

FOCUS

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2016 Vital Statistics

Missouri resident deaths reached a record high number for the fourth consecutive year, slightly increasing from 59,810 in 2015 to 59,824 in 2016 (See Table 1). The state life expectancy remained at 77.3 years, 0.5 years less than the peak of 77.8 years in 2012. This compares to 78.8 years, the latest available national life expectancy in 2015. Life expectancy for Missouri females increased from 79.9 in 2015 to 80.0 years in 2016, while male life expectancy remained at 74.7 years in 2016 and 2015.

As reflected in Table 2, seven of the ten leading causes of death increased in 2016 compared with 2015. The three causes that decreased included heart disease and cancer (the two leading causes), as well as pneumonia and influenza. The caus-

es with the greatest mortality increases in 2016 were unintentional injuries (11.1 percent) and suicide (8.5 percent), external causes of death that tend to affect younger and middle age persons. Although not among the ten leading causes of death, homicides (another external cause of death) increased by 6.1 percent from 537 in 2015 to 570 in 2016. The ten leading causes of death in 2016 were respectively heart disease, cancer, chronic lung disease, unintentional injuries, stroke, Alzheimer's disease, diabetes, nephritis (kidney disease), pneumonia and influenza, and suicide. The order was basically the same as in 2015 except that diabetes passed nephritis as the seventh leading cause of death.

Table 1

Vital Statistics for Missouri: 2006, 2015 and 2016

	<i>Numbers</i>			<i>Rates per 1,000 Population</i>		
	2006	2015	2016	2006	2015	2016
Births	81,353	75,042	74,664	13.9	12.4	12.3
Deaths	54,475	59,810	59,824	9.3	9.8	9.8
Natural increase	26,878	15,232	14,840	4.6	2.5	2.4
Marriages	40,779	41,377	41,747	7.0	6.8	6.9
Divorces	22,358	19,330	19,997	3.8	3.2	3.3
Infant deaths	599	489	490	7.4*	6.5*	6.6*
Abortions	11,833	7,474	7,275	145.5*	99.6*	97.4*
Population (1000s)	5,843	6,076	6,093			

*Per 1,000 live births

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Table 2
Leading Causes of Death with Rates: Missouri Residents 2006, 2015 and 2016

<u>Leading Causes of Death</u>	<i>Numbers</i>			<i>Rates per 100,000 Population</i>			<i>Percent Change</i>	
	2006	2015	2016	2006	2015	2016	2006-16	2015-16
Heart	14,647	14,778	14,569	250.7	243.2	239.1	-0.5	-1.4
Cancer	12,484	12,938	12,691	213.7	212.9	208.3	1.7	-1.9
Lung cancer	3,921	3,864	3,706	67.1	63.6	60.8	-5.5	-4.1
Chronic lung disease	3,008	3,928	3,960	51.5	64.6	65.0	31.6	0.8
Unintentional injury	2,975	3,249	3,610	50.9	53.5	59.2	21.3	11.1
Motor vehicle	1,104	894	999	18.9	14.7	16.4	-9.5	11.7
Falls	674	743	756	11.5	12.2	12.4	12.2	1.7
Poisonings	681	924	1,221	11.7	15.2	20.0	79.3	32.1
Other	516	688	634	8.8	11.3	10.4	22.9	-7.8
Stroke	3,243	3,021	3,063	55.5	49.7	50.3	-5.6	1.4
Alzheimer's disease	1,632	2,169	2,302	27.9	35.7	37.8	41.1	6.1
Diabetes	1,491	1,464	1,508	25.5	24.1	24.7	1.1	3.0
Nephritis & nephrosis	1,106	1,480	1,481	18.9	24.4	24.3	33.9	0.1
Pneumonia & influenza	1,321	1,333	1,149	22.6	21.9	18.9	-13.0	-13.8
Suicide	798	1,043	1,132	13.7	17.2	18.6	41.9	8.5

The increase in unintentional deaths primarily is reflecting spiking in drug overdoses as accidental poisoning deaths increased by 32.1 percent from 924 in 2015 to 1,221 in 2016 as shown in Table 2. Drug overdoses primarily affected young people aged 20-49, as the number of Missourians in this age group who died from accidental poisonings increased by over 50 percent from 588 in 2015 to 885 in 2016. Overall death rates for persons aged 25-34 and 35-44 are at their highest levels since the 1970s (before the AIDS epidemic).

