

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



Butler County is located in southeast Missouri along the Arkansas border and between years 2013 to 2017 had an estimated population of 42,826. Butler County ranks 26 in population size among Missouri's 114 counties plus the independent city of St. Louis. The 2013-2017 unemployment rate in the county was 9.2%. This was higher than the statewide unemployment rate of 5.8%. In 2013-2017, the poverty rate was 21.6%, which was higher than the statewide poverty rate of 14.6%. The 2013-2017 median income of the county was \$37,878. The population distribution is as follows:

Demographics – Total Population										
Sex	Count	Percent	Age Group	Age Group Count						
Male	20,735	48.4	0 – 9 years	5,487	12.8					
Female	22,091	51.6	10 – 14 years	2,784	6.5					
Race			15 – 19 years	2,774	6.5					
Black/African										
American alone	2,305	5.4	20 – 24 years	2,438	5.7					
White alone	38,836	90.7	25 – 39 years	7,824	18.3					
Other	1,685	3.9	40 – 59 years	11,125	26.0					
Ethnicity			Over 60 years	10,394	24.3					
Hispanic	860	2.0	Median Age	40.3 years						
Non-Hispanic	41,966	98.0								

Figure 1: Butler 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

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	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 ⁺ ‡	
Fact x 1)		Poverty [†]	
ımunity (Weight		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, Butler County ranked 103 (5th quintile) for vulnerability to opioid overdoses. Butler County ranked 113 (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					
٦	24-46	2					
b	47-69	3					
a	70-92	4					
	93-115	5	More vulnerable				

Figure 4 Missouri Opioid Overdose Vulnerability Assessment

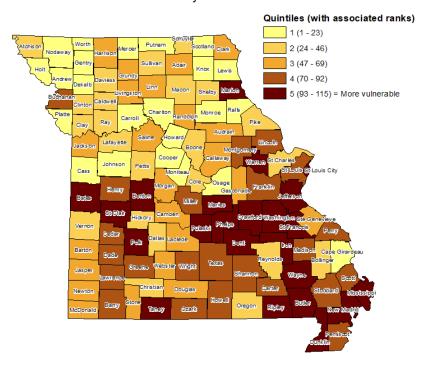


Figure 5: Individual Outcome Indicators

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
Butler	23	17.9	27	21.0	155	1.2	62	145.3	515	1,207.1	11.3
Missouri	3,784	20.7	3,868	21.1	25,889	1.4	6,754	110.5	43,232	707.2	13.7

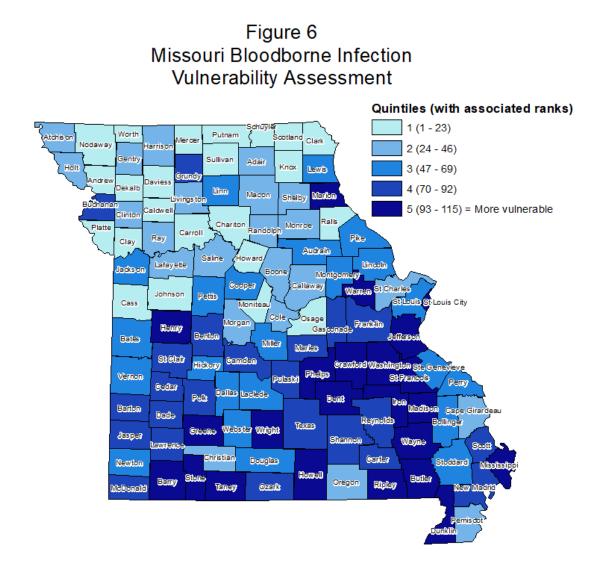


Figure 7: Individual Outcome Indicators

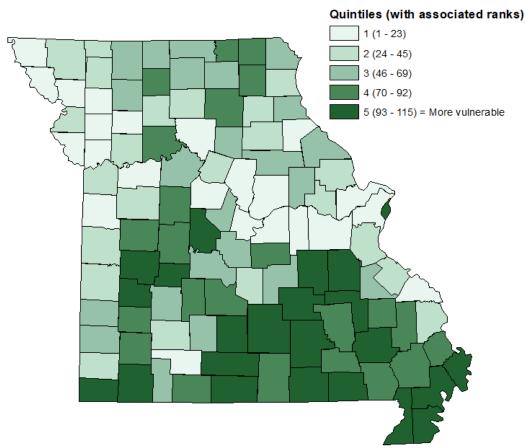
Bloodborne Infection Vulnerability Assessment Indicators														
County	Count: Drug OD Deaths by Residence County	Rate: Drug OD Deaths by Residence County	Count: Drug OD Deaths by County of Record	Rate: Drug OD Deaths by County of Record	Count: HIV, HBV, HCV	Rate: HIV, HBV, HCV	Count: HCV Among 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
Butler	23	17.9	27	21.0	240	187.0	75	215.0	155	1.2	103	241.4	515	1,207.1
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

Butler County										
ACS Data 2013-2017 Rate Rank Quintile										
Lack of a High School Education	16.5%	87	4th							
Median Income	\$37,878	91	4th							
Poverty	21.6%	95	5th							
Unemployment	9.2%	105	5th							
Uninsured	12.3%	60	3rd							

