

Infant and Child Health

Rural Health
Disparities
and
Inequalities



Introduction

Infant and child health can be affected by several factors. Some of these factors include; race, ethnicity, environment, family income and relating factors such as health insurance coverage, access to medical care, and the educational attainment among individuals living in the household. In addition, the cognitive and physical development of infants and children is affected by the health of their mothers during pregnancy and early childhood. The social determinants that influence child and infant health, also affect maternal health. Limited access to health care can have a significant impact on both maternal and infant/child health. Women and children living in rural areas of Missouri tend to have less access to quality health care, are underinsured, and have lower socioeconomic statuses; resulting in worse health outcomes than their urban peers. Healthy birth outcomes and timely identification of health conditions among infants aid in the prevention of death and disability which in-turn enables children to be able to reach their full potential.¹

Infant and Child Health in Rural Missouri

- The rate of infant deaths from all causes per 100,000 live births between the years 2003-2013 was 711.4 in rural Missouri compared with 708.8 in urban Missouri.²
- The rate of neural tube defects (birth defects affecting the brain and spinal column) per 10,000 live births between 2007-2011 was 7.5 in rural counties compared with 5.8 in urban counties.²
- Pre-term birth is the leading cause of infant mortality in the U.S. and Missouri. Figure 1 displays the rate of pre-term birth by county in Missouri.²
- The rate of teenage pregnancy per 1,000 15-19 year olds between the years 2009-2013 was 43.9 in rural counties compared with 40.2 in urban Missouri.²
- 11.5% of rural pregnancies were in females less than 20 years of age compared with 9% of urban pregnancies.²
- The rate of preventable hospitalizations in 2014 was 90 for rural youth 15 years and under compared with 81 for urban youth, per 10,000.³
- The injury rate for children under 15 in rural Missouri was 10,938.4 per 100,000 compared to a rate of 9,518 in urban counties.³
- The rate of deaths for all causes per 100,000 rural youth 15 years and younger in 2014 was 62.8 compared with 52.7 of urban youth (Table 1).³

Figure 1. Pre-term Birth Rates per 100 Live Births by County, 2014²

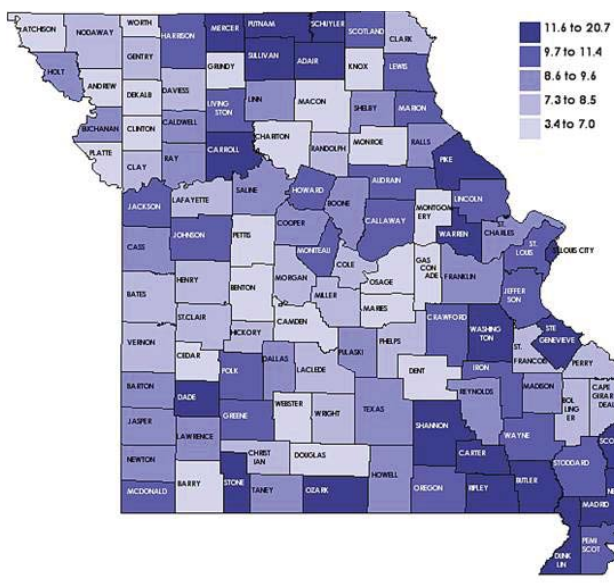


Table 1. Rate of Deaths per 100,000 Rural and Urban Missouri Youth by Age Group, 2014³

| Age | Rural Rate | Urban Rate |
|-------|------------|------------|
| > 1 | 647.9 | 584.3 |
| 1-4 | 36.6 | 22.6 |
| 5-9 | 15.1 | 11.9 |
| 10-4 | 20.9 | 12.7 |
| Total | 62.8 | 52.7 |

