

# Missouri Opioid Overdose and Bloodborne Infection Vulnerability Assessments Supplementary Data



## **New Madrid County**

New Madrid County is located in the southeast bootheel region of Missouri along the Kentucky border and between years 2013 to 2017 had an estimated population of 18,030. New Madrid County ranks 60 in population size among Missouri's 114 counties plus the independent city of St. Louis. The 2013-2017 unemployment rate in the county was 9.4%. This was higher than the statewide unemployment rate of 5.8%. In 2013-2017, the poverty rate was 24.1%, which was higher than the statewide poverty rate of 14.6%. The median income of the county was \$33,846. The population distribution is as follows:

Figure 1: New Madrid County Population 2013-2017 5-Year Estimates

Demographics – Total Population										
Sex	Count	Count Percent Age Group Count								
Male	8,681	48.1		0 – 9 years	2,326	12.9				
Female	9,349	51.9		10 – 14 years	1,191	6.6				
Race				15 – 19 years	1,037	5.8				
Black/African										
American alone	2,906	16.1		20 – 24 years	1,039	5.8				
White alone	14,655	81.3		25 – 39 years	3,038	16.8				
Other	469	2.6		40 – 59 years	5,022	27.9				
Ethnicity				Over 60 years	4,377	24.3				
Hispanic	317	1.8		Median Age	41.3 years					
Non-Hispanic	17,713	98.2								

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			
Opioid-related Substance Use Disorder Treatment (SUDT) Admissions Self-reported Frequent (>14 Per		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†‡				
Fact × 1)		Poverty†				
ımunity (Weight		Lack of a High School Education†				
Community (Weight		Unemployment†‡				
Cor		Uninsured†				

<sup>†</sup> These indicators were considered for the National Vulnerability Assessment.

<sup>‡</sup> 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.

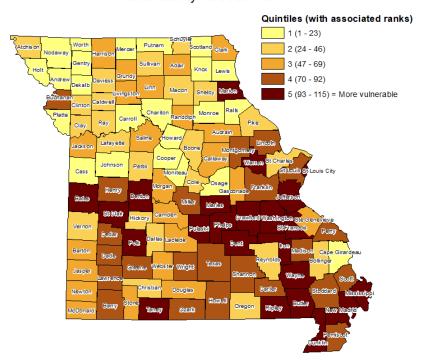
<sup>¥</sup> Drug Overdose Deaths = (0.5 weight x county of residence rate) + (0.5 weight x county of record rate).

**Figure 3: Distribution of Final Ranks** 

Figure 3 shows the distribution of the final ranks among five quintiles. In the Missouri vulnerability assessments, New Madrid County ranked 106 (5th quintile) for vulnerability to opioid overdoses. New Madrid County ranked 81 (4th 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 4 Missouri Opioid Overdose Vulnerability Assessment

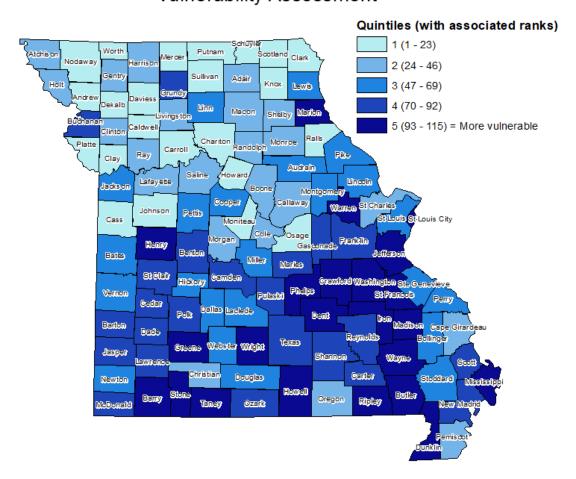


**Figure 5: Individual Outcome Indicators** 

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
New Madrid	11	20.5	12	22.3	19	0.4	12	68.3	216	1,228.5	18.3
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. Counts of 1 to 4 are suppressed due to confidentiality concerns.

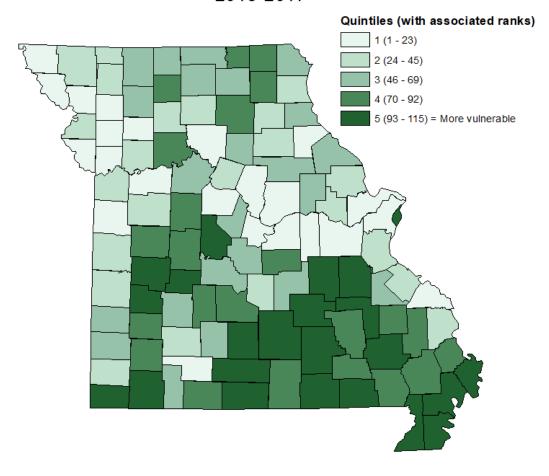
Bloodborne Infection Vulnerability Assessment Indicators														
County	Count: Drug OD Deaths by Residence County	Rate: Drug OD Deaths by Residence County	Count: Drug OD Deaths by County of Record	Rate: Drug OD Deaths by County of Record	Count: HIV, HBV, HCV	Rate: HIV, HBV, HCV	Count: HCV Among 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
New Madrid	11	20.5	12	22.3	41	76.3	12	85.5	19	0.4	<b>&lt;</b> 5	<28.4	216	1,228.5
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** 

