

Colorado Births and Deaths 2018

Selected birth characteristics: Colorado residents, 2018.....	2
Selected birth characteristics by age group of mother: Colorado residents, 2018.....	3
Selected birth characteristics by race/ethnicity of mother: Colorado residents, 2018	4
Selected birth characteristics by area-based poverty status of mother's residence: Colorado residents, 2018.....	5
Live births and fertility rates by age group of mother: Colorado residents, 2018.....	6
Vital statistics summary: Colorado residents, 2008, 2014-2018.....	7
Deaths, crude death rates and age-adjusted death rates from selected causes: Colorado residents, 2018.....	9
Deaths and age-specific death rates from selected causes: Colorado residents, 2018.....	10
Deaths from selected causes by race/ethnicity: Colorado residents, 2018	11
Deaths from selected causes by area-based poverty status of decedent's residence: Colorado residents, 2018	12
Deaths and age-specific death rates: Colorado residents, 2018	13
Notes Regarding Colorado Revised Certificate of Live Birth	14
Notes Regarding Colorado Area-Based Poverty Estimates	15

For more information about these tables, please contact the Vital Statistics Program at the Colorado Department of Public Health and Environment by telephone at **(303) 692-2160** or by email at cdphe.healthstatistics@state.co.us.

Selected birth characteristics: Colorado residents, 2018

Characteristic	Number	Percent
Total Live Births	62,871	100.0
Age of Mother		
10-17	656	1.0
18-19	1,871	3.0
20-29	27,986	44.5
30+	32,330	51.4
Low Weight Births (<2,500 Grams)	5,917	9.4
Very Low Weight Births (<1,500 Grams)	773	1.2
Prenatal Care Later than 1st Trimester/No Care	10,427	17.5
No Prenatal Care	865	1.5
Preterm Births (<37 Weeks)	5,794	9.2
Education of Mother <High School Diploma/GED	6,756	10.9
Live Births to Unmarried Women	14,656	23.4
Smoking During Pregnancy	3,681	5.9

"Education of Mother," "Births to Unmarried Women," and "Smoking During Pregnancy" are among items collected starting in 2007, using the revised birth certificate, that are not directly comparable to data collected before 2007. See "Notes Regarding Colorado Revised Certificate of Live Birth" at end of report for details.

** indicates one or two events in the category.*

Sums may not add to total due to cases with age of mother unknown.

Percentages are of total births, excluding cases with specific characteristics unknown.

Source: Vital Statistics Program, Colorado Department of Public Health and Environment.

Selected birth characteristics by age group of mother: Colorado residents, 2018

Characteristic	All Ages		10-17		18-19		20-29		30+	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total Live Births	62,871	100.0	656	100.0	1,871	100.0	27,987	100.0	32,332	100.0
Race/Ethnicity of Mother										
White, Non-Hispanic	37,080	61.3	167	26.9	617	34.9	14,401	53.8	21,884	69.8
White, Hispanic	13,472	22.3	315	50.7	777	44.0	7,484	27.9	4,896	15.6
Black	3,977	6.6	48	7.7	156	8.8	2,170	8.1	1,602	5.1
Asian American/Pacific Islander	3,101	5.1	11	1.8	46	2.6	1,137	4.2	1,906	6.1
American Indian/Native Alaskan	758	1.3	22	3.5	50	2.8	430	1.6	255	0.8
Other	2,132	3.5	58	9.3	121	6.8	1,160	4.3	793	2.5
Unknown	2,351		35		104		1,205		996	
Low Weight Births (<2,500 Grams)	5,917	9.4	61	9.3	204	10.9	2,595	9.3	3,052	9.4
Very Low Weight Births (<1,500 Grams)	773	1.2	6	0.9	29	1.6	361	1.3	373	1.2
Prenatal Care Later than 1st Trimester/No Care	10,427	17.5	266	43.5	559	31.5	5,306	20.0	4,295	14.0
No Prenatal Care	865	1.5	23	3.8	50	2.8	435	1.6	357	1.2
Preterm Births (<37 Weeks)	5,794	9.2	49	7.5	179	9.6	2,532	9.1	3,027	9.4
Education of Mother <High School Diploma/GED	6,756	10.9	549	86.2	708	38.5	3,246	11.8	2,251	7.1
Live Births to Unmarried Women	14,656	23.3	595	90.7	1,301	69.5	8,779	31.4	3,978	12.3
Smoking During Pregnancy	3,681	5.9	37	5.6	166	8.9	2,083	7.5	1,395	4.3

"Education of Mother," "Births to Unmarried Women," and "Smoking During Pregnancy" are among items collected starting in 2007, using the revised birth certificate, that are not directly comparable to data collected before 2007. See "Notes Regarding Colorado Revised Certificate of Live Birth" at end of report for details.

** indicates one or two events in the category.*

Sums may not add to total due to cases with age of mother unknown.

Percentages are of total births, excluding cases with specific characteristics unknown.

Percentage not computed for cells shaded in light gray.

Source: Vital Statistics Program, Colorado Department of Public Health and Environment.

