

# Colorado Births and Deaths 2013

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

## Selected birth characteristics: Colorado residents, 2013

Characteristic	Number	Percent
Total Live Births	65,004	100.0
Age of Mother		
10-17	1,148	1.8
18-19	2,688	4.1
20-29	31,299	48.2
30+	29,865	45.9
Low Weight Births (<2,500 Grams)	5,728	8.8
Very Low Weight Births (<1,500 Grams)	858	1.3
Prenatal Care Later than 1st Trimester/No Care	12,039	19.2
No Prenatal Care	1,170	1.9
Preterm Births (<37 Weeks)	5,568	8.6
Education of Mother <High School Diploma/GED	8,690	13.5
Live Births to Unmarried Women	15,215	23.4
Smoking During Pregnancy	4,607	7.1

*"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: Health Statistics and Evaluation Branch, Colorado Department of Public Health and Environment.*

## Selected birth characteristics by age group of mother: Colorado residents, 2013

Characteristic	All Ages		10-17		18-19		20-29		30+	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
<b>Total Live Births</b>	65,004	100.0	1,148	100.0	2,688	100.0	31,299	100.0	29,865	100.0
<b>Race/Ethnicity of Mother</b>										
White, Non-Hispanic	39,760	62.7	331	29.9	1,099	41.8	17,842	58.4	20,487	70.3
White, Hispanic	14,842	23.4	591	53.4	1,126	42.8	8,184	26.8	4,941	17.0
Black	3,601	5.7	80	7.2	191	7.3	2,033	6.7	1,297	4.5
Asian American/Pacific Islander	2,805	4.4	21	1.9	47	1.8	1,103	3.6	1,634	5.6
American Indian/Native Alaskan	738	1.2	29	2.6	38	1.4	443	1.5	228	0.8
Other	1,663	2.6	55	5.0	128	4.9	939	3.1	541	1.9
Unknown	1,595		41		59		755		737	
<b>Low Weight Births (&lt;2,500 Grams)</b>	5,728	8.8	117	10.2	274	10.2	2,628	8.4	2,709	9.1
Very Low Weight Births (<1,500 Grams)	858	1.3	22	1.9	53	2.0	361	1.2	422	1.4
<b>Prenatal Care Later than 1st Trimester/No Care</b>	12,039	19.2	444	40.4	876	33.9	6,562	21.7	4,156	14.4
No Prenatal Care	1,170	1.9	56	5.1	67	2.6	648	2.1	399	1.4
<b>Preterm Births (&lt;37 Weeks)</b>	5,568	8.6	112	9.8	257	9.6	2,495	8.0	2,704	9.1
<b>Education of Mother &lt;High School Diploma/GED</b>	8,690	13.5	973	85.5	894	33.5	4,217	13.6	2,606	8.8
<b>Live Births to Unmarried Women</b>	15,215	23.4	1,040	90.6	1,802	67.0	8,976	28.7	3,397	11.4
<b>Smoking During Pregnancy</b>	4,607	7.1	84	7.3	313	11.7	2,898	9.3	1,312	4.4

*"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: Health Statistics and Evaluation Branch, Colorado Department of Public Health and Environment.**

## Selected birth characteristics by race/ethnicity of mother: Colorado residents, 2013

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
<b>Total Live Births</b>	39,760	100.0	14,842	100.0	3,601	100.0	2,805	100.0	738	100.0
<b>Age of Mother</b>										
<b>10-17</b>	331	0.8	591	4.0	80	2.2	21	0.7	29	3.9
<b>18-19</b>	1,099	2.8	1,126	7.6	191	5.3	47	1.7	38	5.1
<b>20-29</b>	17,842	44.9	8,184	55.1	2,033	56.5	1,103	39.3	443	60.0
<b>30+</b>	20,487	51.5	4,941	33.3	1,297	36.0	1,634	58.3	228	30.9
<b>Low Weight Births (&lt;2,500 Grams)</b>	3,292	8.3	1,277	8.6	521	14.5	276	9.8	66	8.9
<b>Very Low Weight Births (&lt;1,500 Grams)</b>	475	1.2	207	1.4	83	2.3	27	1.0	11	1.5
<b>Prenatal Care Later than 1st Trimester/No Care</b>	5,825	15.1	3,735	25.9	1,014	29.2	519	19.2	200	29.3
<b>No Prenatal Care</b>	457	1.2	489	3.4	117	3.4	46	1.7	13	1.9
<b>Preterm Births (&lt;37 Weeks)</b>	3,240	8.2	1,308	8.8	412	11.4	258	9.2	59	8.0
<b>Education of Mother &lt;High School Diploma/GED</b>	1,979	5.0	4,899	33.3	506	14.2	294	10.6	153	20.9
<b>Live Births to Unmarried Women</b>	6,929	17.4	5,044	34.0	1,538	42.7	327	11.7	308	41.7
<b>Smoking During Pregnancy</b>	3,254	8.2	776	5.2	300	8.4	51	1.8	79	10.9