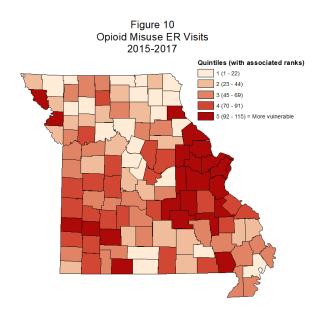
1.84.6 5. 65										
New Madrid County										
ACS Data 2013-2017 Rate Rank Quintile										
Lack of a High School Education	24.1%	111	5th							
Median Income	\$33,846	107	5th							
Poverty	24.1%	104	5th							
Unemployment	9.4%	107	5th							
Uninsured	17.8%	103	5th							

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**

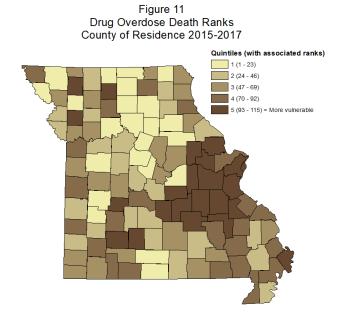


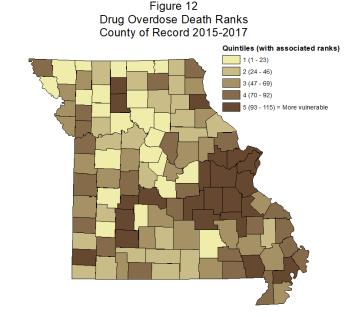
The 2015-2017 number of emergency room visits due to opioid misuse was 19, at a rate of 0.4 visits per 1,000 residents. This is rank 14 (1st quintile) for this indicator.

New Madrid County ranks 96 (5th 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 New Madrid County drug overdose deaths was 11, at a rate of 20.5 deaths per 100,000 population.

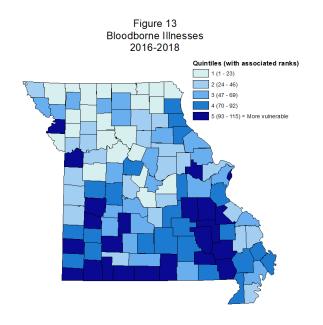
By county of record, the 2015-2017 number of New Madrid County drug overdose deaths was 12, at a rate of 22.3 deaths per 100,000 population.

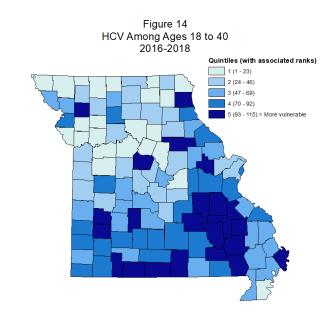




New cases of reported bloodborne illnesses (acute and chronic hepatitis B virus (HBV), acute and chronic hepatitis C virus (HCV), and human immunodeficiency virus (HIV)) for New Madrid County totaled 41 for 2016-2018, at a rate of 76.3 per 100,000 residents. This is rank 64 (3rd quintile) for bloodborne 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 New Madrid County, 12 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 85.5 cases per 100,000 residents. New Madrid County ranks 55 (3rd 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 23 new cases of acute and chronic hepatitis C identified in this age group, at a rate of 127.8 cases per 100,000 residents.

Out of 38 acute and chronic HCV cases, 22 (57.9%) were male. For the cases in which race was identified, <5 (<21.1%) were African American. However, please interpret race data for HCV with caution, as race was not identified in 19 (50.0%) of all HCV 2016-2018 cases in New Madrid County.

AIDS = Acquired Immunodeficiency Syndrome

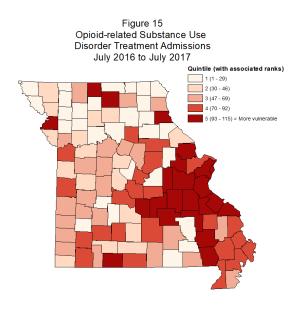
STD = Sexually Transmitted Disease

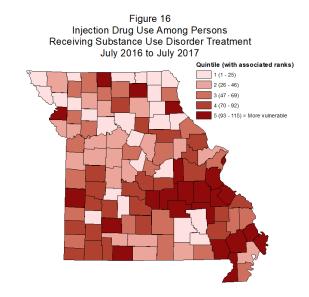
TB = Tuberculosis

<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 <a href="https://www.cdc.gov/nchhstp/newsroom/2018/hepatitis-c-prevalence-estimates-press-release.html">https://www.cdc.gov/nchhstp/newsroom/2018/hepatitis-c-prevalence-estimates-press-release.html</a>.

