7,406	14,399	0.05
Hanson	3,053	3,331	0.09	Walworth	7,430	5,438	0.14
Harding	758	1,255	0.06	Yankton	25,915	22,438	0.12
Hughes	19,328	17,022	0.11	Ziebach	1,664	2,801	0.06
Hutchinson	12,538	7,343	0.17				
Hyde	2,096	1,420	0.15				
				South Dakota	916,715	814,180	0.11

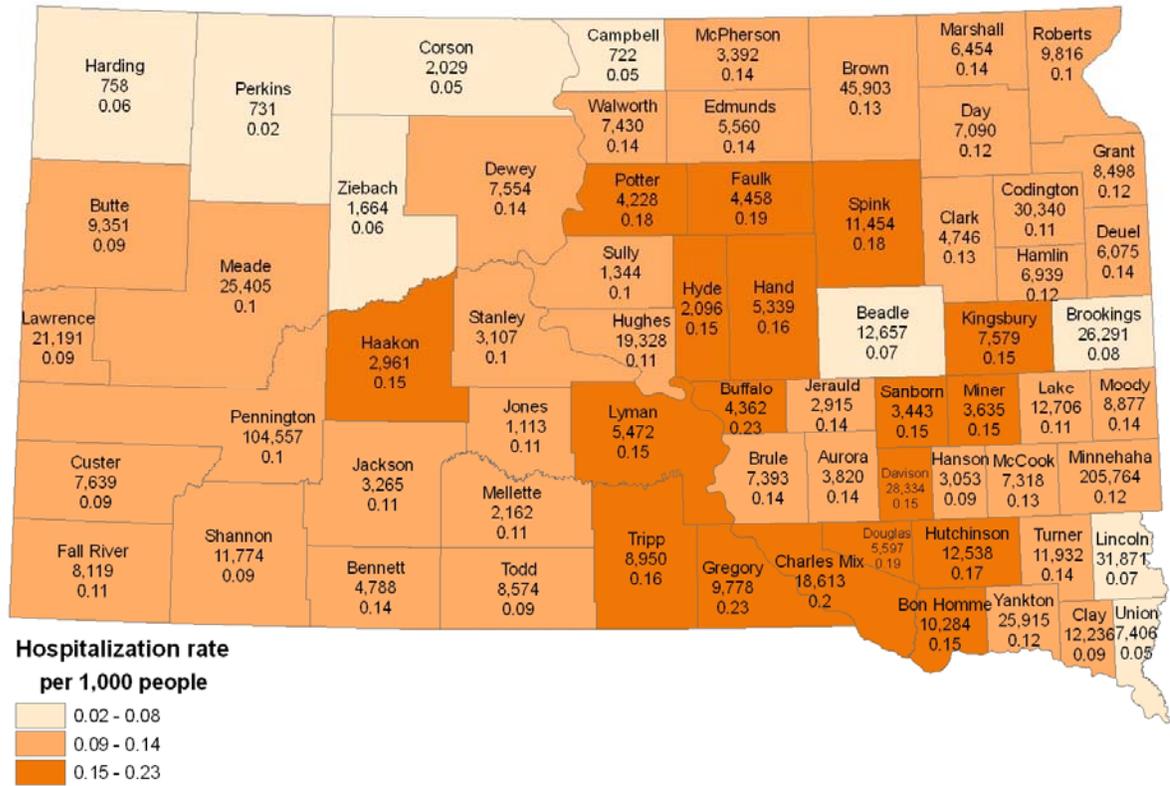
*Rate: hospital discharges per person per year calculated using 2010 census counts.

Table 7. Average length of stay in days of patient hospital discharges, South Dakota, 2000-2009

Disease - Condition	Mean (SD)	N
All conditions	4.4 (7.1)	1,063,683
Infectious and parasitic diseases	5.9 (7.5)	21,538
Septicemia	8.9 (11.1)	793
Neoplasms	5.5 (7.5)	46,291
Malignant neoplasms	6.2 (8.2)	35,491
Benign neoplasms	3.0 (2.9)	9,612
Endocrine, nutritional and metabolic, immunity	3.8 (5.6)	32,963
Diabetes mellitus	5.0 (28.2)	431
Volume depletion	3.1 (2.7)	4,085
Diseases of the blood and blood-forming organs	4.4 (5.1)	6,653
Anemias	4.2 (5.3)	3,849
Mental disorders	5.1 (9.6)	65,191
Psychoses	5.6 (7.0)	32,989
Schizophrenic disorders	6.0 (5.7)	5,430
Diseases of the nervous system and sense organs	6.2 (19.4)	13,635
Diseases of the circulatory system	4.3 (6.0)	151,047
Essential hypertension	3.7 (6.5)	1,880
Heart disease	4.9 (6.3)	18,348
Acute myocardial infarction	4.7 (5.1)	21,004
Coronary atherosclerosis	3.5 (4.4)	24,414
Other ischemic heart disease	4.9 (5.1)	24
Cardiac dysrhythmias	3.3 (3.5)	19,544
Congestive heart failure	4.9 (7.7)	20,062
Cerebrovascular disease	4.8 (7.3)	24,620
Diseases of the respiratory system	5.0 (5.9)	101,699
Acute bronchitis and bronchiolitis	3.3 (2.8)	6,384
Pneumonia	4.7 (4.4)	50,686
Chronic bronchitis	4.7 (4.1)	12,851
Asthma	3.4 (3.0)	6,334
Diseases of the digestive system	4.6 (6.2)	84,188
Appendicitis	3.8 (4.9)	85,456
Intestinal obstruction	5.8 (5.9)	10,028
Diverticula of intestine	5.2 (4.5)	7,385
Cholelithiasis	3.7 (3.6)	8,474
Acute pancreatitis	6.1 (9.6)	4,765
Diseases of the genitourinary system	3.3 (4.2)	49,562
Calculus of kidney and ureter	2.0 (2.4)	4,899
Urinary tract infection	4.2 (4.5)	7,805
Complications of pregnancy, childbirth & puerperium	2.5 (2.7)	119,285
Diseases of the skin and subcutaneous tissue	5.9 (8.5)	15,464
Cellulitis and abscess	4.9 (4.8)	11,906
Diseases of the musculoskeletal system & connective tissue	3.7 (3.9)	73,420
Osteoarthritis and allied disorders	3.6 (2.5)	32,553
Intervertebral disc disorder	2.6 (2.9)	13,405
Congenital anomalies	5.1 (11.4)	3,145
Certain conditions originating in the perinatal period	10.6 (19.5)	4,289
Symptoms, signs and ill-defined conditions	3.1 (5.1)	50,195
Injury and poisoning	5.0 (6.5)	82,975
Fractures, all sites	4.8 (6.9)	25,010
Fracture of neck of femur	5.8 (4.0)	12,421
Poisonings	2.2 (3.0)	5,365
Certain complications of surgical and medical care	5.6 (6.9)	22,294
Factors influencing health status & contact with health services	5.0 (9.9)	142,143
Females with deliveries	3.2 (8.1)	105,666

SD: standard deviation of length of stay in days.

Map 2: Hospitalization numbers and rates by county, South Dakota 2000-2009.



The average length of stay for all conditions was 4.4 days (standard deviation 7.1 days). The longest average stay was 10.6 days for certain conditions originating in the perinatal period, followed by septicemia (8.9 days) and malignant neoplasms (6.2 days). The shortest average stay was 3.2 days for calculus of kidney and ureter.

On the following pages are summary pages for the 18 major diagnostic categories.

Reference:

National Hospital Discharge Survey: 2007 summary. MJ Hall, CJ DeFrances, SN Williams, A Golosinskiy, A Schwartzman. National health statistics reports; Number 29. Hyattsville, MD: National Center for Health Statistics. 2010. www.cdc.gov/nchs/data/nhsr/nhsr029.pdf

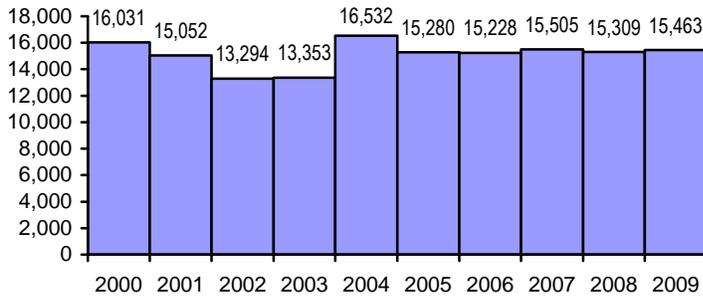
Acknowledgements:

Thanks to those who contributed to this summary report: Nato Tarkhashvili, Lon Kightlinger, Everett Putnam, South Dakota Department of Health (SD-DOH); Gilbert Johnson South Dakota Association of Healthcare Organizations (SDAHO). Particular thanks to those who made the diagnoses and the many people who assigned and entered the ICD-9 codes.

Diseases of the Circulatory System (ICD-9 390-459)

Diseases of the circulatory system are the leading causes of death nationwide and in South Dakota. During 2000–2009 there were 151,047 hospitalizations due to diseases of the circulatory system in South Dakota (average 15,105 per year).

Diseases of the Circulatory System, SD, 2000-2009



The northeast region had the highest rate of hospitalization (higher than the state rate of 1,541). Male were affected more than females (54% vs. 46%). Disease frequency was increased with advanced age (71% of hospitalizations in population aged ≥65 years). Out-of-state residents accounted for 18% of all hospitalizations.

Region	Number of discharges	Median	Rate per 100,000
Northeast residents	38,956	3,960	1,982
Northwest residents	9,202	896	1,146
Southeast residents	56,136	5,722	1,521
Southwest residents	20,095	1,978	1,249
South Dakota total	124,393	12,516	1,541
Out-of-state residents	26,654	2,790	

Gender and Race	Number of discharges	Percent
Male	81,351	53.9%
Female	69,691	46.1%
White	134,691	89.2%
American Indian	7,044	4.7%
Other race	785	0.5%
Unknown race	8,527	5.7%

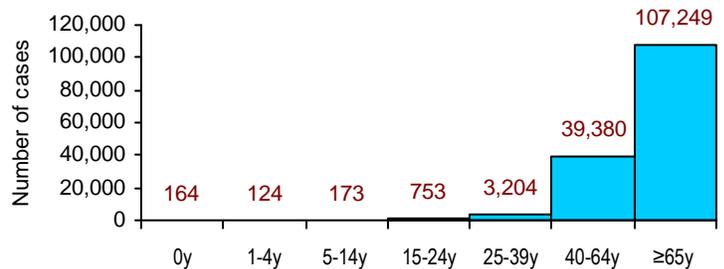
Leading diseases of the circulatory system

ICD-9 code: Name, Number (Percent)

- 414.01: Coronary atherosclerosis of native coronary artery, 21,628 (14%)
 - 428.0: Congestive heart failure, 20,062 (13%)
 - 427.31: Atrial fibrillation, 10,453 (7%)
 - 410.71: Acute subendocardial infarction, initial episode of care, 9,763 (6%)
 - 434.91: Cerebral artery occlusion, unspecified, with cerebral infarction, 6,999 (5%)
 - 433.10: Occlusion and stenosis of carotid artery without mention of cerebral infarction, 4,127 (3%)
 - 415.19: Pulmonary embolism and infarction, other, 3,909 (3%)
 - 435.9: Unspecified transient cerebral ischemia, 3,762 (2%)
 - 410.41: Acute myocardial infarction of other inferior wall, initial episode of care, 3,467 (2%)
 - 427.89: Other specified cardiac dysrhythmias, other, 2,922 (2%)
 - 410.11: Acute myocardial infarction of other anterior wall, initial episode of care, 2,586 (2%)
 - 410.91: Acute myocardial infarction, unspecified site, initial episode of care, 2,449 (2%)
 - 436: Acute, but ill-defined, cerebrovascular disease, 2,422 (2%)
 - 427.81: Sinoatrial node dysfunction, 2,278 (2%)
 - 453.8: Other venous embolism and thrombosis of other specified veins, 2,151 (1%)
 - 440.21: Atherosclerosis of the extremities with intermittent claudication, 1,907 (1%)
 - 441.4: Abdominal aneurism without mention of rupture, 1,808 (1%)
 - 411.1: Other acute and subacute forms of ischemic heart disease, intermediate coronary syndrome, 1,783 (1%)
 - 414.00: Coronary atherosclerosis of unspecified type of vessel, native or graft, 1,671 (1%)
 - 431: Intracerebral hemorrhage, 1,537 (1%)
- All others <1%

Coronary atherosclerosis of native coronary artery was the most frequent cause of hospitalization for diseases of the circulatory system, followed by congestive heart failure.

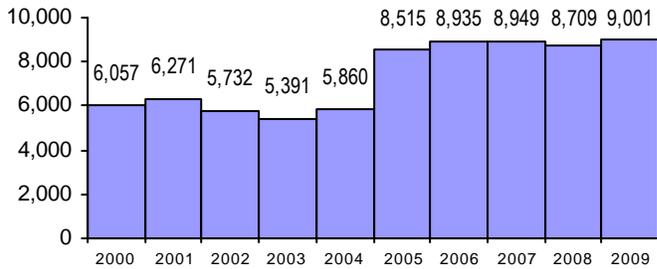
Diseases of the circulatory system by age



Diseases of the Musculoskeletal System and Connective Tissue (ICD-9 710–739)

During 2000–2009 there were 73,420 hospitalizations due to diseases of the musculoskeletal system and connective tissue in the state (average 7,342 per year).

Diseases of Musculoskeletal System and Connective Tissue, SD, 2000-2009



The northeast region had the highest rate of hospitalization (higher than the state rate of 707). Out-of-state residents accounted for 23% of all hospitalizations.

Region	Number of discharges	Median	Rate per 100,000
Northeast residents	15,519	1,514	758
Northwest residents	4,797	494	631
Southeast residents	26,610	2,660	707
Southwest residents	9,560	986	622
South Dakota total	56,487	5,741	707
Out-of-state residents	16,933	1,607	

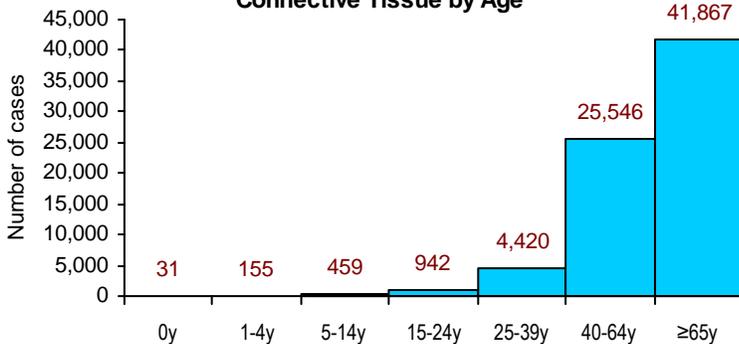
Gender and Race	Number of discharges	Percent
Male	30,063	41%
Female	43,352	59%
White	53,810	73.3%
American Indian	2,237	3.1%
Other race	331	0.5%
Unknown race	17,042	23.2%

Leading diseases of the musculoskeletal system and connective tissue

ICD-9 code: Name, Number (Percent)

- 715.36: Osteoarthritis, localized, not specified whether primary or secondary, lower leg, 19,887 (27%)
 - 715.35: Osteoarthritis, localized, not specified whether primary or secondary, pelvic region or thigh, 8,857 (12%)
 - 722.10: Lumbar intervertebral disc without myelopathy, 5,794 (8%)
 - 724.02: Spinal stenosis, other than cervical, lumbar region, 3,842 (5%)
 - 722.52: Degeneration of lumbar or lumbosacral intervertebral disc, 3,596 (5%)
 - 733.13: Pathologic fracture of vertebrae, 2,462 (3%)
 - 722.0: Displacement of cervical intervertebral disc without myelopathy, 1,162 (3%)
 - 724.2: Lumbago, 1,693 (2%)
 - 721.3: Lumbosacral spondylosis without myelopathy, 1,217 (2%)
 - 715.31: Osteoarthritis, localized, not specified whether primary or secondary, shoulder region, 1,025 (1%)
 - 738.4: Acquired spondylolisthesis, 1,023 (1%)
 - 724.5: Backache, unspecified, 929 (1%)
- All others <1%

Diseases of the Musculoskeletal System and Connective Tissue by Age

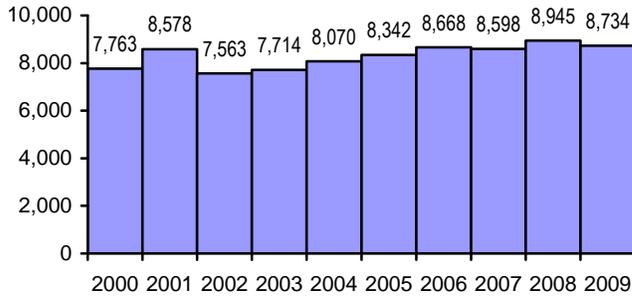


Disease frequency increased with advanced age with 57% of patients (41,867 hospitalizations) among the individuals aged ≥ 65 years). Women were more affected than men (59% vs. 41%). Osteoarthritis was the most common cause of hospitalizations for diseases of the musculoskeletal system and connective tissue.

Injury and Poisoning (ICD-9 800–999)

During 2000–2009 there were 82,975 hospitalizations due to injury and poisoning in the state (average 8,298 per year). The southwest region had the highest rate of injury and poisoning (higher than the state rate of 830).

Injury and Poisoning, SD, 2000-2009



Out-of-state residents accounted for 20% of all hospitalizations. The female population was affected more than males.

