

Missouri Opioid Overdose and Bloodborne Infection Vulnerability Assessments Supplementary Data Stone County



Stone County is located in southwest Missouri along the Arkansas border and between years 2013 to 2017 had an estimated population of 31,529. Stone County ranks 36 in population size among Missouri's 114 counties plus the independent city of St. Louis. The 2013-2017 unemployment rate in the county was 7.7%. This was higher than the statewide unemployment rate of 5.8%. In 2013-2017, the poverty rate was 12.8%, which was lower than the statewide poverty rate of 14.6%. The 2013-2017 median income of the county was \$43,292. The population distribution is as follows:

Demographics – Total Population										
Sex	Count	Percent		Age Group	Percent					
Male	15,426	48.9		0 – 9 years	2,356	7.4				
Female	16,103	51.1		10 – 14 years	1,902	6.0				
Race				15 – 19 years	1,720	5.5				
Black/African										
American alone	50	0.2		20 – 24 years	1,398	4.4				
White alone	30,423	96.5		25 – 39 years	3,678	11.7				
Other	1,056	3.3		40 – 59 years	8,322	26.4				
Ethnicity				Over 60 years	12,153	38.5				
Hispanic	662	2.1		Median Age	52.7 years					
Non-Hispanic	30,867	97.9								

Figure 1: Stone County Population 2013-2017 5-Year Estimates

The Department of Health and Senior Services conducted two vulnerability assessments of Missouri counties. The indicators used for these assessments are included in the table below.

Figure 2: Comparison of Indicators for Missouri Vulnerability Assessments

	Opioid Overdose	Both	Bloodborne Infection							
Outcomes ht x 3)	Opioid-related Substance Use Disorder Treatment (SUDT) Admissions	Drug Overdose Deaths ^{+‡} ¥	Bloodborne Illnesses (HIV, Acute and Chronic Hepatitis B, and Acute and Chronic Hepatitis C)†‡							
Individual Out (Weight x	Self-reported Frequent (>14 Per Month) Poor Mental Health Days	Opioid Misuse Emergency Room (ER) Visits	Hepatitis C Virus Among Ages 18 to 40							
Indiv		Drug-related Arrests	Injection Drug Use (IDU) Among Persons Receiving SUDT							
actors 1)		Median Income ⁺ ‡								
ш×		Poverty [†]								
nity ight		Lack of a High School Education ⁺								
Community (Weight		Unemployment ⁺ ‡								
Con		Uninsured ⁺								

⁺ These indicators were considered for the National Vulnerability Assessment.

‡ Analysis completed for the National Vulnerability Assessment found these indicators to be more strongly associated with acute hepatitis C virus infection, which was considered a proxy for unsafe injection drug use.

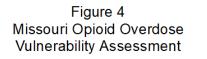
¥ Drug Overdose Deaths = (0.5 weight x county of residence rate) + (0.5 weight x county of record rate).

Prepared by the Missouri Department of Health and Senior Services, Bureau of Reportable Disease Informatics

Figure 3: Distribution of Final Ranks

Figure 3 shows the distribution of the final ranks among five quintiles. In the Missouri vulnerability assessments, Stone County ranked 67 (3rd quintile) for vulnerability to opioid overdoses. Stone County ranked 95 (5th quintile) for vulnerability to bloodborne infections. In the Missouri assessments, counties in the fifth quintile are considered to be more vulnerable. Please note that Figure 3 shows the distribution when no ties occur. When a tie occurs on a break point, a shift in the distribution may occur.

Final Ranks	Quintile Points	Vulnerability Level				
1-23	1					
24-46	2					
47-69	3					
70-92	4					
93-115	5	More vulnerable				



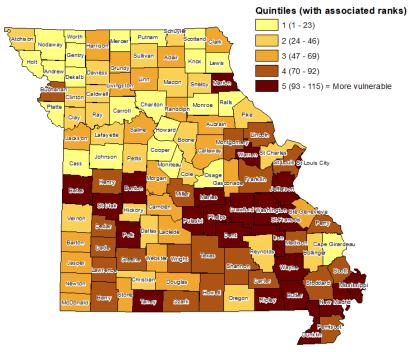


Figure 5: Individual Outcome Indicators

NOTE: Rates based on counts of 1 to 19 are considered unreliable and are shaded in gray.

Opioid Overdose Vulnerability Assessment Indicators											
County	Count: Drug Overdose (OD) Deaths by Residence County	Rate: Drug OD Deaths by Residence County	Count: Drug OD Deaths by County of Record	Rate: Drug OD Deaths by County of Record	Count: Opioid Misuse ER Visits	Rate: Opioid Misuse ER Visits	Count: Opioid- related SUDT	Rate: Opioid- related SUDT	Count: Drug-related Arrests	Rate: Drug-related Arrests	Rate: Self-reported Frequent Poor Mental Health Days
Stone	17	18.1	13	13.9	75	0.8	19	59.9	239	754.0	14.0
Missouri	3,784	20.7	3,868	21.1	25,889	1.4	6,754	110.5	43,232	707.2	13.7

