



# Missouri Opioid Overdose and Bloodborne Infection Vulnerability Assessments Supplementary Data **Madison County**



Madison County is located in southeast Missouri and between years 2013 to 2017 had an estimated population of 12,226. Madison County ranks 81 in population size among Missouri’s 114 counties plus the independent city of St. Louis. The 2013-2017 unemployment rate in the county was 5.8%. This was equal to the statewide unemployment rate of 5.8%. In 2013-2017, the poverty rate was 18.8%, which was higher than the statewide poverty rate of 14.6%. The 2013-2017 median income of the county was \$37,484. The population distribution is as follows:

**Figure 1: Madison County Population  
2013-2017 5-Year Estimates**

Demographics – Total Population					
Sex	Count	Percent	Age Group	Count	Percent
Male	6,004	49.1	0 – 9 years	1,601	13.1
Female	6,222	50.9	10 – 14 years	687	5.6
			15 – 19 years	723	5.9
Race			20 – 24 years	665	5.4
Black/African American alone	116	0.9	25 – 39 years	2,143	17.5
White alone	11,889	97.2	40 – 59 years	3,281	26.8
Other	221	1.8	Over 60 years	3,126	25.6
Ethnicity			Median Age	41.7 years	
Hispanic	286	2.3			
Non-Hispanic	11,940	97.7			

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
<b>Individual Outcomes (Weight x 3)</b>	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)†‡
	Self-reported Frequent (>14 Per Month) Poor Mental Health Days	Opioid Misuse Emergency Room (ER) Visits	Hepatitis C Virus Among Ages 18 to 40
		Drug-related Arrests	Injection Drug Use (IDU) Among Persons Receiving SUDT
<b>Community Factors (Weight x 1)</b>		Median Income†‡	
		Poverty†	
		Lack of a High School Education†	
		Unemployment†‡	
		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.

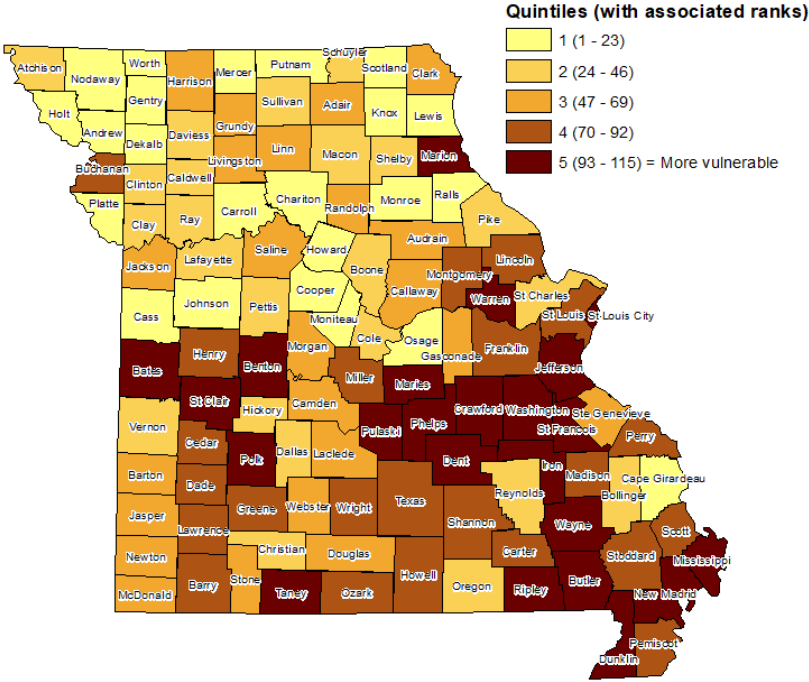
¥ Drug Overdose Deaths = (0.5 weight x county of residence rate) + (0.5 weight x county of record rate).

**Figure 3: Distribution of Final Ranks**

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

Figure 3 shows the distribution of the final ranks among five quintiles. In the Missouri vulnerability assessments, Madison County ranked 82 (4th quintile) for vulnerability to opioid overdoses. Madison County ranked 96 (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.