Region	Number of discharges	Median	Rate per 100,000
Northeast residents	16,541	1657	829
Northwest residents	5,578	548	700
Southeast residents	30,927	3190	848
Southwest residents	13,579	1,362	860
South Dakota total	66,628	6,746	830
Out-of-state residents	16,347	1,663	N/A

Gender and Race	Number of discharges	Percent
Male	39,437	47.5%
Female	43,535	52.5%
White	66,903	80.6%
American Indian	8,079	9.7%
Other race	737	1%
Unknown race	7,256	9%

Leading Injury and poisoning

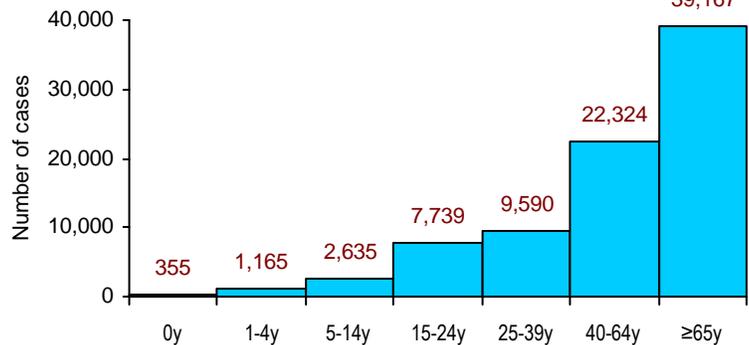
ICD-9 code, Name, Number, (Percent)

- 820.21 Pertrochanteric fracture, closed, intertrochanteric section, 5,142 (6%)
 - 998.59 Other postoperative infection, 3,815 (5%)
 - 820.8 Fracture of unspecified part of neck of femur, closed, 3,693 (4%)
 - 820.09 Fracture of neck of femur, other, 2,297 (3%)
 - 996.4 Mechanical complication of internal orthopedic device, implant and graft, 1,876 (2%)
 - 805.4 Fracture of vertebral column without mention of spinal cord injury, lumbar, closed, 1,645 (2%)
 - 997.4 Digestive system complications, 1,439 (2%)
 - 808.2 Fracture of pubis, closed, 1,400 (2%)
 - 805.2 Fracture of vertebral column without mention of spinal cord injury, dorsal [thoracic], closed, 1,229 (1%)
 - 824.4 Fracture of ankle, bimalleolar, closed, 1,168 (1%)
 - 996.62 Infection and inflammatory reaction due to other vascular device, implant and graft, 1,124 (1%)
 - 824.8 Fracture of ankle, unspecified, closed, 1,025 (1%)
 - 821.01 Shaft of unspecified part, closed, shaft, 974 (1%)
 - 840.4 Sprains and strains of shoulder and upper arm, rotar cuff (capsule), 963 (1%)
 - 998.11 Hemorrhage complicating a procedure, 874 (1%)
- All others <1%

Pertrochanteric fracture was the most common cause of hospitalization for injury followed by fracture of femur. Disease frequency was increased with advanced age with 39,167 hospitalizations (47%) in persons aged 65 years and older).

The most common poisonings were due to aromatic analgesics, antidepressants and benzodiazepine-based tranquilizers.

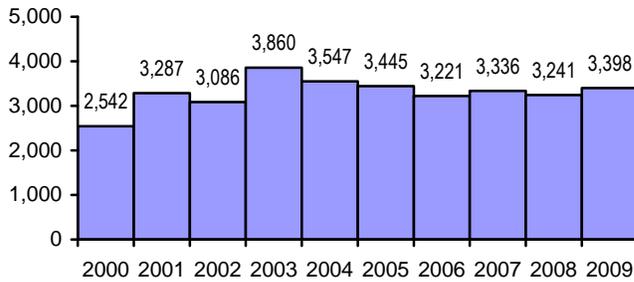
Injury and Poisoning by Age



Diseases of the Endocrine, Nutritional, Metabolic & Immunity Disorders (ICD-9 240–279)

Endocrine diseases, in particular diabetes mellitus, are among of the most commonly reported chronic conditions nationwide. During 2000–2009 there were 32,963 hospitalizations due to diseases of the endocrine, nutritional, metabolic, and immunity disorders in the state (average 3,296 per year).

Diseases of the Endocrine, Nutritional, Metabolic, and Immunity Disorders, SD, 2000-2009

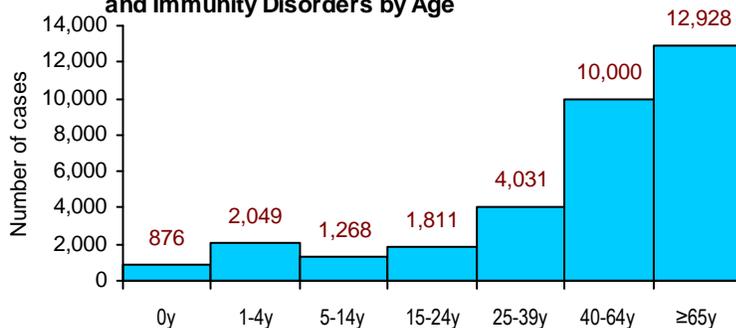


The Southeast region had the highest rate of hospitalization (higher than the state rate of 353). Out-of-state residents accounted for 13% of all hospitalizations. Hospitalization of females was considerably higher than males.

Region	Number of discharges	Median	Rate per 100,000
Northeast residents	7,219	738	369
Northwest residents	2,090	203	260
Southeast residents	14,825	1,452	386
Southwest residents	4,411	433	273
South Dakota total	28,545	2,868	353
Out-of-state residents	4,418	453	
Gender and Race	Number of discharges	Percent	
Male	12,798	38.8%	
Female	20,165	61.2%	
White	27,337	82.9%	
American Indian	2,807	8.5%	
Other race	353	1.1%	
Unknown race	2,466	7.5%	

Volume depletion was the most common cause of hospitalization in this category followed by morbid obesity. Thirty-nine percent of hospitalizations were among the elderly 65 years and older.

Diseases of the Endocrine, Nutritional, Metabolic, and Immunity Disorders by Age



Leading Diseases of the endocrine, nutritional, metabolic, immune systems

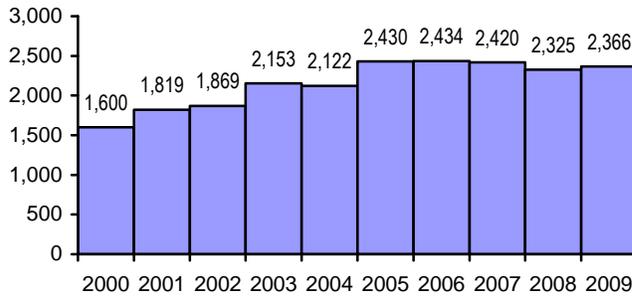
ICD-9 code, Name, Number, (Percent)

- 276.5 Volume depletion, 6,077 (18%)
 - 278.01 Morbid obesity, 4,875 (15%)
 - 276.51 Dehydration, 3,985 (12%)
 - 276.1 Hyposmolality and/or hyponatremia, 1,978 (6%)
 - 250.80 Diabetes with other specified manifestations, type II or unspecified type, not stated as uncontrolled, 1,715 (5%)
 - 250.13 Diabetes with ketoacidosis, type I, uncontrolled, 1,129 (3%)
 - 250.02 Diabetes mellitus without mention of complication, Type II, or unspecified type, uncontrolled, 831 (3%)
 - 250.70 Diabetes with peripheral circulatory disorders, type II or unspecified type, not stated as uncontrolled, 804 (2%)
 - 250.11 Diabetes with ketoacidosis, type I, not stated as uncontrolled, 762 (2%)
 - 276.8 Hypopotassemia, 577 (2%)
 - 250.60 Diabetes with neurological manifestations, type II or unspecified type, not stated as uncontrolled, 547 (2%)
 - 250.40 Diabetes with renal manifestations, type II or unspecified type, not stated as uncontrolled, 535 (2%)
 - 276.7 Hyperpotassemia, 526 (2%)
 - 250.01 Diabetes mellitus without mention of complication, type I, not stated as uncontrolled, 487 (1%)
 - 250.00 Diabetes mellitus without mention of complication, Type II, or unspecified type, not stated as uncontrolled, 431 (1%)
 - 250.82 Diabetes with other specified manifestations, type II or unspecified type, uncontrolled, 405 (1%)
 - 250.12 Diabetes with ketoacidosis, type II, or unspecified type, uncontrolled, 336 (1%)
- All others <1%

Infectious and Parasitic Diseases (ICD-9 001–139)

During the past several decades the incidence of infectious and parasitic diseases has been reduced dramatically in the US. During 2000–2009 there were 21,538 hospitalizations due to infectious and parasitic diseases in the state (average 2,154 per year).

Infectious and parasitic diseases, SD, 2000-2009



The secular trend suggests an increase of hospitalizations due to infectious and parasitic diseases. Since 2000 incidence increased 1.5-times. The northeast region had the highest hospitalization rate. Out-of-state residents accounted for 12% of all hospitalizations.

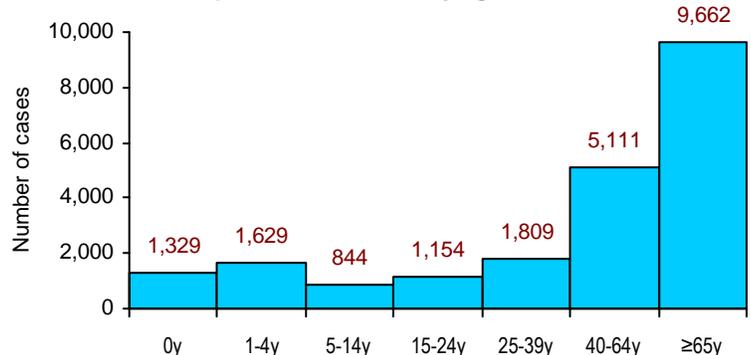
Region	Number of discharges	Median	Rate per 100,000
Northeast residents	5,254	532	267
Northwest residents	1,218	117	150
Southeast residents	9,163	926	246
Southwest residents	3,420	360	227
South Dakota total	19,055	1,975	243
Out-of-state residents	2,483	270	

Gender and Race	Number of discharges	Percent
Male	10,066	46.7%
Female	11,472	53.3%
White	17,153	79.6%
American Indian	2,161	10%
Other race	292	1.4%
Unknown race	1,932	9%

- Leading Infectious and parasitic diseases**
ICD-9 code, Name, Number, (Percent)
- 038.9 Unspecified septicemia, 3,582 (17%)
 - 008.8 Enteritis due to specified virus, other organism, not elsewhere classified, 1,892 (9%)
 - 008.45 Intestinal infections due to *Clostridium difficile*, 1,784 (8%)
 - 038.42 Septicemia due to *Escherichia coli* (*E.coli*), 1,363 (6%)
 - 079.99 Unspecified viral infection, 1,157 (5%)
 - 008.61 Rotavirus, 909 (4%)
 - 038.11 *Staphylococcus aureus* septicemia, 852 (4%)
 - 047.9 Unspecified viral meningitis, 818 (4%)
 - 038.0 Streptococcal septicemia, 793 (4%)
 - 038.49 Septicemia due to other gram-negative organisms, other, 442 (2%)
 - 038.2 Pneumococcal septicemia (*Streptococcus pneumoniae* septicemia), 395 (2%)
 - 075 Infectious mononucleosis, 392 (2%)
 - 079.6 Respiratory syncytial virus, 365 (2%)
 - 034.0 Streptococcal sore throat, 363 (2%)
 - 053.9 Herpes zoster without mention of complication, 296 (1%)
 - 038.19 Other staphylococcal septicemia, 264 (1%)
 - 042 HIV disease, 228 (1%)
 - 090 Congenital syphilis, 218 (1%)
- All others <1%

Unspecified septicemia was the most frequent cause of hospitalizations for infectious and parasitic diseases followed by viral enteritis. The elderly were most commonly affected with 45% of all hospitalizations due to infectious diseases. The leading 27 causes of hospitalizations were all viral or bacterial infections. The leading fungal infection was aspergillosis (n=122) and giardiasis (n=69) was the leading parasitic disease causing hospitalization. Interestingly, there were 218 congenital syphilis patients, and although this is a mandatorily reportable disease, none had been reported to the Department of Health.

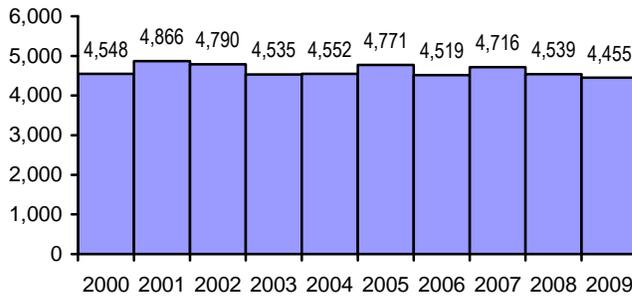
Infectious and parasitic diseases by age



Neoplasms (ICD-9 140-239)

Cancer is the second leading cause of death nationwide and in South Dakota. During 2005–2009 cancer accounted for 22% of all deaths in South Dakota and ranked second in the list of the most common causes of death in the state. During 2000–2009 there were 46,291 hospitalizations due to neoplasms in the state (average 4,629 per year).

Neoplasms, SD, 2000-2009



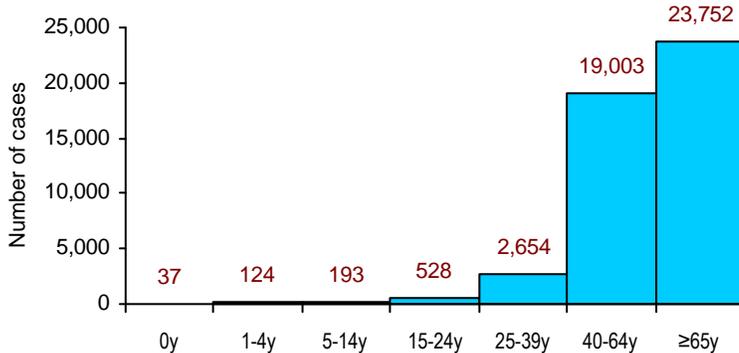
The northeast region had the highest hospitalization rate. Out-of-the state residents accounted for 19% of all hospitalizations. Females were more affected than males (61% vs. 39%).

Region	Number of discharges	Median	Rate per 100,000
Northeast residents	10,995	1,111	556
Northwest residents	2,763	273	349
Southeast residents	17,772	1,799	478
Southwest residents	5,999	596	376
South Dakota total	37,530	3,760	463
Out-of-state residents	8,761	870	

Gender and Race	Number of discharges	Percent
Male	18,210	39.3%
Female	28,080	60.7%
White	41,136	88.9%
American Indian	1,603	3.5%
Other race	305	1%
Unknown race	3,247	7%

Leiomyoma of uterus was the most common cause of hospitalization for neoplasms followed by malignant neoplasms of prostate.

Neoplasms by age



Leading Neoplasms

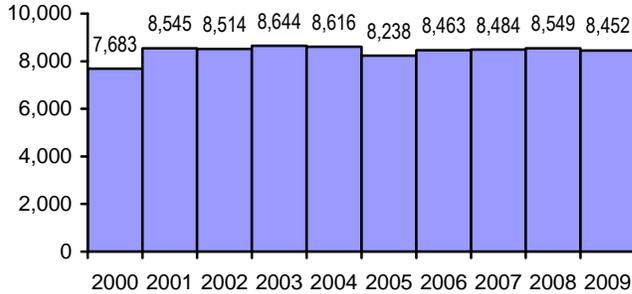
ICD-9 code, Name, Number, (Percent)

- 218.9 Leiomyoma of uterus, 3,375, (7%)
- 185 Malignant neoplasms of prostate, 3,169 (7%)
- 174.9 Malignant neoplasms of breast (female) unspecified, 1,797 (4%)
- 162.9 Malignant neoplasms of bronchus and lung, unspecified, 1,757 (4%)
- 182.0 Malignant neoplasms of corpus uteri, except isthmus, 1,398 (3%)
- 189.0 Malignant neoplasms of kidney, except pelvis, 1,167 (3%)
- 198.3 Secondary malignant neoplasms of brain and spinal cord, 1,019 (2%)
- 198.5 Secondary malignant neoplasms of bone and bone marrow, 1,018 (2%)
- 218.1 Intramural leiomyoma of uterus, 1,004 (2%)
- 220 Benign neoplasms of ovary, 991 (2%)
- 211.3 Benign neoplasms of colon, 975 (2%)
- 162.3 Malignant neoplasms of upper lobe, bronchus or lung, 954 (2%)
- 154.1 Malignant neoplasms of rectum, 843 (2%)
- 183.0 Malignant neoplasms of ovary, 773 (2%)
- 153.6 Benign neoplasms of ascending colon, 742 (2%)
- 153.3 Benign neoplasms of sigmoid colon, 709 (2%)
- 197.7 Secondary malignant neoplasms of liver, specified as secondary, 666 (1%)
- 153.4 Malignant neoplasms of cecum, 636 (1%)
- 197.2 Secondary malignant neoplasms of pleura, 617 (1%)
- 193 Malignant neoplasms of thyroid gland, 614 (1%)
- 174.4 Malignant neoplasms of breast (female) upper outer quadrant, 562 (1%)
- 203.00 Multiple myeloma, without mention of remission, 555 (1%)
- 162.5 Malignant neoplasms of lower lobe, bronchus or lung, 538 (1%)
- 153.9 Benign neoplasms of colon, unspecified, 519 (1%)
- 174.8 Malignant neoplasms of other specified sites of female breast, 519 (1%)
- 205.00 Myeloid leukemia, acute, without mention of remission, 513 (1%)
- 154.0 Malignant neoplasm of rectosigmoid junction, 485 (1%)
- 188.9 Malignant neoplasm of bladder, part unspecified, 468 (1%)
- All others <1%

Diseases of the Digestive System (ICD-9 520–579)

During 2000–2009 there were 84,188 hospitalizations due to diseases of the digestive system (average 8,419 per year). Secular trend was stable.

Diseases of the Digestive System, SD, 2000-2009



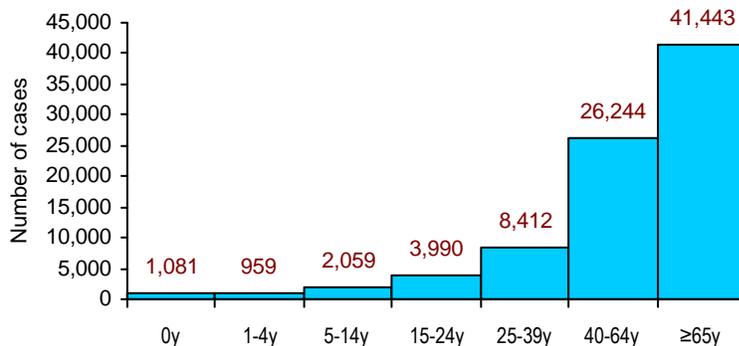
The northeast region had the highest rate of hospitalization (higher than the state rate of 909). Females were affected more than males (56% vs. 44%). Out-of-state residents accounted for 12% of hospitalizations.

Region	Number of discharges	Median	Rate per 100,000
Northeast residents	19,921	1,985	994
Northwest residents	5,652	558	713
Southeast residents	35,959	3,648	970
Southwest residents	12,209	1,220	770
South Dakota total	73,742	7,381	909
Out-of-state residents	10,446	1056	

Gender and Race	Number of discharges	Percent
Male	37,458	44.5%
Female	46,729	55.5%
White	70,545	83.8%
American Indian	6,609	7.9%
Other race	693	0.8%
Unknown race	6,341	7.5%

Unspecified noninfectious gastroenteritis and colitis were the most common causes of hospitalization for diseases of the digestive system followed by diverticulitis of colon.

