

Natality

An Overview: 2016

Total Resident Live Births	12,270
Crude Birth Rate per 1,000 Population	14.2
Median Live Birth Weight (Grams)	3,375
Low Weight Births (Less than 2,500 grams)	830
Percent Low Birth Weight	6.8%
Mean Age of Mother	28
No Prenatal Care	0.8%

Resident births decreased by less than one percent from 2015 when there were 12,323 births. In 2016, 51.3 percent of the babies born were male and 48.7 percent were female. Racially, white births were 51.0 percent male and 49.0 percent female; American Indian births were 50.9 percent male, 49.1 percent female.

The low birth weight rate per 1,000 live births increased from 61.6 in 2015 to 67.6 in 2016. This was a 9.7 percent increase from the 2015 low birth weight rate.

Starting in 2006, the South Dakota Department of Health implemented the 2003 U.S. Standard Certificate of Live Birth. **Please note education, prenatal care, and tobacco use data are no longer comparable with data years before 2006.** There were 12,270 births to South Dakota residents in 2016, for a crude birth rate of 14.2 per 1,000 South Dakota resident population.

Table 7, below, displays the live births and crude birth rates for the United States and South Dakota for the past 15 years. South Dakota's birth rate remains above the national average as shown in this table.

Table 7
Resident Live Births and Crude Birth Rates,
South Dakota and United States, 2002-2016

Year	United States		South Dakota	
	Number	Crude Rate	Number	Crude Rate
2016	*3,941,109	*12.2	12,270	14.2
2015	3,978,497	12.4	12,323	14.4
2014	3,988,076	12.5	12,281	14.4
2013	3,932,181	12.4	12,243	14.5
2012	3,952,841	12.6	12,092	14.5
2011	3,953,590	12.7	11,834	14.4
2010	3,999,386	13.0	11,795	14.5
2009	4,130,665	13.5	11,930	14.7
2008	4,247,694	14.0	12,074	15.0
2007	4,316,223	14.3	12,253	15.4
2006	4,265,555	14.2	11,914	15.1
2005	4,138,349	14.0	11,466	14.7
2004	4,112,052	14.0	11,339	14.6
2003	4,089,950	14.1	11,022	14.4
2002	4,021,726	13.9	10,698	14.0

Note: *U.S. 2016 data are provisional.

Crude birth rates are per 1,000 population.

Sources: National Center for Health Statistics

South Dakota Department of Health, Office of Health Statistics

Births by Race

Race is assigned based on standards set forth by the National Center for Health Statistics and the US Census Bureau in order for South Dakota's race data to be comparable to other areas. All race data in this section are now categorized in the following manner:

Single-race white
 Single-race American Indian
 Single-race black
 Two or more races

The remaining categories (Single-race Asian, and Single-race Pacific Islander) are included in the totals, but are not necessarily shown specifically in any tables.

Table 8, below, shows the number and percent of resident births by mother's race since 2007. In 2016, the number of births to whites increased by 1.8 percent, the number of births to American Indians decreased by 7.1 percent, the number of births to blacks increased 36.3 percent and the number of births to two or more races decreased by 9.9 percent.

Table 8
South Dakota Resident Live Births by Mother's Race, 2007-2016

Births		White		American Indian		Black		Two or More Races		Other		Not Stated	
Year	Num	Num	%	Num	%	Num	%	Num	%	Num	%	Num	%
2016	12,270	9,230	75.2	1,846	15.0	368	3.0	398	3.2	279	2.3	149	-
2015	12,323	9,065	75.2	1,988	16.5	270	2.2	442	3.7	287	2.3	271	-
2014	12,281	9,175	76.4	1,889	15.7	299	2.5	412	3.4	236	1.9	270	-
2013	12,243	9,142	76.2	1,956	16.3	283	2.4	365	3.0	258	2.1	239	-
2012	12,092	9,111	76.5	1,936	16.3	278	2.3	399	3.3	187	1.5	181	-
2011	11,834	8,921	76.5	1,953	16.8	240	2.1	340	2.9	204	1.7	176	-
2010	11,795	9,245	78.5	1,835	15.6	228	1.9	326	2.8	146	1.2	15	-
2009	11,930	9,330	78.3	1,885	15.8	218	1.8	341	2.9	141	1.2	15	-
2008	12,074	9,432	78.2	1,992	16.5	185	1.5	302	2.5	145	1.2	18	-
2007	12,253	9,571	78.2	2,055	16.8	193	1.6	280	2.3	138	1.1	16	-

Source: South Dakota Department of Health, Office of Health Statistics

Multiple Births

Table 9, below, displays resident multiple births for the last 10 years. The highest number of twins was born in 2016

with 212 sets. The highest number of triplets happened in 2007 and 2016 with seven sets of triplets born in each of these years.

Table 9
South Dakota Resident Multiple Live Births, 2007-2016

Year of Birth	Twins	Triplets or More
2016	212	7
2015	187	4
2014	192	4
2013	178	5
2012	175	2
2011	166	2
2010	176	6
2009	144	4
2008	208	3
2007	181	7

Source: South Dakota Department of Health, Office of Health Statistics

Marital Status

In 2016, the majority of women who gave birth, 63.2 percent, were married as displayed in Table 10 below. When looking at the data by race, American

Indian women have consistently had the highest percent of births out of wedlock with 84.9 percent in 2016.

Table 10
South Dakota Resident Births Out of Wedlock by Year of Birth and Race, 2007-2016

Year	All Races		White		American Indian		Black		Two or More Races		Other	
	Num	%	Num	%	Num	%	Num	%	Num	%	Num	%
2016	4,519	36.8	2,418	26.2	1,566	84.9	163	44.3	251	63.1	59	21.1
2015	4,571	37.1	2,336	25.8	1,658	83.6	108	40.0	281	63.6	48	16.7
2014	4,623	37.7	2,440	26.6	1,583	84.1	138	46.2	274	66.5	54	22.9
2013	4,669	38.1	2,483	27.2	1,653	84.5	125	44.2	245	67.1	42	16.3
2012	4,671	38.6	2,530	27.8	1,631	84.2	131	47.2	251	62.9	36	19.3
2011	4,597	38.8	2,461	27.6	1,662	85.1	109	45.4	226	66.5	48	23.5
2010	4,427	37.5	2,570	27.8	1,522	82.9	91	39.9	205	62.9	34	23.3
2009	4,573	38.3	2,644	28.3	1,543	81.9	115	52.8	238	69.8	28	19.9
2008	4,633	38.4	2,647	28.1	1,650	82.8	93	50.3	195	64.6	34	23.4
2007	4,699	38.3	2,685	28.1	1,696	82.5	89	46.1	184	65.7	36	26.1

Note: Failure of races to add to the total is due to races not stated included in the total.
Source: South Dakota Department of Health, Office of Health Statistics

Birth Weight

Table 11, below, indicates that in 2016 the majority of births fell into the 3,000 to 3,499 gram range. This is consistent with data from the past several years. There were 830 low weight births or 6.8 percent of all South Dakota resident live births in 2016. When looking at race, 6.2 percent of

white babies, 8.1 percent of American Indian babies, and 10.3 percent of black babies were low birth weight in 2016. In 2015, white, American Indian, and black low birth weight births were 5.7, 7.2, and 5.9 percent, respectively. Table 12, on the next page, compares the birth weights of infants for the past 10 years.