*"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 or race/ethnicity of mother unknown. Percentages are of total births, excluding cases with specific characteristics unknown.*

**Source: Health Statistics and Evaluation Branch, Colorado Department of Public Health and Environment.**

## Selected birth characteristics by area-based poverty status of mother's residence: Colorado residents, 2013

Characteristic	<10%		10-19.9%		20-29.9%		30%+		Unknown	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
<b>Total Live Births</b>	28,714	100.0	18,110	100.0	10,025	100.0	6,603	100.0	1,552	100.0
<b>Race/Ethnicity of Mother</b>										
White, Non-Hispanic	21,409	76.0	10,946	62.1	4,521	46.7	1,911	29.8	973	65.3
White, Hispanic	3,670	13.0	4,355	24.7	3,385	35.0	3,133	48.8	299	20.1
Black	998	3.5	950	5.4	921	9.5	683	10.6	49	3.3
Asian American/Pacific Islander	1,481	5.3	588	3.3	336	3.5	348	5.4	52	3.5
American Indian/Native Alaskan	184	0.7	236	1.3	165	1.7	87	1.4	66	4.4
Other	445	1.6	557	3.2	352	3.6	258	4.0	51	3.4
Unknown	527		478		345		183		62	
<b>Low Weight Births (&lt;2,500 Grams)</b>	2,409	8.4	1,622	9.0	919	9.2	649	9.8	129	8.3
Very Low Weight Births (<1,500 Grams)	308	1.1	279	1.5	136	1.4	112	1.7	23	1.5
<b>Prenatal Care Later than 1st Trimester/No Care</b>	3,840	13.8	3,686	21.1	2,284	23.5	1,885	29.2	344	23.8
No Prenatal Care	258	0.9	351	2.0	244	2.5	277	4.3	40	2.8
<b>Preterm Births (&lt;37 Weeks)</b>	2,335	8.1	1,603	8.9	871	8.7	622	9.4	137	8.8
<b>Education of Mother &lt;High School Diploma/GED</b>	1,582	5.6	2,612	14.6	2,145	21.7	2,140	32.7	211	13.8
<b>Live Births to Unmarried Women</b>	4,503	15.7	4,853	26.8	3,153	31.5	2,357	35.7	349	22.5
<b>Smoking During Pregnancy</b>	1,349	4.7	1,595	8.9	927	9.3	610	9.3	126	8.2

*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 2012 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: Health Statistics and Evaluation Branch, Colorado Department of Public Health and Environment.**

## Live births and fertility rates with 95% confidence limits by age group of mother: Colorado residents, 2013

Age Group	Births	Population	Fertility Rate	Lower Limit	Upper Limit
All Ages	65,004	1,057,587	61.5	61.0	61.9
<b>Teen Age Groups</b>					
13-14	29	68,657	0.4	0.3	0.6
15-17	1,119	98,523	11.4	10.7	12.0
18-19	2,688	71,856	37.4	36.0	38.8
10-17	1,148	272,606	4.2	4.0	4.5
10-19	3,836	344,462	11.1	10.8	11.5
<b>All Age Groups</b>					
10-14	29	174,083	0.2	0.1	0.2
15-19	3,807	170,379	22.3	21.6	23.0
20-24	12,861	170,359	75.5	74.2	76.8
25-29	18,438	177,095	104.1	102.7	105.5
30-34	18,669	188,006	99.3	97.9	100.7
35-39	9,132	172,782	52.9	51.8	53.9
40-49	2,052	351,855	5.8	5.6	6.1

*\* 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: Health Statistics and Evaluation Branch, Colorado Department of Public Health and Environment.**