Selected birth characteristics by race/ethnicity of mother: Colorado residents, 2018

Characteristic	White Non-Hispanic		White Hispanic		Black		Asian American/Pacific Islander		American Indian/Native Alaskan	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total Live Births	37,080	100.0	13,472	100.0	3,977	100.0	3,101	100.0	758	100.0
Age of Mother										
10-17	167	0.5	315	2.3	48	1.2	11	0.4	22	2.9
18-19	617	1.7	777	5.8	156	3.9	46	1.5	50	6.6
20-29	14,401	38.8	7,483	55.5	2,170	54.6	1,137	36.7	430	56.7
30+	21,884	59.0	4,895	36.3	1,602	40.3	1,905	61.4	255	33.6
Low Weight Births (<2,500 Grams)	3,214	8.7	1,270	9.4	532	13.4	356	11.5	73	9.6
Very Low Weight Births (<1,500 Grams)	376	1.0	184	1.4	77	1.9	42	1.4	8	1.1
Prenatal Care Later than 1st Trimester/No Care	4,991	14.2	2,880	22.4	893	24.2	517	17.6	208	29.5
No Prenatal Care	335	1.0	324	2.5	83	2.3	36	1.2	15	2.1
Preterm Births (<37 Weeks)	3,230	8.7	1,288	9.6	426	10.7	290	9.4	84	11.1
Education of Mother <High School Diploma/GED	1,471	4.0	3,334	25.0	514	13.2	284	9.3	138	18.4
Live Births to Unmarried Women	6,300	17.0	4,410	32.7	1,677	42.2	355	11.4	349	46.0
Smoking During Pregnancy	2,515	6.8	570	4.2	278	7.0	70	2.3	79	10.5

"Education of Mother," "Births to Unmarried Women," and "Smoking During Pregnancy" are among items collected starting in 2007, using the revised birth certificate, that are not directly comparable to data collected before 2007. See "Notes Regarding Colorado Revised Certificate of Live Birth" at end of report for details.

** indicates one or two events in the category.*

Sums may not add to total due to cases with age or race/ethnicity of mother unknown.

Percentages are of total births, excluding cases with specific characteristics unknown.

Source: Vital Statistics Program, Colorado Department of Public Health and Environment.

Selected birth characteristics by area-based poverty status of mother's residence: Colorado residents, 2018

Characteristic	<10%		10-19.9%		20-29.9%		30%+		Unknown	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total Live Births	31,208	100.0	19,058	100.0	8,131	100.0	3,362	100.0	1,112	100.0
Race/Ethnicity of Mother										
White, Non-Hispanic	21,817	71.8	10,249	56.2	3,255	42.3	1,130	36.0	629	59.6
White, Hispanic	4,307	14.2	4,981	27.3	2,767	36.0	1,157	36.8	260	24.6
Black	1,403	4.6	1,313	7.2	809	10.5	408	13.0	44	4.2
Asian American/Pacific Islander	1,847	6.1	735	4.0	294	3.8	200	6.4	25	2.4
American Indian/Native Alaskan	259	0.9	214	1.2	171	2.2	72	2.3	42	4.0
Other	771	2.5	731	4.0	398	5.2	176	5.6	56	5.3
Unknown	804		835		437		219		56	
Low Weight Births (<2,500 Grams)	2,834	9.1	1,823	9.6	768	9.4	353	10.5	139	12.5
Very Low Weight Births (<1,500 Grams)	339	1.1	231	1.2	116	1.4	65	1.9	22	2.0
Prenatal Care Later than 1st Trimester/No Care	4,138	14.0	3,545	19.7	1,655	21.5	844	26.4	245	23.7
No Prenatal Care	244	0.8	316	1.8	179	2.3	96	3.0	30	2.9
Preterm Births (<37 Weeks)	2,755	8.8	1,789	9.4	771	9.5	358	10.7	121	10.9
Education of Mother <High School Diploma/GED	1,567	5.1	2,627	14.0	1,580	19.8	798	24.4	184	16.9
Live Births to Unmarried Women	5,148	16.5	5,343	28.0	2,619	32.2	1,218	36.2	328	29.5
Smoking During Pregnancy	1,259	4.0	1,360	7.2	639	7.9	321	9.6	102	9.2

Area-based poverty status represents the percentage of population in the census tract of maternal residence living at or below the federal poverty level, based on the 2017 5-Year American Community Survey.

Census tracts of maternal residence were determined by linking the maternal residence address at the time of infant birth to its respective census tract as defined by the 2010 U.S. census-designated boundaries. See "Notes Regarding Colorado Area-Based Poverty Estimates" at end of report for details.

"Education of Mother," "Births to Unmarried Women," and "Smoking During Pregnancy" are among items collected starting in 2007, using the revised birth certificate, that are not directly comparable to data collected before 2007. See "Notes Regarding Colorado Revised Certificate of Live Birth" at end of report for details.

** indicates one or two events in the category.*

Sums may not add to total due to cases with age of mother unknown.

Percentages are of total births, excluding cases with specific characteristics unknown.

Percentage not computed for cells shaded in light gray.

Source: Vital Statistics Program, Colorado Department of Public Health and Environment.