Diseases of the Digestive System by age

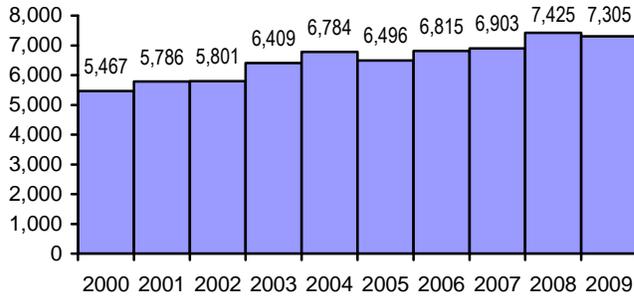


Disease of the digestive system	
ICD-9 code	Name, Number, (Percent)
1. 558.9	Other and unspecified noninfectious gastroenteritis and colitis, 5,574, (7%)
2. 562.11	Diverticulitis of colon (without mention of hemorrhage), 5,307 (6%)
3. 577.0	Acute pancreatitis, 4,765 (6%)
4. 560.9	Unspecified intestinal obstruction, 4,462 (5%)
5. 578.9	Hemorrhage of gastrointestinal tract, unspecified, 4,389 (5%)
6. 540.9	Acute appendicitis without mention of peritonitis, 3,601 (4%)
7. 574.00	Calculus of gallbladder with acute cholecystitis without mention of obstruction, 2,799 (3%)
8. 574.10	Calculus of gallbladder with other cholecystitis without mention of obstruction, 2,688 (3%)
9. 530.81	Esophageal reflux, 2,205 (3%)
10. 560.1	Paralytic ileus, 2,188 (3%)
11. 560.81	Intestinal or peritoneal adhesions with obstruction (postoperative), (postinfection), 2,144 (3%)
12. 531.40	Gastric ulcer, chronic or unspecified with hemorrhage without mention of obstruction, 1,597 (2%)
13. 553.21	Ventral hernia, incisional, 1,577 (2%)
14. 540.0	Acute appendicitis with generalized peritonitis, 1,501 (2%)
15. 562.12	Diverticulosis of colon with hemorrhage, 1,120 (1%)
16. 578.1	Blood in stool, 1,045 (1%)
17. 540.1	Acute appendicitis with peritoneal abscess, 1,006 (1%)
18. 532.40	Duodenal ulcer, chronic or unspecified with hemorrhage without mention of obstruction, 987 (1%)
All others, <1%	

Mental Disorders (ICD-9 290–319)

During 2000–2009 there were 65,191 hospitalizations due to mental disorders in the state (average 6,519 per year). The secular trend indicates an increase.

Mental disorders, SD, 2000–2009

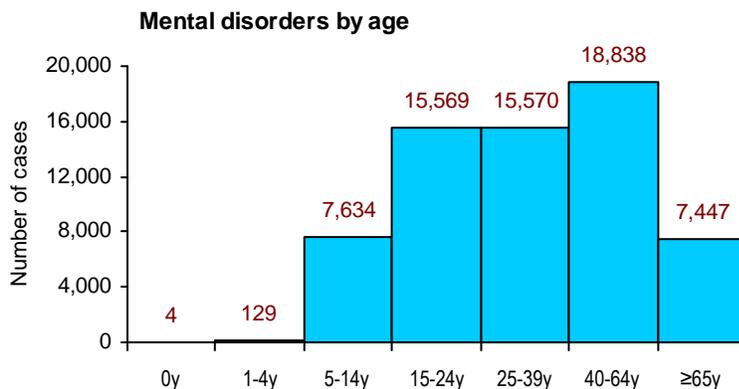


The southwest region had the highest hospitalization rate (higher than the state rate of 704). Females were affected more than males (54% vs. 46%). Out-of-state residents accounted for 13% of all hospitalizations.

Region	Number of discharges	Median	Rate per 100,000
Northeast residents	10,096	1,012	506
Northwest residents	4,041	412	527
Southeast residents	27,986	2,802	745
Southwest residents	14,633	1,537	971
South Dakota total	56,761	5,722	704
Out-of-state residents	8,430	871	

Gender and Race	Number of discharges	Percent
Male	30,075	46.1%
Female	35,109	53.9%
White	49,829	76.4%
American Indian	9,975	15.3%
Other race	1,153	1.8%
Unknown race	4,234	6.5%

Depressive disorders are the most common causes of hospitalizations for mental disorders. Young to middle-aged adults had the highest burden of mental disorders.



Mental disorders
ICD-9 code, Name, Number, (Percent)

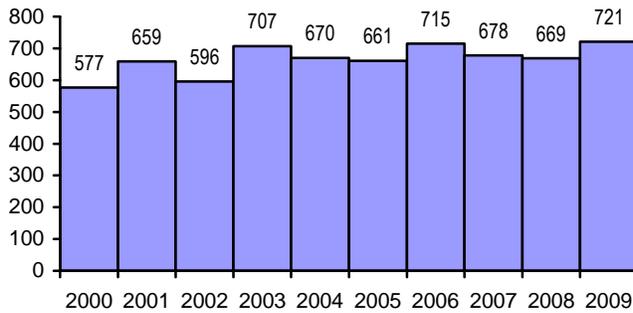
- 311 Depressive disorder, not elsewhere classified, 5767 (12%)
- 296.30 Major depressive disorder, recurrent episode, unspecified, 4,693 (7%)
- 296.33 Major depressive disorder, recurrent episode, severe, without mention of psychotic behavior, 3,799 (6%)
- 296.20 Major depressive disorder, single episode, unspecified, 2,841 (4%)
- 295.70 Schizoaffective disorder, unspecified, 2,668 (4%)
- 309.0 Adjustment disorder with depressed mood, 2,618 (4%)
- 314.01 Attention deficit disorder with hyperactivity, 1,920 (3%)
- 298.9 Unspecified psychosis, 1,819 (3%)
- 296.89 Other and unspecified bipolar disorders, other, 1,583 (2%)
- 300.4 Dysthymic disorder, 1,515 (2%)
- 294.8 Other persistent mental disorders due to conditions classified elsewhere, 1,319 (2%)
- 291.81 Alcohol withdrawal, 1,215 (2%)
- 296.7 Bipolar I disorder, most recent episode (or current), unspecified, 1,184 (2%)
- 296.90 Unspecified episodic mood disorder, 1,183 (2%)
- 296.23 Major depressive disorder, single episode, severe, without mention of psychotic behavior, 1,182 (2%)
- 296.32 Major depressive disorder, recurrent episode, moderate, 1,153 (2%)
- 309.28 Adjustment disorder with mixed anxiety and depressed mood, 1,141 (2%)
- 296.80 Bipolar disorder, unspecified, 1,072 (2%)
- 309.4 Adjustment disorder with mixed disturbance of emotions and conduct, 1,071 (2%)
- 296.50 Bipolar I disorder, most recent episode (or current), depressed, unspecified, 1,027 (2%)
- 309.81 Posttraumatic stress disorder, 993 (2%)
- 295.32 Schizophrenic disorders, paranoid type, chronic, 984 (2%)
- 296.34 Major depressive disorder, recurrent episode, severe, specified as with psychotic behavior, 964 (1%)
- 303.00 Acute alcoholic intoxication, unspecified, 814 (1%)
- 295.30 Schizophrenic disorders, paranoid type, unspecified, 804 (1%)
- 303.01 Acute alcoholic intoxication, continuous, 775 (1%)
- 296.40 Bipolar I disorder, most recent episode (or current) manic, unspecified, 655 (1%)

All others, <1%

Diseases of the Blood and Blood-forming Organs (ICD-9 280–289)

During 2000–2009 there were 6,653 hospitalizations due to diseases of the blood and blood-forming organs in the state (average 665 per year).

Diseases of the blood and blood-forming organs, SD, 2000-2009



The

northeast region had the highest rate of hospitalization per year (higher than the state rate of 73). Females were more affected than males (58% vs. 42%). Out-of-state residents accounted for 12% of all hospitalizations.

Region	Number of discharges	Median	Rate per 100,000
Northeast residents	1,552	157	79
Northwest residents	555	51	65
Southeast residents	2,729	281	75
Southwest residents	995	96	60
South Dakota total	5,831	596	73
Out-of-state residents	822	82	
Gender and Race	Number of discharges	Percent	
Male	2,765	41.6%	
Female	3,888	58.4%	
White	5,532	83.2%	
American Indian	546	8.2%	
Other race	121	1.8%	
Unknown race	454	6.8%	

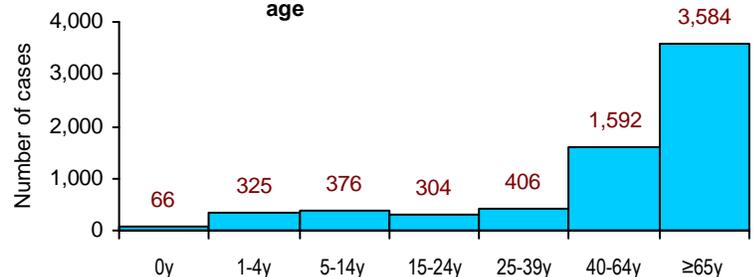
Diseases of the blood and blood-forming organs

ICD-9 code, Name, Number, (Percent)

1. 285.9 Anemia, unspecified, 985 (15%)
 2. 288.0 Agranulocytosis, 790 (12%)
 3. 280.9 Iron deficiency anemia, unspecified, 649 (10%)
 4. 280.0 Iron deficiency anemia, secondary to blood loss (chronic) 503 (8%)
 5. 284.8 Other specified aplastic anemias, 401 (6%)
 6. 285.1 Acute posthemorrhagic anemia, 377 (6%)
 7. 288.00 Neutropenia, unspecified, 370 (6%)
 8. 287.3 Primary thrombocytopenia, 270 (4%)
 9. 287.31 Immune thrombocytopenic purpura, 208 (3%)
 10. 287.5 Thrombocytopenia, unspecified, 147 (2%)
 11. 288.8 Other specified disease of white blood cells, 142 (2%)
 12. 289.2 Nonspecific mesenteric lymphadenitis, 118 (2%)
 13. 283.0 Autoimmune hemolytic anemias, 86 (2%)
 14. 284.1 Pancytopenia, 116 (2%)
 15. 288.03 Drug induced neutropenia, 95 (1%)
 16. 289.59 Other diseases of spleen, 90 (1%)
 17. 285.29 Anemia of other chronic illness, 88 (1%)
 18. 285.22 Anemia in neoplastic disease, 78 (1%)
 19. 287.4 Secondary thrombocytopenia, 78 (1%)
 20. 288.60 Leukocytosis, unspecified, 78 (1%)
 21. 285.21 Anemia in end-stage renal disease, 75 (1%)
 22. 283.11 Hemolytic-uremic syndrome, 69 (1%)
 23. 287.0 Allergic purpura, 68 (1%)
- All others, <1%

Unspecified anemia was the most frequent cause of hospitalization for diseases of the blood and blood-forming organs followed by agranulocytosis and iron deficiency anemia. People aged 65 years and older were most likely to be hospitalized.

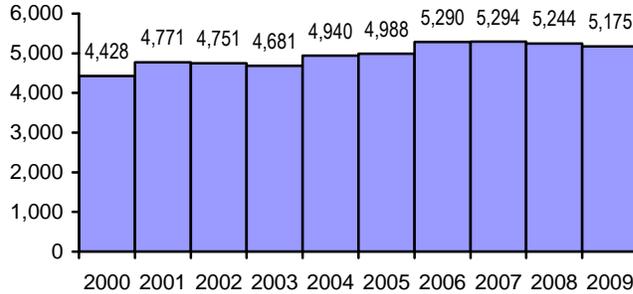
Diseases of the blood and blood-forming organs by age



Diseases of the Genitourinary System (ICD-9 580–629)

There were 49,562 hospitalizations due to diseases of the genitourinary system in the state during 2000–2009 (average 4,956 per year). Annual trend shows an increasing number of hospitalizations.

Diseases of the Genitourinary System, SD, 2000-2009



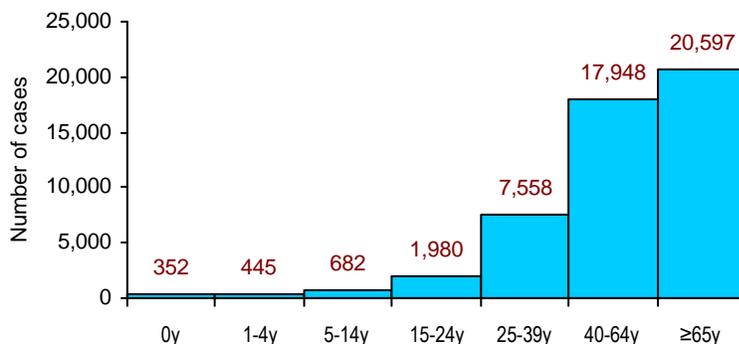
The northeast region had the highest rate of hospitalizations (higher than the state rate of 520). Females were hospitalized considerably more often than males (70% vs. 30%). Out-of-state residents accounted for 16% of all hospitalizations.

Region	Number of discharges	Median	Rate per 100,000
Northeast residents	11,398	1,145	573
Northwest residents	3,371	348	445
Southeast residents	19,695	1,970	524
Southwest residents	7,364	732	462
South Dakota total	41,830	4,222	520
Out-of-state residents	7,732	758	

Gender and Race	Number of discharges	Percent
Male	14,986	30.2%
Female	34,575	69.8%
White	41,286	83.3%
American Indian	2,704	5.5%
Other race	359	0.7%
Unknown race	5,213	10.5%

Urinary tract infection was the most common cause of hospitalization for diseases of the genitourinary system followed by acute renal failure and excessive menstruation.

Diseases of the genitourinary system by age



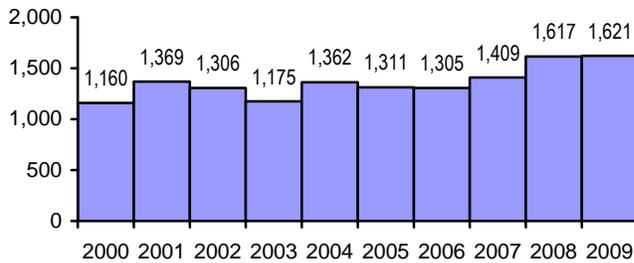
Diseases of the genitourinary system

- ICD-9 code, Name, Number, (Percent)
- 599.0 Urinary tract infection, site not specified, 7,805, (16%)
 - 584.9 Acute renal failure, 4,803 (10%)
 - 626.2 Excessive or frequent menstruation, 3,715 (8%)
 - 592.1 Calculus of ureter, 3,456 (7%)
 - 590.80 Pyelonephritis, unspecified, 1,774 (4%)
 - 618.4 Uterovaginal prolapse, unspecified, 1,524 (3%)
 - 590.10 Acute pyelonephritis without lesion of renal medullary necrosis, 1,506 (3%)
 - 617.0 Endometriosis of uterus, 1,487 (3%)
 - 592.0 Calculus of kidney, 1,408 (3%)
 - 600.01 Hypertrophy (benign) of prostate with urinary obstruction and other lower urinary tract symptoms, 1,099 (2%)
 - 618.5 Prolapse of vaginal vault after hysterectomy, 966 (2%)
 - 620.2 Other and unspecified ovarian cyst, 809 (2%)
 - 625.3 Dysmenorrhea, 784 (2%)
 - 626.8 Disorders of menstruation and other abnormal bleeding from female genital tract, other, 763 (2%)
 - 600.0 Hypertrophy (benign) of prostate, 722 (1%)
 - 618.2 Uterovaginal prolapse, incomplete, 719 (1%)
 - 625.9 Unspecified symptom associated with female genital organs, 709 (1%)
 - 625.6 Stress incontinence, female, 701 (1%)
 - 618.0 Prolapse of vaginal walls without mention of uterine prolapse, 603 (1%)
 - 618.3 Uterovaginal prolapse, complete, 582 (1%)
 - All others, <1%

Diseases of the Nervous System and Sense Organs (ICD-9 320–389)

Alzheimer's disease is one of the leading causes of death nationwide. During 2005–2009 Alzheimer's accounted for 5% of all deaths in South Dakota and ranked sixth in the list of the most common causes of death in the state. During 2000–2009 there were 13,635 hospitalizations due to diseases of the nervous system and sense organs in the state (average 1,364 per year).

Diseases of the nervous system and sense organs, SD, 2000–2009



Southeast region had the highest rate of hospitalization (higher than the state rate of 140). Out-of-state residents accounted for 15% of all hospitalizations.

Region	Number of discharges	Median	Rate per 100,000
Northeast residents	2,761	280	140
Northwest residents	723	68	88
Southeast residents	6,017	610	162
Southwest residents	2,033	202	128
South Dakota total	11,534	1,141	140
Out-of-state residents	2,101	200	

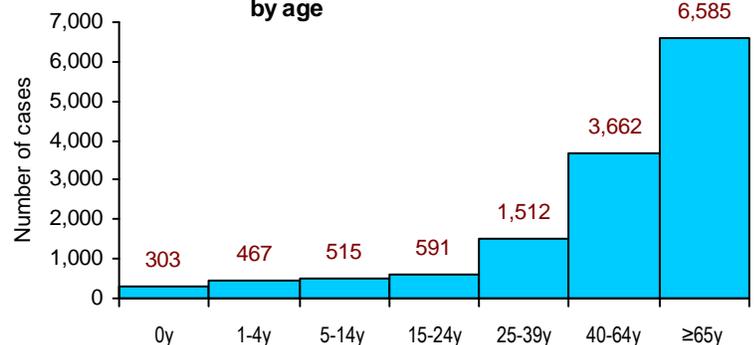
Gender and Race	Number of discharges	Percent
Male	5,941	43.6%
Female	7,694	56.4%
White	11,610	85.2%
American Indian	1,079	7.9%
Other race	157	1.2%
Unknown race	789	5.8%

Diseases of the nervous system and sense organs

- ICD-9 code, Name, Number, (Percent)
- 331.0 Alzheimer's disease, 1,925, (14%)
 - 386.30 Labyrinthitis, unspecified, 670 (5%)
 - 346.90 Migraine, unspecified without mention of intractable migraine, 521 (4%)
 - 345.90 Epilepsy, unspecified, without mention of intractable epilepsy, 439 (3%)
 - 332.0 Parkinson's disease, paralysis agitans, 431 (3%)
 - 345.3 Epilepsy, grand mal status, 407 (3%)
 - 340 Multiple sclerosis, 405 (3%)
 - 386.11 Benign paroxysmal positional vertigo, 248 (2%)
 - 331.3 Communicating hydrocephalus, 222 (2%)
 - 357.0 Acute infective polyneuritis, 216 (2%)
 - 346.91 Migraine, unspecified with intractable migraine, so stated, 207 (2%)
 - 350.1 Trigeminal neuralgia, 203 (1%)
 - 382.9 Unspecified otitis media, 199 (1%)
 - 331.4 Obstructive hydrocephalus, 195 (2%)
 - 331.82 Dementia with Lewy bodies, 195 (1%)
 - 338.3 Neoplasm related pain, 188 (1%)
 - 338.18 Other acute postoperative pain, 173, (1%)
 - 353.0 Brachial plexus lesions, 171 (1%)
 - 348.30 Encephalopathy, unspecified, 169 (1%)
 - 386.12 Vestibular neuronitis, 156 (1%)
 - 376.01 Orbital cellulites, 147 (1%)
 - 345.10 Generalized convulsive intractable epilepsy, 146 (1%)
 - 348.4 Compression of brain, 142 (1%)
 - All others, <1%

Females were hospitalized at a higher rate and the elderly were most commonly affected. Alzheimer's disease was the most common cause of hospitalization for diseases of the nervous system and sense organs followed by labyrinthitis and migraines.

