

FOCUS

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2019 Vital Statistics

Missouri resident deaths decreased in 2019 for the first time since 2009 as 62,155 Missouri residents died compared with 63,110 in 2018 (see Table 1). The state life expectancy increased by 0.4 years in 2019 to 77.4 years, although it is still below the peak life expectancy of 77.8 years in 2012. The 2019 Missouri life expectancy of 77.4 years is also 1.3 years less than the latest national life expectancy of 78.7 years in 2018. Female life expectancy increased by 0.6 years from 79.7 in 2018 to 80.3 years in 2019. Male life expectancy increased by 0.3 years to 74.6 years. The difference in life expectancy between the two genders increased to 5.7 years, the largest difference in 20 years.

As reflected in Table 2, the number of deaths decreased for seven of the ten leading causes of death in 2019 compared with 2018. Heart disease continues to be the leading cause followed by cancer, unintentional injuries, chronic lung disease, stroke, Alzheimer's disease, diabetes, nephritis (kidney disease), suicide and pneumonia and influenza. Unintentional injuries (accidents) surpassed chronic lung disease as the Missouri's third leading cause in 2019, and suicide passed pneumonia and influenza as the state's ninth leading cause. Pneumonia and influenza deaths decreased by nearly 30 percent as there was no large influenza outbreak in 2019 as there was in 2018. Alzheimer's disease had the largest

Table 1

Vital Statistics for Missouri: 2009, 2018 and 2019

	<i>Numbers</i>			<i>Rates per 1,000 Population</i>		
	2009	2018	2019	2009	2018	2019
Births	78,849	73,281	72,103	13.2	12.0	11.7
Deaths	54,064	63,110	62,155	9.1	10.3	10.1
Natural increase	24,785	10,171	9,948	4.2	1.7	1.6
Marriages	38,768	39,692	36,636	6.5	6.5	6.0
Divorces	22,374	18,630	17,740	3.8	3.0	2.9
Infant deaths	564	459	432	7.2*	6.3*	6.0*
Abortions	10,815	6,094	4,660	137.2*	83.6*	64.6*
Population (1000s)	5,961	6,126	6,137			

*Per 1,000 live births

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Table 2
Leading Causes of Death with Rates: Missouri Residents 2009, 2018 and 2019

Leading Causes of Death	Numbers		2019	Rates per 100,000 Population			Percent Change	
	2009	2018		2009	2018	2019	2009-2019	2018-2019
Leading Causes of Death								
Heart	13,845	14,888	14,959	232.3	243.0	243.6	4.9	0.3
Cancer	12,435	13,038	12,836	208.6	212.8	211.6	1.4	-0.6
Lung cancer	3,836	3,561	3,465	64.4	58.1	57.1	-11.3	-1.7
Unintentional injury	2,868	3,975	3,930	48.1	64.9	64.6	34.4	-0.4
Motor vehicle	903	956	950	15.1	15.6	15.6	3.2	0.1
Falls	666	797	781	11.2	13.0	12.8	15.0	-1.2
Poisonings	776	1,522	1,483	13.0	24.8	24.4	87.4	-1.8
Other	523	700	716	8.8	11.4	11.8	34.2	3.1
Chronic lung disease	3,436	3,978	3,775	57.6	64.9	62.1	7.7	-4.4
Stroke	3,013	3,040	3,019	50.5	49.6	49.7	-1.7	0.1
Alzheimer's disease	1,719	2,640	2,781	28.8	43.1	45.8	58.9	6.4
Diabetes	1,326	1,606	1,652	22.2	26.2	27.2	22.4	3.9
Nephritis & nephrosis	1,226	1,504	1,480	20.6	24.5	24.4	18.6	-0.6
Suicide	857	1,230	1,130	14.4	20.1	18.6	29.3	-7.4
Pneumonia & influenza	1,346	1,477	1,030	22.6	24.1	17.0	-24.8	-29.6
Other Selected Causes								
Opioid Deaths	517	1,132	1,094	8.7	18.5	18.0	107.9	-2.4
Homicide	440	657	623	7.4	10.7	10.2	38.8	-4.4
Firearm Deaths	816	1,312	1,244	13.7	21.4	20.5	49.5	-4.4
Maternal Deaths	11	23	17	16.1**	31.4**	23.6**	46.6	-24.8

**Per 100,000 live births

percentage increase in deaths of 6.4 percent followed by diabetes with an increase of 3.9 percent in 2019 deaths.