**Figure 4 Missouri Opioid Overdose Vulnerability Assessment**



**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
Madison	7	18.9	6	16.2	44	1.2	9	73.5	32	261.4	14.3
Missouri	3,784	20.7	3,868	21.1	25,889	1.4	6,754	110.5	43,232	707.2	13.7

Figure 6  
Missouri Bloodborne Infection  
Vulnerability Assessment

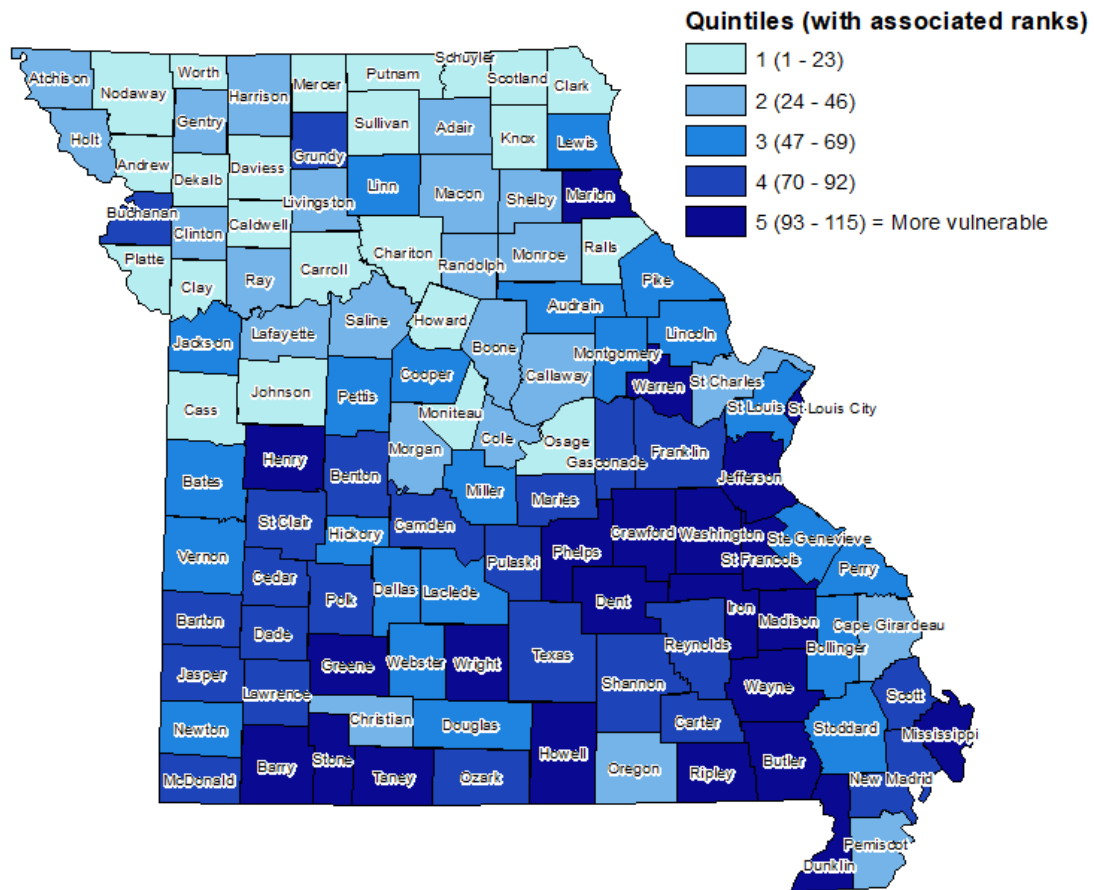


Figure 7: Individual Outcome Indicators

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

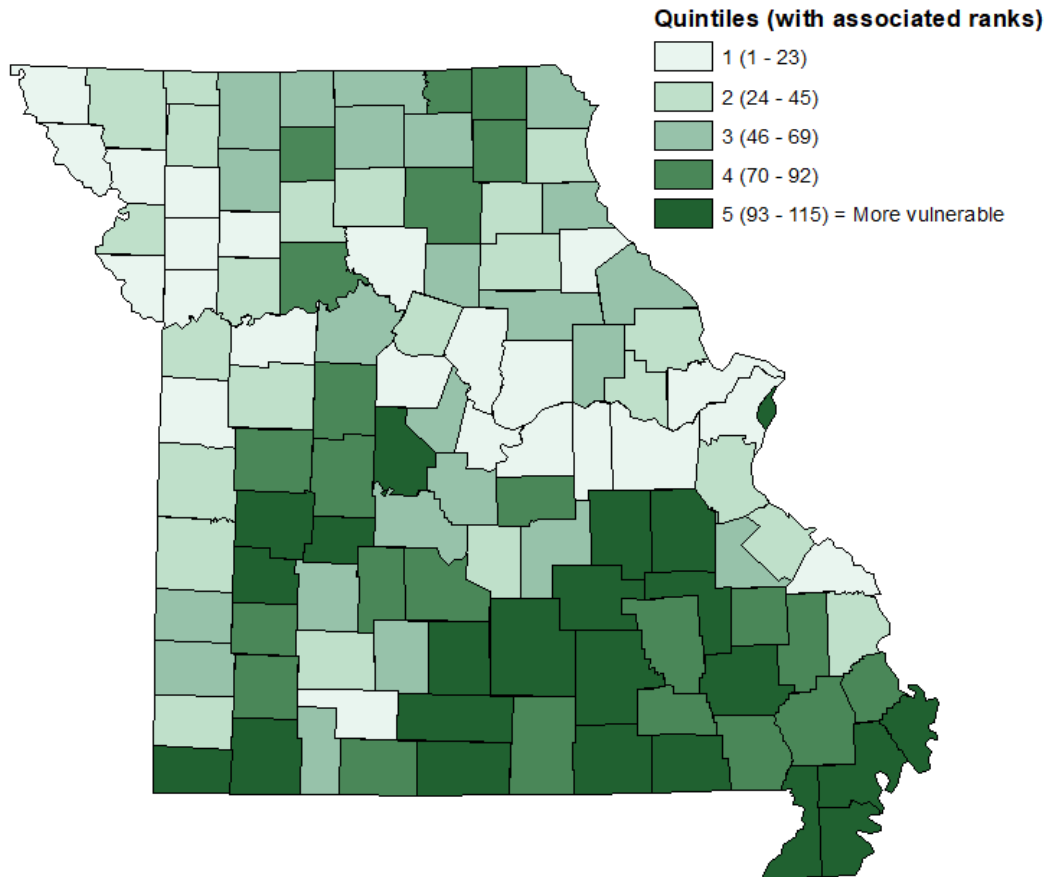
Bloodborne Infection Vulnerability Assessment Indicators														
County	Count: Drug OD Deaths by Residence County	Rate: Drug OD Deaths by Residence County	Count: Drug OD Deaths by County of Record	Rate: Drug OD Deaths by County of Record	Count: HIV, HBV, HCV	Rate: HIV, HBV, HCV	Count: HCV Among 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
Madison	7	18.9	6	16.2	37	99.7	17	175.4	44	1.2	18	147.0	32	261.4
Missouri	3,784	20.7	3,868	21.1	17,628	96.4	5,532	100.0	25,889	1.4	6,958	113.8	43,232	707.2

**Figure 8: Community Factors**

Madison County			
ACS Data 2013-2017	Rate	Rank	Quintile
Lack of a High School Education	18.9%	97	5th
Median Income	\$37,484	94	5th
Poverty	18.8%	79	4th
Unemployment	5.8%	58	3rd
Uninsured	12.0%	56	3rd

