

National Study of Treatment and Addiction Recovery Residences Report ARKANSAS

The National Study of Treatment and Addiction Recovery Residences (NSTARR) constitutes the largest and most diverse study of recovery housing in the US to date. NSTARR compiled data from publicly available sources (e.g., Oxford House, National Alliance for Recovery Residences, and Substance Abuse and Mental Health Services Administration websites) and lists maintained by entities tracking recovery housing. Residences for which locating information was available were geocoded and linked with U.S. Census data on urbanicity, alcohol- and drug-involved mortality, and COVID vulnerability. Data collection began in January 2020 and is ongoing until June 2023. The NSTARR database currently contains information on 10,358 residences operated by 3,628 providers in all 50 states. For a detailed description of methods and national findings, please see Mericle et al., 2022.

KEY FINDINGS

The NSTARR team identified 20 recovery residences (0.67 houses per 100,000 population) in Arkansas (see Table 1). Compared to other states (which include DC), Arkansas ranked 50 in terms of recovery housing availability per capita. Ninety percent of residences in Arkansas could be geocoded for these analyses. Boone County, a non-adjacent rural county, had the most recovery residences per 100,000 population, and 67 counties had no identified recovery residences, representing a mix of rural-urban classifications; 74 (all but one county) had fewer than 5 recovery residences (see Figure 1).

We used geographic information systems to identify hot and cold spots in Arkansas. A hot spot is a cluster of high values (county with a high number of residences surrounded by other counties with high numbers of residences) and a cold spot is a cluster of low values (county with low counts surrounded by counties also with low counts). Our analyses found hot spots but no cold spots within the state (see Figure 2).

The age-adjusted alcohol- and drug-involved mortality rate (per 100,000 population) was 13.80 in Arkansas for the years 2009-2019. Arkansas ranked 42 on alcohol- and drug-involved mortality out of the 50 states and DC. Among counties ranked, Garland County had the highest alcohol- and drug-involved mortality rate and Independence County had the lowest alcohol- and drug-involved mortality rate. Of the three counties that had the highest mortality rates in Arkansas (i.e., Garland, Carroll, and Franklin), two of them also ranked in the bottom half of recovery housing availability per capita (they had no recovery housing at all), suggesting more recovery resources may be needed (see Table 1 and Figure 3).

COVID vulnerability was summarized using the county-level data from the Centers for Disease Control and Prevention's COVID Vulnerability Index (CCVI). The CCVI is a composite measure of seven social determinants of health, encompassing modified themes from the Centers for Disease Control and Prevention's Social Vulnerability Index in combination with COVID risk factors to identify communities in need of additional support during the COVID pandemic. Fourteen counties were classified as having very high vulnerability, and 13 counties were ranked in the bottom half of recovery housing availability per capita (they had no recovery housing at all), again suggesting that more recovery resources may be needed (see Table 1 and Figure 4).