## Vital statistics summary: Colorado residents, 2003, 2009-2013

	2003	2009	2010	2011	2012	2013	2009-2013 Annual Average
<b>Total Population</b>	4,555,084	4,976,853	5,049,717	5,117,368	5,188,504	5,264,894	5,119,467
<b>Total Births</b>							
Number	69,304	68,602	66,346	65,052	65,188	65,004	66,038
Birth Rate	15.2	13.8	13.1	12.7	12.6	12.3	12.9
General Fertility Rate	69.5	67.0	66.6	62.8	62.3	61.5	64.0
<b>Age of Mother 10-17</b>							
Number	2,418	2,042	1,745	1,426	1,186	1,148	1,509
Percent of Total Births	3.5	3.0	2.6	2.2	1.8	1.8	2.3
Fertility Rate	9.6	7.9	6.8	5.4	4.4	4.2	5.7
<b>Low Weight Births (&lt;2,500 Grams)</b>							
Number	6,272	6,013	5,816	5,659	5,762	5,728	5,796
Percent	9.0	8.8	8.8	8.7	8.8	8.8	8.8
<b>Prenatal Care Later Than 1st Trimester/No Care</b>							
Number	14,138	14,980	13,657	13,071	12,465	12,039	13,242
Percent	20.7	22.3	21.0	20.6	19.8	19.2	20.6
<b>Births to Unmarried Women</b>							
Number	18,505	17,217	16,022	15,616	15,253	15,215	15,865
Percent	26.7	25.1	24.1	24.0	23.4	23.4	24.0
<b>Mother's Education &lt;12 Years</b>							
Number	15,389	13,453	12,119	10,540	9,368	8,690	10,834
Percent	22.4	19.8	18.5	16.4	14.5	13.5	16.6
<b>Infant Deaths</b>							
Number	419	429	392	362	298	331	362
Rate	6.0	6.3	5.9	5.6	4.6	5.1	5.5
<b>Neonatal Deaths</b>							
Number	304	288	287	257	212	239	257
Rate	4.4	4.2	4.3	4.0	3.3	3.7	3.9
<b>Total Deaths</b>							
Number	29,410	31,132	31,435	32,566	33,127	33,717	32,395
Crude Rate	645.7	625.5	622.5	636.4	638.5	640.4	632.8
Age-Adjusted Rate	791.6	692.0	641.1	676.1	662.6	650.3	663.6
<b>Cardiovascular Disease</b>							
Number	9,228	8,253	8,283	8,493	8,554	8,762	8,469
Age-Adjusted Rate	259.0	187.3	170.1	179.2	172.9	170.5	175.7
<b>Heart Disease</b>							

(Continued)

**HIGHLIGHTED ROWS:** Denotes data items collected starting in 2007, using the revised birth certificate, that are not directly comparable to data collected before 2007. Due to this incomparability, comparisons of values from 2007-forward to pre-2007 values should be made with caution. See "Notes Regarding Colorado Revised Certificate of Live Birth" at end of report for details.

\* 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: Health Statistics and Evaluation Branch, Colorado Department of Public Health and Environment.

## Vital statistics summary: Colorado residents, 2003, 2009-2013

	2003	2009	2010	2011	2012	2013	2009-2013 Annual Average
<b>Number</b>	6,483	6,083	6,029	6,207	6,306	6,454	6,216
<b>Age-Adjusted Rate</b>	180.4	137.1	123.4	130.2	126.6	124.5	128.1
<b>Cerebrovascular Disease</b>							
<b>Number</b>	1,806	1,529	1,605	1,607	1,565	1,576	1,576
<b>Age-Adjusted Rate</b>	51.6	35.4	33.3	34.6	32.3	31.5	33.3
<b>Malignant Neoplasms</b>							
<b>Number</b>	6,400	6,938	7,029	7,037	7,314	7,364	7,136
<b>Age-Adjusted Rate</b>	169.2	151.8	141.9	142.9	142.5	138.1	143.2
<b>Lung Cancer</b>							
<b>Number</b>	1,541	1,639	1,635	1,588	1,590	1,558	1,602
<b>Age-Adjusted Rate</b>	41.3	36.3	33.4	32.5	31.2	29.5	32.5
<b>Breast Cancer</b>							
<b>Number</b>	509	512	534	553	585	537	544
<b>Age-Adjusted Rate</b>	12.8	10.8	10.6	10.8	11.1	9.9	10.6
<b>Total Unintentional Injuries</b>							
<b>Number</b>	1,783	2,141	2,102	2,317	2,404	2,423	2,277
<b>Age-Adjusted Rate</b>	41.8	44.5	41.9	46.2	47.0	46.3	45.2
<b>Motor Vehicle</b>							
<b>Number</b>	691	553	480	482	457	507	496
<b>Age-Adjusted Rate</b>	15.3	11.1	9.4	9.3	8.8	9.5	9.6
<b>Other Unintentional Injuries</b>							
<b>Number</b>	1,092	1,588	1,622	1,835	1,947	1,916	1,782
<b>Age-Adjusted Rate</b>	26.5	33.4	32.5	36.8	38.3	36.8	35.6
<b>Chronic Lower Respiratory Diseases</b>							
<b>Number</b>	1,925	2,072	2,199	2,161	2,237	2,294	2,193
<b>Age-Adjusted Rate</b>	54.2	48.0	46.6	46.4	46.4	45.4	46.5
<b>Suicide</b>							
<b>Number</b>	718	940	867	910	1,053	1,004	955
<b>Age-Adjusted Rate</b>	15.8	18.7	16.8	17.4	19.7	18.5	18.2
<b>Homicide and Legal Intervention</b>							
<b>Number</b>	202	198	190	202	208	194	198
<b>Age-Adjusted Rate</b>	4.3	4.0	3.8	3.9	4.0	3.8	3.9
<b>Work-Related Injury</b>							
<b>Number</b>	81	67	75	72	73	64	70
<b>Age-Adjusted Rate</b>	1.7	1.3	1.5	1.3	1.3	1.2	1.3