Opioids are primarily to blame for these drug overdoses, as more than two-thirds (842) of the 1,221 poisoning deaths in 2016 mention some type of opioid on the death certificate, and opioids are probably under-reported on death certificates. An additional 66 deaths involved opioids in which accidental poisoning was not the underlying cause, meaning a total of 908 Missouri resident deaths were opioid-related. Heroin and fentanyl are the opioids causing the most deaths and fentanyl is probably the drug most impacting the spike in drug overdoses in 2016. The mention of heroin on death certificates

increased from 291 to 377 from 2015 to 2016 while fentanyl was mentioned on 417 death certificates in 2016 compared with just 155 in 2015. Deaths involving both heroin and fentanyl nearly tripled from 43 in 2015 to 126 in 2016. The St. Louis area has been most impacted by the opioid epidemic with more than three quarters of the heroin- and fentanyl-related deaths to Missourians coming from the St. Louis metropolitan region.

Suicides went up sharply among those under age 30 (+36 percent) in 2016, but for the full decade 2006-2016, suicides were up substantially for all age groups under age 75. Total suicides to Missourians increased by 42 percent from 2006 to 2016.

Missouri resident live births decreased for the ninth consecutive year in 2016 as 74,664 babies were born compared with 75,042 in 2015 (Table 1). Missouri births have decreased by 8.8 percent since reaching a peak of 81,883 in 2007.

Between 2015 and 2016, teen births continued to decrease moving from 4,878 to 4,536 births

Table 3
Trends in Maternal and Child Health Statistics: Missouri 2006, 2015 and 2016

	<i>Numbers</i>			<i>Percents</i>		
	2006	2015	2016	2006	2015	2016
Infant Deaths	599	489	490	7.4*	6.5*	6.6*
White Non-Hispanic	376	304	298	6.0*	5.4*	5.4*
Black Non-Hispanic	179	134	137	14.5*	12.7*	13.2*
Low Birth Weight	6,579	6,270	6,499	8.1	8.4	8.7
White Non-Hispanic	4,436	4,032	4,124	7.2	7.2	7.5
Black Non-Hispanic	1,675	1,568	1,572	13.7	14.8	15.2
Inadequate Prenatal Care	8,201	13,688	13,213	10.6	19.4	19.2
White Non-Hispanic	4,862	8,312	7,987	8.0	15.9	15.5
Black Non-Hispanic	2,258	3,194	2,950	20.5	33.9	32.8
Teen(10-19) Births	9,286	4,878	4,536	11.4	6.5	6.1
White Non-Hispanic	5,982	3,212	2,933	9.7	5.7	5.3
Black Non-Hispanic	2,469	978	896	20.1	9.2	8.6
Early Teen (10-17) Births	2,935	1,249	1,136	3.6	1.7	1.5
Preterm (<37 weeks) (Obst. Est.)	8,448	7,507	7,595	10.4	10.0	10.2
Multiple Births	2,776	2,758	2,687	3.4	3.7	3.6
Birth Spacing<18 mos.	5,497	5,305	5,160	12.1	12.1	11.8
Out-of Wedlock Births	31,987	30,351	29,750	39.3	40.4	39.8
Smoking During Pregnancy	14,946	11,802	11,290	18.4	15.9	15.3
Mother Obese	17,317	19,281	19,913	22.6	26.0	27.0
Medicaid Births	37,965	29,878	28,815	47.5	40.3	39.0
WIC Births	34,256	30,572	28,110	42.8	41.5	38.4
Food Stamps Births	19,333	20,477	19,010	24.9	29.3	27.5
C-Sections	24,906	22,733	22,515	30.6	30.3	30.2
Live Births	81,353	75,042	74,664			

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

born to mothers under the age of 20. This is more than a 50 percent decrease from the 2006 count of 9,286. Early teen (less than age 18) births also decreased, moving from 1,249 in 2015 to 1,136 in 2016. This is 61 percent lower than the count ten years earlier in 2006. As Table 3 reflects, teen births have experienced a substantial decrease among both white and African-American teen mothers.