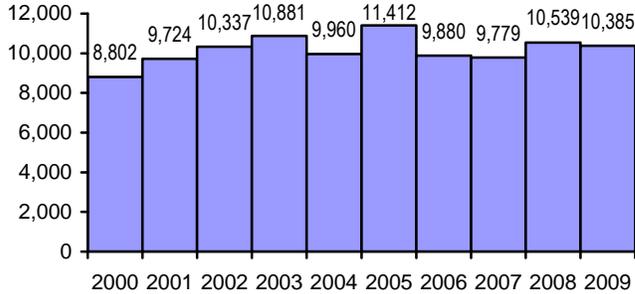
Diseases of the nervous system and sense organs by age



Diseases of the Respiratory System (ICD-9 460–519)

During 2000–2009 there were 101,699 hospitalizations due to diseases of the respiratory system in the state (average 10,170 per year).

Diseases of the respiratory system, SD, 2000-2009



Annual trend remained unchanged. The northeast region had the highest rate of hospitalization due to respiratory illness (higher than the state rate of 1,137). Female and male populations were affected equally. Out-of-state residents accounted for 9% of all hospitalizations.

Region	Number of discharges	Median	Rate per 100,000
Northeast residents	25,405	2,502	1,253
Northwest residents	6,794	658	842
Southeast residents	45,083	4,480	1,191
Southwest residents	15,398	1,530	966
South Dakota total	92,681	9,238	1,137
Out-of-state residents	9,018	912	

Gender and Race	Number of discharges	Percent
Male	50,759	49.9%
Female	50,937	50.1%
White	82,577	81.20
American Indian	9,744	9.6%
Other race	952	0.9%
Unknown race	8,426	8.3%

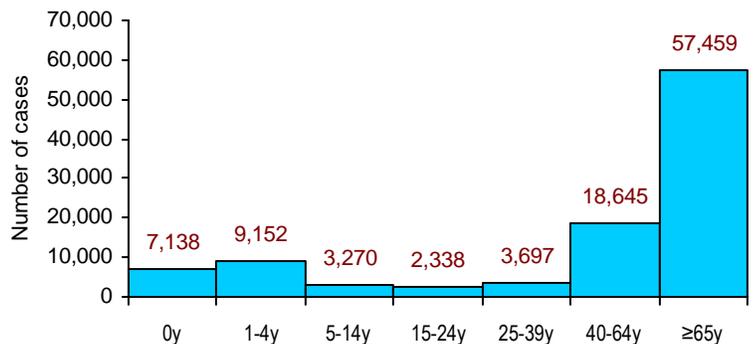
Diseases of the respiratory system

ICD-9 code, Name, Number, (Percent)

1. 486 Pneumonia, organism unspecified, 38,820 (38%)
 2. 491.21 Obstructive chronic bronchitis with (acute) exacerbation, 11,352 (11%)
 3. 518.81 Acute respiratory failure, 4,131 (4%)
 4. 507.0 Pneumonitis due to inhalation of food or vomitus, 3,665 (4%)
 5. 466.11 Acute bronchiolitis due to respiratory syncytial virus, 2,965 (3%)
 6. 493.92 Asthma, unspecified with (acute) exacerbation, 2,806 (3%)
 7. 481 Pneumococcal pneumonia [*Streptococcus pneumoniae* pneumonia], 2,274 (2%)
 8. 480.1 Pneumonia due to respiratory syncytial virus, 2,168 (2%)
 9. 466.0 Acute bronchitis, 2,038 (2%)
 10. 487.1 Influenza with other respiratory manifestations, 1,820 (2%)
 11. 487.0 Influenza with pneumonia, 1,680 (2%)
 12. 493.22 Chronic obstructive asthma with (acute) exacerbation, 1,536 (2%)
 13. 466.19 Acute bronchiolitis due to other infectious organisms, 1,381 (1%)
 14. 511.9 Unspecified pleural effusion, 1,351 (1%)
 15. 490 Bronchitis not specified as acute or chronic, 1,269 (1%)
 16. 496 Chronic airway obstruction, not elsewhere classified, 1,256 (1%)
 17. 482.41 Pneumonia due to *Staphylococcus aureus*, 1,067 (1%)
 18. 491.22 Obstructive chronic bronchitis, unspecified 1,031 (1%)
- All others. <1%

Pneumonia with unspecified organism was the most frequent cause of hospitalization for diseases of the respiratory system followed by obstructive chronic bronchitis with (acute) exacerbation.

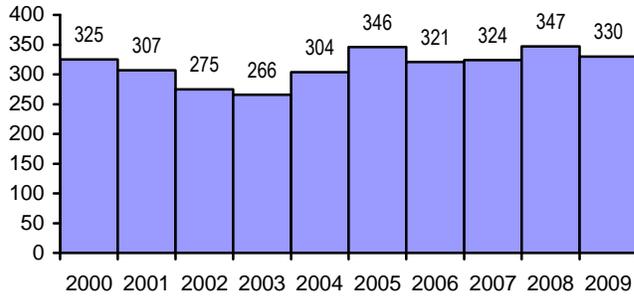
Diseases of the respiratory system by age



Congenital Anomalies (ICD-9 740–759)

During 2000–2009 there were 3,145 hospitalizations due to congenital anomalies in the state (average 314 per year).

Diseases of the Congenital Anomalies, SD, 2000-2007



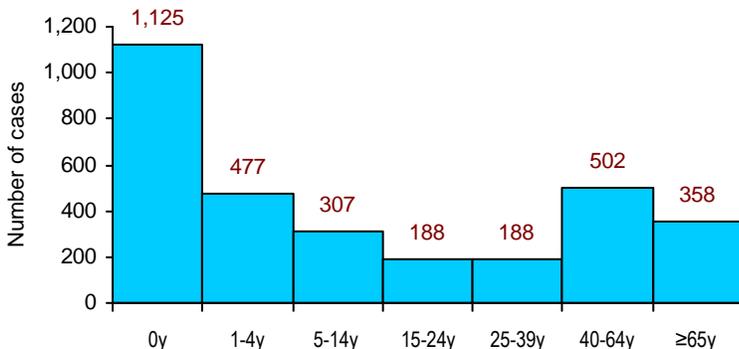
The southwest region had the highest hospitalization rate (higher than the state rate of 30). Males were more affected than female (56% vs. 44%). Out-of-state residents accounted for 21% of all hospitalizations.

Region	Number of discharges	Median	Rate per 100,000
Northeast residents	570	58	29
Northwest residents	184	16	20
Southeast residents	1,174	114	30
Southwest residents	553	57	36
South Dakota total	2,481	248	30
Out-of-state residents	664	68	

Gender and Race	Number of discharges	Percent
Male	1,759	55.9%
Female	1,386	44.1%
White	2,441	77.6%
American Indian	390	12.4%
Other race	49	1.6%
Unknown race	265	8.4%

As expected, infants (children aged <1 year old) were the most affected age group in this category. Congenital hypertrophic pyloric stenosis was the most common cause of hospitalization for congenital anomalies followed by ostium secundum type atrial defect.

Congenital anomalies by age

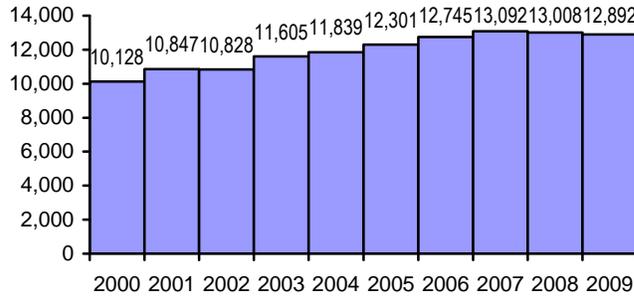


- Congenital anomalies**
 ICD-9 code, Name, Number, (Percent)
- 750.5 Congenital hypertrophic pyloric stenosis, 304 (10%)
 - 745.5 Ostium secundum type atrial defect, 267 (8%)
 - 756.12 Spondylolisthesis, 245 (8%)
 - 749.00 Cleft palate unspecified, 87 (3%)
 - 756.0 Anomalies of skull and face bones, 80 (3%)
 - 749.24 Cleft palate with cleft lip, bilateral, incomplete, 77 (2%)
 - 751.0 Meckel's diverticulum, 75 (2%)
 - 755.63 Other congenital deformity of hip (joint), 63 (2%)
 - 753.21 Congenital obstruction of ureteropelvic junction, 62 (2%)
 - 749.04 Cleft palate, bilateral, incomplete, 55 (2%)
 - 749.22 Cleft palate with cleft lip, unilateral, incomplete, 55 (2%)
 - 747.10 Coarctation of aorta (preductal) (postductal), 54 (2%)
 - 745.5 Ostium secundum type atrial septal defect nbt, 51 (2%)
 - 748.3 Other anomalies of larynx, trachea, and bronchus, 50 (2%)
 - 746.4 Congenital insufficiency of aortic valve, 48 (2%)
 - 749.20 Cleft palate with cleft lip, unspecified, 48 (2%)
 - 745.2 Tetralogy of Fallot, 44 (1%)
 - 746.85 Coronary artery anomaly, 44 (1%)
 - 751.4 Anomalies of intestinal fixation, 43 (1%)
 - 749.12 Cleft lip, unilateral, incomplete, 41 (1%)
 - 749.21 Cleft palate with cleft lip, unilateral, complete, 39 (1%)
 - 750.29 Other specified anomalies of pharynx, 36 (1%)
 - 742.3 Congenital hydrocephalus, 35 (1%)
 - 747.61 Gastrointestinal vessel anomaly, 33 (1%)
 - All others, <1%

Complications of Pregnancy, Childbirth and the Puerperium (ICD-9 630–679)

During 2000–2009 there were 119,285 hospitalizations due to complications of pregnancy, childbirth and the puerperium in the state (average 11,928 per year).

Complications of pregnancy, childbirth and the puerperium, SD, 2000-2007



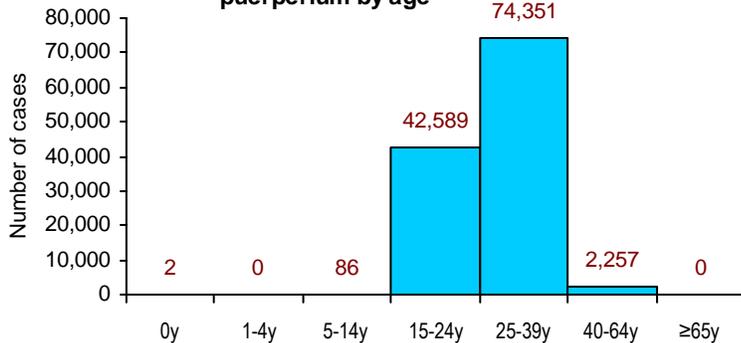
Annual trend shows an increase of hospitalizations. The northwest region had the highest hospitalization rate. Out-of-state residents accounted for 9% of all hospitalizations.

Region	Number of discharges	Median	Rate per 100,000
Northeast residents	24,775	2,413	1,208
Northwest residents	11,100	1,128	1,442
Southeast residents	52,021	5,314	1,413
Southwest residents	21,073	2,106	1,330
South Dakota total	108,971	10,996	1,354
Out-of-state residents	10,314	1,070	

Gender and Race	Number of discharges	Percent
Male	N/A	N/A
Female	119,285	100%
White	90,058	75.5%
American Indian	12,943	10.8%
Other race	2,536	2.1%
Unknown race	13,748	11.5%

Previous cesarean delivery was the most common cause of complications of pregnancy, childbirth and the puerperium followed by second degree perineal laceration.

Complications of pregnancy, childbirth and the puerperium by age



Complications of pregnancy, childbirth and the puerperium

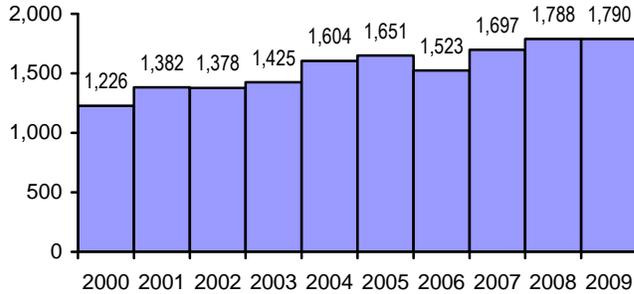
ICD-9 code, Name, Number, (Percent)

- 654.21 Previous cesarean delivery, delivered with or without mention of antepartum condition, 10,778, (9%)
 - 664.11 Second degree perineal laceration, delivered with or without mention of antepartum condition, 9,914 (8%)
 - 650 Normal delivery, 8,157 (7%)
 - 664.01 First degree perineal laceration, unspecified as to episode of care or not applicable, 7,207 (6%)
 - 659.71 Abnormality in fetal heart rate or rhythm, delivered with or without mention of antepartum condition, 6,664 (6%)
 - 663.31 Other and unspecified cord entanglement, without mention of compression, delivered with or without mention of antepartum condition, 5,174 (4%)
 - 645.11 Post term pregnancy, delivered with or without mention of antepartum condition, 4,498 (4%)
 - 644.21 Early onset of delivery, delivered with or without mention of antepartum condition, 4,176 (4%)
 - 648.91 Other current conditions classifiable elsewhere, delivered with or without mention of antepartum condition, 4,050 (3%)
 - 644.03 Threatened premature labor, antepartum condition or complication, 2,563 (2%)
 - 642.31 Transient hypertension of pregnancy, delivered with or without mention of antepartum condition, 2,330 (2%)
 - 652.21 Breech presentation without mention of version, delivered with or without mention of antepartum condition, 2,076 (2%)
 - 642.41 Mild or unspecified pre-eclampsia, delivered with or without mention of antepartum condition, 1,850 (2%)
 - 661.21 Other and unspecified uterine inertia, delivered with or without mention of antepartum condition, 1,785 (2%)
 - 648.81 Abnormal glucose tolerance, delivered with or without mention of antepartum condition, 1,691 (1%)
 - 658.11 Premature rupture of membranes, delivered with or without mention of antepartum condition, 1,639 (1%)
 - 658.01 Oligohydramnios, delivered with or without mention of antepartum condition, 1,542 (1%)
 - 664.21 Third-degree perineal laceration, delivered with or without mention of antepartum condition, 1,522 (1%)
 - 663.11 Cord around neck, with compression, delivered with or without mention of antepartum condition, 1,448 (1%)
 - 665.51 Other injury of pelvic organs, delivered with or without mention of antepartum condition, 1,414 (1%)
 - 661.31 Precipitate labor, delivered with or without mention of antepartum condition, 1,405 (1%)
 - 661.01 Primary uterine inertia, delivered with or without mention of antepartum condition, 1,381 (1%)
 - 648.93 Other current conditions classifiable elsewhere, antepartum condition or complication, 1,261 (1%)
 - 656.61 Excessive fetal growth, delivered with or without mention of antepartum condition, 1,242 (1%)
- All others, <1%

Diseases of the Skin and Subcutaneous Tissue (ICD-9 680–709)

During 2000–2009 there were 15,464 hospitalizations due to diseases of the skin and subcutaneous tissue in the state (average 1,546 per year).

Diseases of the skin and subcutaneous tissue, SD, 2000–2009



Annual trend shows an increase of hospitalizations. The southeast region had the highest hospitalization rate (higher than the state rate of 172). Females and males were affected almost equally. The elderly were most often affected. Out-of-state residents accounted for 10% of all hospitalizations.

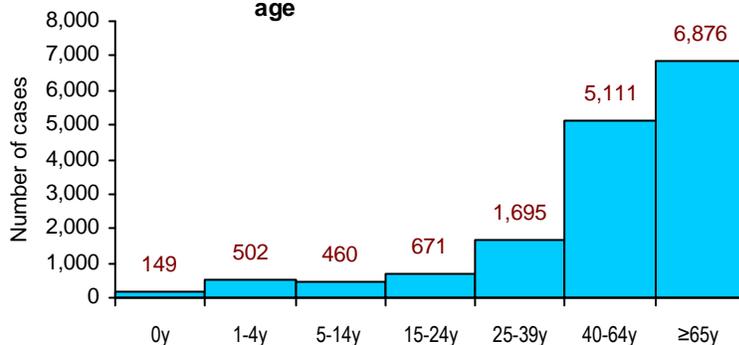
Region	Number of discharges	Median	Rate per 100,000
Northeast residents	3,266	354	177
Northwest residents	961	97	124
Southeast residents	6,908	676	180
Southwest residents	2,760	275	174
South Dakota total	13,895	1,394	172
Out-of-state residents	1,569	162	

Gender and Race	Number of discharges	Percent
Male	7,535	48.7%
Female	7,929	51.3%
White	12,029	77.8%
American Indian	2,123	13.7%
Other race	110	0.7%
Unknown race	1,202	7.8%

Diseases of the skin and subcutaneous tissue	
ICD-9 code	Name, Number, (Percent)
1. 682.6	Cellulitis and abscess of leg, except foot, 6,300 (41%)
2. 682.7	Cellulitis and abscess of leg, except toes, 1,251 (8%)
3. 682.3	Cellulitis and abscess of upper arm and forearm, 1,023 (7%)
4. 682.2	Cellulitis and abscess of trunk, 873 (6%)
5. 682.0	Cellulitis and abscess of face, 744 (5%)
6. 682.4	Cellulitis and abscess of hand, except fingers and thumb, 531 (3%)
7. 707.0	Decubitus ulcer, 514 (3%)
8. 681.10	Cellulitis and abscess of toe, unspecified, 338 (2%)
9. 707.03	Decubitus ulcer, lower back, 277 (2%)
10. 682.5	Cellulitis and abscess of buttock, 261 (2%)
11. 707.15	Ulcer of other part of foot, 251 (2%)
12. 681.00	Cellulitis and abscess of finger, unspecified, 229 (1%)
13. 682.1	Cellulitis and abscess of neck, 194 (1%)
14. 707.19	Ulcer of other part of lower limb, 156 (1%)
All others, <1%	

Cellulitis and abscess of leg were the most frequent causes of hospitalization for disease of the skin and subcutaneous tissue, followed by cellulitis and abscess of arm.