Live births and fertility rates with 95% confidence limits by age group of mother: Colorado residents, 2018

Age Group	Births	Population	Fertility Rate	Lower Limit	Upper Limit
All Ages	62,871	1,171,568	53.7	53.3	54.1
Teen Age Groups					
13-14	16	72,788	0.2	0.1	0.3
15-17	639	107,798	5.9	5.5	6.4
18-19	1,871	75,068	24.9	23.8	26.0
10-17	656	288,662	2.3	2.1	2.4
10-19	2,527	363,729	6.9	6.7	7.2
All Age Groups					
10-14	17	180,864	0.1	0.0	0.1
15-19	2,510	182,865	13.7	13.2	14.3
20-24	10,460	186,602	56.1	55.0	57.1
25-29	17,526	209,804	83.5	82.3	84.7
30-34	19,663	214,603	91.6	90.4	92.8
35-39	10,487	195,719	53.6	52.6	54.6
40-49	2,170	366,186	5.9	5.7	6.2

** indicates one or two events in the category.*

Sums may not add to total due to cases with age of mother unknown.

Rates are live births per 1,000 female population in each age group.

Lower and upper limits represent the 95% confidence interval of the fertility rate.

Population data for 'all ages' are females ages 15-44.

Source: Vital Statistics Program, Colorado Department of Public Health and Environment.

Vital statistics summary: Colorado residents, 2008, 2014-2018

	2008	2014	2015	2016	2017	2018	2014-2018 Annual Average
Total Population	4,901,876	5,352,948	5,454,782	5,542,991	5,616,512	5,695,430	5,532,533
Total Births							
Number	70,028	65,817	66,567	66,611	64,387	62,871	65,251
Birth Rate	14.3	12.3	12.2	12.0	11.5	11.0	11.8
General Fertility Rate	69.2	60.3	59.9	58.8	55.9	53.7	57.7
Age of Mother 10-17							
Number	2,221	903	873	846	723	656	800
Percent of Total Births	3.2	1.4	1.3	1.3	1.1	1.0	1.2
Fertility Rate	9.0	3.3	3.1	3.0	2.5	2.3	2.8
Low Weight Births (<2,500 Grams)							
Number	6,263	5,779	6,007	5,972	5,860	5,917	5,907
Percent	8.9	8.8	9.0	9.0	9.1	9.4	9.1
Prenatal Care Later Than 1st Trimester/No Care							
Number	15,687	12,488	12,742	11,892	11,180	10,427	11,746
Percent	23.1	19.7	19.9	18.6	18.1	17.5	18.8
Births to Unmarried Women							
Number	17,525	14,957	15,334	15,153	14,631	14,656	14,946
Percent	25.0	22.7	23.0	22.7	22.7	23.3	22.9
Mother's Education <12 Years							
Number	14,599	7,939	8,102	7,727	7,364	6,756	7,578
Percent	21.1	12.2	12.3	11.7	11.6	10.9	11.8
Infant Deaths							
Number	434	315	309	321	290	296	306
Rate	6.2	4.8	4.6	4.8	4.5	4.7	4.7
Neonatal Deaths							
Number	311	238	230	217	195	206	217
Rate	4.4	3.6	3.5	3.3	3.0	3.3	3.3
Total Deaths							
Number	31,205	35,194	36,353	37,488	37,996	38,451	37,096
Crude Rate	636.6	657.5	666.4	676.3	676.5	675.1	670.5
Age-Adjusted Rate	699.3	662.8	662.8	664.9	653.0	641.8	656.6
Cardiovascular Disease							
Number	8,363	9,204	9,563	9,813	9,662	10,047	9,658
Age-Adjusted Rate	190.8	174.7	175.6	174.7	166.4	167.9	171.7
Heart Disease							
Number	6,132	6,779	7,002	7,243	7,035	7,336	7,079
Age-Adjusted Rate	139.1	127.9	127.7	128.3	120.2	121.8	125.1
Cerebrovascular Disease							

(Continued)

* indicates one or two events in the category.

Birth rates are per 1,000 total population. General fertility rates are births per 1,000 females ages 15-44.

Fertility rates for mothers ages 10-17 are births per 1,000 females of this age group.

Infant and neonatal mortality rates are per 1,000 live births. Other death rates are per 100,000 population.

Age-adjusted rates are adjusted to the 2000 U.S. population using the direct method applied to 10-year age groups.

Source: Vital Statistics Program, Colorado Department of Public Health and Environment.

Vital statistics summary: Colorado residents, 2008, 2014-2018

	2008	2014	2015	2016	2017	2018	2014-2018 Annual Average
Number	1,531	1,692	1,857	1,925	1,980	1,992	1,889
Age-Adjusted Rate	35.5	32.9	34.7	34.9	35.0	34.0	34.3
Malignant Neoplasms							
Number	6,709	7,289	7,597	7,926	7,812	7,804	7,686
Age-Adjusted Rate	149.4	134.0	134.0	136.6	129.3	126.2	131.9
Lung Cancer							
Number	1,598	1,564	1,543	1,590	1,493	1,406	1,519
Age-Adjusted Rate	36.2	28.7	27.4	27.5	24.6	22.7	26.1
Breast Cancer							
Number	492	553	585	618	638	600	599
Age-Adjusted Rate	10.4	10.0	10.3	10.5	10.5	9.7	10.2
Total Unintentional Injuries							
Number	2,159	2,413	2,724	2,838	3,029	3,006	2,802
Age-Adjusted Rate	45.4	45.1	49.6	50.3	53.0	51.2	49.9
Motor Vehicle							
Number	579	486	586	627	672	659	606
Age-Adjusted Rate	11.9	9.0	10.4	10.9	11.6	11.2	10.6
Other Unintentional Injuries							
Number	1,580	1,927	2,138	2,211	2,357	2,347	2,196
Age-Adjusted Rate	33.5	36.2	39.1	39.4	41.4	40.0	39.2
Chronic Lower Respiratory Diseases							
Number	2,178	2,419	2,576	2,573	2,598	2,630	2,559
Age-Adjusted Rate	51.4	46.6	47.6	46.1	44.8	43.3	45.6
Suicide							
Number	801	1,058	1,093	1,156	1,175	1,271	1,151
Age-Adjusted Rate	16.0	19.4	19.4	20.2	20.2	21.6	20.2
Homicide and Legal Intervention							
Number	195	181	216	251	279	288	243
Age-Adjusted Rate	3.9	3.4	3.9	4.6	4.9	5.1	4.4
Work-Related Injury							
Number	90	76	64	74	72	75	72
Age-Adjusted Rate	1.8	1.4	1.1	1.3	1.2	1.3	1.3