Table 11
South Dakota Resident Live Births by Birth Weight and Mother's Race, 2016

Birth Weight (in Grams)	Total		Race of Mother									
			White		American Indian		Black		Two or More Races		Other	
	Num	%	Num	%	Num	%	Num	%	Num	%	Num	%
<2,000	298	2.4	208	2.3	56	3.0	12	3.3	13	3.3	4	1.4
2,000-2,499	532	4.3	367	4.0	93	5.0	26	7.1	17	4.3	18	6.5
2,500-2,999	1,980	16.1	1,437	15.6	280	15.2	73	19.8	73	18.3	87	31.2
3,000-3,499	4,534	37.0	3,434	37.2	631	34.2	140	38.0	167	42.0	103	36.9
3,500-3,999	3,711	30.2	2,846	30.8	581	31.5	94	25.5	96	24.1	55	19.7
4,000-4,499	1,072	8.7	842	9.1	174	9.4	17	4.6	25	6.3	11	3.9
4,500+	143	1.2	96	1.0	31	1.7	6	1.6	7	1.8	1	0.4
Total	12,270	100	9,230	100	1,846	100	368	100	398	100	279	100
Median birth weight in grams	3,375		3,385		3,406		3,266		3,313		3,142	
Mean birth weight in grams	3,337		3,350		3,348		3,218		3,265		3,164	
Modal birth weight in grams	3,430		3,460		3,430		3,530		2,780		3,260	

Note: Failure of the races to add to the total is due to race not stated in the total birth column.
Source: South Dakota Department of Health, Office of Health Statistics

Table 12
South Dakota Resident Births by Birth Weight and Year of Birth, 2007-2016

Year	Total Births		< 2500 Grams		2500 + Grams		Not Stated	
	Num	%	Num	%	Num	%	Num	%
2016	12,270	100	830	6.8	11,440	93.2	0	-
2015	12,323	100	759	6.2	11,563	93.8	1	-
2014	12,281	100	805	6.6	11,474	93.4	2	-
2013	12,243	100	770	6.3	11,468	93.7	5	-
2012	12,092	100	751	6.2	11,338	93.8	3	-
2011	11,834	100	746	6.3	11,084	93.7	4	-
2010	11,795	100	811	6.9	10,981	93.1	3	-
2009	11,930	100	700	5.9	11,228	94.1	2	-
2008	12,074	100	783	6.5	11,283	93.5	8	-
2007	12,253	100	853	7.0	11,395	93.0	5	-

Source: South Dakota Department of Health, Office of Health Statistics

Table 13, below, compares the low birth weight babies by race of mother. In 2016, there were 575 (6.2%) low birth weight babies born to white women. For American Indian women there were 149 (8.1%) low birth weight babies and for black women

there were 38 (10.3%) low birth weight babies. In 2016, there was a 9.7 percent increase in white low birth weight babies, a 12.5 percent increase in American Indian low birth weight babies, and a 74.6 percent increase in black low birth weight babies.

Table 13
South Dakota Resident Low Birth Weight Births by Race of Mother, 2007-2016

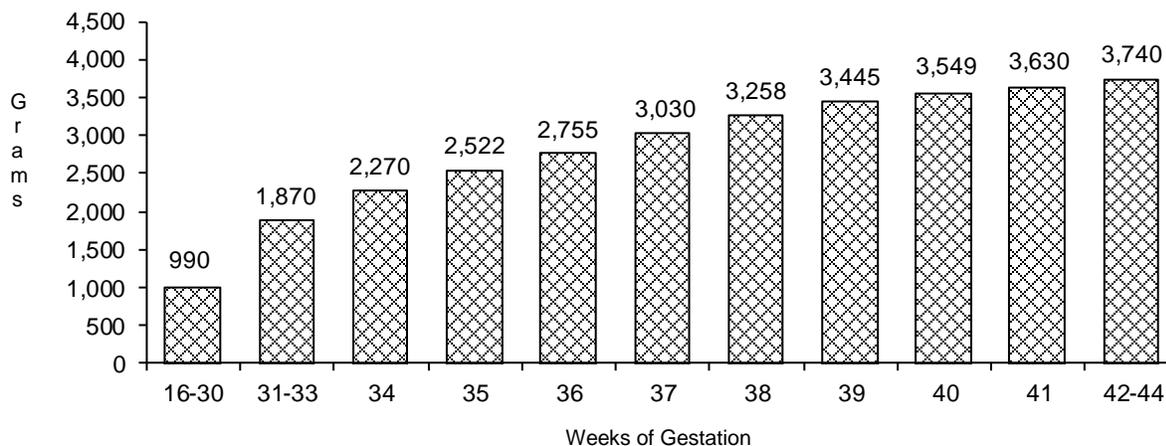
Year	Mother's Race					
	Total	White	American Indian	Black	Two or More Races	Other
2016	6.8%	6.2%	8.1%	10.3%	7.5%	7.9%
2015	6.2%	5.7%	7.2%	5.9%	8.6%	8.7%
2014	6.6%	6.3%	7.0%	10.4%	6.3%	6.8%
2013	6.3%	5.9%	6.8%	8.1%	6.3%	8.9%
2012	6.2%	5.7%	7.8%	10.4%	6.5%	8.0%
2011	6.3%	5.8%	6.8%	12.5%	7.9%	10.3%
2010	6.9%	6.9%	6.1%	10.1%	6.7%	9.6%
2009	5.9%	5.6%	5.9%	13.8%	6.2%	9.2%
2008	6.5%	6.2%	6.7%	11.9%	7.0%	10.3%
2007	7.0%	6.6%	7.5%	10.4%	10.0%	10.1%

Source: South Dakota Department of Health, Office of Health Statistics

Figure 2, below, shows live births by weeks of gestation and median birth weight for the past five years.