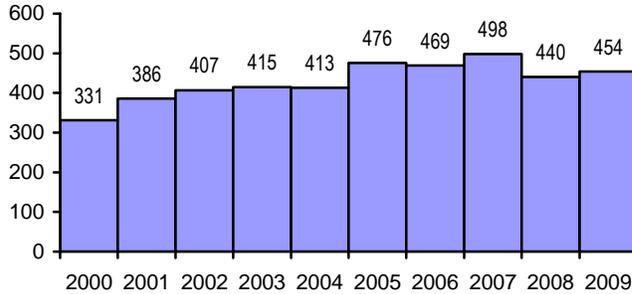
Diseases of the skin and subcutaneous tissue by age



Certain Conditions Originating in the Perinatal Period (ICD-9 760–779)

During 2000–2009 there were 4,289 hospitalizations due to conditions in the perinatal period in the state (average 429 per year).

Conditions in the perinatal period, SD, 2000-2009



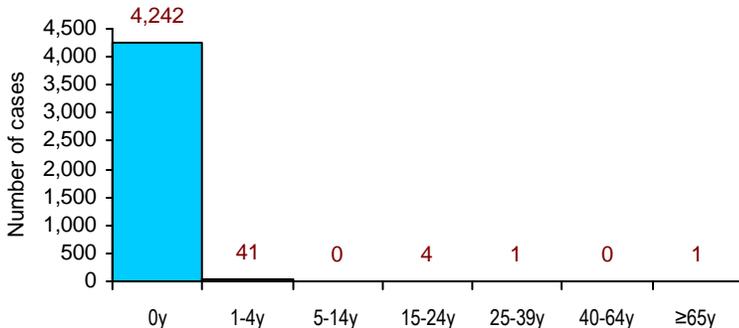
Annual trend shows an increase in hospitalizations. The northeast region had the highest hospitalization rate (higher than the state rate of 38). Out-of-state residents accounted for 29% of all hospitalizations.

Region	Number of discharges	Median	Rate per 100,000
Northeast residents	894	92	46
Northwest residents	343	34	43
Southeast residents	1,116	110	29
Southwest residents	713	69	44
South Dakota total	3,066	312	38
Out-of-state residents	1,223	125	

Gender and Race	Number of discharges	Percent
Male	2,438	56.8%
Female	1,849	43.1%
White	2,798	65.2%
American Indian	704	16.4%
Other race	91	2.1%
Unknown race	696	16.2%

Males were more affected than females (57% vs. 43%). Unspecified fetal and neonatal jaundice was the most common cause of hospitalization for conditions in the perinatal period followed by respiratory distress syndrome.

Conditions in the perinatal period by age

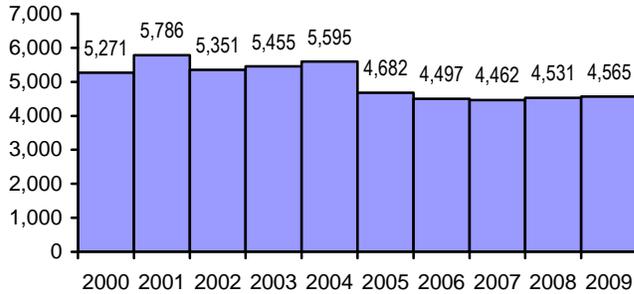


- Conditions in the perinatal period
ICD-9 code, Name, Number, (Percent)
- 774.6 Unspecified fetal and neonatal jaundice, 797, (19%)
 - 769 Respiratory distress syndrome, 296 (7%)
 - 770.89 Other respiratory problems after birth, 283 (7%)
 - 770.6 Transitory tachypnea of newborn, 260 (6%)
 - 770.8 Other respiratory problems after birth, 208 (5%)
 - 779.89 Other specified conditions originating in the perinatal period, 187 (4%)
 - 771.81 Septicemia [sepsis] of newborn, 177 (4%)
 - 765.19 Other preterm infants, 2,500 grams and over, 164 (4%)
 - 770.81 Primary apnea of newborn, 143 (3%)
 - 765.18 Other preterm infants, 2,000-2,499 grams, 129 (3%)
 - 770.2 Interstitial emphysema and related conditions, 118 (3%)
 - 770.0 Congenital pneumonia, 91 (2%)
 - 779.3 Feeding problems in newborn, 82 (2%)
 - 778.4 Other disturbances of temperature regulation of newborn, 73 (2%)
 - 779.0 Convulsions in newborn, 73 (2%)
 - 770.84 Respiratory failure of newborn, 70 (2%)
 - 765.17 Other preterm infants, 1,750-1,999 grams, 64 (1%)
 - 773.1 Hemolytic disease due to ABO isoimmunization, 64 (1%)
 - 770.7 Chronic respiratory disease arising in the perinatal period, 62 (1%)
 - 770.1 Fetal and newborn aspiration, 58 (1%)
 - 771.8 Other infection specific to the perinatal period, 55 (1%)
 - 774.39 Neonatal jaundice due to delayed conjugation from other causes, 55 (1%)
 - 765.16 Other preterm infants, 1,500-1,749 grams, 48 (1%)
 - 774.2 Neonatal jaundice associated with preterm delivery, 46 (1%)
 - All others, <1%

Symptoms, Signs, and Ill-defined Conditions (ICD-9 780–799)

During 2000–2009 there were 50,195 hospitalizations due to symptoms, signs, and ill-defined conditions in the state (average 5,020 per year).

Symptoms, signs, and ill-defined conditions, SD, 2000–2009



The southeast region had the highest rate per 100,000 residents per year in this category (higher than the state rate of 550). The female population was affected more than male (56% vs. 44%). Out-of-state residents accounted for 11% of all hospitalizations.

Region	Number of discharges	Median	Rate per 100,000
Northeast residents	11,536	1,148	575
Northwest residents	3,622	367	470
Southeast residents	21,582	2,174	578
Southwest residents	7,937	743	469
South Dakota total	44,678	4,467	550
Out-of-state residents	5,517	556	

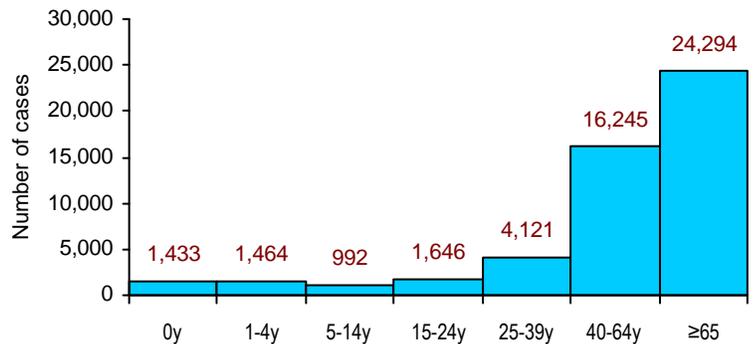
Gender and Race	Number of discharges	Percent
Male	22,220	44.3%
Female	27,973	55.7%
White	41,965	83.6%
American Indian	4,143	8.3%
Other race	485	1%
Unknown race	3,602	7.2%

Symptoms, signs, and ill-defined conditions

- ICD-9 code, Name, Number, (Percent)
- 786.50 Chest pain, unspecified, 7,655 (15%)
 - 786.59 Chest pain, other, 6,933 (14%)
 - 780.2 Syncope and collapse, 4,643 (9%)
 - 780.39 Other convulsions, 3,367 (7%)
 - 789.00 Abdominal pain, unspecified site, 2,465 (5%)
 - 780.6 Fever, 2,187 (4%)
 - 780.79 Other malaise and fatigue, 2,101 (4%)
 - 787.01 Nausea with vomiting, 1,736 (3%)
 - 780.4 Dizziness and giddiness, 1,223 (2%)
 - 787.91 Diarrhea, 1,011 (2%)
 - 784.0 Headache, 1,003 (2%)
 - 789.09 Abdominal pain, other specified site, 923 (2%)
 - 789.03 Abdominal pain, right lower quadrant, 835 (2%)
 - 789.06 Abdominal pain, epigastric, 807 (2%)
 - 786.52 Painful respiration, 781 (2%)
 - 790.7 Bacteremia, 650 (1%)
 - 789.01 Abdominal pain, right upper quadrant, 634 (1%)
 - 780.09 General symptoms, other, 631 (1%)
 - 786.09 Symptoms involving respiratory system and other chest symptoms, other, 570 (1%)
- All others, <1%

Unspecified chest pain was the most common cause of hospitalizations for symptoms, signs, and ill-defined conditions.

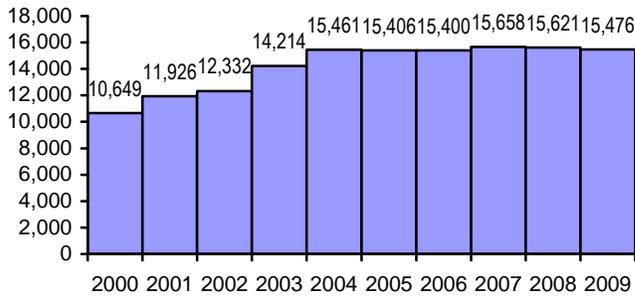
Symptoms, signs, and ill-defined conditions by age



Factors Influencing Health Status and Contact with Health Services (ICD-9 V01-V89)

During 2000–2009 there were 142,143 hospitalizations due to factors influencing health status and contact with health services in the state (average 14,214 per year).

Factors influencing health status and contact with health services, SD, 2000-2009



The southeast region had the highest hospitalization rate (higher than the state rate of 1,721). Males and females were almost equally affected (49% vs. 50%). Out-of-state residents accounted for 10% of all hospitalizations.

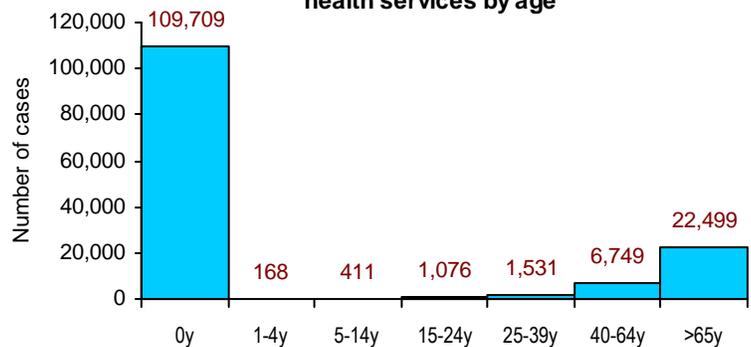
Region	Number of discharges	Median	Rate per 100,000
Northeast residents	31,081	3,436	1,720
Northwest residents	11,757	1,222	1,563
Southeast residents	62,087	6,702	1,782
Southwest residents	23,681	2,491	1,573
South Dakota total	128,607	1,3978	1,721
Out-of-state residents	13,536	1,409	

Gender and Race	Number of discharges	Percent
Male	70,278	49.4%
Female	71,829	50.5%
White	112,923	79.4%
American Indian	12,907	9.1%
Other race	2,455	1.7%
Unknown race	13,858	9.8%

- Factors influencing health status and contact with health services
ICD-9 code, Name, Number, (Percent)
1. V30.00 Single liveborn, born in hospital, delivered without mention of cesarean delivery, 79,192 (56%)
 2. V30.01 Single liveborn, delivered in hospital, delivered by cesarean delivery, 26,474 (19%)
 3. V57.89 Other specified rehabilitation procedure, other, 12,715 (9%)
 4. V57.1 Other physical therapy, 8,361 (6%)
 5. V31.01 Twin, mate liveborn, born in hospital, delivered by cesarean delivery, 2,294 (2%)
 6. V58.1 Encounter for antineoplastic chemotherapy and immunotherapy, 1,699 (1%)
 7. V58.11 Encounter for antineoplastic chemotherapy, 1,546 (1%)
- All others, <1%

Single liveborn, born in hospital was the most common cause of hospitalizations for factors influencing health status and contact with health services.

Factors influencing health status and contact with health services by age



Annex, Table 1. Diseases of the circulatory system, leading sub-categories

<u>ICD-9</u>	<u>Name</u>	<u>Number</u>	<u>Percent</u>
414.01	Coronary atherosclerosis of native coronary artery	21,628	14.32
428.0	Congestive heart failure	20,062	13.28
427.31	Atrial fibrillation	10,453	6.92
410.71	Acute subendocardial infarction, initial episode of care	9,763	6.46
434.91	Cerebral artery occlusion, unspecified, with cerebral infarction	6,999	4.63
433.10	Occlusion and stenosis of carotid artery without mention of cerebral infarction	4,127	2.73
415.19	Pulmonary embolism and infarction, other	3,909	2.59
435.9	Unspecified transient cerebral ischemia	3,762	2.49
410.41	Acute myocardial infarction of other inferior wall, initial episode of care	3,467	2.30
427.89	Other specified cardiac dysrhythmias, other,	2,922	1.93
410.11	Acute myocardial infarction of other anterior wall, initial episode of care	2,586	1.71
410.91	Acute myocardial infarction, unspecified site, initial episode of care	2,449	1.62
436	Acute, but ill-defined, cerebrovascular disease	2,422	1.60
427.81	Sinoatrial node dysfunction	2,278	1.51
453.8	Other venous embolism and thrombosis of other specified veins	2,151	1.42
440.21	Atherosclerosis of the extremities with intermittent claudication	1,907	1.26
441.4	Abdominal aneurism without mention of rupture	1,808	1.20
411.1	Other acute and subacute forms of ischemic heart disease, intermediate coronary syndrome	1,783	1.18
414.00	Coronary atherosclerosis of unspecified type of vessel, native or graft	1,671	1.11
431	Intracerebral hemorrhage	1,537	1.02
401.9	Essential hypertension, unspecified	1,430	0.95
427.1	Paroxysmal ventricular tachicardia	1,376	0.91
424.1	Aortic valve disorders	1,350	0.89
426.0	Atrioventricular block, complete	1,228	0.81
403.91	Hypertensive chronic kidney disease, unspecified, with stage V or end stage renal disease	1,100	0.73
427.32	Atrial flutter	1,097	0.73
413.9	Other and unspecified angina pectoris	1,055	0.70
414.02	Coronary atherosclerosis of autologous vein bypass graft	1,044	0.69
440.23	Atherosclerosis of the extremities with ulceration	952	0.63
458.0	Orthostatic hypotension	941	0.62
453.41	Venous embolism and thrombosis of deep vessels of proximal lower extremity	903	0.6
440.1	Atherosclerosis of renal artery	880	0.58
434.11	Occlusion of cerebral arteries with cerebral infarction	782	0.52
425.4	Other primary cardiomyopathies	753	0.50
432.1	Subdural hemorrhage	696	0.46
458.9	Hypotension, unspecified	694	0.46
440.24	Atherosclerosis of the extremities with gangrene	649	0.43
430	Subarachnoid hemorrhage	630	0.42
410.01	Acute myocardial infarction of anterolateral wall, initial episode of care	619	0.41
424.0	Mitral valve disorders	614	0.41
428.23	Systolic heart failure, acute on chronic	607	0.40
414.8	Other specified forms of chronic ischemic heart disease	579	0.38
444.22	Arterial embolism and thrombosis of arteries of the lower extremity	576	0.38
410.21	Acute myocardial infarction of inferolateral wall, initial episode of care	562	0.37
440.20	Atherosclerosis of the extremities, unspecified	549	0.36
453.42	Venous embolism and thrombosis of deep vessels of distal lower extremity	526	0.35
433.11	Occlusion and stenosis of carotid artery with cerebral infarction	510	0.34
427.0	Paroxysmal supraventricular tachicardia	509	0.34
433.30	Occlusion and stenosis of multiple and bilateral precerebral arteries without mention of cerebral infarction	494	0.33
All others		19,658	13.00

Annex, Table 2. Musculoskeletal system and connective tissue, leading sub-categories

<u>ICD-9</u>	<u>Name</u>	<u>Number</u>	<u>Percent</u>
715.36	Osteoarthritis, localized, not specified whether primary or secondary, lower leg	19,887	27.09
715.35	Osteoarthritis, localized, not specified whether primary or secondary, pelvic region or thigh	8,857	12.06
722.10	Lumbar intervertebral disc without myelopathy	5,794	7.89
724.02	Spinal stenosis, other than cervical, lumbar region	3,842	5.23
722.52	Degeneration of lumbar or lumbosacral intervertebral disc	3,596	4.90
733.13	Pathologic fracture of vertebrae	2,462	3.35
722.0	Displacement of cervical intervertebral disc without myelopathy	2,162	2.94
724.2	Lumbago	1,693	2.31
721.3	Lumbosacral spondylosis without myelopathy	1,217	1.66
715.31	Osteoarthritis, localized, not specified whether primary or secondary, shoulder region	1,025	1.40
738.4	Acquired spondylolisthesis	1,023	1.39
724.5	Backache, unspecified	929	1.27
715.96	Osteoarthritis, unspecified whether generalized or localized, lower leg	718	0.98
721.0	Cervical spondylosis without myelopathy	716	0.98
714.0	Rheumatoid arthritis	620	0.84
733.82	Nonunion of fracture	609	0.83
715.37	Osteoarthritis, localized, not specified whether primary or secondary, ankle and foot	578	0.79
730.27	Unspecified osteomyelitis, ankle and foot	578	0.79
715.16	Osteoarthritis, localized, not specified whether primary or secondary, lower leg	571	0.78
722.4	Degeneration of cervical intervertebral disc	564	0.77
733.42	Aseptic necrosis of bone, head and neck of femur	532	0.72
719.45	Pain in joint, pelvic region and thigh	509	0.69
711.06	Pyogenic arthritis, lower leg	480	0.65
723.0	Spinal stenosis in cervical region	409	0.56
722.71	Intervertebral disc disorder without myelopathy, cervical region	406	0.55
721.1	Cervical spondylosis with myelopathy	398	0.54
729.5	Pain in limb	393	0.54
726.10	Disorders of bursae and tendons in shoulder region, unspecified	385	0.52
715.95	Osteoarthritis, unspecified whether generalized or localized	337	0.46
733.6	Tietze's disease	283	0.39
733.14	Pathologic fracture of neck of femur	258	0.35
722.93	Other and unspecified disc disorder, lumbar region	248	0.34
729.89	Other musculoskeletal symptoms referable to limbs, other	245	0.33
723.1	Cervicalgia	234	0.32
724.4	Thoracic or lumbosacral neuritis or radiculitis, unspecified	233	0.32
719.46	Pain in joint, lower leg	218	0.30
729.1	Myalgia and myositis, unspecified	215	0.29
726.65	Prepatellar bursitis	214	0.29
726.33	Olecranon bursitis	206	0.28
722.83	Postlaminectomy syndrome, lumbar region	198	0.27
727.40	Synovial cyst, unspecified	188	0.26
730.07	Acute osteomyelitis, ankle and foot	185	0.25
710.0	Systemic lupus erythematosus	180	0.25
715.15	Osteoarthritis, localized, primary pelvic region or thigh	179	0.24
726.5	Enthesopathy of hip region	173	0.24
719.41	Pain in joint, shoulder region	172	0.23
736.79	Other acquired deformities of ankle and foot, other	165	0.22
722.73	Intervertebral disc disorder with myelopathy, lumbar region	164	0.22
728.88	Rhabdomyolysis	163	0.22
All others		8,009	10.9