**HIGHLIGHTED ROWS:** Denotes data items collected starting in 2007, using the revised birth certificate, that are not directly comparable to data collected before 2007. Due to this incomparability, comparisons of values from 2007-forward to pre-2007 values should be made with caution. See "Notes Regarding Colorado Revised Certificate of Live Birth" at end of report for details.

\* 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: Health Statistics and Evaluation Branch, 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, 2013**

<b>Cause of Death</b>	<b>N</b>	<b>Crude Rate</b>	<b>Age-Adjusted Rate</b>	<b>Lower Limit</b>	<b>Upper Limit</b>
<b>All Causes</b>	33,717	640.4	650.3	643.5	657.1
<b>Cardiovascular Disease</b>	8,762	166.4	170.5	166.9	174.1
<b>Heart Disease</b>	6,454	122.6	124.5	121.5	127.6
<b>Cerebrovascular Disease</b>	1,576	29.9	31.5	29.9	33.0
<b>Atherosclerosis</b>	190	3.6	3.8	3.2	4.3
<b>Malignant Neoplasms</b>	7,364	139.9	138.1	134.9	141.4
<b>Lung Cancer</b>	1,558	29.6	29.5	28.0	31.0
<b>Breast Cancer</b>	537	10.2	9.9	9.0	10.7
<b>Chronic Lower Respiratory Diseases</b>	2,294	43.6	45.4	43.6	47.3
<b>Unintentional Injuries</b>	2,423	46.0	46.3	44.4	48.2
<b>Motor Vehicle</b>	507	9.6	9.5	8.7	10.3
<b>Other Unintentional Injuries</b>	1,898	36.1	36.5	34.8	38.1
<b>Pneumonia and Influenza</b>	608	11.5	11.9	10.9	12.8
<b>Suicide</b>	1,004	19.1	18.5	17.3	19.7
<b>Diabetes Mellitus</b>	786	14.9	14.8	13.8	15.9
<b>HIV Infection</b>	58	1.1	1.0	0.7	1.2
<b>Chronic Liver Disease and Cirrhosis</b>	713	13.5	12.5	11.6	13.5
<b>Alzheimer's Disease</b>	1,318	25.0	26.9	25.5	28.4
<b>Nephritis, Nephrosis, Nephrotic Syndrome</b>	452	8.6	8.9	8.1	9.8
<b>Homicide and Legal Intervention</b>	194	3.7	3.8	3.2	4.3
<b>Septicemia</b>	394	7.5	7.6	6.8	8.3
<b>Congenital Anomalies</b>	153	2.9	3.1	2.6	3.6
<b>Perinatal Period Conditions</b>	159	3.0	3.4	2.8	3.9
<b>All Other</b>	7,035	133.6	137.6	134.3	140.8
<b>Injury by Firearm</b>	619	11.8	11.5	10.6	12.5
<b>Drug-Induced Deaths</b>	858	16.3	15.8	14.7	16.9
<b>Alcohol-Induced Deaths</b>	785	14.9	13.7	12.7	14.6
<b>Work-Related Injury (Y/N Check Death Certificate)</b>	64	1.2	1.2	0.9	1.5

*\* 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: Health Statistics and Evaluation Branch, Colorado Department of Public Health and Environment.**