Overall, the longer the weeks of gestation the higher the median birth weight.

Figure 2
South Dakota Resident Live Births by Gestation and Median Birth Weight, 2012-2016



Source: South Dakota Department of Health, Office of Health Statistics

Table 14, below, displays resident births by year of birth and weeks of gestation. In 2016, the majority of births, 60.1 percent,

occurred between 37 to 39 weeks of gestation. This is consistent with the past several years.

Table 14
South Dakota Resident Births by Year of Birth and Weeks of Gestation, 2007-2016

Year	Total		<35		35-36		37-39		40+		Not Stated	
	Num	%	Num	%	Num	%	Num	%	Num	%	Num	%
2016	12,270	100	399	3.3	699	5.7	7,366	60.1	3,796	31.0	10	-
2015	12,323	100	385	3.1	665	5.4	7,268	59.1	3,990	32.4	15	-
2014	12,281	100	416	3.4	622	5.1	7,310	59.7	3,894	31.8	39	-
2013	12,243	100	373	3.1	618	5.1	7,069	57.9	4,157	34.0	26	-
2012	12,092	100	373	3.1	572	4.7	6,734	55.8	4,393	36.4	20	-
2011	11,834	100	379	3.2	561	4.7	6,730	56.9	4,151	35.1	13	-
2010	11,795	100	412	3.5	600	5.1	6,764	57.5	3,996	33.9	23	-
2009	11,930	100	335	2.8	608	5.1	6,787	57.0	4,177	35.1	23	-
2008	12,074	100	382	3.2	660	5.5	7,031	58.4	3,971	33.0	30	-
2007	12,253	100	431	3.5	732	6.0	6,804	55.7	4,254	34.8	32	-

Source: South Dakota Department of Health, Office of Health Statistics

Tobacco Use

Table 15, below, displays the percent of mothers who smoked during the past 10 years. In 2016, 19.5 percent stated they

smoked three months prior to pregnancy, and 13.6 percent smoked anytime during their pregnancy.

Table 15
South Dakota Resident Live Births by Cigarette Smoking Status, 2007-2016

Year	Mother's Smoking Status				
	Three Months Prior to Pregnancy	First Trimester	Second Trimester	Third Trimester	Anytime During Pregnancy
2016	19.5%	13.2%	10.1%	9.2%	13.6%
2015	20.9%	13.6%	10.4%	9.5%	14.0%
2014	21.7%	14.4%	11.1%	10.2%	14.8%
2013	22.5%	14.6%	11.4%	10.5%	15.1%
2012	24.0%	16.0%	12.5%	11.4%	16.5%
2011	24.4%	16.1%	12.5%	11.5%	16.9%
2010	24.5%	16.4%	12.8%	11.9%	17.1%
2009	26.2%	17.7%	13.7%	13.0%	18.5%
2008	25.9%	17.7%	14.0%	13.2%	18.5%
2007	26.0%	18.3%	15.2%	14.4%	19.4%

Source: South Dakota Department of Health, Office of Health Statistics

Table 16, on the next page, displays the percent of mothers who smoked prior to pregnancy by their smoking status during pregnancy since 2007.

The largest percentage of women stated they never quit smoking during their pregnancy, however, this decreased from 50.5 percent in 2007 to 44.3 percent in 2016.

Table 16
South Dakota Resident Births to Mothers Who Smoked Prior to Pregnancy by Smoking Status
During Pregnancy, 2007-2016

Year	Quit before becoming pregnant	Quit before second trimester	Quit before third trimester	Never quit	Stopped at some point during pregnancy, but started again before giving birth
2016	31.5%	15.8%	6.4%	44.3%	2.1%
2015	33.9%	15.0%	6.1%	42.9%	2.2%
2014	32.3%	15.5%	5.5%	44.4%	2.3%
2013	33.8%	14.0%	5.9%	43.5%	2.8%
2012	32.3%	14.4%	6.1%	44.6%	2.6%
2011	32.5%	15.0%	6.0%	43.6%	3.0%
2010	31.2%	14.7%	5.6%	45.1%	3.4%
2009	31.0%	15.0%	5.0%	46.0%	3.0%
2008	31.0%	13.4%	5.4%	47.2%	3.0%
2007	27.3%	12.5%	6.0%	50.5%	3.7%

Source: South Dakota Department of Health, Office of Health Statistics

Mother's Age and Race

Table 17, below, displays that women aged 25 to 29 accounted for the largest percentage of South Dakota resident births in 2016, at 34.0 percent. Women less than 20 years of age comprised 5.6 percent of the total resident births.

The median ages for white, American Indian, and black mothers were 28, 25, and 28 years of age, respectively. The modal ages for the same race groups were 28, 24, and 26 years of age, respectively.

Table 17
South Dakota Resident Live Births by Mother's Age and Race, 2016

Age of Mother	Total		Race of Mother									
			White		American Indian		Black		Two or More Races		Other	
	Num	%	Num	%	Num	%	Num	%	Num	%	Num	%
Less than 18	208	1.7	77	0.8	102	5.5	4	1.1	16	4.0	5	1.8
18-19 Years	481	3.9	250	2.7	158	8.6	12	3.3	38	9.5	11	3.9
20-24 Years	2,615	21.3	1,690	18.3	615	33.3	70	19.0	132	33.2	63	22.6
25-29 Years	4,166	34.0	3,284	35.6	518	28.1	122	33.2	107	26.9	89	31.9
30-34 Years	3,312	27.0	2,722	29.5	319	17.3	102	27.7	70	17.6	73	26.2
35-39 Years	1,255	10.2	1,027	11.1	112	6.1	46	12.5	30	7.5	30	10.8
40 & over	233	1.9	180	2.0	22	1.2	12	3.3	5	1.3	8	2.9
Total	12,270	100	9,230	100	1,846	100	368	100	398	100	279	100

Note: Failure of race to add to the total is due to races not stated in the total birth column.
 Source: South Dakota Department of Health, Office of Health Statistics

Table 18, below, displays the mother's age for births in the past 10 years. The largest

percentage of births in this time period were to mothers aged 25-29 years old.