Annex, Table 3. Injury and poisoning, leading sub-categories

<u>ICD-9</u>	<u>Name</u>	<u>Number</u>	<u>Percent</u>
820.21	Pertrochanteric fracture, closed, intertrochanteric section	5,142	6.20
998.59	Other postoperative infection	3,815	4.60
820.8	Fracture of unspecified part of neck of femur, closed	3,693	4.45
820.09	Fracture of neck of femur, other	2,297	2.77
996.4	Mechanical complication of internal orthopedic device, implant and graft	1,876	2.26
805.4	Fracture of vertebral column without mention of spinal cord injury, lumbar, closed	1,645	1.98
997.4	Digestive system complications	1,439	1.73
808.2	Fracture of pubis, closed	1,400	1.69
805.2	Fracture of vertebral column without mention of spinal cord injury, dorsal [thoracic], closed	1,229	1.48
824.4	Fracture of ankle, bimalleolar, closed	1,168	1.41
996.62	Infection and inflammatory reaction due to other vascular device, implant and graft,	1,124	1.35
824.8	Fracture of ankle, unspecified, closed	1,025	1.24
821.01	Shaft of unspecified part, closed, shaft,	974	1.17
840.4	Sprains and strains of shoulder and upper arm, rotar cuff (capsule),	963	1.16
998.11	Hemorrhage complicating a procedure	874	1.05
996.66	Infection and inflammatory reaction due to internal joint prosthesis	808	0.97
824.6	Fracture of ankle, trimalleolar, closed	776	0.94
823.00	Fracture of tibia alone, upper end, closed	730	0.88
965.4	Poisoning by aromatic analgesics, not elsewhere classified	717	0.86
969.0	Poisoning by antidepressants	651	0.78
969.4	Poisoning by benzodiazepine-based tranquilizers	619	0.75
860.0	Pneumothorax without mention of open wound into thorax	575	0.69
813.42	Other fractures of distal end of radius (alone)	568	0.68
820.22	Pertrochanteric fracture, closed, subtrochanteric section	564	0.68
996.73	Other complications due to renal dialysis device, implant and graft	563	0.68
996.74	Complications peculiar to certain specified procedures, digestive system complications	563	0.68
996.81	Complications of transplanted kidney	546	0.66
996.49	Other mechanical complications of other internal orthopedic device, implant, and graft	542	0.65
844.2	Sprains and strains of cruciate ligament of knee	541	0.65
998.12	Hematoma complicating a procedure	538	0.65
852.21	Subdural hemorrhage following injury without mention of open intracranial wound, with no loss of consciousness	523	0.63
996.2	Infection and inflammatory reaction due to other vascular device implant and graft	509	0.61
812.01	Fracture of humerus, surgical neck, closed	493	0.59
821.23	Supracondylar fracture of femur	439	0.53
959.01	Head injury, unspecified	439	0.53
812.00	Fracture of humerus, upper end, unspecified part, closed	429	0.52
823.22	Fracture of fibula with tibia, shaft closed,	409	0.49
852.20	Subdural hemorrhage following injury without mention of open intracranial wound, unspecified state of consciousness	408	0.49
808.0	Fracture of pelvis, acetabulum, closed	401	0.48
998.2	Accidental puncture or laceration during a procedure	388	0.47
850.5	Concussion, with loss of consciousness of unspecified duration	382	0.46
822.0	Fracture of patella, closed	372	0.45
997.62	Amputation stump complication, infection (chronic)	366	0.44
996.77	Complications due to internal joint prosthesis	346	0.42
813.44	Fracture of radius with ulna, lower end	340	0.41
996.67	Infection and inflammatory reaction due to other internal orthopedic device implant and graft	337	0.41
996.78	Other complications due to other internal orthopedic device, implant and graft	319	0.38
997.2	Complications peculiar to certain specified procedures, peripheral vascular complications	313	0.38
805.02	Fracture of second cervical vertebra without mention of spinal cord injury, closed	311	0.37
All others		37,486	45.2

Annex, Table 4. Endocrine, nutritional, metabolic, and immunity disorders, leading sub-categories

ICD-9	Name	Number	Percent
276.5	Volume depletion	6,077	18.44
278.01	Morbid obesity	4,875	14.79
276.51	Dehydration	3,985	12.09
276.1	Hyposmolality and/or hyponatremia	1,978	6.00
250.80	Diabetes with other specified manifestations, type II or unspecified type, not stated as uncontrolled	1,715	5.20
250.13	Diabetes with ketoacidosis, type I, uncontrolled	1,129	3.43
250.02	Diabetes mellitus without mention of complication, Type II, or unspecified type, uncontrolled	831	2.52
250.70	Diabetes with peripheral circulatory disorders, type II or unspecified type, not stated as uncontrolled	804	2.44
250.11	Diabetes with ketoacidosis, type I, not stated as uncontrolled	762	2.31
276.8	Hypopotassemia	577	1.75
250.60	Diabetes with neurological manifestations, type II or unspecified type, not stated as uncontrolled	547	1.66
250.40	Diabetes with renal manifestations, type II or unspecified type, not stated as uncontrolled	535	1.62
276.7	Hyperpotassemia	526	1.60
250.01	Diabetes mellitus without mention of complication, type I, not stated as uncontrolled	487	1.48
250.00	Diabetes mellitus without mention of complication, Type II, or unspecified type, not stated as uncontrolled	431	1.31
250.82	Diabetes with other specified manifestations, type II or unspecified type, uncontrolled	405	1.23
250.12	Diabetes with ketoacidosis, type II, or unspecified type, uncontrolled	336	1.02
253.6	Other disorders of neurohypophysis	325	0.99
241.1	Nontoxic multinodular goiter	292	0.89
274.0	Gouty arthropathy	255	0.77
275.42	Hypercalcemia	248	0.75
250.10	Diabetes with ketoacidosis, type II or unspecified type, not stated as uncontrolled	240	0.73
250.62	Diabetes with neurological manifestations, type II or unspecified type, uncontrolled	229	0.69
250.81	Diabetes with other specified manifestations, type I, not stated as uncontrolled	227	0.69
250.03	Diabetes mellitus without mention of complication, type I, uncontrolled	225	0.68
276.0	Hyperosmolality and/or hypernatremia	217	0.66
278.1	Localized adiposity	208	0.63
263.9	Unspecified protein-calorie malnutrition	197	0.60
250.61	Diabetes with neurological manifestations, type I, not stated as uncontrolled	172	0.52
276.6	Fluid overload	163	0.49
255.4	Corticoadrenal insufficiency	159	0.48
251.2	Hypoglycemia, unspecified	145	0.44
250.72	Diabetes with peripheral circulatory disorders, type II or unspecified type, uncontrolled	140	0.42
277.02	Cystic fibrosis with pulmonary manifestations	128	0.39
250.41	Diabetes with renal manifestations, type I, not stated as uncontrolled	119	0.36
276.2	Acidosis	115	0.35
250.42	Diabetes with renal manifestations, type II or unspecified type, uncontrolled	102	0.31
250.22	Diabetes with hyperosmolality, type II or unspecified type, uncontrolled	95	0.29
250.63	Diabetes with neurological manifestations, type I, uncontrolled	94	0.29
244.9	Unspecified hypothyroidism	93	0.28
250.83	Diabetes with other specified manifestations, type I, uncontrolled	93	0.28
245.2	Chronic lymphocytic thyroiditis	90	0.27
252.0	Hyperparathyroidism	89	0.27
241.0	Nontoxic uninodular goiter	86	0.26
250.20	Diabetes with hyperosmolality, type II or unspecified type, not stated as uncontrolled	85	0.26
250.92	Diabetes with unspecified complication, type II or unspecified type, uncontrolled	85	0.26
275.49	Other disorders of calcium metabolism	85	0.26
277.3	Amyloidosis	81	0.25
250.71	Diabetes with peripheral circulatory disorders, type I, not stated as uncontrolled	77	0.23
All others		2,004	6.10

Annex, Table 5. Infectious and parasitic diseases, leading sub-categories

<u>ICD-9</u>	<u>Name</u>	<u>Number</u>	<u>Percent</u>
038.9	Unspecified septicemia	3,582	16.63
008.8	Enteritis due to specified virus, other organism, not elsewhere classified	1,892	8.78
008.45	Intestinal infections due to <i>Clostridium difficile</i>	1,784	8.28
038.42	Septicemia due to <i>Escherichia coli</i> (<i>E.coli</i>)	1,363	6.33
079.99	Unspecified viral infection	1,157	5.37
008.61	Rotavirus	909	4.22
038.11	<i>Staphylococcus aureus</i> septicemia	852	3.96
047.9	Unspecified viral meningitis	818	3.80
038.0	Streptococcal septicemia	793	3.68
038.49	Septicemia due to other gram-negative organisms, other	442	2.05
038.2	Pneumococcal septicemia (<i>Streptococcus pneumoniae</i> septicemia)	395	1.83
075.	Infectious mononucleosis	392	1.82
079.6	Respiratory syncytial virus	365	1.69
034.0	Streptococcal sore throat	363	1.69
053.9	Herpes zoster without mention of complication	296	1.37
038.19	Other staphylococcal septicemia	264	1.23
042.	HIV disease	228	1.06
009.0	Congenital syphilis	218	1.01
038.43	Septicemia due to <i>Pseudomonas</i>	198	0.92
066.4	West Nile fever	176	0.82
038.10	Staphylococcal septicemia, unspecified	172	0.80
008.43	Intestinal infection due to campylobacter	167	0.78
038.40	Septicemia due to other gram-negative organism, unspecified	166	0.77
003.0	Salmonella gastroenteritis	165	0.77
049.9	Unspecified non-arthropod-borne viral diseases of central nervous system	156	0.72
038.8	Other specified septicemias	155	0.72
053.19	Herpes zoster with other nervous system complication, other	123	0.57
117.3	Aspergillosis	122	0.57
135	Sarcoidosis	119	0.55
078.5	Cytomegaloviral disease	112	0.52
112.2	Candidiasis of other urogenital sites	108	0.50
112.4	Candidiasis of lung	107	0.50
066.41	West Nile fever with encephalitis	95	0.44
038.3	Septicemia due to anaerobes	94	0.44
035	Erysipelas	86	0.40
079.89	Other specified viral infection	82	0.38
038.12	Methicillin resistant <i>Staphylococcus aureus</i> septicemia	79	0.37
008.00	Intestinal infection due to <i>E. coli</i> , unspecified	75	0.35
112.84	Candidal esophagitis	75	0.35
047.8	Other specified viral meningitis	72	0.33
054.2	Herpetic gingivostomatitis	71	0.33
007.1	Giardiasis	69	0.32
054.3	Herpetic meningoencephalitis	68	0.32
007.4	Cryptosporidiosis	59	0.27
053.79	Herpes zoster with other specified complications, other	55	0.26
136.9	Unspecified infectious and parasitic diseases	54	0.25
005.9	Food poisoning, unspecified	52	0.24
048	Other enterovirus diseases of central nervous system	52	0.24
033.9	Whooping cough, unspecified organism	51	0.24
All others		2,190	10.2

Annex, Table 6. Neoplasms, leading sub-categories

<u>ICD-9</u>	<u>Name</u>	<u>Number</u>	<u>Percent</u>
218.9	Leiomyoma of uterus	3,375	7.29
185	Malignant neoplasms of prostate	3,169	6.85
174.9	Malignant neoplasms of breast (female) unspecified	1,797	3.88
162.9	Malignant neoplasms of bronchus and lung, unspecified	1,757	3.80
182.0	Malignant neoplasms of corpus uteri, except isthmus	1,398	3.02
189.0	Malignant neoplasms of kidney, except pelvis	1,167	2.52
198.3	Secondary malignant neoplasms of brain and spinal cord	1,019	2.20
198.5	Secondary malignant neoplasms of bone and bone marrow	1,018	2.20
218.1	Intramural leiomyoma of uterus	1,004	2.17
220	Benign neoplasms of ovary	991	2.14
211.3	Benign neoplasms of colon	975	2.11
162.3	Malignant neoplasms of upper lobe, bronchus or lung	954	2.06
154.1	Malignant neoplasms of rectum	843	1.82
183.0	Malignant neoplasms of ovary	773	1.67
153.6	Benign neoplasms of ascending colon	742	1.60
153.3	Benign neoplasms of sigmoid colon	709	1.53
197.7	Secondary malignant neoplasms of liver, specified as secondary	666	1.44
153.4	Malignant neoplasms of cecum	636	1.37
197.2	Secondary malignant neoplasms of pleura,	617	1.33
193	Malignant neoplasms of thyroid gland	614	1.33
174.4	Malignant neoplasms of breast (female) upper outer quadrant	562	1.21
203.00	Multiple myeloma, without mention of remission	555	1.20
162.5	Malignant neoplasms of lower lobe, bronchus or lung	538	1.16
153.9	Benign neoplasms of colon, unspecified	519	1.12
174.8	Malignant neoplasms of other specified sites of female breast	519	1.12
205.00	Myeloid leukemia, acute, without mention of remission	513	1.11
154.0	Malignant neoplasm of rectosigmoid junction	485	1.05
188.9	Malignant neoplasm of bladder, part unspecified	468	1.01
197.0	Secondary malignant neoplasms of lung	460	0.99
218.0	Submucous leiomyoma of uterus	451	0.97
157.9	Malignant neoplasm of pancreas, part unspecified	433	0.94
202.80	Other lymphomas, unspecified site, extranodal and solid organ sites	420	0.91
197.6	Secondary malignant neoplasms of retroperitoneum and peritoneum	410	0.89
225.2	Benign neoplasm of cerebral meninges	410	0.89
226	Benign neoplasm of thyroid glands	387	0.84
233.0	Carcinoma in situ of breast	375	0.81
233.1	Carcinoma in situ of cervix uteri	347	0.75
218.2	Subserous leiomyoma of uterus	345	0.75
153.1	Malignant neoplasms of transverse colon	337	0.73
198.89	Secondary malignant neoplasms of other specified sites, other	314	0.68
227.1	Benign neoplasm of parathyroid gland	311	0.67
157.0	Malignant neoplasm of head of pancreas	282	0.61
191.1	Malignant neoplasms of brain, frontal lobe	259	0.56
204.00	Lymphoid leukemia, acute, without mention of remission	237	0.51
162.2	Malignant neoplasms of main bronchus	228	0.49
188.8	Malignant neoplasm of bladder, other specified sites of bladder	225	0.49
227.3	Benign neoplasms of pituitary gland and craniopharyngeal duct (pouch)	225	0.49
238.7	Neoplasm of uncertain behavior of other lymphatic and hematopoietic tissues	215	0.46
235.2	Neoplasms of uncertain behavior of stomach, intestines and rectum	205	0.44
All others		11,032	23.8

Annex, Table 7. Digestive system, leading sub-categories

ICD-9	Name	Number	Percent
558.9	Other and unspecified noninfectious gastroenteritis and colitis	5,574	6.62
562.11	Diverticulitis of colon (without mention of hemorrhage),	5,307	6.30
577.0	Acute pancreatitis	4,765	5.66
560.9	Unspecified intestinal obstruction	4,462	5.30
578.9	Hemorrhage of gastrointestinal tract, unspecified	4,389	5.21
540.9	Acute appendicitis without mention of peritonitis	3,601	4.28
574.00	Calculus of gallbladder with acute cholecystitis without mention of obstruction	2,799	3.32
574.10	Calculus of gallbladder with other cholecystitis without mention of obstruction	2,688	3.19
530.81	Esophageal reflux	2,205	2.62
560.1	Paralytic ileus	2,188	2.60
560.81	Intestinal or peritoneal adhesions with obstruction (postoperative), (postinfection),	2,144	2.55
531.40	Gastric ulcer, chronic or unspecified with hemorrhage without mention of obstruction	1,597	1.90
553.21	Ventral hernia, incisional	1,577	1.87
540.0	Acute appendicitis with generalized peritonitis	1,501	1.78
562.12	Diverticulosis of colon with hemorrhage	1,120	1.33
578.1	Blood in stool	1,045	1.24
540.1	Acute appendicitis with peritoneal abscess	1,006	1.19
532.40	Duodenal ulcer, chronic or unspecified with hemorrhage without mention of obstruction	987	1.17
575.11	Chronic cholecystitis	835	0.99
571.2	Alcoholic cirrhosis of liver	809	0.96
535.50	Unspecified gastritis and gastroduodenitis without mention of hemorrhage	784	0.93
564.00	Constipation, unspecified	742	0.88
572.2	Hepatic coma	736	0.87
552.21	Ventral hernia, incisional, with obstruction	725	0.86
575.0	Acute cholecystitis	646	0.77
574.20	Calculus of gallbladder without mention of cholecystitis, without mention of obstruction	613	0.73
557.0	Acute vascular insufficiency of intestine	570	0.68
578.0	Hematemesis	531	0.63
566	Abscess of anal and rectal regions	514	0.61
562.10	Diverticulosis of colon (without mention of hemorrhage)	509	0.60
535.51	Unspecified gastritis and gastroduodenitis with hemorrhage	505	0.60
557.9	Unspecified vascular insufficiency of intestine	488	0.58
574.50	Calculus of bile duct without mention of cholecystitis, without mention of obstruction	485	0.58
553.3	Diaphragmatic hernia	478	0.57
560.2	Volvulus	456	0.54
577.1	Chronic pancreatitis	426	0.51
571.5	Cirrhosis of liver without mention of alcohol	414	0.49
571.1	Acute alcoholic hepatitis	398	0.47
535.00	Acute gastritis without mention of hemorrhage	395	0.47
569.83	Perforation of intestine	378	0.45
555.9	Regional enteritis, unspecified site	375	0.45
556.9	Ulcerative colitis, unspecified	374	0.44
569.85	Angiodysplasia of intestine with hemorrhage	373	0.44
569.69	Other complications of colostomy and enterostomy	372	0.44
562.13	Diverticulitis of colon with hemorrhage	359	0.43
550.10	Inguinal hernia, with obstruction, without mention of gangrene, unilateral or unspecified (not specified as recurrent)	358	0.43
569.3	Hemorrhage of rectum and anus	357	0.42
560.89	Other specified intestinal obstruction, other	352	0.42
574.70	Calculus of gallbladder and bile duct with other cholecystitis, without mention of obstruction	334	0.40
All others		19,542	23.2