## Deaths and age-specific death rates from selected causes: Colorado residents, 2013

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	331	5.1	169	0.2	470	0.7	1,797	1.2	6,977	5.0	23,971	36.8
Cardiovascular Disease	8	0.1	11	0.0	9	0.0	206	0.1	1,413	1.0	7,115	10.9
Heart Disease	5	0.1	8	0.0	7	0.0	165	0.1	1,170	0.8	5,099	7.8
Cerebrovascular Disease	3	0.0	3	0.0	*	*	31	0.0	172	0.1	1,366	2.1
Atherosclerosis	0	0.0	0	0.0	0	0.0	0	0.0	12	0.0	178	0.3
Malignant Neoplasms	*	*	21	0.0	16	0.0	196	0.1	2,045	1.5	5,085	7.8
Lung Cancer	0	0.0	0	0.0	0	0.0	11	0.0	383	0.3	1,164	1.8
Breast Cancer	0	0.0	0	0.0	0	0.0	29	0.0	194	0.1	314	0.5
Chronic Lower Respiratory Diseases	0	0.0	*	*	*	*	7	0.0	280	0.2	2,004	3.1
Unintentional Injuries	18	0.3	45	0.0	204	0.3	514	0.4	624	0.4	1,018	1.6
Motor Vehicle	*	*	27	0.0	89	0.1	148	0.1	152	0.1	89	0.1
Other Unintentional Injuries	16	0.2	18	0.0	115	0.2	366	0.2	472	0.3	929	1.4
Pneumonia and Influenza	*	*	4	0.0	*	*	23	0.0	104	0.1	473	0.7
Suicide	0	0.0	12	0.0	131	0.2	310	0.2	405	0.3	146	0.2
Diabetes Mellitus	0	0.0	0	0.0	5	0.0	36	0.0	204	0.1	541	0.8
HIV Infection	0	0.0	0	0.0	0	0.0	8	0.0	44	0.0	6	0.0
Chronic Liver Disease and Cirrhosis	*	*	0	0.0	*	*	95	0.1	420	0.3	196	0.3
Alzheimer's Disease	0	0.0	0	0.0	0	0.0	0	0.0	15	0.0	1,303	2.0
Nephritis, Nephrosis, Nephrotic Syndrome	0	0.0	0	0.0	0	0.0	8	0.0	58	0.0	386	0.6
Homicide and Legal Intervention	5	0.1	10	0.0	36	0.1	80	0.1	46	0.0	17	0.0
Septicemia	3	0.0	*	*	0	0.0	8	0.0	79	0.1	302	0.5
Congenital Anomalies	86	1.3	8	0.0	8	0.0	14	0.0	21	0.0	16	0.0
Perinatal Period Conditions	159	2.4	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
All Other	48	0.7	55	0.1	56	0.1	292	0.2	1,219	0.9	5,363	8.2
Injury by Firearm	0	0.0	12	0.0	86	0.1	203	0.1	221	0.2	97	0.1
Drug-Induced Deaths	*	*	*	*	92	0.1	325	0.2	374	0.3	64	0.1
Alcohol-Induced Deaths	0	0.0	0	0.0	9	0.0	144	0.1	491	0.4	141	0.2
Work-Related Injury (Y/N Check Death Certificate)	0	0.0	0	0.0	4	0.0	21	0.0	30	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: Health Statistics and Evaluation Branch, Colorado Department of Public Health and Environment.