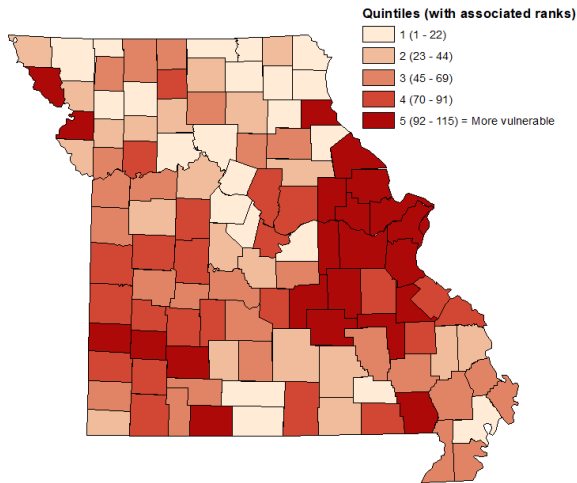
Social and economic factors within a community may impact available resources and influence vulnerability to opioid overdoses and bloodborne infections. Many of these indicators are interrelated. Data are from the U.S. Census Bureau's 2013-2017 American Community Survey (ACS).

**Figure 9  
Community Factors  
2013-2017**



**Selected Individual Outcome Indicators**

Figure 10  
Opioid Misuse ER Visits  
2015-2017



The 2015-2017 number of emergency room visits due to opioid misuse was 44, at a rate of 1.2 visits per 1,000 residents. This is rank 91 (4th quintile) for this indicator.

Madison County ranks 81 (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 Madison County drug overdose deaths was 7, at a rate of 18.9 deaths per 100,000 population.

By county of record, the 2015-2017 number of Madison County drug overdose deaths was 6, at a rate of 16.2 deaths per 100,000 population.

Figure 11  
Drug Overdose Death Ranks  
County of Residence 2015-2017

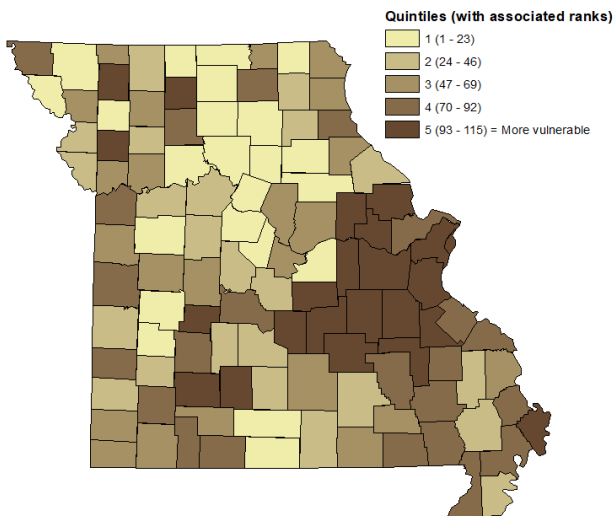
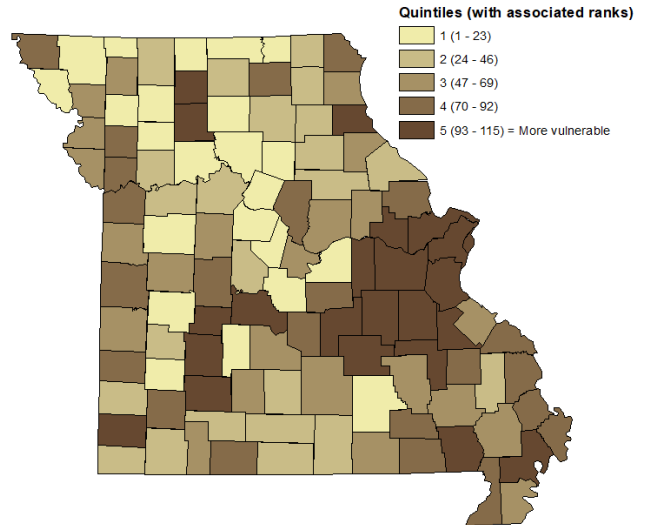


Figure 12  
Drug Overdose Death Ranks  
County of Record 2015-2017



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)) for Jefferson County totaled 37 for 2016-2018, at a rate of 99.7 cases per 100,000 residents. This is rank 89 (4th quintile) for this 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.”<sup>†</sup> In Madison County, 17 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 175.4 cases per 100,000 residents. Madison County ranks 93 (5th quintile) for this indicator.