The infant death rate increased slightly in 2016 from 6.5 in 2015 to 6.6 per 1,000 live births in 2016 (See Table 3). However, it is still 11 percent lower than the 7.4 rate ten years earlier in 2006.

Missouri's 2016 infant death rate of 6.6 per 1,000 live births was 12 percent higher than the most recent national rate of 5.9 in 2015. The 2016 Missouri infant death rate for African-Americans of 13.2 per 1,000 live births was more than 2.4 times the white infant death rate of 5.4, which was about the same as the ratios in 2015 and 2006.

The rate of low birth weight (less than 2,500 grams) reached a record high of 8.7 percent in 2016 compared with rates of 8.4 percent in 2015 and 8.1 in 2006. Increases and record highs occurred for both White and African-American babies. The 2016 low

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birth weight rate for African-American infants was 15.2 percent, about double the rate for white infants of 7.5 percent. The related rate of preterm births (delivering before 37 weeks of pregnancy) also increased in 2016 to 10.2 percent from 10.0 percent, but this was not a record high, as it was higher ten years earlier in 2006 (10.4 percent).

The rate of inadequate prenatal care decreased in 2016 from 19.4 percent in 2015 to 19.2 percent in 2016. The rate in 2016 was nearly double the 2006 rate of 10.6 percent, but this was largely due to a change in data collection techniques beginning in 2010. 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.

Other maternal and child health indicators presented in Table 3 show the following for 2016:

- The rate of out-of-wedlock births decreased from 40.4 to 39.8 percent between 2015 and 2016.
- Multiple births decreased slightly from 3.7 percent to 3.6 percent of births.
- Short (less than 18 months) spacing between births decreased from 12.1 percent in 2015 to 11.8 percent in 2016.
- The number and rate of Medicaid and WIC births both decreased, as did the number of mothers on Food Stamps.
- Abortions (See Table 1) decreased 2.7 percent in 2015 as 7,275 Missouri resident pregnancies were terminated compared with 7,474 in 2015. The 2016 number represents a 38 percent decrease from the 11,833 abortions ten years earlier.
- C-Sections decreased slightly during the last year, resulting in a decrease in the rate of all live births from 30.3 percent in 2015 to 30.2 percent in 2016.
- The rate of births to obese (BMI>30) mothers increased to 27.0 percent in 2015 from 26.0 in 2015 and 22.6 in 2006.

Marriages increased from 41,377 in 2015 to 41,747 in 2016. In the first full year of same-sex marriages, Missouri reported 1,577 same-sex marriages in 2016. Divorces increased by 3.5 percent in 2016 as 19,997 Missouri marriages were dissolved compared with 19,330 in 2015. The marriage to divorce ratio decreased from 2.14 in 2015 to 2.09 in 2016.

In summary, Missouri mortality continued at records levels in 2016, reflecting sharp increases in premature deaths from external causes such as drug overdoses and suicides. This contrasts with past years when high mortality generally reflected the aging population and deaths from the leading chronic diseases: heart disease, cancer and chronic lung disease.

The opioid epidemic is tragically leading to the premature deaths of many young Missourians. Death rates for the 25-34 and 35-44 age groups are at their highest levels since the 1970s. The Department of Health and Senior Services (DHSS) is working on several fronts to address the opioid crisis. Through a grant from the Centers for Disease Control, DHSS is working to improve tracking and monitoring of opioid deaths. The Governor has also initiated a prescription drug monitoring program through DHSS to track possible over-prescribing of pain killers. A series of Opioid Summits also is being held around the state to bring awareness to the issue, spur innovative actions and address specific problems found in different communities around Missouri.