## Deaths from selected causes by race/ethnicity: Colorado residents, 2013

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	%
<b>Total</b>	33,717	100.0	27,871	100.0	3,797	100.0	1,263	100.0	483	100.0	245	100.0
<b>Cardiovascular Disease</b>	8,762	26.0	7,364	26.4	836	22.0	369	29.2	134	27.7	44	18.0
Heart Disease	6,454	19.1	5,467	19.6	587	15.5	268	21.2	86	17.8	34	13.9
Cerebrovascular Disease	1,576	4.7	1,291	4.6	180	4.7	58	4.6	36	7.5	8	3.3
Atherosclerosis	190	0.6	161	0.6	18	0.5	8	0.6	3	0.6	0	0.0
<b>Malignant Neoplasms</b>	7,364	21.8	6,163	22.1	746	19.6	286	22.6	115	23.8	43	17.6
Lung Cancer	1,558	4.6	1,353	4.9	122	3.2	49	3.9	23	4.8	9	3.7
Breast Cancer	537	1.6	445	1.6	55	1.4	24	1.9	8	1.7	4	1.6
<b>Chronic Lower Respiratory Disease</b>	2,294	6.8	2,059	7.4	147	3.9	58	4.6	17	3.5	13	5.3
<b>Unintentional Injuries</b>	2,423	7.2	1,927	6.9	351	9.2	80	6.3	36	7.5	20	8.2
Motor Vehicle	507	1.5	349	1.3	120	3.2	22	1.7	9	1.9	4	1.6
Other Unintentional Injuries	1,916	5.7	1,578	5.7	231	6.1	58	4.6	27	5.6	16	6.5
<b>Pneumonia and Influenza</b>	608	1.8	491	1.8	81	2.1	18	1.4	10	2.1	7	2.9
<b>Suicide</b>	1,004	3.0	844	3.0	110	2.9	20	1.6	16	3.3	13	5.3
<b>Diabetes Mellitus</b>	786	2.3	552	2.0	163	4.3	46	3.6	13	2.7	11	4.5
<b>HIV Infection</b>	58	0.2	41	0.1	8	0.2	6	0.5	*	*	*	*
<b>Chronic Liver Disease and Cirrhosis</b>	713	2.1	481	1.7	171	4.5	30	2.4	6	1.2	23	9.4
<b>Alzheimer's Disease</b>	1,318	3.9	1,181	4.2	88	2.3	32	2.5	13	2.7	3	1.2
<b>Nephritis, Nephrosis, Nephrotic Syndrome</b>	452	1.3	359	1.3	57	1.5	24	1.9	10	2.1	*	*
<b>Homicide and Legal Intervention</b>	194	0.6	87	0.3	64	1.7	32	2.5	5	1.0	4	1.6
<b>Septicemia</b>	394	1.2	319	1.1	53	1.4	12	1.0	7	1.4	*	*
<b>Congenital Anomalies</b>	153	0.5	92	0.3	42	1.1	12	1.0	*	*	*	*
<b>Perinatal Period Conditions</b>	159	0.5	75	0.3	56	1.5	19	1.5	5	1.0	*	*
<b>All Other</b>	7,035	20.9	5,836	20.9	824	21.7	219	17.3	93	19.3	56	22.9
<b>Injury by Firearm</b>	619	1.8	483	1.7	89	2.3	30	2.4	8	1.7	7	2.9
<b>Drug-Induced Deaths</b>	858	2.5	678	2.4	125	3.3	33	2.6	9	1.9	11	4.5
<b>Alcohol-Induced Deaths</b>	785	2.3	569	2.0	147	3.9	35	2.8	7	1.4	25	10.2
<b>Work-Related Injury (Y/N Check Death Certificate)</b>	64	0.2	45	0.2	14	0.4	*	*	*	*	*	*

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

Source: Health Statistics and Evaluation Branch, Colorado Department of Public Health and Environment.