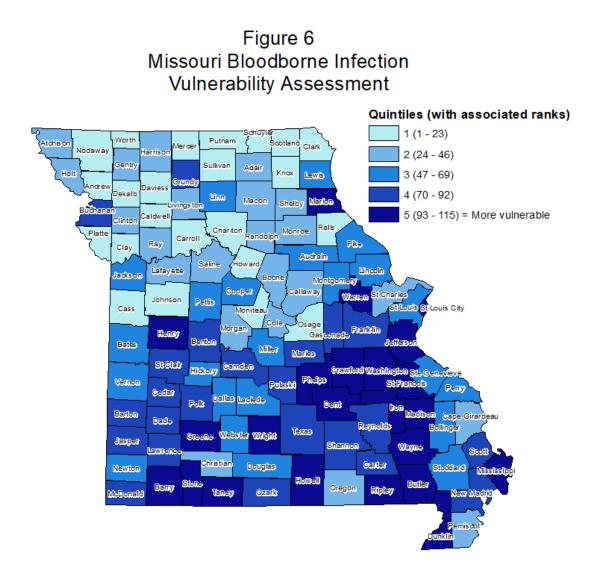


Figure 7: Individual Outcome Indicators

NOTE: Rates based on counts of 1 to 19 are considered unreliable and are shaded in gray.

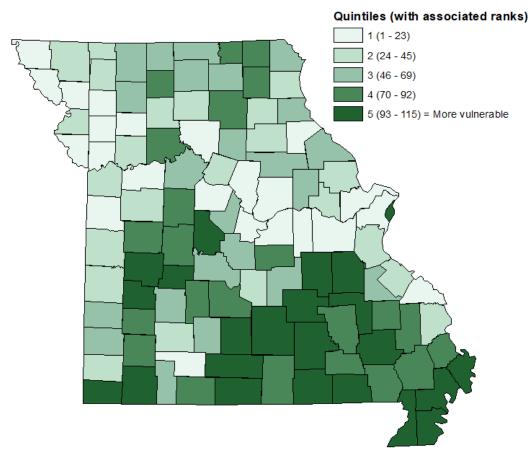
	Bloodborne Infection Vulnerability Assessment Indicators													
County	Count: Drug OD Deaths by Residence County	Rate: Drug OD Deaths by Residence County	Count: Drug OD Deaths by County of Record	Rate: Drug OD Deaths by County of Record	Count: HIV, HBV, HCV	Rate: HIV, HBV, HCV	Count: HCV Among Ages 18 to 40	Rate: HCV Among Ages 18 to 40	Count: Opioid Misuse ER Visits	Rate: Opioid Misuse ER Visits	Count: IDU Among SUDT Recipients	Rate: IDU Among SUDT Recipients	Count: Drug-related Arrests	Rate: Drug-related Arrests
Stone	17	18.1	13	13.9	127	135.6	68	375.3	75	0.8	36	113.6	239	754.0
Missouri	3,783	20.7	3,867	21.1	17,612	96.3	5,527	99.9	25,959	4.3	6,672	109.1	43,232	707.2

Figure 8: Community Factors									
Stone County									
ACS Data 2013-2017 Rate Rank Quintile									
Lack of a High School Education	13.2%	58	3rd						
Median Income	\$43,292	53	3rd						
Poverty	12.8%	21	2nd						
Unemployment	7.7%	91	5th						
Uninsured	12.1%	57	3rd						

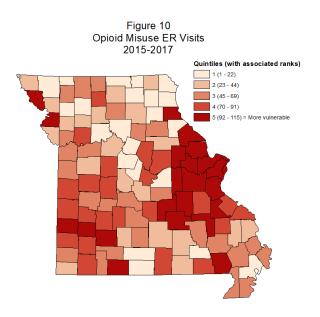
tile Social and economic factors within a community may impact available resources and influence vulnerability to opioid overdoses and bloodborne infections. Many of these

indicators are interrelated. Data are from the U.S. Census Bureau's 2013-2017 American Community Survey (ACS).