* indicates one or two events in the category.

Birth rates are per 1,000 total population. General fertility rates are births per 1,000 females ages 15-44.

Fertility rates for mothers ages 10-17 are births per 1,000 females of this age group.

Infant and neonatal mortality rates are per 1,000 live births. Other death rates are per 100,000 population.

Age-adjusted rates are adjusted to the 2000 U.S. population using the direct method applied to 10-year age groups.

Source: Vital Statistics Program, Colorado Department of Public Health and Environment.

**Deaths, crude death rates and age-adjusted death rates with 95% confidence limits from selected causes:
Colorado residents, 2018**

Cause of Death	N	Crude Rate	Age-Adjusted Rate	Lower Limit	Upper Limit
All Causes	38,451	675.1	641.8	635.4	648.1
Cardiovascular Disease	10,047	176.4	167.9	164.6	171.2
Heart Disease	7,336	128.8	121.8	119.0	124.6
Cerebrovascular Disease	1,992	35.0	34.0	32.5	35.5
Atherosclerosis	80	1.4	1.4	1.1	1.7
Malignant Neoplasms	7,804	137.0	126.2	123.3	129.0
Lung Cancer	1,406	24.7	22.7	21.5	23.9
Breast Cancer	600	10.5	9.7	8.9	10.5
Chronic Lower Respiratory Diseases	2,630	46.2	43.3	41.6	45.0
Unintentional Injuries	3,006	52.8	51.2	49.4	53.1
Motor Vehicle	659	11.6	11.2	10.4	12.1
Other Unintentional Injuries	2,332	40.9	39.7	38.1	41.4
Pneumonia and Influenza	568	10.0	9.6	8.8	10.3
Suicide	1,271	22.3	21.6	20.4	22.9
Diabetes Mellitus	970	17.0	15.8	14.8	16.9
HIV Infection	50	0.9	0.8	0.6	1.0
Chronic Liver Disease and Cirrhosis	830	14.6	13.1	12.2	14.0
Alzheimer's Disease	1,646	28.9	28.9	27.5	30.3
Nephritis, Nephrosis, Nephrotic Syndrome	469	8.2	7.8	7.1	8.5
Homicide and Legal Intervention	288	5.1	5.1	4.5	5.7
Septicemia	456	8.0	7.6	6.9	8.3
Congenital Anomalies	131	2.3	2.5	2.1	2.9
Perinatal Period Conditions	157	2.8	3.4	2.8	3.9
All Other	8,128	142.7	136.9	133.9	139.9
Injury by Firearm	885	15.5	15.1	14.1	16.1
Drug-Induced Deaths	1,017	17.9	17.2	16.1	18.3
Alcohol-Induced Deaths	1,031	18.1	16.3	15.3	17.3
Work-Related Injury (Y/N Check Death Certificate)	75	1.3	1.3	1.0	1.6

** indicates one or two events in the category.*

Rates are deaths per 100,000 population.

Crude death rates are calculated without age-adjustment.

Age-adjusted rates are adjusted to the 2000 U.S. standard population using the direct method applied to 10-year age groups.

Age-adjusted rates provide a better basis for comparison among different geographical areas or time periods.

Lower and upper limits represent the 95% confidence interval of the age-adjusted rate.

Source: Vital Statistics Program, Colorado Department of Public Health and Environment.

Deaths and age-specific death rates from selected causes: Colorado residents, 2018