## Deaths from selected causes by area-based poverty status of decedent's residence: Colorado residents, 2013

Cause of Death	<10%		10-19.9%		20-29.9%		30%+		Unknown	
	N	%	N	%	N	%	N	%	N	%
<b>Total</b>	13,284	100.0	11,012	100.0	5,215	100.0	2,938	100.0	1,268	100.0
<b>Cardiovascular Disease</b>	3,356	25.3	3,023	27.5	1,350	25.9	729	24.8	304	24.0
Heart Disease	2,457	18.5	2,226	20.2	1,010	19.4	540	18.4	221	17.4
Cerebrovascular Disease	618	4.7	534	4.8	233	4.5	133	4.5	58	4.6
Atherosclerosis	82	0.6	58	0.5	28	0.5	15	0.5	7	0.6
<b>Malignant Neoplasms</b>	3,165	23.8	2,362	21.4	1,040	19.9	522	17.8	275	21.7
Lung Cancer	618	4.7	515	4.7	248	4.8	121	4.1	56	4.4
Breast Cancer	236	1.8	189	1.7	67	1.3	30	1.0	15	1.2
<b>Chronic Lower Respiratory Disease</b>	778	5.9	831	7.5	397	7.6	209	7.1	79	6.2
<b>Unintentional Injuries</b>	949	7.1	727	6.6	392	7.5	229	7.8	126	9.9
Motor Vehicle	176	1.3	172	1.6	78	1.5	46	1.6	35	2.8
Other Unintentional Injuries	773	5.8	555	5.0	314	6.0	183	6.2	91	7.2
<b>Pneumonia and Influenza</b>	237	1.8	183	1.7	101	1.9	61	2.1	26	2.1
<b>Suicide</b>	448	3.4	297	2.7	133	2.6	75	2.6	51	4.0
<b>Diabetes Mellitus</b>	254	1.9	258	2.3	148	2.8	98	3.3	28	2.2
<b>HIV Infection</b>	15	0.1	14	0.1	19	0.4	7	0.2	3	0.2
<b>Chronic Liver Disease and Cirrhosis</b>	231	1.7	242	2.2	115	2.2	92	3.1	33	2.6
<b>Alzheimer's Disease</b>	624	4.7	405	3.7	151	2.9	102	3.5	36	2.8
<b>Nephritis, Nephrosis, Nephrotic Syndrome</b>	184	1.4	127	1.2	77	1.5	49	1.7	15	1.2
<b>Homicide and Legal Intervention</b>	56	0.4	51	0.5	47	0.9	31	1.1	9	0.7
<b>Septicemia</b>	129	1.0	142	1.3	66	1.3	40	1.4	17	1.3
<b>Congenital Anomalies</b>	48	0.4	48	0.4	22	0.4	27	0.9	8	0.6
<b>Perinatal Period Conditions</b>	52	0.4	50	0.5	25	0.5	26	0.9	6	0.5
<b>All Other</b>	2,758	20.8	2,252	20.5	1,132	21.7	641	21.8	252	19.9
<b>Injury by Firearm</b>	267	2.0	187	1.7	85	1.6	46	1.6	34	2.7
<b>Drug-Induced Deaths</b>	300	2.3	257	2.3	150	2.9	105	3.6	46	3.6
<b>Alcohol-Induced Deaths</b>	243	1.8	259	2.4	143	2.7	85	2.9	55	4.3
<b>Work-Related Injury (Y/N Check Death Certificate)</b>	21	0.2	26	0.2	11	0.2	3	0.1	3	0.2

*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 2012 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: Health Statistics and Evaluation Branch, Colorado Department of Public Health and Environment.*

## Deaths and age-specific death rates: Colorado residents, 2013

Age Group	Deaths	Population	Age-Specific Death Rate
All Ages	33,717	5,264,894	6.4
Infant	331	65,004	5.1
Neonatal	239	65,004	3.7
1-4	80	269,747	0.3
5-9	32	358,553	0.1
10-14	57	354,040	0.2
15-19	170	351,258	0.5
20-24	300	358,413	0.8
25-29	346	362,032	1.0
30-34	409	385,245	1.1
35-39	433	354,681	1.2
40-44	609	366,159	1.7
45-49	973	348,119	2.8
50-54	1,473	379,786	3.9
55-59	2,070	357,118	5.8
60-64	2,461	302,844	8.1
65-69	2,789	231,685	12.0
70-74	2,878	154,478	18.6
75-79	3,327	106,417	31.3
80-84	4,276	78,901	54.2
85+	10,701	80,045	133.7
1-14	169	982,340	0.2
15-24	470	709,671	0.7
25-64	8,774	2,855,982	3.1
65+	23,971	651,527	36.8

\* 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: Health Statistics and Evaluation Branch, Colorado Department of Public Health and Environment.

## Notes Regarding Colorado's Revised Certificate of Live Birth

These 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)<sup>1,2,3</sup>. 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 Prevention<sup>4</sup>. *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 Health Statistics and Evaluation Branch 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 and Evaluation Branch at **(303) 692-2160** or by e-mail at [cdphe.healthstatistics@state.co.us](mailto:cdphe.healthstatistics@state.co.us).

### References:

- <sup>1</sup> 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](http://www.cdc.gov/nchs/vital_certs_rev.htm).
- <sup>2</sup> 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](http://www.cdc.gov/nchs/data/dvs/panelreport_acc.pdf).
- <sup>3</sup> 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.
- <sup>4</sup> 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](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 by poverty status are increasingly important<sup>1,2,3</sup>.

These summary tables now contain counts and proportions of births and deaths by area-based poverty status of place of residence. *Area-based poverty status represents the percentage of the population in the census tract of residence living at or below the federal poverty level.*

Place of 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 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 formal sub-county geographic areas defined by the U.S. Census Bureau, 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 tracts<sup>4</sup>.

Area-based poverty status is measured by calculating the percent of the population in each census tract that is 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 composition<sup>5</sup>. Categories used for these reports include 0-9.9%, 10-19.9%, 20-29.9% and 30% of the population or greater living at or below the federal poverty level.