Figure 13  
Bloodborne Illnesses  
2016-2018

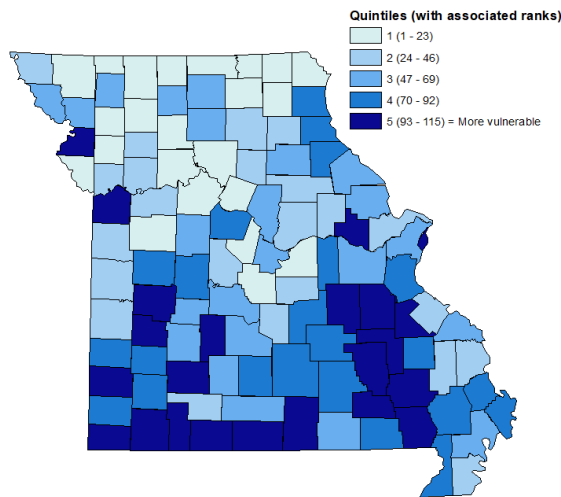
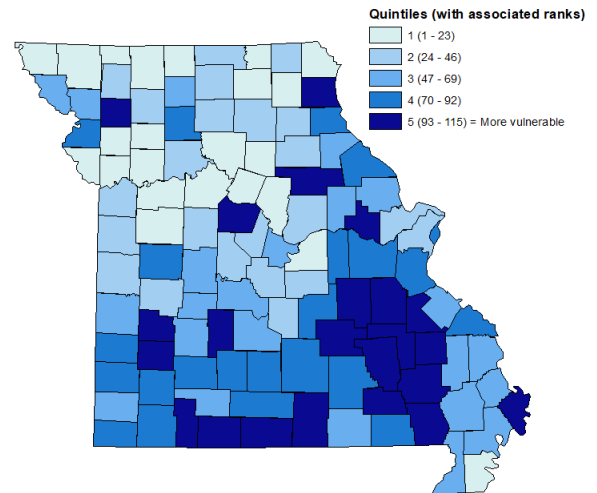


Figure 14  
HCV Among Ages 18 to 40  
2016-2018



Acute and chronic hepatitis C also significantly impact the 41- to 65-year-old age group. In 2016-2018, there were 17 new cases of acute and chronic hepatitis C identified in this age group, at a rate of 139.4 cases per 100,000 residents.

Out of 34 acute and chronic HCV cases in Madison County, 17 (50.0%) were male. For the cases in which race was identified, 0 (0.0%) were African American. However, please interpret race data for HCV with caution, as race was not identified in 13 (38.2%) of all 2016-2018 HCV cases in Madison County.

<sup>†</sup> 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 9, a rate of 73.5 persons per 100,000 population, placing this county in rank 80 (4th 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 18, a rate of 147.0 persons per 100,000 population, placing this county in rank 92 (4th quintile). This indicator was used only in the bloodborne infection vulnerability assessment.