Table 18
South Dakota Resident Live Births by Mother's Age and Year of Birth, 2007-2016

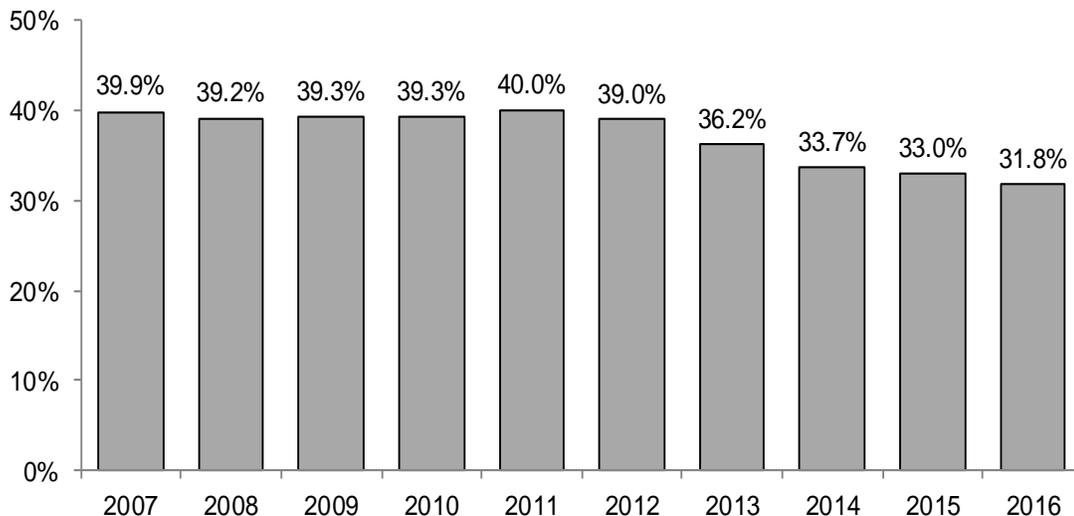
Year	Total Births		Age of Mother													
			< 18		18-19		20-24		25-29		30-34		35-39		40+	
	Num	%	Num	%	Num	%	Num	%	Num	%	Num	%	Num	%	Num	%
2016	12,270	100	208	1.7	481	3.9	2,615	21.3	4,166	34.0	3,312	27.0	1,255	10.2	233	1.9
2015	12,323	100	161	1.3	565	4.6	2,746	22.3	4,172	33.9	3,331	27.0	1,130	9.2	218	1.8
2014	12,281	100	223	1.8	519	4.2	2,778	22.6	4,161	33.9	3,251	26.5	1,148	9.3	201	1.6
2013	12,243	100	224	1.8	598	4.9	2,885	23.6	4,184	34.2	3,027	24.7	1,123	9.2	202	1.6
2012	12,092	100	272	2.2	665	5.5	2,950	24.4	4,105	33.9	2,905	24.0	1,001	8.3	194	1.6
2011	11,834	100	256	2.2	718	6.1	2,877	24.3	4,023	34.0	2,740	23.2	988	8.3	232	2.0
2010	11,795	100	269	2.3	714	6.1	2,989	25.3	4,033	34.2	2,638	22.4	959	8.1	193	1.6
2009	11,930	100	313	2.6	789	6.6	3,151	26.4	3,903	32.7	2,599	21.8	960	8.0	215	1.8
2008	12,074	100	358	3.0	772	6.4	3,250	26.9	3,988	33.0	2,551	21.1	956	7.9	198	1.6
2007	12,253	100	343	2.8	855	7.0	3,306	27.0	4,091	33.4	2,493	20.3	995	8.1	169	1.4

Note: Failure of ages to add to total births is due to mother's age not stated.
 Source: South Dakota Department of Health, Office of Health Statistics

Figure 3, below, displays the percent of South Dakota resident live births on the Special Supplemental Nutrition Program for Women, Infants and Children (WIC) for the

past 10 years. In 2016, 31.8 percent of mothers were on WIC during their pregnancy.

Figure 3
South Dakota Resident Live Births by WIC Status, 2007-2016

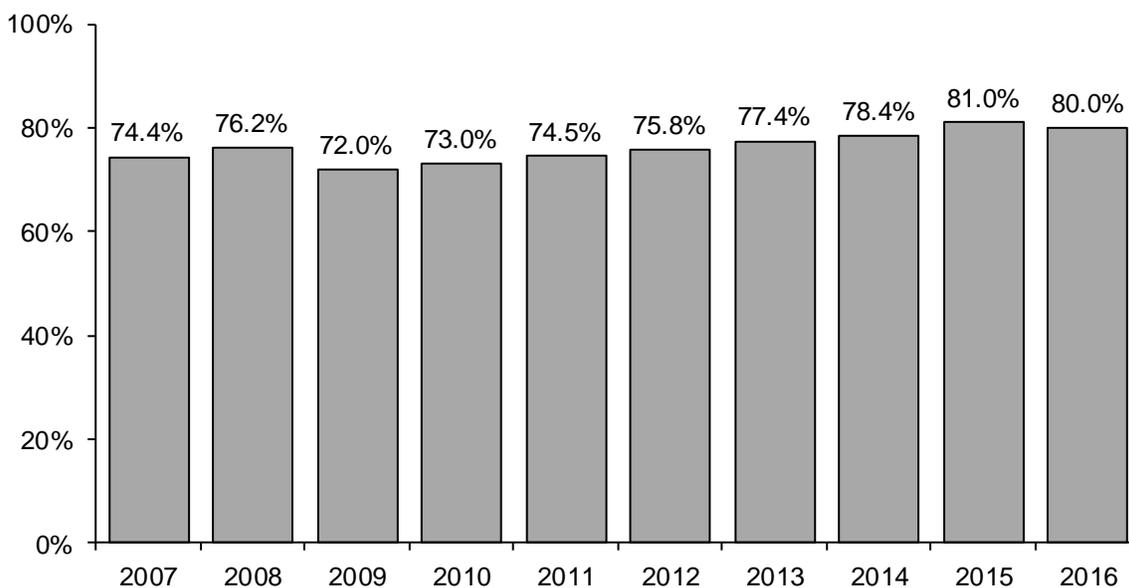


Source: South Dakota Department of Health, Office of Health Statistics

Figure 4, below, displays the percent of mothers breastfeeding at time of hospital discharge. The percent of women who

were breastfeeding at time of discharge decreased slightly from 81.0 percent in 2015 to 80.0 percent in 2016.

Figure 4
South Dakota Resident Live Births by Breastfeeding Status at Time of Discharge, 2007-2016



Source: South Dakota Department of Health, Office of Health Statistics

Table 19, below, displays South Dakota resident teen births (15 to 17 years old) by race from 2007 to 2016. In 2016, the teen birth rate was 12.5, up from the 2015 rate

of 9.5. When looking at race, the white teen birth rate was 5.9 compared to a teen birth rate of 43.8 for American Indians in 2016.