20
RESIDENCES
TOTAL

50
NATIONAL
AVAILABILITY
RANKING

67
COUNTIES
WITHOUT
RESIDENCES

Table 1: County-level Descriptive Statistics on Recovery Residences

County Name	Population ¹	RUCC Classification ²	Number of Recovery Residences ³	Recovery Residences Per 100,000 Population	Recovery Residences Availability per Capita (Rank) ⁴	Age-Adjusted Alcohol/Drug Mortality ⁵ Rate per 100,000 Population	Mortality Rate (Rank) ⁶	CCVI Quintile ⁷
ARKANSAS	2,999,370		20	0.67	50	13.80	42	
Arkansas	17,914	Adjacent rural	0	0.00	75	28.20	30	Very high vulnerability
Ashley	20,270	Non-adjacent rural	0	0.00	75	25.30	50	Very high vulnerability
Baxter	41,427	Non-adjacent rural	1	2.41	2	39.70	4	Low
Benton	265,759	Urban	3	1.13	6	26.60	40	Moderate
Boone	37,331	Non-adjacent rural	1	2.68	1	29.40	27	Low
Bradley	10,874	Non-adjacent rural	0	0.00	75	Suppressed	-	Very high vulnerability
Calhoun	5,192	Non-adjacent rural	0	0.00	75	Suppressed	-	Moderate
Carroll	27,965	Adjacent rural	0	0.00	75	44.30	2	High
Chicot	10,615	Non-adjacent rural	0	0.00	75	26.60	40	Very high vulnerability
Clark	22,386	Non-adjacent rural	0	0.00	75	18.90	69	High
Clay	14,889	Non-adjacent rural	0	0.00	75	26.40	42	Moderate
Cleburne	25,100	Adjacent rural	0	0.00	75	22.30	61	Low
Cleveland	8,128	Urban	0	0.00	75	Suppressed	-	Low
Columbia	23,776	Non-adjacent rural	0	0.00	75	26.70	37	Very high vulnerability
Conway	20,858	Adjacent rural	0	0.00	75	28.20	30	Moderate
Craighead	107,345	Urban	1	0.93	8	21.20	64	High
Crawford	62,739	Urban	0	0.00	75	32.80	18	High
Crittenden	48,672	Urban	0	0.00	75	25.60	49	Very high vulnerability
Cross	16,824	Adjacent rural	0	0.00	75	30.50	24	Moderate
Dallas	7,279	Adjacent rural	0	0.00	75	Suppressed	-	High
Desha	11,709	Adjacent rural	0	0.00	75	22.10	62	High
Drew	18,417	Adjacent rural	0	0.00	75	22.70	58	High
Faulkner	123,624	Urban	0	0.00	75	23.50	54	Moderate
Franklin	17,738	Adjacent rural	0	0.00	75	42.50	3	Low
Fulton	12,231	Non-adjacent rural	0	0.00	75	35.30	9	Low
Garland	98,555	Urban	1	1.01	7	49.50	1	High
Grant	18,126	Urban	0	0.00	75	25.90	46	Low
Greene	44,937	Adjacent rural	0	0.00	75	36.30	8	Moderate
Hempstead	21,842	Adjacent rural	0	0.00	75	21.30	63	Very high vulnerability
Hot Spring	33,597	Adjacent rural	0	0.00	75	26.20	45	High
Howard	13,311	Adjacent rural	0	0.00	75	18.70	70	Very high vulnerability
Independence	37,427	Non-adjacent rural	0	0.00	75	17.90	71	Moderate
Izard	13,570	Non-adjacent rural	0	0.00	75	35.30	9	Low
Jackson	17,027	Adjacent rural	0	0.00	75	33.70	14	High
Jefferson	69,282	Urban	0	0.00	75	23.20	55	Very high vulnerability

Johnson	26,372	Non-adjacent rural	0	0.00	75	32.00	21	High
Lafayette	6,800	Adjacent rural	0	0.00	75	25.30	50	High
Lawrence	16,549	Adjacent rural	0	0.00	75	23.90	52	Moderate
Lee	9,194	Non-adjacent rural	0	0.00	75	21.10	65	Very high vulnerability
Lincoln	13,455	Urban	0	0.00	75	22.70	58	Moderate
Little River	12,347	Urban	0	0.00	75	29.60	26	Moderate
Logan	21,668	Adjacent rural	0	0.00	75	34.10	12	High
Lonoke	72,528	Urban	0	0.00	75	33.00	16	Moderate
Madison	16,211	Urban	0	0.00	75	22.70	58	Moderate
Marion	16,476	Non-adjacent rural	0	0.00	75	34.20	11	Low
Miller	43,572	Urban	0	0.00	75	23.70	53	Very high vulnerability
Mississippi	42,126	Adjacent rural	0	0.00	75	39.60	5	Very high vulnerability
Monroe	7,050	Non-adjacent rural	0	0.00	75	32.30	20	High
Montgomery	8,950	Adjacent rural	0	0.00	75	28.50	29	Moderate
Nevada	8,351	Non-adjacent rural	0	0.00	75	19.50	68	Moderate
Newton	7,812	Non-adjacent rural	0	0.00	75	27.00	35	Very low vulnerability
Ouachita	23,830	Non-adjacent rural	0	0.00	75	25.90	46	High
Perry	10,355	Urban	0	0.00	75	26.70	37	Low
Phillips	18,606	Adjacent rural	0	0.00	75	33.00	16	High
Pike	10,756	Non-adjacent rural	0	0.00	75	25.70	48	High
Poinsett	23,896	Urban	0	0.00	75	38.50	6	High
Polk	20,094	Non-adjacent rural	0	0.00	75	20.90	66	High
Pope	63,761	Non-adjacent rural	1	1.57	4	33.60	15	High
Prairie	8,189	Adjacent rural	0	0.00	75	23.20	55	Moderate
Pulaski	392,967	Urban	8	2.04	3	34.10	12	High
Randolph	17,695	Non-adjacent rural	0	0.00	75	28.10	32	Moderate
Saline	119,415	Urban	0	0.00	75	31.10	23	Moderate
Scott	10,376	Adjacent rural	0	0.00	75	30.30	25	High
Searcy	7,908	Non-adjacent rural	0	0.00	75	28.60	28	Low
Sebastian	127,591	Urban	2	1.57	5	31.50	22	Very high vulnerability
Sevier	17,081	Adjacent rural	0	0.00	75	26.70	37	High
Sharp	17,139	Non-adjacent rural	0	0.00	75	32.70	19	Low
St. Francis	25,900	Adjacent rural	0	0.00	75	19.90	67	High
Stone	12,475	Non-adjacent rural	0	0.00	75	22.90	57	Low
Union	39,449	Non-adjacent rural	0	0.00	75	37.70	7	Very high vulnerability
Van Buren	16,642	Adjacent rural	0	0.00	75	26.30	44	Moderate
Washington	232,289	Urban	0	0.00	75	27.20	34	High
White	78,762	Adjacent rural	0	0.00	75	26.40	42	Moderate
Woodruff	6,533	Non-adjacent rural	0	0.00	75	27.60	33	High
Yell	21,464	Adjacent rural	0	0.00	75	27.00	35	High

