# New Mexico Epidemiology

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# Highlights of New Mexico Vital Statistics 2018

The Bureau of Vital Records and Health Statistics is located in the Epidemiology and Response Division of the New Mexico Department of Health. The bureau has been collecting data on vital events since 1918. The birth and death registration system has been a longstanding source of statistical information to guide public health policy development and program evaluation. This report presents key natality and mortality statistics for New Mexico in 2018.

## Methods

The statistics in this report are based on information from birth and death certificates collected by the New Mexico Bureau of Vital Records and Health Statistics. National statistics are from the Centers for Disease Control and Prevention, National Center for Health Statistics (NCHS). Population estimates used as the denominators in calculating birth and death rates were produced by the University of New Mexico, Center for Geospatial and Population Studies. Note that the population estimates from 2011-2016 were revised in 2017, so previously published rates may differ slightly for those years. Mortality rates provided are age-adjusted unless otherwise noted or the rate pertains to a specific age group.

# Results

# **Population**

The New Mexico population estimate for 2018 was 2,101,730 persons, a slight decrease of 0.04% from the prior year. Population numbers decreased by 7% from 2010 to 2018 among the youngest age group 0-14 years, and decreased 6% among and those aged 45-64 years, but increased by 34% among those 65 years of age and older. Population in the rural counties of New Mexico declined by 7% from 2010 to 2018.

# Births

There were 23,038 births among residents of New Mexico in 2018. The birth rate continued to descend to a new record low of 11.0 births per 1,000 population. The NM birth rate has declined each year for the past 11 years. Similarly, the U.S. birth rate for 2017, at 11.8

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per 1,000, is a record low for the nation. NM birth rates in 2018 were highest among the American Indian population (14.4 per 1,000 population), Asian and Pacific Islanders (13.8 per 1,000 population) and Hispanics (12.4 per 1,000 population). Birth rates were lowest among African Americans (10.6 per 1,000 population) and Whites (8.1 per 1,000). Hispanics had the largest decrease in the birth rate from the prior year (-4.6%), followed by American Indians (-2.0%). The agespecific birth rate declined in every maternal age group under the age of 40 years.

The decline in teen birth rates since 2007 continued through 2018 with a 9% drop in the teen birth rate from 2017 to 2018. There were 1,724 births to female residents of New Mexico 15-19 years of age in 2018, with a rate of 25.2 per 1,000, compared to the U.S. rate 18.8 per 1,000 in 2017. The counties with the highest teen birth rates in 2018 were Sierra (67.1), Luna (66.0), Lea (53.1), Curry (49.3). The 2018 rate among teens aged 15-17 years declined 21% to 11.1 per 1,000 from 14.0 per 1,000 the previous year, and the 2018 rate among teens aged 18-19 years declined to 46.5 in 2018 from 48.5 in 2017. New Mexico was ranked 45th of all U.S. states for the birth rate among girls aged 15-19 years in 2017, a significant improvement from the rank of 50<sup>th</sup> in 2012.

The percentage of births that were preterm (less than 37 weeks gestation) among singleton births decreased from 8.8% in 2017 to 8.3% in 2018. The percentage low birthweight (less than 2500 grams) among singleton births also decreased to 7.7% in 2018 from 8.0% in 2017.

Among women who had a live birth in 2018, 4.3% received no prenatal care, up from 4.1% in 2017 and 3.1% in 2016. Prenatal care was begun in the first trimester of pregnancy for 64.9% of women in 2018, an

increase from 63.8% 2017 and 63.4% in 2016.