Table 19
South Dakota Resident Teen Births and Rates by Year and Mother's Race, 2007-2016

Year	Total		White		American Indian		Black		Two or More Races		Other	
	Num	Rate	Num	Rate	Num	Rate	Num	Rate	Num	Rate	Num	Rate
2016	200	12.5	74	5.9	97	43.8	4	13.0	16	24.2	5	16.2
2015	153	9.5	52	4.1	78	34.9	2	6.8	10	15.0	4	13.2
2014	216	13.2	95	7.4	88	40.2	8	19.3	15	23.1	1	3.8
2013	214	13.2	84	6.5	96	43.3	5	13.8	19	31.0	2	9.0
2012	264	16.4	117	9.2	105	48.6	6	17.8	28	47.0	2	9.0
2011	245	15.2	103	8.0	112	52.2	4	15.5	19	32.9	1	4.5
2010	259	15.8	130	9.9	112	50.1	2	7.7	14	23.6	1	4.9
2009	303	18.5	147	11.1	114	48.9	15	56.4	26	64.0	1	8.0
2008	345	20.7	151	11.2	158	67.7	5	20.5	27	64.6	2	17.2
2007	334	19.7	160	11.6	149	62.2	2	9.5	20	46.8	1	9.5

Note: Rates are per 1,000 female population ages 15-17.
Failure of races to add to the total is due to races not stated.
Source: South Dakota Department of Health, Office of Health Statistics

Prenatal Care

Table 20, below, shows the number of South Dakota resident live births by when the mothers started prenatal care in 2016. Nearly 73.0 percent of mothers started care in the first trimester – 79.4 percent of white mothers, 48.2 percent of American

Indian mothers, and 51.0 percent of black mothers. Overall, less than one percent failed to obtain prenatal care at all (0.3 percent of white mothers, 3.6 percent of American Indian mothers, and 0.8 percent of black mothers).

Table 20
South Dakota Resident Live Births by Trimester Prenatal Care Began and Mother's Race, 2016

Trimester Prenatal Care Began	Total		Race of Mother									
			White		American Indian		Black		Two or More Races		Other	
	Num	%	Num	%	Num	%	Num	%	Num	%	Num	%
First	8,812	72.7	7,276	79.4	861	48.2	183	51.0	248	63.1	159	57.8
Second	2,566	21.2	1,561	17.0	603	33.7	134	37.3	125	31.8	93	33.8
Third	647	5.3	298	3.3	260	14.5	39	10.9	18	4.6	20	7.3
None	98	0.8	25	0.3	64	3.6	3	0.8	2	0.5	3	1.1
Not Stated	147	-	70	-	58	-	9	-	5	-	4	-
Total	12,270	100	9,230	100	1,846	100	368	100	398	100	279	100

Note: Failure of the races to add to the total is due to the races not stated contained in the total birth column.
Source: South Dakota Department of Health, Office of Health Statistics

Table 21, on the following page, shows the number of mothers who began prenatal care by trimester for the past 10 years.

The majority of mothers in all years began prenatal care in their first trimester.

Table 21
South Dakota Resident Live Births by Trimester Prenatal Care Began, 2007-2016

Year	Total		First		Second		Third		No Prenatal Care		Not Stated	
	Num	%	Num	%	Num	%	Num	%	Num	%	Num	%
2016	12,270	100	8,812	72.7	2,566	21.2	647	5.3	98	0.8	147	-
2015	12,323	100	8,813	72.8	2,579	21.3	610	5.0	107	0.9	214	-
2014	12,281	100	8,725	72.2	2,611	21.6	653	5.4	98	0.8	194	-
2013	12,243	100	8,645	72.0	2,676	22.3	609	5.1	73	0.6	240	-
2012	12,092	100	8,332	70.5	2,756	23.3	650	5.5	78	0.7	276	-
2011	11,834	100	8,085	69.7	2,805	24.2	632	5.5	75	0.6	237	-
2010	11,795	100	8,208	70.9	2,684	23.2	594	5.1	79	0.7	230	-
2009	11,930	100	7,841	66.9	3,076	26.2	719	6.1	88	0.8	206	-
2008	12,074	100	8,179	68.9	2,948	24.8	641	5.4	96	0.8	210	-
2007	12,253	100	8,544	70.7	2,846	23.5	605	5.0	91	0.8	167	-

Source: South Dakota Department of Health, Office of Health Statistics

Payment Type

Table 22, below, displays the number of births by payment type for the past five years. In 2016 the majority of births, 60.7

percent, were paid by private insurance. The second highest payment type was Medicaid with 31.1 percent.

Table 22
South Dakota Resident Live Births by Payment Type, 2012-2016

Payment Type	Year									
	2012		2013		2014		2015		2016	
	Num	%								
Private Insurance	6,787	56.4	6,850	56.2	6,975	57.1	7,259	59.0	7,431	60.7
Medicaid	4,072	33.8	4,078	33.5	3,906	32.0	3,831	31.2	3,806	31.1
Champus/Tricare	353	2.9	334	2.7	396	3.2	348	2.8	377	3.1
Self-Pay	299	2.5	348	2.9	359	2.9	379	3.1	348	2.8
Indian Health Service	389	3.2	382	3.1	408	3.3	386	3.1	204	1.7
Other Government	29	0.2	113	0.9	82	0.7	42	0.3	36	0.3
Other	108	0.9	80	0.7	82	0.7	48	0.4	34	0.3
Not Stated	55	-	58	-	73	-	30	-	34	-

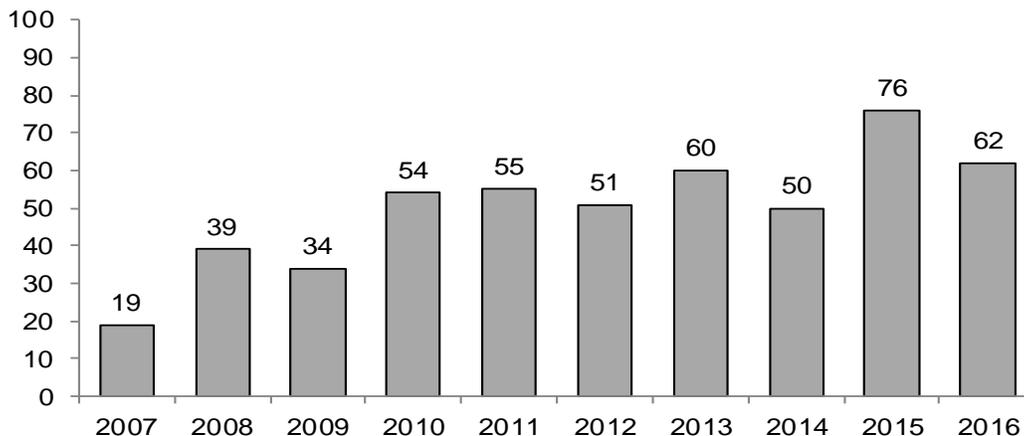
Source: South Dakota Department of Health, Office of Health Statistics

Home Births

Figure 5, below, displays the number of intended home births for South Dakota residents in the past 10 years. In 2016,

intended home births constituted less than one percent (0.5 percent) of South Dakota resident births.