¹Population data were downloaded from tables in Social Explorer's ACS five-year estimate (2015-2019). American Community Survey 5-year Estimates, 2015-2019. Social Explorer tables, ACS 2015-2019. Social Explorer.

²The Rural-Urban Continuum Code (RUCC) was used to classify each county as urban, adjacent rural, or non-adjacent rural. Urban counties are counties with codes 1 (Counties in metro areas of 1 million population or more), 2 (Counties in metro areas of 250,000 to 1 million population), and 3 (Counties in metro areas of fewer than 250,000 population). Adjacent rural counties are counties with codes 4 (Urban population of 20,000 or more, adjacent to a metro area), 6 (Urban population of 2,500 to 19,999, adjacent to a metro area), and 8 (Completely rural or less than 2,500 urban population, adjacent to a metro area). Non-adjacent rural counties are the remaining three codes - 5 (Urban population of 20,000 or more, not adjacent to a metro area), 7 (Urban population of 2,500 to 19,999, not adjacent to a metro area), and 9 (Completely rural or less than 2,500 urban population, not adjacent to a metro area). Rural-Urban Continuum Code (RUCC). <https://www.ers.usda.gov/data-products/rural-urban-continuum-codes.aspx>

³Recovery residences are from the NSTARR project and are current as of 2020. Two (2) recovery residences in the state were not successfully geocoded due to lack of adequate address information, and thus were not assigned to a county.