Cause of Death	<1		1-14		15-24		25-44		45-64		65+	
	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate
All Causes	296	4.7	176	0.2	538	0.7	2,352	1.4	7,318	5.1	27,771	34.3
Cardiovascular Disease	4	0.1	7	0.0	11	0.0	216	0.1	1,488	1.0	8,321	10.3
Heart Disease	*	*	5	0.0	10	0.0	168	0.1	1,200	0.8	5,952	7.4
Cerebrovascular Disease	3	0.0	*	*	*	*	29	0.0	204	0.1	1,754	2.2
Atherosclerosis	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	80	0.1
Malignant Neoplasms	0	0.0	17	0.0	15	0.0	201	0.1	1,881	1.3	5,690	7.0
Lung Cancer	0	0.0	*	*	0	0.0	5	0.0	270	0.2	1,130	1.4
Breast Cancer	0	0.0	0	0.0	0	0.0	34	0.0	186	0.1	380	0.5
Chronic Lower Respiratory Diseases	0	0.0	0	0.0	5	0.0	19	0.0	383	0.3	2,223	2.7
Unintentional Injuries	20	0.3	50	0.1	203	0.3	742	0.5	755	0.5	1,236	1.5
Motor Vehicle	3	0.0	29	0.0	104	0.1	203	0.1	192	0.1	128	0.2
Other Unintentional Injuries	17	0.3	21	0.0	99	0.1	539	0.3	563	0.4	1,108	1.4
Pneumonia and Influenza	*	*	4	0.0	*	*	19	0.0	97	0.1	445	0.6
Suicide	0	0.0	26	0.0	179	0.2	463	0.3	415	0.3	188	0.2
Diabetes Mellitus	0	0.0	*	*	4	0.0	35	0.0	250	0.2	680	0.8
HIV Infection	0	0.0	0	0.0	0	0.0	13	0.0	30	0.0	7	0.0
Chronic Liver Disease and Cirrhosis	0	0.0	0	0.0	0	0.0	143	0.1	463	0.3	224	0.3
Alzheimer's Disease	0	0.0	0	0.0	0	0.0	0	0.0	15	0.0	1,631	2.0
Nephritis, Nephrosis, Nephrotic Syndrome	0	0.0	0	0.0	0	0.0	10	0.0	71	0.0	388	0.5
Homicide and Legal Intervention	3	0.0	13	0.0	69	0.1	128	0.1	55	0.0	20	0.0
Septicemia	4	0.1	3	0.0	*	*	13	0.0	76	0.1	359	0.4
Congenital Anomalies	59	0.9	14	0.0	*	*	11	0.0	24	0.0	22	0.0
Perinatal Period Conditions	153	2.4	3	0.0	0	0.0	0	0.0	0	0.0	*	*
All Other	52	0.8	38	0.0	48	0.1	339	0.2	1,315	0.9	6,336	7.8
Injury by Firearm	0	0.0	14	0.0	151	0.2	333	0.2	241	0.2	146	0.2
Drug-Induced Deaths	0	0.0	*	*	76	0.1	454	0.3	386	0.3	100	0.1
Alcohol-Induced Deaths	0	0.0	0	0.0	5	0.0	220	0.1	630	0.4	176	0.2
Work-Related Injury (Y/N Check Death Certificate)	0	0.0	0	0.0	4	0.0	35	0.0	27	0.0	9	0.0

* indicates one or two events in the category.
 Infant (<1 year) mortality rates are per 1,000 live births.
 Other rates are deaths per 1,000 population of the age group.

Source: Vital Statistics Program, Colorado Department of Public Health and Environment.

Deaths from selected causes by race/ethnicity: Colorado residents, 2018

Cause of Death	All Races		White Non-Hispanic		White Hispanic		Black		Asian American/Pacific Islander		American Indian/Native Alaskan	
	N	%	N	%	N	%	N	%	N	%	N	%
Total	38,451	100.0	30,469	100.0	4,161	100.0	1,517	100.0	638	100.0	402	100.0
Cardiovascular Disease	10,047	26.1	8,137	26.7	895	21.5	418	27.6	196	30.7	90	22.4
Heart Disease	7,336	19.1	5,985	19.6	635	15.3	303	20.0	118	18.5	67	16.7
Cerebrovascular Disease	1,992	5.2	1,594	5.2	182	4.4	87	5.7	61	9.6	13	3.2
Atherosclerosis	80	0.2	62	0.2	11	0.3	*	*	*	*	*	*
Malignant Neoplasms	7,804	20.3	6,320	20.7	779	18.7	262	17.3	146	22.9	75	18.7
Lung Cancer	1,406	3.7	1,179	3.9	103	2.5	47	3.1	29	4.5	20	5.0
Breast Cancer	600	1.6	493	1.6	64	1.5	16	1.1	6	0.9	5	1.2
Chronic Lower Respiratory Disease	2,630	6.8	2,301	7.6	158	3.8	75	4.9	25	3.9	24	6.0
Unintentional Injuries	3,006	7.8	2,160	7.1	475	11.4	124	8.2	34	5.3	34	8.5
Motor Vehicle	659	1.7	397	1.3	151	3.6	33	2.2	11	1.7	4	1.0
Other Unintentional Injuries	2,347	6.1	1,763	5.8	324	7.8	91	6.0	23	3.6	30	7.5
Pneumonia and Influenza	568	1.5	453	1.5	48	1.2	19	1.3	8	1.3	12	3.0
Suicide	1,271	3.3	965	3.2	156	3.7	39	2.6	27	4.2	18	4.5
Diabetes Mellitus	970	2.5	647	2.1	185	4.4	67	4.4	24	3.8	21	5.2
HIV Infection	50	0.1	31	0.1	7	0.2	9	0.6	0	0.0	*	*
Chronic Liver Disease and Cirrhosis	830	2.2	512	1.7	213	5.1	34	2.2	6	0.9	28	7.0
Alzheimer's Disease	1,646	4.3	1,410	4.6	122	2.9	44	2.9	29	4.5	4	1.0
Nephritis, Nephrosis, Nephrotic Syndrome	469	1.2	333	1.1	76	1.8	32	2.1	7	1.1	8	2.0
Homicide and Legal Intervention	288	0.7	113	0.4	79	1.9	65	4.3	7	1.1	11	2.7
Septicemia	456	1.2	358	1.2	61	1.5	14	0.9	4	0.6	6	1.5
Congenital Anomalies	131	0.3	88	0.3	27	0.6	8	0.5	3	0.5	0	0.0
Perinatal Period Conditions	157	0.4	72	0.2	58	1.4	10	0.7	3	0.5	*	*
All Other	8,128	21.1	6,569	21.6	822	19.8	297	19.6	119	18.7	68	16.9
Injury by Firearm	885	2.3	597	2.0	129	3.1	78	5.1	18	2.8	20	5.0
Drug-Induced Deaths	1,017	2.6	707	2.3	187	4.5	56	3.7	10	1.6	10	2.5
Alcohol-Induced Deaths	1,031	2.7	710	2.3	193	4.6	43	2.8	4	0.6	37	9.2
Work-Related Injury (Y/N Check Death Certificate)	75	0.2	45	0.1	17	0.4	7	0.5	0	0.0	0	0.0