Figure 5
South Dakota Resident Intended Home Births, 2007-2016



Source: South Dakota Department of Health, Office of Health Statistics

Attendant at Birth

Table 23, below, displays South Dakota resident live births by the attendant at birth for the past 10 years. In all years the

majority of attendants at birth have been physicians.

Table 23
South Dakota Resident Live Births by Attendant at Birth, 2007-2016

Year	Total		Physician (MD, Resident, Intern)		Doctor of Osteopathy (DO)		Certified Nurse Midwife (CNM)		Nurse (RN, LPN, NC)		Licensed Certified Nurse Midwife		Other		Not Stated	
	Num	%	Num	%	Num	%	Num	%	Num	%	Num	%	Num	%	Num	%
2016	12,270	100	10,400	84.8	904	7.4	811	6.6	55	0.4	35	0.3	47	0.4	3	-
2015	12,323	100	10,630	86.3	669	5.4	844	6.8	66	0.5	53	0.4	52	0.4	0	-
2014	12,281	100	10,604	86.4	687	5.6	792	6.5	59	0.5	55	0.4	43	0.4	2	-
2013	12,243	100	10,560	87.3	569	4.7	770	6.4	60	0.5	63	0.5	81	0.7	140	-
2012	12,092	100	10,573	88.5	491	4.1	755	6.3	42	0.4	32	0.3	57	0.5	142	-
2011	11,834	100	10,471	88.5	423	3.6	699	5.9	148	1.3	29	0.2	60	0.5	4	-
2010	11,795	100	10,342	87.7	617	5.2	711	6.0	39	0.3	24	0.2	53	0.4	9	-
2009	11,930	100	10,603	89.1	418	3.5	759	6.4	50	0.4	12	0.1	62	0.5	26	-
2008	12,074	100	10,717	88.8	449	3.7	770	6.4	68	0.6	8	0.1	54	0.4	5	-
2007	12,253	100	10,862	88.7	432	3.5	869	7.1	50	0.4	0	0.0	36	0.3	4	-

Note: Licensed Certified Nurse Midwives are licensed by the Board of Nursing to deliver out of an institution. Certified Nurse Midwives are those that deliver in a hospital under a physician's license.

Source: South Dakota Department of Health, Office of Health Statistics

Infections Present and/or Treated

Table 24, below, displays resident births by infections present and/or treated during mother's pregnancy for the past five years. The majority of births, 95.3 percent in 2016, had no infections present or treated.

For all five years, chlamydia was the main infection present and/or treated during pregnancy. In 2016, chlamydia infections were present or treated in 2.5 percent of births.

Table 24
South Dakota Resident Live Births by Infections Present and/or Treated During This Pregnancy and Year of Birth, 2012-2016

	Year of Birth									
	2012		2013		2014		2015		2016	
	Num	%	Num	%	Num	%	Num	%	Num	%
Chlamydia	265	2.2	310	2.5	299	2.4	324	2.6	312	2.5
Genital herpes*	126	1.0	156	1.3	165	1.3	178	1.4	190	1.5
Gonorrhea	45	0.4	38	0.3	38	0.3	54	0.4	52	0.4
Hepatitis C	19	0.2	19	0.2	22	0.2	43	0.3	32	0.3
Hepatitis B	15	0.1	15	0.1	16	0.1	19	0.2	22	0.2
Syphilis	3	0.0	4	0.0	12	0.1	5	0.0	6	0.0
Cytomegalovirus (CMV)	1	0.0	2	0.0	5	0.0	4	0.0	4	0.0
Rubella	3	0.0	5	0.0	4	0.0	0	0.0	2	0.0
Toxoplasmosis	0	0.0	0	0.0	3	0.0	5	0.0	1	0.0
No infections	11,641	96.3	11,707	95.8	11,710	95.6	11,712	95.3	11,688	95.3

Note: *According to the National Center for Health Statistics, genital herpes is comparable with data prior to 2006.

Percentages may sum to more than 100 percent because multiple infections may be reported for a single birth.

Source: South Dakota Department of Health, Office of Health Statistics

Medical History Factors

Table 25, below, lists the medical history factors for South Dakota resident mothers during the past five years.

The most common medical history factor for all five years was the mother had a previous cesarean delivery.

Table 25
South Dakota Resident Live Births by Mother's Medical History Factors and Year of Birth, 2012-2016

	Year of Birth									
	2012		2013		2014		2015		2016	
	Num	%	Num	%	Num	%	Num	%	Num	%
Mother had a previous cesarean delivery	1,566	13.0	1,673	13.7	1,655	13.5	1,864	15.2	1,739	14.2
Diabetes, gestational	655	5.4	775	6.3	904	7.4	962	7.8	954	7.8
Hypertension, gestational	523	4.3	493	4.0	578	4.7	619	5.1	724	5.9
Other previous poor pregnancy outcomes	497	4.1	438	3.6	519	4.2	481	3.9	573	4.7
Previous preterm births	389	3.2	370	3.0	322	2.6	370	3.0	403	3.3
Fertility-enhancing drugs, artificial insemination or intrauterine insemination	130	1.1	143	1.2	181	1.5	132	1.1	177	1.5
Hypertension, pre-pregnancy*	127	1.1	169	1.4	158	1.3	169	1.3	154	1.3
Diabetes, pre-existing	97	0.8	109	0.9	113	0.9	104	0.8	119	1.0
Hypertension, eclampsia	21	0.2	37	0.3	36	0.3	36	0.3	72	0.6
Assisted reproductive technology	47	0.4	53	0.4	45	0.4	40	0.3	70	0.6
No medical risk factors for this pregnancy	8745	72.4	8,727	71.4	8,521	69.6	8,299	68.0	8,204	67.3

Note: *According to the National Center for Health Statistics, hypertension, pre-pregnancy is comparable with data prior to 2006. Percentages may sum to more than 100 percent because multiple factors may be reported for a single birth.