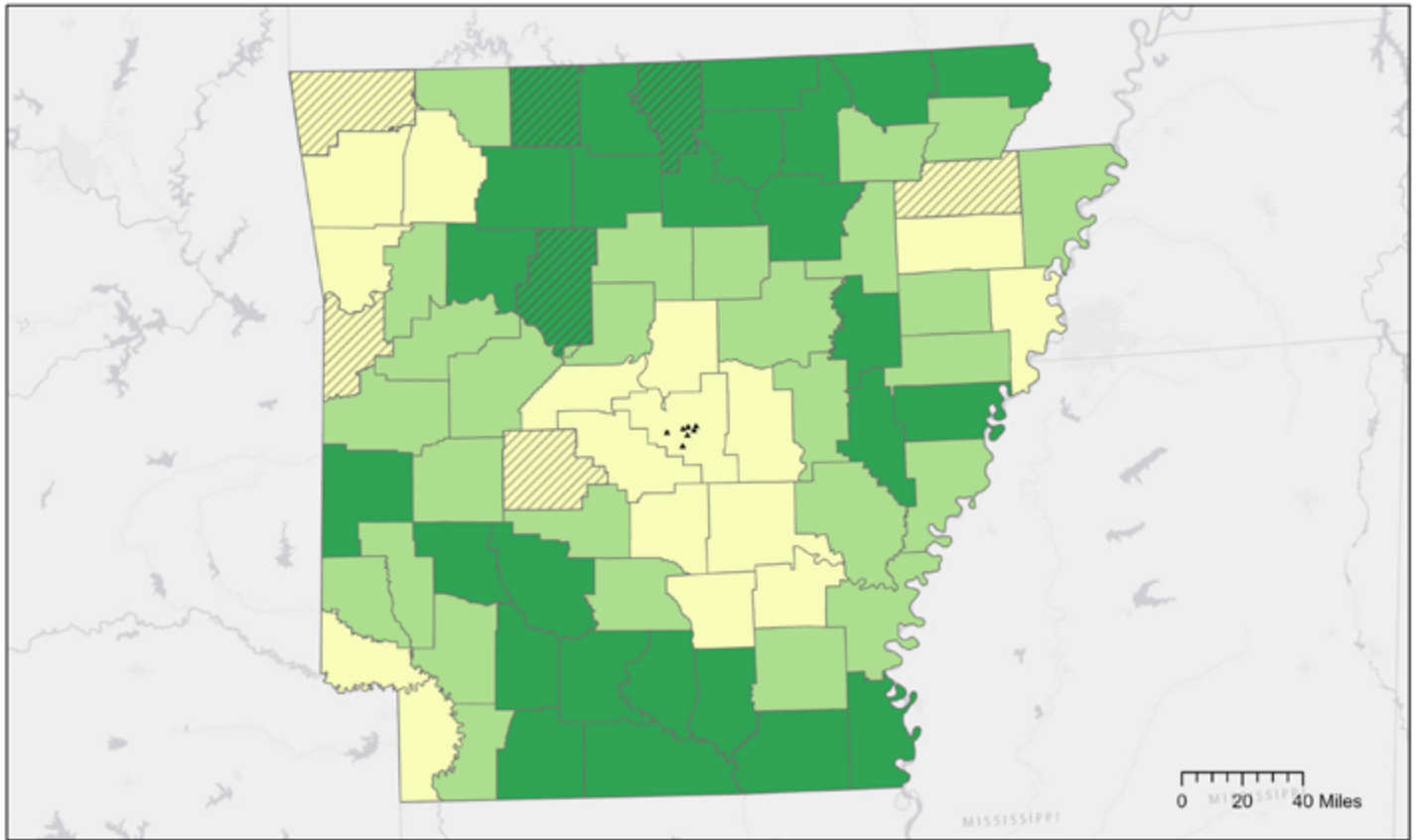
⁴Recovery residences availability per capita is ranked in order of decreasing recovery residence density per 100,000 population per county, with 1 (highest number of residences per 100,000) to 75 (lowest number of residences per 100,000 population). Counties without recovery residences were all assigned a tied rank of 75.

⁵Alcohol- and drug-involved mortality included all deaths as underlying causes of death and selected ICD-10 codes mentioning or attributed to alcohol or drugs as contributing cause of death. Data from the Centers for Disease Control and Prevention, 2020. CDC Wonder (Wide-ranging Online Data for Epidemiologic Research). U.S. Department of Health and Human Services, Atlanta, GA. Available at: <https://wonder.cdc.gov/>. For more information on coding multiple causes of death, see: Centers for Disease Control and Prevention, About Multiple Cause of Death, 1999-2019. <https://wonder.cdc.gov/mccd-icd10.html>. accessed on August 9 2021.

⁶Mortality rate is ranked in order of decreasing alcohol- and drug-involved mortality from 1 (highest mortality per 100,000 population) to 71 (lowest mortality per 100,000 population).

⁷COVID-19 Community Vulnerability Index (CCVI) scores range in value from 0 – 1, with 0 being least vulnerable and 1 being the most vulnerable. Each county is ranked relative to all counties across the country, based on seven themes/domains. Each county was grouped into quintiles: very high (score of 0.8-1), high (0.6-0.8), moderate (0.4-0.6), low (0.2-0.4), and very low (0-0.2). For more information on how the CCVI is calculated, see: COVID-19 Community Vulnerability Index (CCVI) methodology. Retrieved from [https://covid-static-assets.s3.amazonaws.com/US-CCVI/COVID-19+Community+Vulnerability+Index+\(CCVI\)+Methodology.pdf](https://covid-static-assets.s3.amazonaws.com/US-CCVI/COVID-19+Community+Vulnerability+Index+(CCVI)+Methodology.pdf)