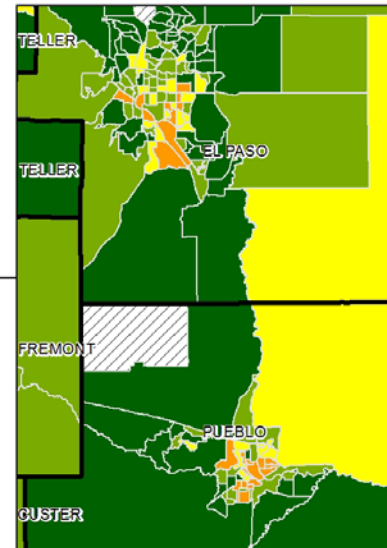
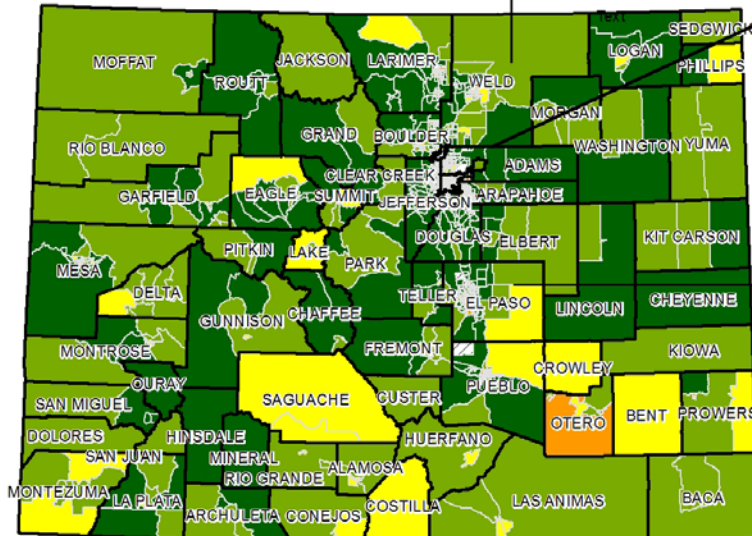
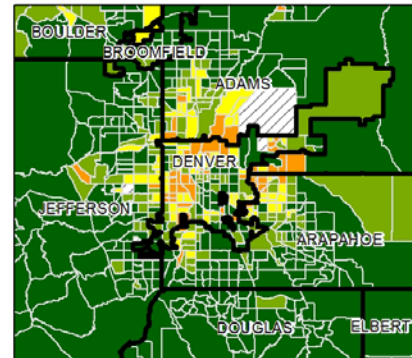
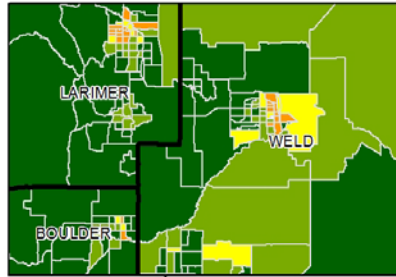
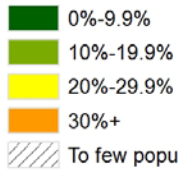
The map on the following page depicts census tract boundaries for Colorado and its largest metropolitan areas and each census tract's poverty status. Note that for some less populous counties with few census tracts, a single area-based poverty status category may represent most or all of the county.

The Health Statistics and Evaluation Branch 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 and Evaluation Branch at **(303) 692-2160** or by e-mail at [cdphe.healthstatistics@state.co.us](mailto:cdphe.healthstatistics@state.co.us).

### References:

- <sup>1</sup> 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.
- <sup>2</sup> 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.
- <sup>3</sup> Colorado Comprehensive Cancer Program. *Cancer & Poverty in Colorado: 1995-2006.* Denver, CO: Colorado Department of Public Health and Environment. Available from: <http://www.colorado.gov/cs/Satellite/CDPHE-PSD/CBON/1251635536890#>
- <sup>4</sup> *Geographic Terms and Concepts – Census Tract.* United States Census Bureau. Available from: [www.census.gov/geo/reference/gtc/gtc\\_ct.html](http://www.census.gov/geo/reference/gtc/gtc_ct.html)
- <sup>5</sup> *How the Census Bureau Measures Poverty.* United States Census Bureau. Available from: <https://www.census.gov/hhes/www/poverty/about/overview/measure.html>

**Area-based poverty status by Colorado census tracts:  
Percent of population living at or below federal poverty level**



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