Annex, Table 8. Mental disorders, leading sub-categories

<u>ICD-9</u>	<u>Name</u>	<u>Number</u>	<u>Percent</u>
311	Depressive disorder, not elsewhere classified	7,575	11.62
296.30	Major depressive disorder, recurrent episode, unspecified	4,693	7.20
296.33	Major depressive disorder, recurrent episode, severe, without mention of psychotic behavior	3,799	5.83
296.20	Major depressive disorder, single episode, unspecified	2,841	4.36
295.70	Schizoaffective disorder, unspecified	2,668	4.09
309.0	Adjustment disorder with depressed mood	2,618	4.02
314.01	Attention deficit disorder with hyperactivity	1,920	2.95
298.9	Unspecified psychosis	1,819	2.79
296.89	Other and unspecified bipolar disorders, other	1,583	2.43
300.4	Dysthymic disorder	1,515	2.32
294.8	Other persistent mental disorders due to conditions classified elsewhere	1,319	2.02
291.81	Alcohol withdrawal	1,215	1.86
296.7	Bipolar I disorder, most recent episode (or current), unspecified	1,184	1.82
296.90	Unspecified episodic mood disorder	1,183	1.81
296.23	Major depressive disorder, single episode, severe, without mention of psychotic behavior	1,182	1.81
296.32	Major depressive disorder, recurrent episode, moderate	1,153	1.77
309.28	Adjustment disorder with mixed anxiety and depressed mood	1,141	1.75
296.80	Bipolar disorder, unspecified	1,072	1.64
309.4	Adjustment disorder with mixed disturbance of emotions and conduct	1,071	1.64
296.50	Bipolar I disorder, most recent episode (or current), depressed, unspecified	1,027	1.58
309.81	Posttraumatic stress disorder	993	1.52
295.32	Schizophrenic disorders, paranoid type, chronic	984	1.51
296.34	Major depressive disorder, recurrent episode, severe, specified as with psychotic behavior	964	1.48
303.00	Acute alcoholic intoxication, unspecified	814	1.25
295.30	Schizophrenic disorders, paranoid type, unspecified	804	1.23
303.01	Acute alcoholic intoxication, continuous	775	1.19
296.40	Bipolar I disorder, most recent episode (or current) manic, unspecified	655	1.00
313.81	Oppositional defiant disorder	607	0.93
296.60	Bipolar I disorder, most recent episode (or current), mixed, unspecified	585	0.90
300.00	Anxiety state, unspecified	583	0.89
300.02	Generalized anxiety disorder	580	0.89
293.0	Delirium due to conditions classified elsewhere	570	0.87
303.91	Other and unspecified alcohol dependence, continuous	561	0.86
303.90	Other and unspecified alcohol dependence, unspecified	538	0.83
305.00	Alcohol abuse, unspecified	530	0.81
309.9	Unspecified adjustment reaction	513	0.79
291.0	Alcohol withdrawal delirium	494	0.76
292.81	Drug induced delirium	407	0.62
296.22	Major depressive disorder, single episode, moderate	369	0.57
296.44	Bipolar I disorder, most recent episode (or current), manic, severe, specified as with psychotic behavior	356	0.55
295.90	Unspecified schizophrenia, unspecified	348	0.53
296.24	Major depressive disorder, single episode, severe, specified as with psychotic behavior	348	0.53
312.9	Unspecified disturbance of conduct	338	0.52
290.40	Vascular dementia, uncomplicated	336	0.52
312.30	Impulse control disorder, unspecified	299	0.46
292.0	Drug withdrawal	258	0.40
300.01	Panic disorder without agoraphobia	255	0.39
296.53	Bipolar I disorder, most recent episode (or current) depressed, severe, without mention of psychotic behavior	230	0.35
300.3	Obsessive-compulsive disorders	220	0.34
All others		7,299	11.2

Annex, Table 9. Diseases of blood and blood-forming organs, leading sub-categories

<u>ICD-9</u>	<u>Name</u>	<u>Number</u>	<u>Percent</u>
285.9	Anemia, unspecified	985	14.81
288.0	Agranulocytosis	790	11.87
280.9	Iron deficiency anemia, unspecified	649	9.75
280.0	Iron deficiency anemia, secondary to blood loss (chronic)	503	7.56
284.8	Other specified aplastic anemias	401	6.03
285.1	Acute posthemorrhagic anemia	377	5.67
288.00	Neutropenia, unspecified	370	5.56
287.3	Primary thrombocytopenia	270	4.06
287.31	Immune thrombocytopenic purpura	208	3.13
287.5	Thrombocytopenia, unspecified	147	2.21
288.8	Other specified disease of white blood cells	142	2.13
289.2	Nonspecific mesenteric lymphadenitis	118	1.77
283.0	Autoimmune hemolytic anemias	116	1.74
284.1	Pancytopenia	116	1.74
288.03	Drug induced neutropenia	95	1.43
289.59	Other diseases of spleen	90	1.35
285.29	Anemia of other chronic illness	88	1.32
285.22	Anemia in neoplastic disease	78	1.17
287.4	Secondary thrombocytopenia	78	1.17
288.60	Leukocytosis, unspecified	78	1.17
285.21	Anemia in end-stage renal disease	75	1.13
283.11	Hemolytic-uremic syndrome	69	1.04
287.0	Allergic purpura	68	1.02
289.3	Lymphadenitis, unspecified, except mesenteric	64	0.96
283.9	Acquired hemolytic anemia, unspecified	62	0.93
284.9	Other thalassemia	47	0.71
282.0	Hereditary spherocytosis	44	0.66
286.9	Other and unspecified coagulation defects	40	0.60
281.9	Unspecified deficiency anemia	39	0.59
284.89	Other specified aplastic anemias	27	0.41
285.8	Other specified anemias	27	0.41
286.5	Thiamine and niacin deficiency states	25	0.38
286.7	Acquired coagulation factor deficiency	22	0.33
281.0	Pernicious anemia	20	0.30
286.6	Defibrination syndrome	20	0.30
289.89	Other specified diseases of blood and blood-forming organs	18	0.27
280.8	Other specified iron deficiency anemias	16	0.24
282.4	Thalassemias	16	0.24
289.9	Unspecified diseases of blood and blood-forming organs	16	0.24
286.0	Congenital factor VIII disorder	14	0.21
289.8	Other specified diseases of blood and blood-forming organs	14	0.21
282.60	Sickle-cell disease, unspecified	13	0.20
282.62	Hb-SS disease with crisis	11	0.17
288.3	Eosinophilia	11	0.17
288.50	Leukocytosis, unspecified	11	0.17
289.81	Primary hypercoagulable state	11	0.17
283.2	Hemoglobinuria due to hemolysis from external causes	10	0.15
289.1	Chronic lymphadenitis	10	0.15
281.1	Other vitamin B ₁₂ deficiency anemia	8	0.12
All others		126	1.90

Annex, Table 10. Genitourinary system, leading sub-categories

<u>ICD-9</u>	<u>Name</u>	<u>Number</u>	<u>Percent</u>
599.0	Urinary tract infection, site not specified	7,805	15.75
584.9	Acute renal failure	4,803	9.69
626.2	Excessive or frequent menstruation	3,715	7.50
592.1	Calculus of ureter	3,456	6.97
590.80	Pyelonephritis, unspecified	1,774	3.58
618.4	Uterovaginal prolapse, unspecified	1,524	3.07
590.10	Acute pyelonephritis without lesion of renal medullary necrosis	1,506	3.04
617.0	Endometriosis of uterus	1,487	3.00
592.0	Calculus of kidney	1,408	2.84
600.01	Hypertrophy (benign) of prostate with urinary obstruction and other lower urinary tract symptoms	1,099	2.22
618.5	Prolapse of vaginal vault after hysterectomy	966	1.95
620.2	Other and unspecified ovarian cyst	809	1.63
625.3	Dysmenorrhea	784	1.58
626.8	Disorders of menstruation and other abnormal bleeding from female genital tract, other	763	1.54
600.0	Hypertrophy (benign) of prostate	722	1.46
618.2	Uterovaginal prolapse, incomplete	719	1.45
625.9	Unspecified symptom associated with female genital organs	709	1.43
625.6	Stress incontinence, female	701	1.41
618.0	Prolapse of vaginal walls without mention of uterine prolapse	603	1.22
618.3	Uterovaginal prolapse, complete	582	1.17
618.01	Cystocele, midline	475	0.96
599.7	Hematuria	422	0.85
617.3	Endometriosis of pelvic peritoneum	371	0.75
593.4	Other ureteric obstruction	369	0.74
611.1	Hypertrophy of breast	361	0.73
584.5	Acute renal failure with lesion of tubular necrosis	360	0.73
618.1	Uterine prolapse without mention of vaginal wall prolapse	345	0.78
617.1	Endometriosis of ovary	344	0.69
618.89	Other specified genital prolapse	322	0.65
627.1	Postmenopausal bleeding	315	0.64
585	Chronic kidney disease	291	0.59
600	Hyperplasia of prostate	257	0.52
593.9	Unspecified disorder of kidney and ureter	256	0.52
620.1	Corpus luteum cyst or hematoma	252	0.51
596.0	Bladder neck obstruction	251	0.51
600.11	Nodular prostate with urinary obstruction	250	0.58
600.1	Nodular prostate	249	0.58
614.9	Unspecified inflammatory disease of female pelvic organs and tissues	248	0.58
586	Renal failure, unspecified	241	0.49
618.8	Other specified genital prolapse	195	0.39
600.00	Hypertrophy (benign) of prostate without urinary obstruction and other lower urinary tract symptoms	191	0.39
618.04	Rectocele	189	0.38
595.9	Cystitis, unspecified	187	0.38
618.6	Vaginal enterocele, congenital or acquired	182	0.37
614.6	Pelvic peritoneal adhesions, female (postoperative) (postinfection)	177	0.36
591	Hydronephrosis	176	0.36
611.0	Inflammatory disease of breast	158	0.32
601.0	Acute prostatitis	155	0.31
585.6	End stage renal disease	144	0.29
All others		5,894	11.9

Annex, Table 11. Nervous system and sense organs, leading sub-categories

ICD-9	Name	Number	Percent
331.0	Alzheimer's disease	1,925	14.12
386.30	Labyrinthitis, unspecified	670	4.91
346.90	Migraine, unspecified without mention of intractable migraine	521	3.82
345.90	Epilepsy, unspecified, without mention of intractable epilepsy	439	3.22
332.0	Parkinson's disease, paralysis agitans	431	3.16
345.3	Epilepsy, grand mal status	407	2.98
340	Multiple sclerosis	405	2.97
386.11	Benign paroxysmal positional vertigo	248	1.82
331.3	Communicating hydrocephalus	222	1.63
357.0	Acute infective polyneuritis	216	1.58
346.91	Migraine, unspecified with intractable migraine, so stated	207	1.52
350.1	Trigeminal neuralgia	203	1.49
382.9	Unspecified otitis media	199	1.46
331.4	Obstructive hydrocephalus	195	1.43
331.82	Dementia with Lewy bodies	195	1.43
338.3	Neoplasm related pain	188	1.38
338.18	Other acute postoperative pain	173	1.27
353.0	Brachial plexus lesions	171	1.25
348.30	Encephalopathy, unspecified	169	1.24
386.12	Vestibular neuronitis	156	1.14
376.01	Orbital cellulites	147	1.08
345.10	Generalized convulsive intractable epilepsy	146	1.07
348.4	Compression of brain	142	1.04
322.9	Meningitis, unspecified	121	0.89
349.0	Reaction to spinal or lumbar puncture	117	0.86
323.9	Unspecified cause of encephalitis, myelitis, and encephalomyelitis	113	0.83
348.3	Encephalopathy, not elsewhere classified	113	0.83
351.0	Bell's palsy	109	0.80
346.80	Other forms of migraine without mention of intractable migraine	106	0.78
331.5	Idiopathic normal pressure hydrocephalus	103	0.76
348.1	Anoxic brain damage	100	0.73
348.8	Other conditions of brain	96	0.70
380.10	Infective otitis externa, unspecified	96	0.70
338.29	Other chronic pain	91	0.67
327.23	Obstructive sleep apnea (adult) (child)	88	0.65
335.20	Amyotrophic lateral sclerosis	82	0.60
324.1	Intraspinal abscess	80	0.59
386.35	Viral labyrinthitis	79	0.58
348.0	Cerebral cysts	77	0.56
355.8	Mononeuritis of lower limb, unspecified	77	0.56
345.50	Localization-related (focal) (partial) epilepsy and epileptic syndromes with simple partial seizures, without mention of intractable epilepsy	73	0.54
338.19	Other acute pain	71	0.52
386.00	Meniere's disease, unspecified	70	0.51
348.2	Benign intracranial hypertension	67	0.49
342.90	Hemiplegia, unspecified, affecting unspecified side	66	0.48
349.82	Toxic encephalopathy	65	0.48
345.91	Intractable epilepsy, unspecified	64	0.47
379.23	Vitreous hemorrhage	63	0.46
324.0	Intracranial abscess	61	0.45
All others		3,612	26.5

Annex, Table 12. Respiratory system, leading sub-categories

ICD-9	Name	Number	Percent
486	Pneumonia, organism unspecified	38,820	38.17
491.21	Obstructive chronic bronchitis with (acute) exacerbation	11,352	11.16
518.81	Acute respiratory failure	4,131	4.06
507.0	Pneumonitis due to inhalation of food or vomitus	3,665	3.6
466.11	Acute bronchiolitis due to respiratory syncytial virus	2,965	2.92
493.92	Asthma, unspecified with (acute) exacerbation	2,806	2.76
481	Pneumococcal pneumonia [<i>Streptococcus pneumoniae</i> pneumonia]	2,274	2.24
480.1	Pneumonia due to respiratory syncytial virus	2,168	2.13
466.0	Acute bronchitis	2,038	2.00
487.1	Influenza with other respiratory manifestations	1,820	1.79
487.0	Influenza with pneumonia	1,680	1.65
493.22	Chronic obstructive asthma with (acute) exacerbation	1,536	1.51
466.19	Acute bronchiolitis due to other infectious organisms	1,381	1.36
511.9	Unspecified pleural effusion	1,351	1.33
490	Bronchitis not specified as acute or chronic	1,269	1.25
496	Chronic airway obstruction, not elsewhere classified	1,256	1.24
482.41	Pneumonia due to <i>Staphylococcus aureus</i> ,	1,067	1.05
491.22	Obstructive chronic bronchitis, unspecified	1,031	1.01
482.1	Pneumonia due to <i>Pseudomonas</i>	1,009	0.99
493.90	Asthma, unspecified	906	0.89
485	Bronchopneumonia, organism unspecified	800	0.79
512.8	Other spontaneous pneumothorax	793	0.78
465.9	Acute upper respiratory infection of unspecified sites	772	0.76
482.2	Pneumonia due to <i>Hemophilus influenzae</i>	743	0.73
482.83	Pneumonia due to other gram-negative bacteria	718	0.71
515	Postinflammatory pulmonary fibrosis	642	0.63
483.0	Pneumonia due to <i>Mycoplasma pneumoniae</i>	611	0.60
518.84	Acute and chronic respiratory failure	559	0.55
480.9	Viral pneumonia, unspecified	550	0.54
464.4	Croup	456	0.45
493.91	Asthma, unspecified with status asthmaticus	443	0.44
491.20	Obstructive chronic bronchitis without exacerbation	415	0.41
482.0	Pneumonia due to <i>Klebsiella pneumoniae</i>	406	0.40
518.5	Pulmonary insufficiency following trauma and surgery	404	0.40
510.9	Empyema without mention of fistula	343	0.34
475	Peritonsillar abscess	328	0.32
518.82	Other pulmonary insufficiency, not elsewhere classified	297	0.29
512.1	Iatrogenic asthma	281	0.28
463	Acute tonsillitis	271	0.27
482.9	Bacterial pneumonia, unspecified	262	0.26
494.1	Bronchiectasis with acute exacerbation	251	0.25
519.8	Other diseases of respiratory system, not elsewhere classified	247	0.24
482.30	Pneumonia due to <i>Streptococcus</i> , unspecified	238	0.23
493.20	Chronic obstructive asthma, unspecified	234	0.23
462	Acute pharyngitis	223	0.22
473.9	Unspecified sinusitis	223	0.22
518.89	Other diseases of lung, not elsewhere classified	221	0.22
493.02	Extrinsic asthma with (acute) exacerbation	215	0.21
511.0	Pleurisy without mention of effusion or current tuberculosis	197	0.19
All others		5,031	4.90

Annex, Table 13. Congenital anomalies, leading sub-categories

<u>ICD-9</u>	<u>Name</u>	<u>Number</u>	<u>Percent</u>
750.5	Congenital hypertrophic pyloric stenosis	304	9.67
745.5	Ostium secundum type atrial defect	267	8.49
756.12	Spondylolisthesis	245	7.79
749.00	Cleft palate unspecified	87	2.77
756.0	Anomalies of skull and face bones	80	2.54
749.24	Cleft palate with cleft lip, bilateral, incomplete	77	2.45
751.0	Meckel's diverticulum	75	2.38
755.63	Other congenital deformity of hip (joint),	63	2.00
753.21	Congenital obstruction of ureteropelvic junction	62	1.97
749.04	Cleft palate, bilateral, incomplete	55	1.75
749.22	Cleft palate with cleft lip, unilateral, incomplete	55	1.75
747.10	Coarctation of aorta (preductal) (postductal),	54	1.72
745.4	Ostium secundum type atrial septal defect	51	1.62
748.3	Other anomalies of larynx, trachea, and bronchus	50	1.59
746.4	Congenital insufficiency of aortic valve,	48	1.53
749.20	Cleft palate with cleft lip, unspecified	48	1.53
745.2	Tetralogy of Fallot	44	1.40
746.85	Coronary artery anomaly	44	1.40
751.4	Anomalies of intestinal fixation	43	1.37
749.12	Cleft lip, unilateral, incomplete	41	1.30
749.21	Cleft palate with cleft lip, unilateral, complete	39	1.24
750.29	Other specified anomalies of pharynx,	36	1.14
742.3	Congenital hydrocephalus	35	1.11
747.61	Gastrointestinal vessel anomaly	33	1.05
759.6	Other hamartoses, not elsewhere classified	31	0.99
747.81	Anomalies of cerebrovascular system	29	0.92
749.02	Cleft palate, unilateral, incomplete	29	0.92
754.30	Congenital dislocation of hip, unilateral	29	0.92
754.70	Talipes unspecified	29	0.92
742.59	Other specified anomalies of spinal cord, other	28	0.89
751.2	Atresia and stenosis of large intestine, rectum, and anal canal	28	0.89
758.0	Down's syndrome	28	0.89
754.81	Pectus excavatum	26	0.83
742.4	Other specified anomalies of brain	25	0.79
756.6	Anomalies of diaphragm	25	0.79
756.11	Spondylolysis, lumbosacral region	23	0.73
751.3	Hirschsprung's disease and other congenital functional disorders of colon	22	0.70
746.89	Other specified anomalies of heart, other	21	0.67
753.12	Polycystic kidney, unspecified type	21	0.67
747.21	Anomalis of aortic arch	19	0.60
759.89	Other specified anomalies, other	19	0.60
747.0	Patent ductus arteriosus	18	0.57
749.01	Cleft palate, unilateral, complete	18	0.57
751.5	Other anomalies of intestine	17	0.54
753.13	Polycystic kidney, autosomal dominant	17	0.54
746.7	Hypoplastic left heart syndrome	16	0.51
747.83	Persistent fetal circulation	16	0.51
751.1	Atresia and stenosis of small intestine	16	0.51
754.51	Talipes equinovarus	16	0.51
All others		643	20.4