Figure 1. Distribution of Residences by Rural-Urban Classification



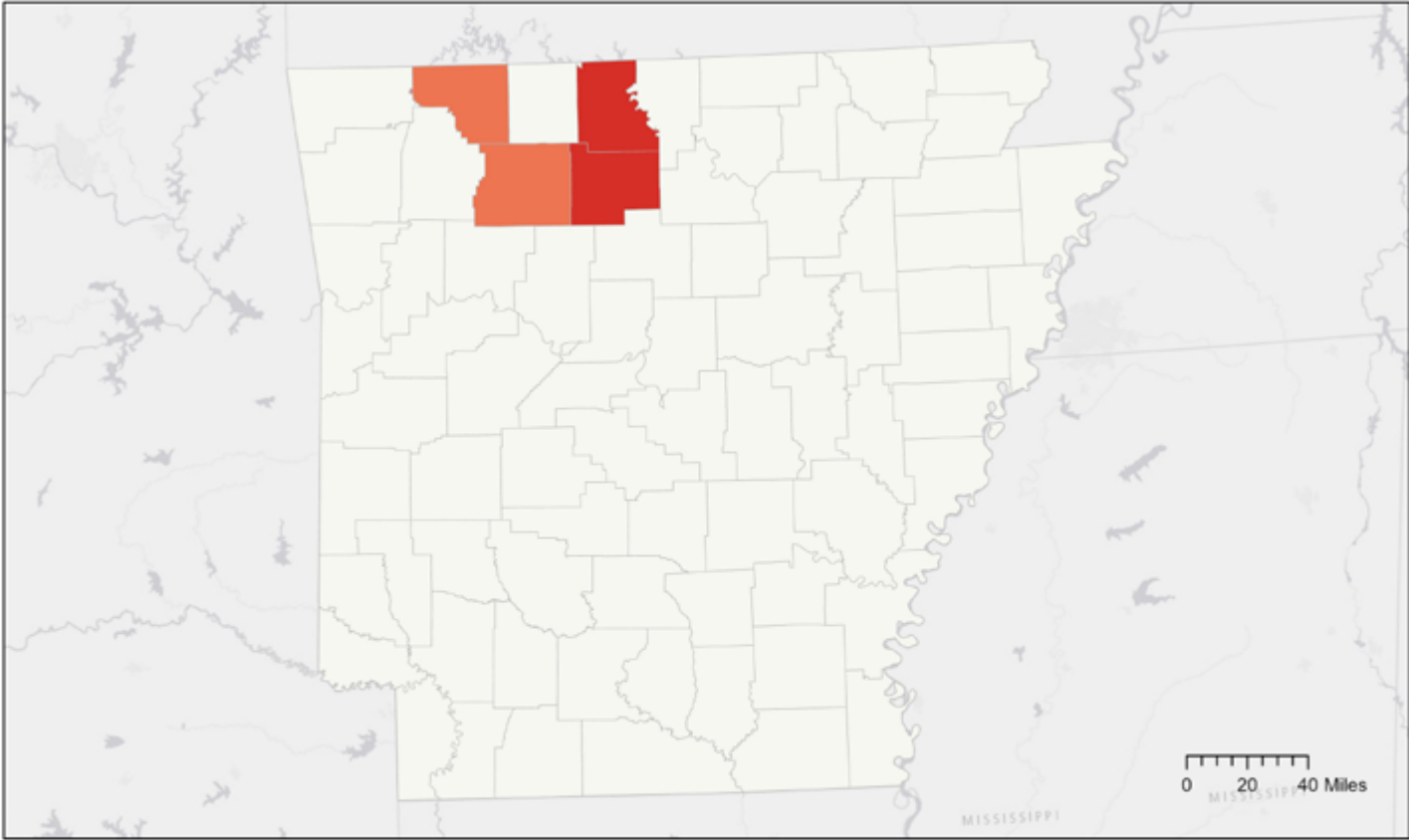
- ▲ Recovery residences
- Rural-Urban Classification Code (RUCC)**
- Urban
- Adjacent rural
- Non-adjacent rural
- Counties with residence locations suppressed (1-4 residences) to protect privacy



Data Credits: Esri, HERE, Garmin, USGS, EPA, NPS
 Recovery residence locations: 2020
 Created by: NSTARR Project (May 2022)