* indicates one or two events in the category.
Percentages are of total deaths of each race/ethnicity category.

Source: Vital Statistics Program, Colorado Department of Public Health and Environment.

Deaths from selected causes by area-based poverty status of decedent's residence: Colorado residents, 2018

Cause of Death	<10%		10-19.9%		20-29.9%		30%+		Unknown	
	N	%	N	%	N	%	N	%	N	%
Total	17,817	100.0	12,485	100.0	4,717	100.0	1,925	100.0	1,507	100.0
Cardiovascular Disease	4,654	26.1	3,248	26.0	1,292	27.4	466	24.2	387	25.7
Heart Disease	3,383	19.0	2,383	19.1	929	19.7	345	17.9	296	19.6
Cerebrovascular Disease	965	5.4	626	5.0	250	5.3	83	4.3	68	4.5
Atherosclerosis	35	0.2	23	0.2	13	0.3	7	0.4	*	*
Malignant Neoplasms	3,957	22.2	2,493	20.0	833	17.7	313	16.3	208	13.8
Lung Cancer	653	3.7	483	3.9	175	3.7	57	3.0	38	2.5
Breast Cancer	320	1.8	180	1.4	68	1.4	15	0.8	17	1.1
Chronic Lower Respiratory Disease	1,067	6.0	946	7.6	361	7.7	150	7.8	106	7.0
Unintentional Injuries	1,242	7.0	957	7.7	388	8.2	176	9.1	243	16.1
Motor Vehicle	244	1.4	215	1.7	82	1.7	37	1.9	81	5.4
Other Unintentional Injuries	998	5.6	742	5.9	306	6.5	139	7.2	162	10.7
Pneumonia and Influenza	226	1.3	208	1.7	76	1.6	32	1.7	26	1.7
Suicide	595	3.3	382	3.1	142	3.0	73	3.8	79	5.2
Diabetes Mellitus	384	2.2	318	2.5	153	3.2	84	4.4	31	2.1
HIV Infection	18	0.1	18	0.1	9	0.2	*	*	3	0.2
Chronic Liver Disease and Cirrhosis	277	1.6	291	2.3	159	3.4	54	2.8	49	3.3
Alzheimer's Disease	913	5.1	522	4.2	138	2.9	50	2.6	23	1.5
Nephritis, Nephrosis, Nephrotic Syndrome	193	1.1	149	1.2	81	1.7	21	1.1	25	1.7
Homicide and Legal Intervention	81	0.5	94	0.8	56	1.2	31	1.6	26	1.7
Septicemia	187	1.0	154	1.2	61	1.3	33	1.7	21	1.4
Congenital Anomalies	75	0.4	30	0.2	9	0.2	10	0.5	7	0.5
Perinatal Period Conditions	59	0.3	54	0.4	21	0.4	18	0.9	5	0.3
All Other	3,889	21.8	2,621	21.0	938	19.9	412	21.4	268	17.8
Injury by Firearm	379	2.1	273	2.2	110	2.3	64	3.3	59	3.9
Drug-Induced Deaths	366	2.1	327	2.6	157	3.3	78	4.1	89	5.9
Alcohol-Induced Deaths	359	2.0	348	2.8	179	3.8	67	3.5	78	5.2
Work-Related Injury (Y/N Check Death Certificate)	32	0.2	24	0.2	9	0.2	8	0.4	*	*

Area-based poverty status represents the percentage of population in the census tract of decedent's residence living at or below the federal poverty level, based on the 2017 5-Year American Community Survey. Census tracts of decedent residence were determined by linking the decedent residence address at the time of death to its respective census tract as defined by the 2010 U.S. census-designated boundaries. See "Notes Regarding Colorado Area-Based Poverty Estimates" at end of report for details.

** indicates one or two events in the category.*

Percentages are of total deaths of each race/ethnicity category.

Source: Vital Statistics Program, Colorado Department of Public Health and Environment.