Source: South Dakota Department of Health, Office of Health Statistics

Apgar Score

The Apgar score was developed by the late Virginia Apgar, M.D., as a standardized mechanism to assess the physical condition of newborns. The score considers five easily identifiable characteristics – heart rate, respiratory effort, muscle tone, reflex, and color.

Each characteristic is assessed and assigned a value from zero to two, with two being optimum. If the total score of these five components is seven or greater, a newborn is considered to be in good to excellent physical condition.

In 2016, 2.0 percent of South Dakota resident infants received five minute Apgar scores less than seven.

Considering race, 1.9 percent of white infants, 2.2 percent of American Indian infants, and 1.4 percent of black infants received a five-minute Apgar score less than seven in 2016.

Characteristics of Labor and Delivery

Table 26, below, lists the characteristics of labor and delivery for the past five years reported on South Dakota resident birth certificates. The four most prevalent characteristics in 2016 were epidural or spinal anesthesia with 55.9 percent,

augmentation of labor with 30.7 percent, induction of labor with 28.9 percent, and antibiotics during labor with 27.2 percent. Overall characteristics of labor and delivery were present in 80.2 percent of resident births in 2016.

Table 26
South Dakota Resident Live Births by Characteristics of Labor and Delivery and Year of Birth, 2012-2016

	Year of Birth									
	2012		2013		2014		2015		2016	
	Num	%	Num	%	Num	%	Num	%	Num	%
Epidural or spinal anesthesia	6,348	52.5	6,429	52.5	6,577	53.6	6,594	53.5	6,861	55.9
Augmentation of labor	3,248	26.9	3,435	28.1	3,693	30.1	3,712	30.2	3,754	30.7
Induction of labor*	3,230	26.7	3,240	26.5	3,158	25.7	3,219	26.1	3,553	28.9
Antibiotics during labor	3,291	27.2	3,403	27.8	3,420	27.9	3,394	27.6	3,334	27.2
Meconium staining of the amniotic fluid	937	7.7	1,020	8.3	1,009	8.2	1,125	9.2	835	6.8
Fetal intolerance	775	6.4	615	5.0	449	3.7	583	4.8	686	5.6
Steroids (glucocorticoids) for fetal lung maturation received by the mother prior to delivery	165	1.4	204	1.7	206	1.7	369	3.0	643	5.3
Non-vertex presentation	561	4.6	488	4.0	490	4.0	500	4.1	568	4.7
Chorioamnionitis diagnosed during labor	93	0.8	113	0.9	132	1.1	158	1.3	144	1.2
None of the above	2,516	20.8	2,623	21.4	2,569	20.9	2,487	20.4	2,410	19.8

Note: *According to the National Center for Health Statistics, induction of labor is comparable with data prior to 2006.

Percentages may sum to more than 100 percent because multiple characteristics of labor and delivery may be reported for a single birth.

Source: South Dakota Department of Health, Office of Health Statistics

Obstetric Procedures

Table 27, below, shows obstetric procedures by year of birth for the past five years.

Tocolysis was the top obstetric procedure used for all years.

Table 27
South Dakota Resident Live Births by Obstetric Procedures and Year of Birth, 2012-2016

	Year of Birth									
	2012		2013		2014		2015		2016	
	Num	%	Num	%	Num	%	Num	%	Num	%
Tocolysis*	195	1.6	172	1.4	143	1.2	160	1.3	118	1.0
External cephalic version-successful	24	0.2	25	0.2	17	0.1	26	0.2	40	0.3
Cervical cerclage	35	0.3	51	0.4	34	0.3	26	0.2	40	0.3
External cephalic version-failed	35	0.3	24	0.2	29	0.2	36	0.3	38	0.3
No obstetric procedures	11,815	97.7	11,961	97.8	12,035	97.3	12,052	98.0	12,040	98.1

Note: *According to the National Center for Health Statistics, tocolysis is comparable with data prior to 2006.

Percentages may sum to more than 100 percent because multiple obstetric procedures may be reported for a single birth.

Source: South Dakota Department of Health, Office of Health Statistics

Onset of Labor

Table 28, below, displays the complications associated with the onset of labor for the past five years. The primary complication associated with onset of labor for mothers in

2016 was precipitous labor (< 3 hours). In 2016, 12.4 percent of births had a complication associated with the onset of labor.

Table 28
South Dakota Resident Live Births by Onset of Labor and Year of Birth, 2012-2016

	Year of Birth									
	2012		2013		2014		2015		2016	
	Num	%	Num	%	Num	%	Num	%	Num	%
Precipitous labor (< 3 hours)*	593	4.9	613	5.0	664	5.4	653	5.3	676	5.5
Prolonged labor (20 + hours)	288	2.4	359	2.9	508	4.1	459	3.7	469	3.8
Premature rupture of membranes	296	2.4	300	2.5	274	2.2	365	3.0	422	3.4
None of the above	10,934	90.4	10,998	89.9	10,857	88.4	10,852	88.2	10,751	87.6

Note: *According to the National Center for Health Statistics, precipitous labor is comparable with data prior to 2006.

Percentages may sum to more than 100 percent because multiple complications with the onset of labor may be reported for a single birth.

Source: South Dakota Department of Health, Office of Health Statistics

Maternal Complications

Table 29, below, illustrates the maternal complications for the past five years. The highest maternal complication in 2016 was third or fourth degree perineal

laceration with 1.0 percent of births. Overall, maternal complications were present in 1.5 percent of resident births in 2016.

Table 29
South Dakota Resident Live Births by Maternal Complications and Year of Birth, 2012-2016

	Year of Birth									
	2012		2013		2014		2015		2016	
	Num	%	Num	%	Num	%	Num	%	Num	%
Third or fourth degree perineal laceration	139	1.1	128	1.0	112	0.9	115	0.9	119	1.0
Maternal transfusion	44	0.4	58	0.5	55	0.4	42	0.3	43	0.4
Unplanned operating procedure following delivery	35	0.3	31	0.3	40	0.3	45	0.4	38	0.3
Admitted to intensive care	7	0.1	11	0.1	10	0.1	10	0.1	6	0.0
Unplanned hysterectomy	4	0.0	5	0.0	6	0.0	7	0.1	3	0.0
Ruptured uterus	5	0.0	4	0.0	4	0.0	4	0.0	3	0.0
None of the above	11,872	98.2	12,024	98.3	12,073	98.4	12,112	98.3	12,079	98.5

Note: Percentages may sum to more than 100 percent because multiple complications may be reported for a single birth.

Source: South Dakota Department of Health, Office of Health Statistics

Methods of Delivery

Table 30, on the next page, displays the method of delivery for the past five years. Vaginal birth was the primary method of delivery for South Dakota residents for the

past five years. Primary C-section was the second largest method of delivery followed by repeat C-section methods.