Annex, Table 14. Complications of pregnancy, childbirth and the puerperium, leading sub-categories

ICD-9	Name	Number	Percent
654.21	Previous cesarean delivery, delivered with or without mention of antepartum condition	10,778	9.04
664.11	Second degree perineal laceration, delivered with or without mention of antepartum condition	9,914	8.31
650	Normal delivery	8,157	6.84
664.01	First degree perineal laceration, unspecified as to episode of care or not applicable	7,207	6.04
659.71	Abnormality in fetal heart rate or rhythm, delivered with or without mention of antepartum condition	6,664	5.59
663.31	Other and unspecified cord entanglement, without mention of compression, delivered with or without mention of antepartum condition	5,174	4.34
645.11	Post term pregnancy, delivered with or without mention of antepartum condition	4,498	3.77
644.21	Early onset of delivery, delivered with or without mention of antepartum condition	4,176	3.50
648.91	Other current conditions classifiable elsewhere, delivered with or without mention of antepartum condition	4,050	3.40
644.03	Threatened premature labor, antepartum condition or complication	2,563	2.15
642.31	Transient hypertension of pregnancy, delivered with or without mention of antepartum condition	2,330	1.95
652.21	Breech presentation without mention of version, delivered with or without mention of antepartum condition	2,076	1.74
642.41	Mild or unspecified pre-eclampsia, delivered with or without mention of antepartum condition, 1,850	1,850	1.55
661.21	Other and unspecified uterine inertia, delivered with or without mention of antepartum condition	1,785	1.50
648.81	Abnormal glucose tolerance, delivered with or without mention of antepartum condition	1,691	1.42
658.11	Premature rupture of membranes, delivered with or without mention of antepartum condition	1,639	1.37
658.01	Oligohydramnios, delivered with or without mention of antepartum condition	1,542	1.29
664.21	Third-degree perineal laceration, delivered with or without mention of antepartum condition	1,522	1.28
663.11	Cord around neck, with compression, delivered with or without mention of antepartum condition	1,448	1.21
665.51	Other injury of pelvic organs, delivered with or without mention of antepartum condition	1,414	1.19
661.31	Precipitate labor, delivered with or without mention of antepartum condition	1,405	1.18
661.01	Primary uterine inertia, delivered with or without mention of antepartum condition	1,381	1.16
648.93	Other current conditions classifiable elsewhere, antepartum condition or complication	1,261	1.06
656.61	Excessive fetal growth, delivered with or without mention of antepartum condition	1,242	1.04
642.51	Severe pre-eclampsia, delivered with or without mention of antepartum condition	973	0.82
659.61	Elderly multigravida, delivered with or without mention of antepartum condition	956	0.80
669.51	Forceps or vacuum extractor delivery without mention of indication, delivered w/wo mention of APC	928	0.78
656.51	Poor fetal growth, delivered with or without mention of antepartum condition	906	0.76
661.11	Secondary uterine inertia, delivered with or without mention of antepartum condition	892	0.75
660.41	Shoulder (girdle) dystocia, delivered with or without mention of antepartum condition (APC)	865	0.73
658.21	Delayed delivery after spontaneous or unspecified rupture of membranes, delivered w/wo mention of APC	741	0.62
669.81	Other complications of labor and delivery, delivered with or without mention of antepartum condition	729	0.61
656.81	Other specified fetal and placental problems, delivered with or without mention of antepartum condition	701	0.59
665.41	High vaginal laceration, delivered with or without mention of antepartum condition	692	0.58
641.21	Premature separation of placenta, delivered with or without mention of antepartum condition	617	0.52
660.31	Deep transverse arrest and persistent occipitoposterior position, delivered w/wo mention of APC	614	0.51
652.81	Other specified malposition or malpresentation, delivered with or without mention of antepartum condition	580	0.49
646.63	Infections of genitourinary tract in pregnancy, antepartum condition or complication	576	0.48
653.41	Fetopelvic disproportion, delivered with or without mention of antepartum condition	574	0.48
666.12	Other immediate postpartum hemorrhage, delivered with mention of postpartum complications	572	0.48
664.31	Fourth-degree perineal laceration, delivered with or without mention of antepartum condition	543	0.46
652.51	High head at term, delivered with or without mention of antepartum condition	535	0.45
648.21	Anemia, delivered with or without mention of antepartum condition	511	0.43
651.01	Twin pregnancy, delivered with or without mention of antepartum condition	492	0.41
660.11	Obstruction by bony pelvis, delivered with or without mention of antepartum condition	488	0.41
664.81	Other specified trauma to perineum and vulva, delivered with or without mention of antepartum condition	488	0.41
660.01	Obstruction caused by malposition of fetus at onset of labor, delivered w/wo mention of antepartum condition	451	0.38
659.81	Other specified indications for care or intervention related to labor and delivery, delivered w/wo mention of antepartum condition (APC)	416	0.35
652.61	Multiple gestation with malpresentation of one fetus or more, delivered with or without mention of APC	409	0.34
All others		17,269	14.5

Annex, Table 15. Skin and subcutaneous tissue, leading sub-categories

<u>ICD-9</u>	<u>Name</u>	<u>Number</u>	<u>Percent</u>
682.6	Cellulitis and abscess of leg, except foot	6,300	40.74
682.7	Cellulitis and abscess of leg, except toes	1,251	8.09
682.3	Cellulitis and abscess of upper arm and forearm	1,023	6.62
682.2	Cellulitis and abscess of trunk	873	5.65
682.0	Cellulitis and abscess of face	744	4.81
682.4	Cellulitis and abscess of hand, except fingers and thumb	531	3.43
707.0	Decubitus ulcer	514	3.32
681.10	Cellulitis and abscess of toe, unspecified	338	2.19
707.03	Decubitus ulcer, lower back	277	1.79
682.5	Cellulitis and abscess of buttock	261	1.69
707.15	Ulcer of other part of foot	251	1.62
681.00	Cellulitis and abscess of finger, unspecified	229	1.48
682.1	Cellulitis and abscess of neck	194	1.25
707.19	Ulcer of other part of lower limb	156	1.01
707.05	Decubitus ulcer of buttock	140	0.91
707.10	Ulcer of lower limb, unspecified	128	0.83
707.12	Ulcer of calf	126	0.81
693.0	Dermatitis due to substances taken internally, due to drugs and medicines	114	0.74
707.14	Ulcer of heel and midfoot	110	0.71
707.8	Chronic ulcer of other specified sites	108	0.70
695.1	Erythema multiforme	101	0.65
707.09	Decubitus ulcer of other site	98	0.63
707.13	Ulcer of ankle	97	0.63
683	Acute lymphadenitis	85	0.55
682.8	Other cellulitis and abscess of other specified sites	72	0.47
707.07	Decubitus ulcer of heel	67	0.43
686.9	Unspecified local infection of skin and subcutaneous tissue	64	0.41
707.04	Decubitus ulcer of hip	64	0.41
692.9	Dermatitis of unspecified cause	62	0.40
707.1	Ulcer of lower limbs, except decubitus	62	0.40
708.0	Allergic urticaria	61	0.39
701.8	Other specified hypertrophic and atrophic conditions of skin	49	0.32
708.9	Urticaria unspecified	46	0.30
701.9	Ulcer of other parts of lower limb	43	0.28
682.9	Cellulitis and abscess of unspecified site	41	0.27
684	Impetigo	40	0.26
709.2	Scar conditions and fibrosis of skin	40	0.26
686.8	Other specified local infections of skin and subcutaneous tissue	39	0.25
692.89	Dermatitis due to other specified agents	37	0.24
685.0	Pilonidal cyst with abscess	33	0.21
709.8	Other specified disorders of skin	29	0.19
705.83	Hidradenitis	28	0.18
694.5	Pemphigoid	25	0.16
695.89	Other specified erythematous conditions, other	25	0.16
705.21	Primary focal hyperhidrosis	23	0.15
706.2	Sebaceous cyst	22	0.14
707.06	Pressure ulcer, ankle	21	0.14
696.0	Psoriatic arthropathy	20	0.13
681.02	Onychia and paronychia of finger	19	0.12
All others		383	2.50

Annex, Table 16. Certain conditions originating in the perinatal period, leading sub-categories

<u>ICD-9</u>	<u>Name</u>	<u>Number</u>	<u>Percent</u>
774.6	Unspecified fetal and neonatal jaundice	797	18.58
769	Respiratory distress syndrome	296	6.9
770.89	Other respiratory problems after birth,	283	6.6
770.6	Transitory tachypnea of newborn	260	6.06
770.8	Other respiratory problems after birth	208	4.85
779.89	Other specified conditions originating in the perinatal period	187	4.36
771.81	Septicemia [sepsis] of newborn	177	4.13
765.19	Other preterm infants, 2,500 grams and over	164	3.82
770.81	Primary apnea of newborn	143	3.33
765.18	Other preterm infants, 2,000-2,499 grams,	129	3.01
770.2	Interstitial emphysema and related conditions	118	2.75
770.0	Congenital pneumonia	91	2.12
779.3	Feeding problems in newborn	82	1.91
778.4	Other disturbances of temperature regulation of newborn	73	1.70
779.0	Convulsions in newborn	73	1.70
770.84	Respiratory failure of newborn	70	1.63
765.17	Other preterm infants, 1,750-1,999 grams,	64	1.49
773.1	Hemolytic disease due to ABO isoimmunization	64	1.49
770.7	Chronic respiratory disease arising in the perinatal period	62	1.45
770.1	Fetal and newborn aspiration	58	1.35
771.8	Other infection specific to the perinatal period	55	1.28
774.39	Neonatal jaundice due to delayed conjugation from other causes, other	55	1.28
765.16	Other preterm infants, 1,500-1,749 grams	48	1.12
774.2	Neonatal jaundice associated with preterm delivery	46	1.07
775.5	Other transitory neonatal electrolyte disturbances	39	0.91
771.82	Urinary tract infection of newborn	36	0.84
765.15	Other preterm infants, 1,250-1,499 grams	32	0.75
770.82	Other apnea of newborn	28	0.65
771.89	Other infections specific to the perinatal period	24	0.56
765.03	Extreme immaturity, 750-999 grams	23	0.54
775.6	Neonatal hypoglycemia	20	0.47
779.82	Neonatal tachycardia	19	0.44
770.83	Cyanotic attacks of newborn	16	0.37
770.12	Meconium aspiration with respiratory symptoms	15	0.35
775.0	Syndrome of "infant of a diabetic mother"	15	0.35
777.8	Other specified perinatal disorders of digestive system	15	0.35
779.81	Neonatal bradycardia	15	0.35
767.0	Subdural and cerebral hemorrhage	14	0.33
771.4	Omphalitis of the newborn	14	0.33
777.1	Meconium obstruction	14	0.33
765.14	Other preterm infants, 1,000-1,249 grams	13	0.30
773.2	Hemolytic disease due to other and unspecified isoimmunization	13	0.30
765.02	Extreme immaturity, 500-749 grams	12	0.28
765.10	Other preterm infants, unspecified [weight]	11	0.26
765.13	Other preterm infants, 500-749 grams	11	0.26
779.2	Cerebral depression, coma, and other abnormal cerebral signs	10	0.23
779.8	Other specified conditions originating in the perinatal period	10	0.23
764.08	"Light-for-dates" without mention of fetal malnutrition, 2,000-2,499 grams	9	0.21
768.5	Severe birth asphyxia	9	0.21
All others		249	5.80

Annex, Table 17. Symptoms, signs, and ill-defined conditions, leading sub-categories

<u>ICD-9</u>	<u>Name</u>	<u>Number</u>	<u>Percent</u>
786.50	Chest pain, unspecified	7,655	15.25
786.59	Chest pain, other	6,933	13.81
780.2	Syncope and collapse	4,643	9.25
780.39	Other convulsions	3,367	6.71
789.00	Abdominal pain, unspecified site	2,465	4.91
780.6	Fever	2,187	4.36
780.79	Other malaise and fatigue	2,101	4.19
787.01	Nausea with vomiting	1,736	3.46
780.4	Dizziness and giddiness	1,223	2.44
787.91	Diarrhea	1,011	2.01
784.0	Headache	1,003	2.00
789.09	Abdominal pain, other specified site,	923	1.84
789.03	Abdominal pain, right lower quadrant	835	1.66
789.06	Abdominal pain, epigastric	807	1.61
786.52	Painful respiration	781	1.56
790.7	Bacteremia	650	1.29
789.01	Abdominal pain, right upper quadrant	634	1.26
780.09	General symptoms, other	631	1.26
786.09	Symptoms involving respiratory system and other chest symptoms, other	570	1.14
784.7	Epistaxis	476	0.95
786.05	Shortness of breath	422	0.84
789.04	Abdominal pain, left lower quadrant	372	0.74
780.60	Fever, unspecified	359	0.72
780.31	Febrile convulsions (simple), unspecified	319	0.64
782.3	Edema	311	0.62
786.51	Precordial pain	292	0.58
780.97	Altered mental status	287	0.57
782.0	Disturbance of skin sensation	264	0.53
783.41	Failure to thrive	255	0.51
787.03	Vomiting alone	252	0.50
787.02	Nausea alone	242	0.48
785.4	Gangrene	228	0.45
785.0	Tachycardia, unspecified	219	0.44
788.20	Retention of urine, unspecified	209	0.42
781.2	Abnormality of gait	204	0.41
783.7	Adult failure to thrive	195	0.39
789.07	Abdominal pain, generalized	178	0.35
786.03	Apnea	174	0.35
799.02	Hypoxemia	174	0.35
789.02	Abdominal pain, left upper quadrant	169	0.34
785.1	Palpitations	167	0.33
781.3	Lack of coordination	149	0.30
787.2	Dysphagia	148	0.29
786.3	Hemoptysis	147	0.29
780.99	Other general symptoms	144	0.29
789.5	Ascites	137	0.27
786.6	Swelling, mass or lump in chest	124	0.25
780.57	Unspecified sleep apnea	123	0.25
781.0	Abnormal involuntary movements	123	0.25
All others		3,177	6.30

Annex, Table 18. Factors influencing health status and contact with health services (V codes) , leading sub-categories

ICD-9	Name	Number	Percent
V30.00	Single liveborn, born in hospital, delivered without mention of cesarean delivery	79,192	55.71
V30.01	Single liveborn, delivered in hospital, delivered by cesarean delivery	26,474	18.62
V57.89	Other specified rehabilitation procedure, other	12,715	8.95
V57.1	Other physical therapy	8,361	5.88
V31.01	Twin, mate liveborn, born in hospital, delivered by cesarean delivery	2,294	1.61
V58.1	Encounter for antineoplastic chemotherapy and immunotherapy	1,699	1.20
V58.11	Encounter for antineoplastic chemotherapy	1,546	1.09
V31.00	Twin, mate liveborn, born in hospital, delivered without mention of cesarean delivery	1,202	0.85
V54.81	Other orthopedic aftercare	940	0.66
V58.89	Other specified aftercare	705	0.50
V55.3	Colostomy	675	0.47
V58.49	Other specified aftercare following surgery	437	0.31
V54.13	Aftercare for healing traumatic fracture of hip	309	0.22
V24.0	Postpartum care and examination immediately after delivery	308	0.22
V58.78	Aftercare following surgery of the musculoskeletal system, NEC	231	0.16
V55.2	Ileostomy	218	0.15
V30.1	Single liveborn, borne before admission to hospital	208	0.15
V45.89	Other postprocedural status, other	206	0.14
V57.21	Encounter for occupational therapy	201	0.14
V58.75	Aftercare following surgery of the teeth, oral cavity and digestive system, NEC	191	0.13
V43.65	Knee replaced by other means	185	0.13
V53.31	Cardiac pacemaker	173	0.12
V34.01	Other multiple, mates all liveborn, born in hospital, delivered by cesarean delivery	168	0.12
V66.0	Convalescence and palliative care following surgery	160	0.11
V54.19	Aftercare for healing traumatic fracture of other bone	148	0.10
V59.4	Donor of kidney	143	0.10
V54.89	Other orthopedic aftercare	141	0.10
V58.42	Aftercare following surgery for neoplasm	137	0.10
V58.73	Aftercare following surgery of the circulatory system, NEC	127	0.09
V43.64	Hip replaced by other means	117	0.08
V82.9	Special screening for other unspecified condition	92	0.06
V66.5	Convalescence and palliative care following other treatment	84	0.06
V53.32	Automatic implantable cardiac defibrillator	83	0.06
V50.41	Prophylactic breast removal	78	0.05
V56.0	Extracorporeal dialysis	78	0.05
V45.71	Acquired absence of breast	69	0.05
V70.9	Unspecified general medical examination	69	0.05
V54.16	Aftercare for healing traumatic fracture of lower leg	66	0.05
V66.4	Convalescence and palliative care following treatment of fracture	56	0.04
V55.1	Gastrostomy	51	0.04
V66.7	Encounter for palliative care	51	0.04
V54.15	Aftercare for healing traumatic fracture of upper leg	49	0.03
V54.17	Aftercare for healing traumatic fracture of vertebrae	49	0.03
V66.6	Convalescence and palliative care following combined treatment	49	0.03
V53.09	Fitting and adjustment of other devices related to nervous system and special senses	47	0.03
V58.0	Radiotherapy	44	0.03
V29.0	Observation for suspected infectious condition	42	0.03
V51	Aftercare involving the use of plastic surgery	42	0.03
V60.4	No other household member able to render care	42	0.03
All others		1,391	1.00