After several years of sharp increases in various external causes of death such as drug overdoses, suicides, and homicides, these causes all decreased in 2019. Suicides decreased by 7.4 percent, homicides by 4.4 percent and drug overdose deaths (unintentional injury poisonings) by 1.8 percent. Despite the decreases in 2019, deaths from these causes are still much larger than ten years earlier (drug overdoses by 87.4 percent, homicides by 38.8 percent and suicides by 29.3 percent).

Opioid-related deaths, which are included in accidental poisonings as well as some suicides and homicides, more than doubled from 2009 to 2018 from 517 to 1,132, but decreased by 2.4 percent in 2019 to 1,094 deaths. Fentanyl was the principal drug most affecting the continued high rate of opioid deaths as 79 percent (859) of the opioid

deaths were fentanyl-related. This represents an increase in fentanyl-related deaths, as in 2018, there were 843 fentanyl-related deaths, representing 75 percent of the total opioid-related deaths. While nearly three-quarters of fentanyl-related deaths still occurred in the St. Louis area, all of the increase in fentanyl deaths in 2019 occurred outside of St. Louis.

Another major factor in suicides and homicides is the use of firearms. As Table 2 shows, firearm-related deaths increased by nearly 50 percent from 2009 to 2019, but decreased by 4.4 percent from 2018 to 2019 from 1,312 to 1,240. There were 674 firearm-related suicides and 533 homicides in 2019. The combined percentage of 69 percent of total homicides and suicides being firearm-related in 2019 is up slightly from 68 percent in 2018.

Missouri maternal mortality decreased in 2019 as 23.6 mothers died per 100,000 live births compared with 31.4 in 2018. The 2019 rate is about half the peak rate of 45.3 in 2015.

Missouri resident births in 2019 decreased for the 11th time in the last 12 years, as 72,103 babies were born compared with 73,281 babies in 2018 (Table 1). This represents the lowest number of Missouri births since 1976. The crude birth rate of 11.7 births per 1,000 population in 2019 is the lowest Missouri birth rate on record. This Missouri birth rate of 11.7 rate is slightly lower than the national rate of 12.0.

Between 2018 and 2019, teen births continued to decrease moving from 4,139 to 3,889 births born to mothers under the age of 20. This is nearly a 55 percent decrease from the 2009 count of 8,570. Early teen (less than age 18) births also decreased, moving from 1,013 in 2018 to 901 in 2019. This is 63 percent lower than the count ten years earlier in 2009. As Table 3 reflects, teen births have experienced a substantial decrease among both white and African-American teen mothers.

Table 3
Trends in Maternal and Child Health Statistics: Missouri 2009 ,2018 and 2019

	<i>Numbers</i>			<i>Percents</i>		
	2009	2018	2019	2009	2018	2019
Infant Deaths	564	459	432	7.2*	6.3*	6.0*
White	387	290	278	6.1*	5.4*	5.0*
Black	166	109	135	13.8*	10.3*	11.5*
Low Birth Weight	6,402	6,411	6,379	8.1	8.8	8.9
White	4,445	3,914	3,904	7.0	7.3	7.5
Black	1,710	1,680	1,653	14.2	15.9	15.8
Inadequate Prenatal Care	8,729	14,344	14,440	11.5	21.0	21.1
White	5,592	8,546	8,162	9.1	16.8	16.3
Black	2,604	3,395	3,624	23.1	37.8	38.1
Teen(10-19) Births	8,570	4,139	3,889	10.9	5.6	5.4
White	6,037	2,622	2,393	9.5	4.9	4.6
Black	2,290	860	844	19.0	8.2	8.1
Early Teen (10-17) Births	2,445	1,013	901	3.1	1.4	1.2
Preterm (<37 weeks) (Obst. Est.)**	7,814	7,853	7,840	9.9	10.7	10.9
Multiple Births	2,701	2,665	2,523	3.4	3.6	3.5
Birth Spacing<18 mos.	5,182	5,270	5,336	11.9	12.2	12.5
Out of Wedlock Births	32,222	29,537	29,134	40.9	40.3	40.4
Smoking During Pregnancy	13,233	9,993	9,133	16.8	13.7	12.8
Mother Obese	17,683	20,970	21,356	23.9	29.0	30.1
Medicaid Births	37,675	28,535	27,487	48.4	39.4	38.6
WIC Births	34,094	25,998	23,916	43.8	36.2	33.9
Food Stamps Births	22,250	17,663	16,338	29.4	26.2	24.6
C-Sections	25,517	21,905	21,639	32.4	30.0	30.1
Live Births	80,944	73,281	72,103			

*Infant Death rates are per 1,000 live births.