Deaths and age-specific death rates: Colorado residents, 2018

Age Group	Deaths	Population	Age-Specific Death Rate
All Ages	38,451	5,695,430	6.8
Infant	296	62,871	4.7
Neonatal	206	62,871	3.3
1-4	77	268,093	0.3
5-9	38	342,380	0.1
10-14	61	370,225	0.2
15-19	198	376,243	0.5
20-24	340	399,331	0.9
25-29	466	432,867	1.1
30-34	561	432,979	1.3
35-39	633	396,390	1.6
40-44	692	368,945	1.9
45-49	958	373,643	2.6
50-54	1,344	348,823	3.9
55-59	2,190	372,783	5.9
60-64	2,826	339,590	8.3
65-69	3,289	281,620	11.7
70-74	3,812	212,567	17.9
75-79	4,114	136,285	30.2
80-84	4,580	87,336	52.4
85+	11,976	90,893	131.8
1-14	176	980,698	0.2
15-24	538	775,574	0.7
25-64	9,670	3,066,020	3.2
65+	27,771	808,702	34.3

** indicates one or two events in the category.*

Infant death is death in the first year of life. Neonatal death is death occurring prior to the 28th day of life.

Infant and neonatal mortality rates are per 1,000 live births. Other death rates are per 1,000 population of the age group. Population figures for infant and neonatal groups are live births.

Source: Vital Statistics Program, Colorado Department of Public Health and Environment.

Notes Regarding Colorado's Revised Certificate of Live Birth

Previously-released state and county birth and death summary tables contain Colorado birth data that were collected using the 1989 Revision of the U.S. Standard Certificate of Live Birth (unrevised) and the 2003 Revision of the U.S. Standard Certificate of Live Birth (revised)^{1,2,3}. Colorado's birth registration system used the unrevised certificate for births through calendar year 2006; while births in 2007 through the present were registered using the revised certificate. Among the differences in the revised birth certificate are changes to the following data items:

- Mother's and father's race, captures multiple race identification instead of single race identification
- Mother's and father's education, captures highest degree attained instead of total years of education
- Mother's marital status at time of birth, captures never married, married, widowed, separated, and divorced instead of just married or unmarried
- Cigarette smoking before and during pregnancy, captures levels of smoking in each trimester instead of just smoking any time during pregnancy

And the addition of the following data items:

- Method of delivery includes fetal presentation and trial of labor prior to cesarean delivery
- Pre-pregnancy weight, weight at delivery and height, used to calculate Body Mass Index
- Congenital anomalies, certain conditions have been added or removed
- Fertility therapy
- Did mother get WIC food for herself during this pregnancy
- Infections during pregnancy
- Maternal morbidity
- Breast feeding
- Principal source of payment for the delivery

Data items noted above that were collected using both the unrevised certificate and the revised certificate are not directly comparable. Analyses of birth data for time periods that include both revised and unrevised data should be performed with caution.

To facilitate analyses of births by race, the multiple race identification in revised certificates has been bridged back to a single race using a system developed by the National Center for Health Statistics at the Centers for Disease Control and Prevention⁴. *Please note*, however, that there has been an increase in the number of births reported with "other" or "unknown" maternal and paternal race and/or Hispanic ethnicity beginning in 2007 compared to previous years. This is likely attributable to the change to the revised certificate.

The Vital Statistics Program at the Colorado Department of Public Health and Environment is available to assist with further analyses of these data, as well as to answer questions one might have regarding the revised certificate and the affected data items. For further information or assistance, please contact the Health Statistics Section at **(303) 692-2160** or by e-mail at **cdphe.healthstatistics@state.co.us**.

References:

- ¹ National Center for Health Statistics. 2003 revision of the U.S. Standard Certificate of Live Birth. 2003. Available from: http://www.cdc.gov/nchs/vital_certs_rev.htm.
- ² National Center for Health Statistics. Report of the Panel to Evaluate the U.S. Standard Certificates and Reports. National Center for Health Statistics. 2000. Available from: http://www.cdc.gov/nchs/data/dvs/panelreport_acc.pdf.
- ³ Martin JA, Hamilton BE, Sutton PD, et al. Births: Final data for 2004. National vital statistics reports; vol 55 no 1. Hyattsville, MD: National Center for Health Statistics. 2006.
- ⁴ NCHS Procedures for Multiple-Race and Hispanic Origin Data: Collection, Coding, Editing, and Transmitting. Division of Vital Statistics, National Center for Health Statistics, Centers for Disease Control and Prevention, May 7, 2004. Available from: http://www.cdc.gov/nchs/data/dvs/Multiple_race_docu_5-10-04.pdf.

Notes Regarding Colorado's Area-Based Poverty Estimates

Poverty continues to be an important factor that increases the risk of adverse birth outcomes, disease, and mortality across all ages. The relationships between poverty and such outcomes are unsurprising given the socioeconomic differences in health behaviors, familial and other risk factors, access to appropriate prenatal and preventive health care and treatment for illness and disease. Consequently, considering poverty when exploring changes in the health status of Colorado's communities and the persistence of health disparities is increasingly important^{1,2,3}.

These summary tables now contain counts and proportions of births and deaths by area-based poverty status of residence. *Area-based poverty status represents the percentage of the population in the census tract of one's residence living at or below the federal poverty level.* Residence is based on the maternal self-reported residence address at the time of an infant's birth for birth statistics, and the residence address of decedent at the time of death, collected from next of kin, for death statistics. Census tracts of residence are determined by linking these residence addresses to their respective census tracts as defined by the 2010 U.S. Census-designated boundaries. The percentage of the population in a census tract living at or below the federal poverty level of census tracts is ascertained from the most current 5-Year American Community Survey estimates made available by the U.S. Census Bureau.