Twenty weeks gestation is considered the minimum of the periviable period of 20 through 25 weeks gestation.<sup>3</sup> Infants delivered at this very early stage, near the limit of viability, have a small chance of survival. The number of registered births with a gestational age before the peri-viable period (shorter than 20 weeks) increased from 2 in 2017 to 8 in 2018. These registered births disproportionately affect the infant mortality rate (IMR), because there is no chance of survival for these newborns, and they inflate the numerator of the IMR by 6% and the denominator by only 0.03%.<sup>4</sup>

## Deaths

Infant Mortality. There were 132 resident infants deaths in 2018, compared to 140 deaths in 2017. The IMR, 5.7 infant deaths per 1,000 live births in 2018, did not change significantly from the rate of 5.9 in 2017, and was similar to the most recently published U.S. infant mortality rate of 5.8 in 2017. The neonatal mortality rate (deaths in the first 28 days) was 4.1 per 1,000 live births in 2018, not significantly different than the 2017 rate of 3.8. Infant mortality was highest in the Southeast Region (7.5 per 1,000 live births) and the Metro Region (5.8 per 1,000 live births).

Leading Causes of Death. In 2018, a total of 19,023 deaths were registered among residents of New Mexico (Table 1). The all-cause age-adjusted mortality rate of 747.0 per 100,000 residents was a 0.3% decrease from the 2017 rate, and 2% higher than the 2017 U.S. rate of 731.9 per 100,000.5 There were no changes in the 15 leading causes of death from 2017 to 2018. Heart disease was the leading cause, with an ageadjusted mortality rate of 147.8 deaths per 100,000 in 2018, a 1.7% decrease from the prior year. Cancer was the second leading cause of death at 136.0 per 100,000, a 0.9% decrease from the prior year. The age-adjusted rate of stroke mortality decreased 8% compared to 2017, as did the death rate from hypertension and hypertensive renal disease. Death rates were also lower in 2018 for kidney disease, chronic liver disease and cirrhosis, Parkinson's disease, chronic lower respiratory diseases, diabetes, and Alzheimer's disease. The ageadjusted homicide rate increased 29% from 2017 to 2018 (171 deaths to 215 deaths, respectively), and the suicide rate increased 7% (491 deaths to 535 deaths, respectively). Increased rates in 2018 were also found for influenza and pneumonia, septicemia, and unintentional injuries.

Compared to the U.S. age-adjusted mortality for 2017, the causes of death with elevated rates for New Mexico were: chronic liver disease and cirrhosis (2.4 times higher), suicide (1.8 times higher), homicide (1.7 times higher), and unintentional injuries (1.4 times higher). Rates were lower for New Mexico compared to the U.S. for hypertension and hypertensive renal disease, Alzheimer's disease, stroke, septicemia, cancer, heart disease and kidney disease.

Males had higher age-adjusted mortality rates than females in 2018 for all leading causes except Alzheimer's disease. Rates of homicide and suicide were more than three times higher among males than females, and rates of unintentional injuries and Parkinson's disease were more than twice as high among males compared to females.

Disparities by race/ethnicity were found for American Indians/Alaska Natives (AIAN) compared to White non-Hispanics (WhiteNH). The AIAN population had lower age-adjusted mortality rates for chronic lower respiratory diseases (20% of the WhiteNH rate), Alzheimer's disease (30% of the WhiteNH rate), heart disease and Parkinson's disease (80% of the WhiteNH rate), and cancer (90% of the WhiteNH rate). The ageadjusted all-cause mortality rate of 967.5 per 100,000 population was 30% higher for AIAN compared to WhiteNH. Cause-specific rates were higher for chronic liver disease and cirrhosis (6.3 times higher), diabetes (4.4 times higher), homicide (3.1 times higher), kidney disease (2.9 times higher), hypertension and hypertensive renal disease (2.8 times higher), septicemia (2.2 times higher), unintentional injuries (1.9 times higher), and influenza and pneumonia (1.6 times higher).

The Hispanic population had the second lowest age-adjusted rate of all-cause mortality (702.2 per 100,000) after the Asian and Pacific Islander population (422.3 per 100,000). Compared to the Hispanic population, the WhiteNH population had elevated rates of mortality from chronic lower respiratory disease (2 times higher), suicide (1.8 times higher), Alzheimer's disease (1.3 times higher), heart disease (1.2 times higher) and cancer (1.1 times higher). WhiteNH mortality rates were lower for diabetes and chronic liver disease and cirrhosis (50% of the Hispanic rate), homicide and kidney disease (60% of the Hispanic rate), septicemia and hypertension and hypertensive renal disease (70% of the Hispanic rate).