Figure 9 Community Factors 2013-2017



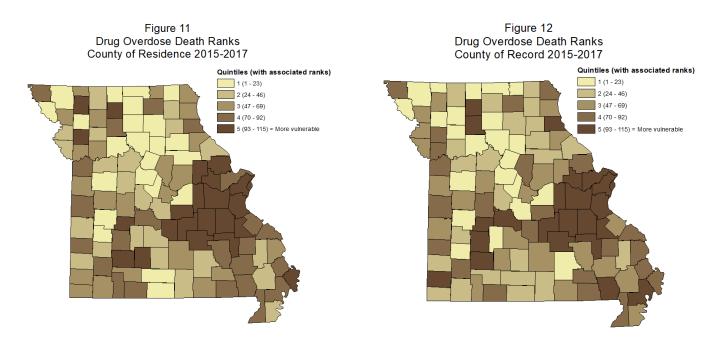
Selected Individual Outcome Indicators



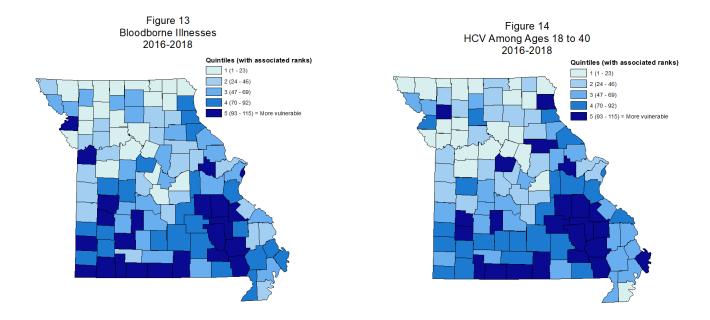
The 2015-2017 number of emergency room visits due to opioid misuse was 75, at a rate of 0.8 visits per 1,000 residents. This is rank 67 (3rd quintile) for this indicator.

Stone County ranks 69 (4th quintile) on the 2015-2017 combined drug overdose death rate indicator. This indicator considers both the decedent's county of residence and the decedent's county of record, which can be considered a proxy for the location of death.

By county of residence, the 2015-2017 number of Stone County drug overdose deaths was 17, at a rate of 18.1 deaths per 100,000 population. By county of record, the 2015-2017 number of Stone County drug overdose deaths was 13, at a rate of 13.9 deaths per 100,000 population.



New cases of reported bloodborne illnesses (acute and chronic hepatitis B virus (HBV), acute and chronic hepatitis C virus (HCV), and human immunodeficiency virus (HIV)) in Stone County totaled 127 for 2016-2018 at a rate of 135.6 cases per 100,000 residents. This is rank 106 (5th quintile) for bloodborne illnesses. Per the Centers for Disease Control and Prevention (CDC), "adults under 40 have the highest rate of new infections, largely because of the opioid crisis."[†] In Stone County, 68 new cases of acute and chronic HCV were identified among the 18- to 40-year-old age group in 2016-2018, for a rate of 375.3 cases per 100,000 residents. Stone County ranks 115 (5th quintile) for this indicator.



Acute and chronic hepatitis C also significantly impact the 41- to 65-year-old age group. In 2016-2018, there were 46 new cases of acute and chronic hepatitis C identified in this age group, at a rate of 133.9 cases per 100,000 residents.

Out of 118 acute and chronic HCV cases in Stone County, 67 (56.8%) were male. For the cases in which race was identified, <5 (<1.3%) were African American. However, please interpret race data for HCV with caution, as race was not identified in 38 (32.2%) of all 2016-2018 HCV cases in Stone County.

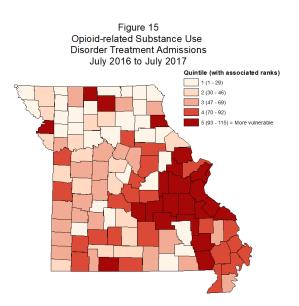
⁺ Centers for Disease Control and Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention. CDC Estimates Nearly 2.4 Million Americans Living with Hepatitis C. (November 6, 2018). Accessed October 8, 2019, from https://www.cdc.gov/nchhstp/newsroom/2018/hepatitis-c-prevalence-estimates-press-release.html.

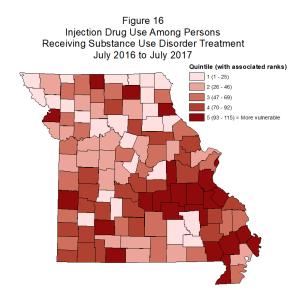
AIDS = Acquired Immunodeficiency Syndrome

STD = Sexually Transmitted Disease

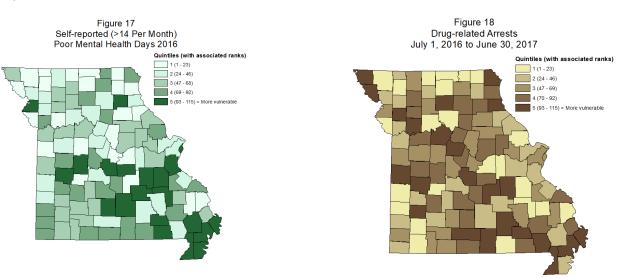
TB = Tuberculosis

The number of people who received opioid-related substance use disorder treatment from July 1, 2016 to June 30, 2017 was 19, a rate of 59.9 persons per 100,000 population, placing this county in rank 63 (3rd quintile). This indicator was used only in the opioid overdose vulnerability assessment. The number of persons receiving substance use disorder treatment and prior to treatment reported injecting drugs was 36, a rate of 113.6 persons per 100,000 population, placing this county in rank 70 (4th quintile). This indicator was used only in the bloodborne infection vulnerability assessment.





In 2016, 14.0 percent of Stone County adults 18 years of age or older reported more than 14 poor mental health days per month. This placed Stone County in rank 58 (3rd quintile) for this indicator in the opioid overdose vulnerability assessment. Between July 1, 2016 and June 30, 2017, a total of 239 drug-related arrests occurred in Stone County, at a rate of 754.0 arrests per 100,000 population. Stone County ranks 57 (3rd quintile) for this indicator, which was used in both assessments.



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