Table 30
South Dakota Resident Births by Method of Delivery and Year of Birth, 2012-2016

	2012		2013		2014		2015		2016	
	Num	%								
Vaginal (Total)	9,026	74.6	9,115	74.5	9,242	75.3	9,157	74.3	9,162	74.7
Vaginal with no previous C-section	8,752	72.4	8,837	72.2	8,912	72.6	8,791	71.3	8,820	71.9
Vaginal after previous C-section	269	2.2	267	2.2	313	2.5	338	2.7	334	2.7
Vaginal (unknown previous types)	5	0.0	11	0.1	17	0.1	28	0.2	8	0.1
C-Section (Total)	3,066	25.4	3,128	25.5	3,039	24.7	3,166	25.7	3,108	25.3
Primary C-section	1,769	14.6	1,722	14.1	1,694	13.8	1,637	13.3	1,700	13.9
Repeat C-section	1,297	10.7	1,406	11.5	1,342	10.9	1,526	12.4	1,405	11.5
C-section (unknown previous types)	0	-	0	-	3	-	3	-	3	-

Source: South Dakota Department of Health, Office of Health Statistics

Table 31, below, displays the method of delivery by fetal presentation. The majority of births, 94.5 percent, were cephalic while 4.2 percent were breech.

When looking at primary C-section births, 22.7 percent were breech while 73.6 percent were cephalic.

Table 31
South Dakota Resident Births by Method of Delivery and Fetal Presentation, 2016

	Total		Cephalic		Breech		Other		Not Stated	
	Num	%	Num	%	Num	%	Num	%	Num	%
Total	12,270	100	11,591	94.5	521	4.2	155	1.3	3	-
Vaginal (Total)	9,162	100	9,087	99.2	31	0.3	41	0.4	3	-
Vaginal with no previous C-section	8,820	100	8,751	99.2	28	0.3	40	0.5	1	-
Vaginal after previous C-section	334	100	328	98.8	3	0.9	1	0.3	2	-
Vaginal (unknown previous types)	8	100	8	100	0	0.0	0	0.0	0	-
C-Section (Total)	3,108	100	2,504	80.6	490	15.8	114	3.7	0	-
Primary C-section	1,700	100	1,252	73.6	386	22.7	62	3.6	0	-
Repeat C-section	1,405	100	1,250	89.0	103	7.3	52	3.7	0	-
C-section (unknown previous types)	3	100	2	66.7	1	33.3	0	1.1	0	-

Source: South Dakota Department of Health, Office of Health Statistics

Abnormal Conditions of the Newborn

Table 32, on the next page, shows abnormal conditions in newborns for the past five years. In 2016, 13.1 percent of South Dakota resident live birth certificates reported abnormal conditions of the

newborn. Overall, NICU admission was the most frequently reported condition in 2016 followed by assisted ventilation required immediately following delivery.

Table 32

South Dakota Resident Live Births by Abnormal Conditions of Newborn and Year of Birth, 2012-2016

	Year of Birth									
	2012		2013		2014		2015		2016	
	Num	%	Num	%	Num	%	Num	%	Num	%
NICU admission	1,130	9.3	1,189	9.7	1,245	10.1	1,224	9.9	1,241	10.1
Assisted ventilation required immediately following delivery	593	4.9	770	6.3	806	6.6	797	6.5	802	6.5
Antibiotics received by the newborn for suspected neonatal sepsis	639	5.3	644	5.3	621	5.1	628	5.1	596	4.9
Assisted ventilation required for more than 6 hrs	238	2.0	290	2.4	258	2.1	281	2.3	296	2.4
Newborn given surfactant replacement therapy	90	0.7	91	0.7	86	0.7	87	0.7	92	0.7
Significant birth injury	21	0.2	15	0.1	13	0.1	13	0.1	12	0.1
Seizure or serious neurologic dysfunction	9	0.1	9	0.1	11	0.1	9	0.1	11	0.1
None of the above	10,697	88.5	10,725	87.6	10,650	86.7	10,724	87.0	10,666	86.9

Note: Percentages may sum to more than 100 percent because multiple abnormal conditions may be reported for a single birth.

Source: South Dakota Department of Health, Office of Health Statistics

Congenital Anomalies

Table 33, below, displays congenital anomalies for the past five years. In 2016 the most prevalent congenital anomaly was

cleft lip with or without a cleft palate followed by chromosomal disorder.

Table 33

South Dakota Resident Births with Reported Congenital Anomalies and Year of Birth, 2012-2016

	Year of Birth									
	2012		2013		2014		2015		2016	
	Num	%	Num	%	Num	%	Num	%	Num	%
Cleft lip with or without a cleft palate	10	0.1	16	0.1	14	0.1	11	0.1	25	0.2
Chromosomal disorder	16	0.1	14	0.1	13	0.1	20	0.2	21	0.2
Hypospadias	12	0.1	16	0.1	10	0.1	6	0.0	17	0.1
Other craniofacial abnormality	11	0.1	22	0.2	16	0.1	13	0.1	17	0.1
Cyanotic congenital heart disease	5	0.0	13	0.1	16	0.1	8	0.1	15	0.1
Down syndrome (Trisomy 21)*	13	0.1	15	0.1	17	0.1	8	0.1	15	0.1
Cleft palate alone	6	0.0	9	0.1	13	0.1	2	0.0	12	0.1
Gastroschisis	9	0.1	5	0.0	4	0.0	5	0.0	10	0.1
Limb reduction defect	4	0.0	1	0.0	4	0.0	6	0.0	8	0.1
Meningomyelocele/Spina bifida*	4	0.0	1	0.0	3	0.0	5	0.0	6	0.0
Congenital diaphragmatic hernia	0	0.0	4	0.0	5	0.0	5	0.0	1	0.0
Omphalacele	0	0.0	1	0.0	2	0.0	2	0.0	1	0.0
Anencephaly*	0	0.0	1	0.0	2	0.0	0	0.0	1	0.0
At least one anomaly	85	0.7	98	0.8	97	0.8	79	0.6	121	1.0
None of the above	12,004	99.3	12,139	99.2	12,178	99.2	12,236	99.4	12,149	99.0

Note: *According to the NCHS, Down syndrome, meningomyelocele/spina bifida, and anencephaly are comparable with data prior to 2006.

Percentages may sum to more than 100 percent because multiple congenital anomalies may be reported for a single birth.

Source: South Dakota Department of Health, Office of Health Statistics