The number of people who received opioid-related substance use disorder treatment from July 1, 2016 to June 30, 2017 was 12, a rate of 68.3 persons per 100,000 population, placing this county in rank 75 (4th quintile). This indicator was used only in the opioid overdose vulnerability assessment.

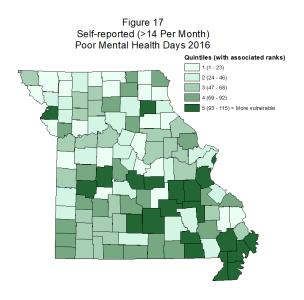
The number of persons receiving substance use disorder treatment and prior to treatment reported injecting drugs was 5, a rate of 28.4 persons per 100,000 population, placing this county in rank 28 (2nd quintile). This indicator was used only in the bloodborne infection vulnerability assessment.

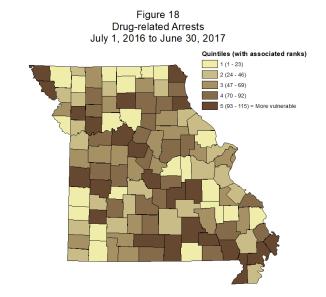




In 2016, 18.3 percent of New Madrid County adults 18 years of age or older reported more than 14 poor mental health days per month. This placed New Madrid County in rank 101 (5th quintile) for this indicator in the opioid overdose vulnerability assessment.

Between July 1, 2016 and June 30, 2017, a total of 216 drug-related arrests occurred in New Madrid County, at a rate of 1,228.5 arrests per 100,000 population. New Madrid County ranks 96 (5th quintile) for this indicator, which was used in both assessments.





#### References

- Bloodborne Illnesses (HIV, HBV, HCV): Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics (BRDI). Calculated using 2017 hepatitis B and C data from the WebSurv (Missouri's Communicable Disease Registry) dataset, 2017 HIV and AIDS (stage 4 HIV) data from the eHARS (enhanced HIV/AIDS Reporting System) dataset, and 2017 population data. Rates reported per 100,000 population.
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- Drug-related Arrests: Missouri Department of Mental Health. Calculated from a data file of FY 2017 arrests (as of December 2018) provided by the Division of Behavioral Health on December 3, 2019, and population data from 2017. Rates reported per 100,000 population.
- Hepatitis C Virus (HCV) Among Ages 18 to 40: Missouri DHSS, BRDI. Calculated from 2017 WebSurv data and 2017 population data. Rates reported per 100,000 population.
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- Median Age: U.S Census Bureau. 2013-2017 American Community Survey 5-Year Estimates. B01002 Median Age by Sex. Accessed March 10, 2020, from American FactFinder at https://factfinder.census.gov/.
- Median Income: U.S. Census Bureau. 2013-2017 American Community Survey 5-Year Estimates. S1903 Median Income in the Past 12 Months (in 2017 Inflation-adjusted Dollars). Accessed March 10, 2020, from American FactFinder at https://factfinder.census.gov/.
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- Opioid Misuse Emergency Room Visits: Missouri DHSS, BHCADD. Calculated from 2015-2017 Patient Abstract System data and 2015-2017 population data. Rates reported per 1,000 population.
- Opioid-related Substance Use Disorder Treatment Admissions: Missouri Department of Mental Health. Calculated from FY 2017
   Alcohol and Drug Use Treatment Data and 2017 population data. Rates reported per 100,000 population. Accessed March 9, 2020, from https://seow.dmh.mo.gov/TREATMENTADA/TREATMENTADAIndicators.aspx?PATH=Indicators&SID=NEW.
- Population Age: U.S. Census Bureau. 2013-2017 American Community Survey 5-Year Estimates. S0101 Age and Sex. Accessed March 10, 2020, from American FactFinder at <a href="https://factfinder.census.gov/">https://factfinder.census.gov/</a>.
- Population Ethnicity: U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates. B03003 Hispanic or Latino Origin. Accessed March 10, 2020, from American FactFinder at https://factfinder.census.gov/.
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- Uninsured: U.S. Census Bureau. 2013-2017 American Community Survey 5-Year Estimates. S2701 Selected Characteristics of Health Insurance Coverage in the United States. Accessed March 10, 2020, from American FactFinder at <a href="https://factfinder.census.gov/">https://factfinder.census.gov/</a>.

### **Suggested Citation:**

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