**Obstetrical estimate of gestation used for all three years. Before 2014, in Missouri Vital Statistics annual reports and MOPHIMS/MICA, a calculated gestational age between date of last normal menses and date of birth was used.

The infant death rate decreased in 2019 from 6.3 in 2018 to 6.0 per 1,000 live births (see Table 3). This represents a record low Missouri infant mortality rate, and 20 percent below the 2009 rate of 7.2. However, Missouri's 2019 infant death rate of 6.0 per 1,000 live births was still five percent higher than the most recent national rate of 5.7 in 2018. The ratio of the African-American infant death rate to white infant mortality had decreased from 2.5 in 2017 to 1.9 in 2018, but was back up to 2.3 as white infant mortality decreased while the African-American infant death rate increased in 2019.

The rate of low birth weight (less than 2,500 grams) infants increased to a record high of 8.9 percent in 2019 compared with the rate of 8.8 in 2018 and 8.1 in 2009. The 2019 low birth weight rate for African-American infants was 15.8 percent, more than double the rate for white infants of 7.5 percent. The related rate of preterm births (delivering before 37 weeks of pregnancy) increased in 2019 to 10.9 percent from 10.7 percent in 2018 and 9.9 percent in 2009.

The rate of inadequate prenatal care increased slightly to 21.1 percent in 2019 from 21.0 in 2018. Inadequate prenatal care is defined as fewer than five visits for preterm pregnancies or fewer than eight visits for term pregnancies or prenatal care beginning after the first four months of pregnancy. The rate uses the number of live births with known prenatal care as the denominator.

Other maternal and child health indicators presented in Table 3 show the following for 2019:

- The rate of out-of-wedlock births increased slightly from 40.3 to 40.4 percent between 2018 and 2019.
- Multiple births decreased from 3.6 percent to 3.5 percent of births.
- Short (less than 18 months) spacing between births increased from 12.2 percent in 2018 to 12.5 percent in 2019.

- The number and rate of Medicaid, WIC and Food-Stamp births all decreased, possibly reflecting the improved economy in 2019.
- The rate of mothers smoking during pregnancy decreased to 12.8 percent in 2019 from 13.7 percent in 2018 and 16.8 percent in 2009.
- C-sections increased slightly during the last year from 30.0 percent in 2018 to 30.1 percent in 2019.
- The rate of births to obese (BMI>30) mothers increased to 30.1 percent in 2019 from 29.0 in 2018 and 23.9 in 2009.
- Abortions (see Table 1) decreased 23.9 percent in 2019 as 4,660 Missouri resident pregnancies were terminated compared with 6,125 in 2018. This sharp decline resulted primarily because more Missouri women were obtaining abortions outside of Missouri in states that do provide Missouri with individual abortion records.

Marriages decreased from 39,692 in 2018 to 36,636 in 2019, the lowest number since 1962 (see Table 1). The number of same-sex marriages decreased by 7.8 percent in 2019, from 1,158 in 2018 to 1,068 in 2019. Divorces decreased by 4.8 percent in 2019 as 17,740 Missouri marriages were dissolved compared with 18,630 in 2018, the lowest count since 1970. The marriage to divorce ratio decreased from 2.13 in 2018 to 2.07 in 2019.

In summary, all of the vital statistics shown in Table 1 (live births, deaths, natural increase, marriages, divorces. Infant deaths and abortions) decreased in 2019. Deaths decreased for the first time since 2009 as life expectancy increased by 0.4 years to 77.4 years, and premature deaths from the external causes of drug overdoses, suicides and homicides all decreased. Births dropped to the lowest level since 1976, infant death rates reached a record low level in 2019, and marriages and divorces continued long-term declines.