Infant Mortality Rate (IMR) in the Bootheel

- The IMR in the Bootheel is significantly higher than the national average, and the highest in Missouri; 218 infants died before their first birthday between the years 2003 and 2013.⁴
- 33% of Missouri infant deaths are in the Bootheel and St. Louis.⁴
- Per 1,000 births, 14 deaths were among African Americans compared to 9 deaths among Caucasians.⁴
- Table 2 displays the IMR of each Bootheel county per 1,000 live births between the years 2003-2013.⁴
- Causes of infant mortality include:⁴
 - Limited access to healthcare
 - Lack of health education
 - Poor individual choices
 - Misguided generational instruction
 - Absence of community infrastructure
 - Frequent changes to government policies
- The rate of Sudden Infant Death Syndrome in the Bootheel in 2013 was 1.4, compared to a rate of 0.2 statewide.³
- Infant mortality affects families, employers, tax payers, and the community.⁴

Table 2. Infant Mortality Rates per 1,000 Live Births in the Missouri Bootheel Region, 2003-2013⁴

| Bootheel County | Infant Mortality Rate per 1,000 Live Births (2003-2013) |
|-----------------|---|
| Stoddard | 6.54 |
| Mississippi | 8.32 |
| Scott | 8.38 |
| New Madrid | 9.66 |
| Dunklin | 10.7 |
| Pemiscot | 11.99 |

Children in the Bootheel

- The rate of preventable hospitalizations in 2013 per 10,000 children age 15 and under in the Bootheel was 174.4, compared with the Missouri rate of 84.3.³
- The rate of cancer deaths in children 15 years and younger in 2013 was 6.6 in the Bootheel and 2.2 for the state, per 100,000.³
- The rate of homicide as a cause of death for children 15 years and younger is higher in the Bootheel; 3.3 compared to Missouri's rate of 2.1.³
- Table 2 displays facts impacting the health of children in Missouri's Bootheel.⁴

Table 3. Child Health Factors/Outcomes in the Missouri Bootheel Region, 2003-2013⁴

| Bootheel County | Child Population | Percent of Minority Children | Low birth-weight infants | Child abuse/neglect per 1,000 | Child deaths Ages 1-14 per 100,000 | Violent deaths Ages 15-19 per 100,000 | Enrolled in free or reduced lunch | Children under 6 in poverty |
|-----------------|------------------|------------------------------|--------------------------|-------------------------------|------------------------------------|---------------------------------------|-----------------------------------|-----------------------------|
| Pemiscot | 4,785 | 41.8% | 13.5% | 86.9 | 14.6 | 59 | 73.4% | 61.4% |
| Scott | 9,532 | 22.1% | 8.9% | 45.7 | 32.5 | 37.9 | 60.6% | 34.4% |
| Stoddard | 6,841 | 5.5% | 9.2% | 46.3 | 10.9 | 41.6 | 56.2% | 14.3% |
| Dunklin | 8,248 | 28.4% | 11.3% | 58.8 | 20.6 | 65.4 | 73.1% | 38.7% |
| Mississippi | 3,195 | 30.7% | 12.5% | 60.7 | 7.5 | 24.7 | 74.4% | 35% |
| New Madrid | 4,319 | 25% | 11.9% | 65.3 | 43.7 | 49.6 | 64.9% | 48.1% |
| Missouri | 1,447,913 | 16.7% | 8% | 40.8 | 17.7 | 49.3 | 49.8% | 22.6% |

Sources

¹Healthy People 2020. Maternal, Infant, and Child Health. Accessed July 5, 2016 at <https://www.healthypeople.gov/2020/topics-objectives/topic/maternal-infant-and-child-health>.

²Missouri Department of Health and Senior Services. Health in Rural Missouri: Biennial 2014-2015. Accessed July 1, 2016 at <http://health.mo.gov/living/families/ruralhealth/pdf/biennial2015.pdf>.

³Missouri Department of Health and Senior Services. Health in Rural Missouri. MICA. Accessed July 5, 2016 at <http://health.mo.gov/data/mica/MICA/>.

⁴Missouri Foundation for Health. Bootheel Babies. Accessed July 1, 2016 at <http://www.bootheelbabies.org/about/>.



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