Figure 15  
Opioid-related Substance Use  
Disorder Treatment Admissions  
July 2016 to July 2017

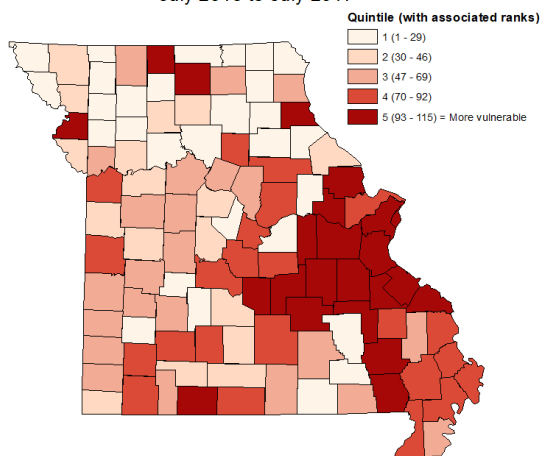
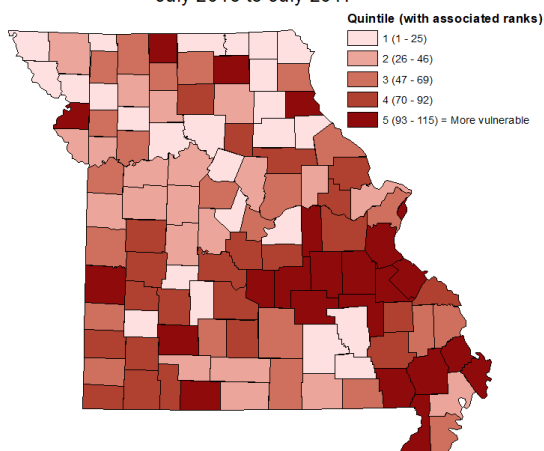


Figure 16  
Injection Drug Use Among Persons  
Receiving Substance Use Disorder Treatment  
July 2016 to July 2017



In 2016, 14.3 percent of Madison County adults 18 years of age or older reported more than 14 poor mental health days per month. This placed Madison County in rank 68 (3rd quintile) for this indicator in the opioid overdose vulnerability assessment.

Between July 1, 2016 and June 30, 2017, a total of 32 drug-related arrests occurred in Madison County, at a rate of 261.4 arrests per 100,000 population. Madison County ranked 7 (1st quintile) for this indicator, which was used in both assessments.

Figure 17  
Self-reported (>14 Per Month)  
Poor Mental Health Days 2016

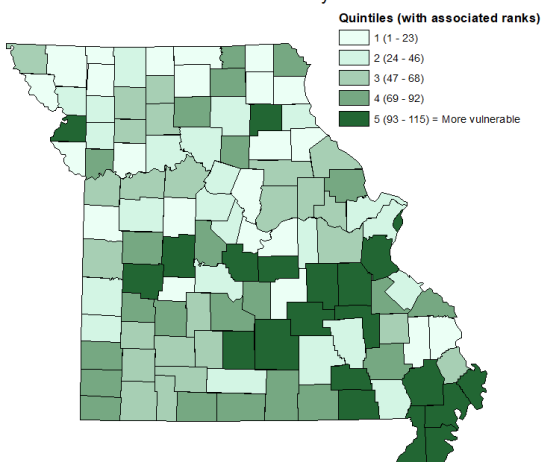
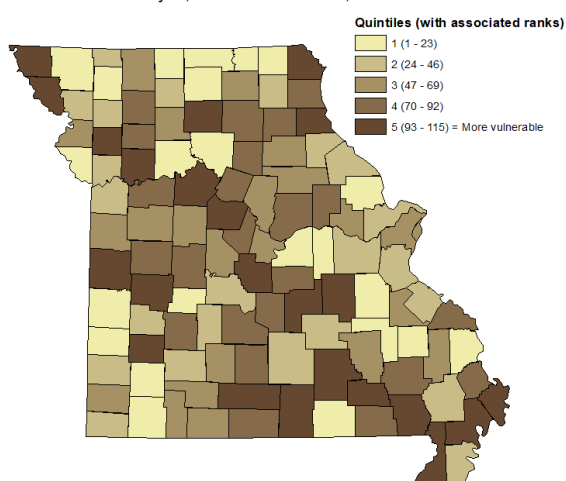


Figure 18  
Drug-related Arrests  
July 1, 2016 to June 30, 2017



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## Suggested Citation:

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