Colorado consists of 1,249 unique census tracts, which are confined by county boundaries, and typically represent between 1,200 and 8,000 people. Counties with large populations, such as in the state's large metropolitan areas, contain many census tracts; while counties with smaller populations, such as in the state's rural and mountain regions, may have only a couple of census tracts⁴.

Area-based poverty status is measured by calculating the percent of the population living in each census tract that are living at or below the federal poverty level. Whether one is living at or below the federal poverty level is determined using a set of money income thresholds that vary by family size, age and composition⁵.

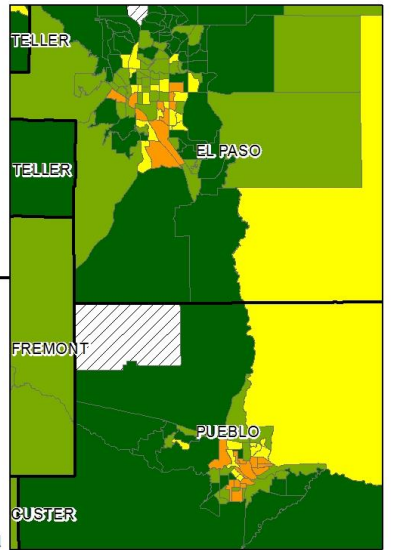
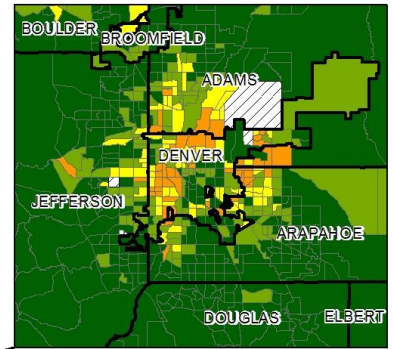
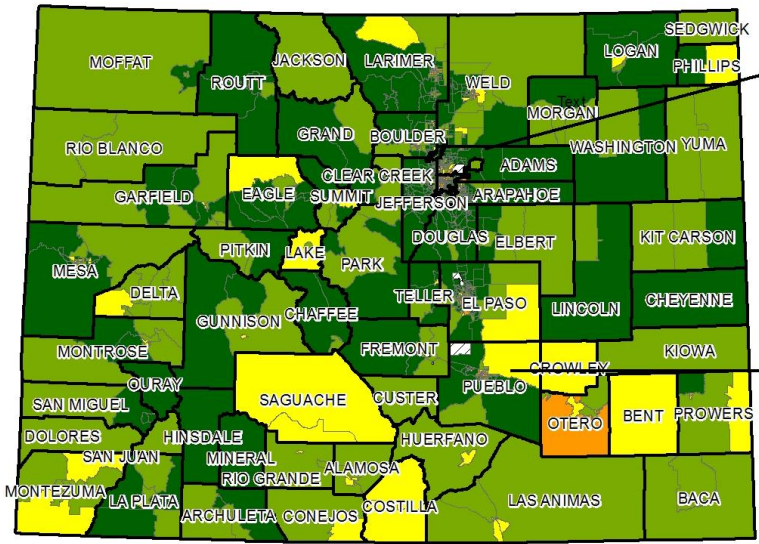
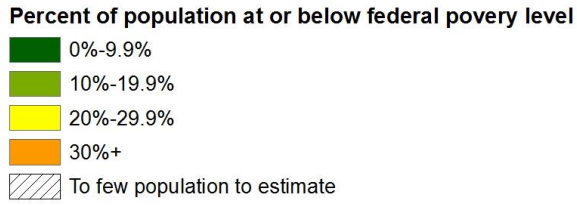
The map on the following page depicts census tract boundaries for Colorado and its largest metropolitan areas and each census tract's poverty status.

The Vital Statistics Program at the Colorado Department of Public Health and Environment is available to assist with further analyses of these data, as well as to answer questions one might have regarding these novel vital statistics measures. For further information or assistance, please contact the Health Statistics Section at **(303) 692-2160** or by e-mail at cdphe.healthstatistics@state.co.us.

References:

- ¹ Krieger N, Chen JT, Ebel G. *Can we monitor socioeconomic inequalities in health? A survey of U.S. health departments' data collection and reporting practices.* Public Health Reports. 1997 Nov-Dec; 112(6):481-91.
- ² Subramanian SV, Chen JT, Rehkopf DH, Waterman PD, Krieger N. *Comparing individual- and area-based socioeconomic measures for the surveillance of health disparities: A multilevel analysis of Massachusetts births, 1989-1991.* American Journal of Epidemiology. 2006 Nov 1; 164(9): 823-834.
- ³ Colorado Comprehensive Cancer Program. *Cancer & Poverty in Colorado: 2001-2012.* Denver, CO: Colorado Department of Public Health and Environment. Available from: https://www.colorado.gov/pacific/sites/default/files/CHED_Report_Cancer_and_Poverty_2014.pdf
- ⁴ *Geographic Terms and Concepts – Census Tract.* United States Census Bureau. Available from: www.census.gov/geo/reference/gtc/gtc_ct.html
- ⁵ *How the Census Bureau Measures Poverty.* United States Census Bureau. Available from: <https://www.census.gov/topics/income-poverty/poverty/guidance/poverty-measures.html>

Area-based poverty status by Colorado census tracts



Source: 2008-2012 5-Year American Community Survey, U.S. Census Bureau