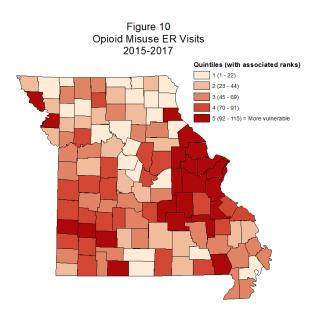
Figure 8: Community Factors

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



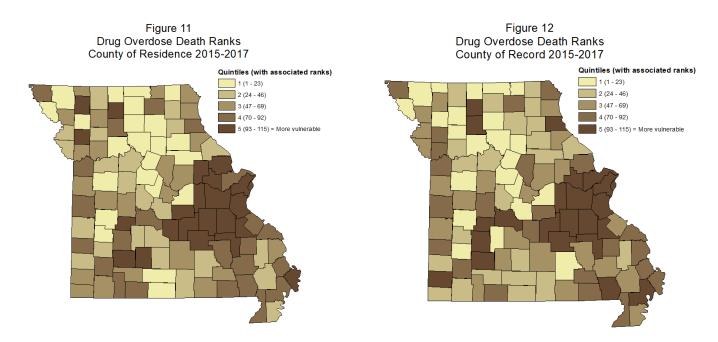
Selected Individual Outcome Indicators



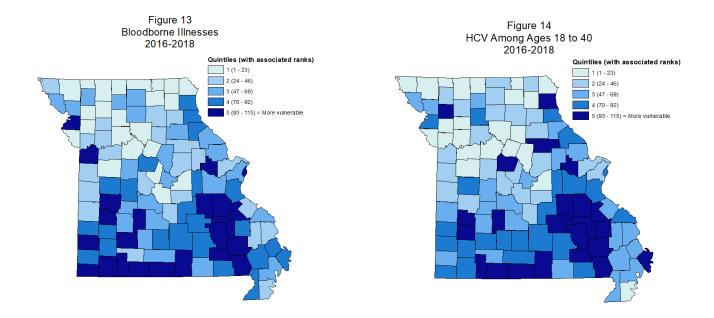
The 2015-2017 number of emergency room visits due to opioid misuse was 155, at a rate of 1.2 visits per 1,000 residents. This is rank 94 (5th quintile) for this indicator.

Butler County ranks 88 (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 Butler County drug overdose deaths was 23, at a rate of 17.9 deaths per 100,000 population. By county of record, the 2015-2017 number of Butler County drug overdose deaths was 27, at a rate of 21.0 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 Butler County totaled 240 for 2016-2018, at a rate of 187.0 cases per 100,000 residents. This is rank 114 (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 Butler County, 75 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 215.0 cases per 100,000 residents. Butler County ranks 104 (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 141 new cases of acute and chronic hepatitis C identified in this age group, at a rate of 341.3 cases per 100,000 residents.

Out of 226 acute and chronic HCV cases in Butler County, 136 (60.2%) were male. For the cases in which race was identified, 8 (7.8%) were African American. However, please interpret race data for HCV with caution, as race was not identified in 124 (54.9%) of all 2016-2018 HCV cases in Butler 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 62, a rate of 145.3 persons per 100,000 population, placing this county in rank 103 (5th 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 103, a rate of 241.4 persons per 100,000 population, placing this county in rank 111 (5th quintile). This indicator was used only in the bloodborne infection vulnerability assessment.

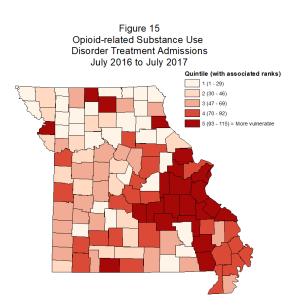
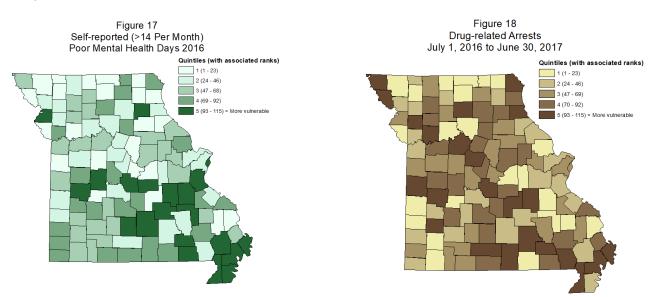


Figure 16 Injection Drug Use Among Persons Receiving Substance Use Disorder Treatment July 2016 to July 2017

In 2016, 11.3 percent of Butler County adults 18 years of age or older reported more than 14 poor mental health days per month. This placed Butler County in rank 25 (2nd quintile) for this indicator in the opioid overdose vulnerability assessment. Between July 1, 2016 and June 30, 2017, a total of 515 drug-related arrests occurred in Butler County, at a rate of 1,207.1 arrests per 100,000 population. Butler County ranks 94 (5th quintile) for this indicator, which was used in both assessments.



References

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- Drug Overdose Deaths: Missouri DHSS, Bureau of Health Care Analysis and Data Dissemination (BHCADD). Calculated from 2015-2017 death certificate data and 2015-2017 population data. Rates reported per 100,000 population.
- 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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