Life Expectancy. Life expectancy (LE) at birth for the

Table 1. Deaths and death rates, percent change in age-adjusted death rates in 2018 from 2017, and ratio of age-adjusted death rates by sex and by race/ethnicity for the 15 leading causes of death, New Mexico, 2018

					Age-adjusted death rate					
						Percent change			Ratio	
			Percent of	Crude		2017	N.M	Male	AIAN	WhiteNH
			total deaths,	death rate,		to	to	to	to	to
Rank	c Cause of Death	Number	2018	2018	2018	2018	U.S.	female	WhiteNH	Hispanic
	All causes	19,023	100.0	905.1	747.0	-0.3%	1.02	1.5	1.3	1.0
1	Heart disease	3,937	20.7%	187.3	147.8	-1.7%	0.90	1.6	0.8	1.2
2	Cancer	3,671	19.3%	174.7	136.0	-0.9%	0.89	1.5	0.9	1.1
3	Unintentional injuries	1,515	8.0%	72.1	69.1	1.8%	1.40	2.2	1.9	1.0
4	Chronic lower respiratory diseases	1,160	6.1%	55.2	42.9	-2.3%	1.05	1.3	0.2	2.0
5	Cerebrovascular disease (stroke)	838	4.4%	39.9	31.7	-8.1%	0.84	1.0	1.0	0.9
6	Diabetes mellitus	686	3.6%	32.6	26.0	-1.1%	1.01	1.4	4.4	0.5
7	Chronic liver disease and cirrhosis	591	3.1%	28.1	25.6	-3.8%	2.35	1.7	6.3	0.5
8	Alzheimer's disease	584	3.1%	27.8	22.4	-0.4%	0.72	0.7	0.3	1.3
9	Suicide	535	2.8%	25.5	24.8	6.9%	1.77	3.1	1.0	1.8
10	Influenza and pneumonia	365	1.9%	17.4	14.2	5.2%	0.99	1.2	1.6	1.0
11	Kidney Disease	330	1.7%	15.7	12.3	-3.9%	0.95	1.5	2.9	0.6
12	Septicemia	242	1.3%	11.5	9.4	3.3%	0.89	1.1	2.2	0.7
13	Parkinson's disease	224	1.2%	10.7	8.6	-3.4%	1.02	2.1	0.8	0.9
14	Homicide	215	1.1%	10.2	10.8	28.6%	1.74	3.3	3.1	0.6
15	Hypertension and hypertensive renal disease	147	0.8%	7.0	5.6	-8.2%	0.62	1.1	2.8	0.7
	All other causes (residual)	3,983	20.9%	189.5	-	-	-	-	-	

population of New Mexico in 2018 was 78.1 years, a slight decrease from LE of 78.2 in 2017 and 2016. LE was 74.9 for males — a decline of 0.4 years — and 81.5 for females — an increase of 0.3 years — in 2018. American Indians had the lowest life expectancy at 72.5 years (-0.8y change), followed by African Americans at 76.1 (-0.3y change), Whites 78.8 (no change), Hispanics 79.1 (+0.3 change), and Asians or Pacific Islanders had the highest life expectancy of 87.1 years (+0.8 change).

Location and Disposition. Of the 19,023 New Mexico resident deaths in 2018, 6.5% died outside of New Mexico. The most common type of place of death was the decedent's residence (40%), followed by hospital as an inpatient (25%), long-term care facility (11%), hospice facility (6%), assisted living facility (5%), and hospital emergency room/outpatient (5%). The method of disposition was cremation for 65% of decedents, burial for 28%, removal from the state for 4%, and 0.5% donated their body.

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Figure 1. Mortality rates from selected causes (age-adjusted), New Mexico, 2010-2018