Figure 2. Hot/Cold Spot Analysis of Recovery Residence Locations



- Hot Spot Analysis (Getis-Ord GI*)**
- Cold Spot with 99% Confidence
 - Cold Spot with 95% Confidence
 - Cold Spot with 90% Confidence
 - Not Significant
 - Hot Spot with 90% Confidence
 - Hot Spot with 95% Confidence
 - Hot Spot with 99% Confidence



Data Credits: Esri, HERE, Garmin, USGS, EPA, NPS
Recovery residence locations: 2020
Created by: NSTARR Project (May 2022)



Figure 3. Distribution of Residences by Age-adjusted Alcohol- and/or Drug-involved Mortality

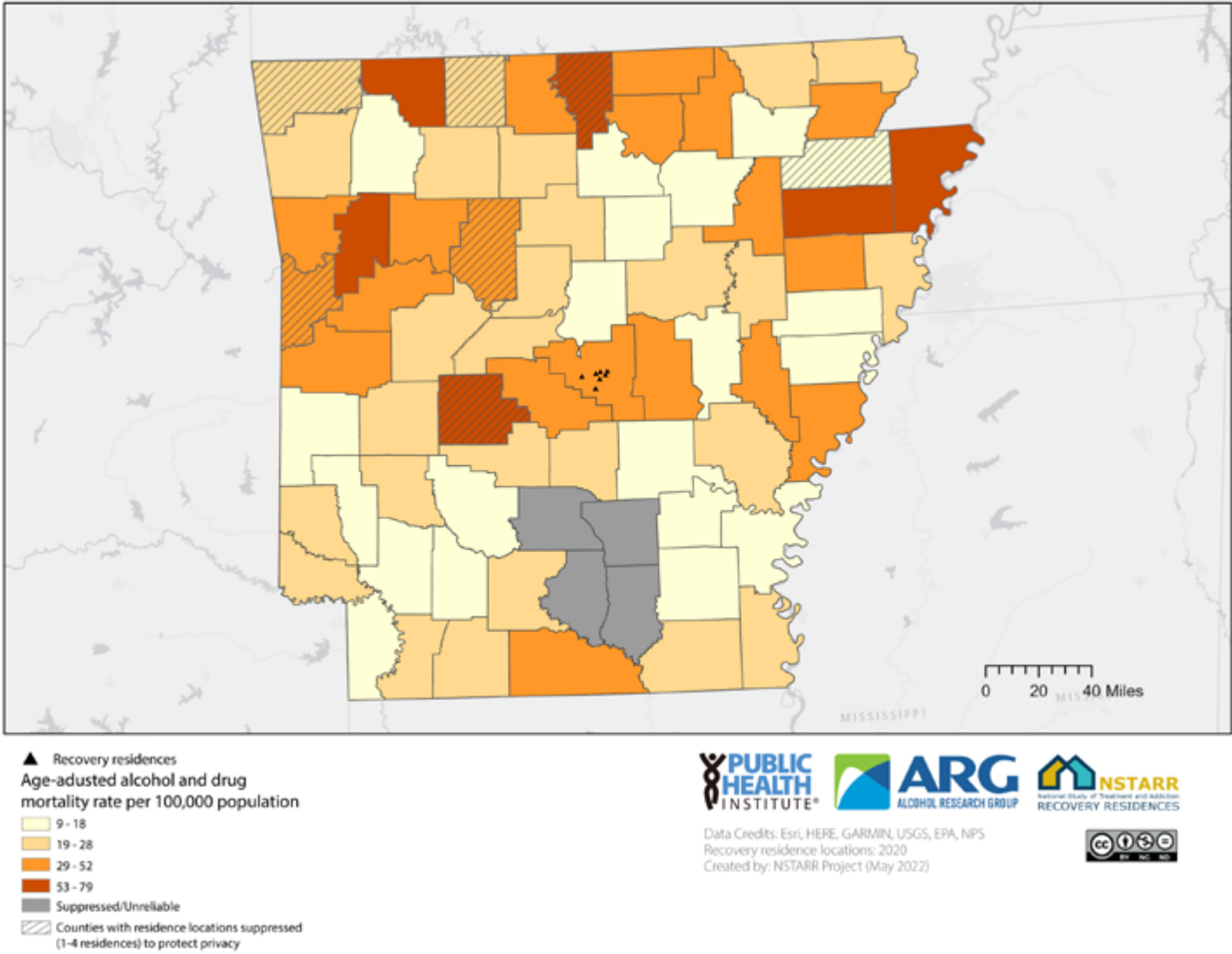
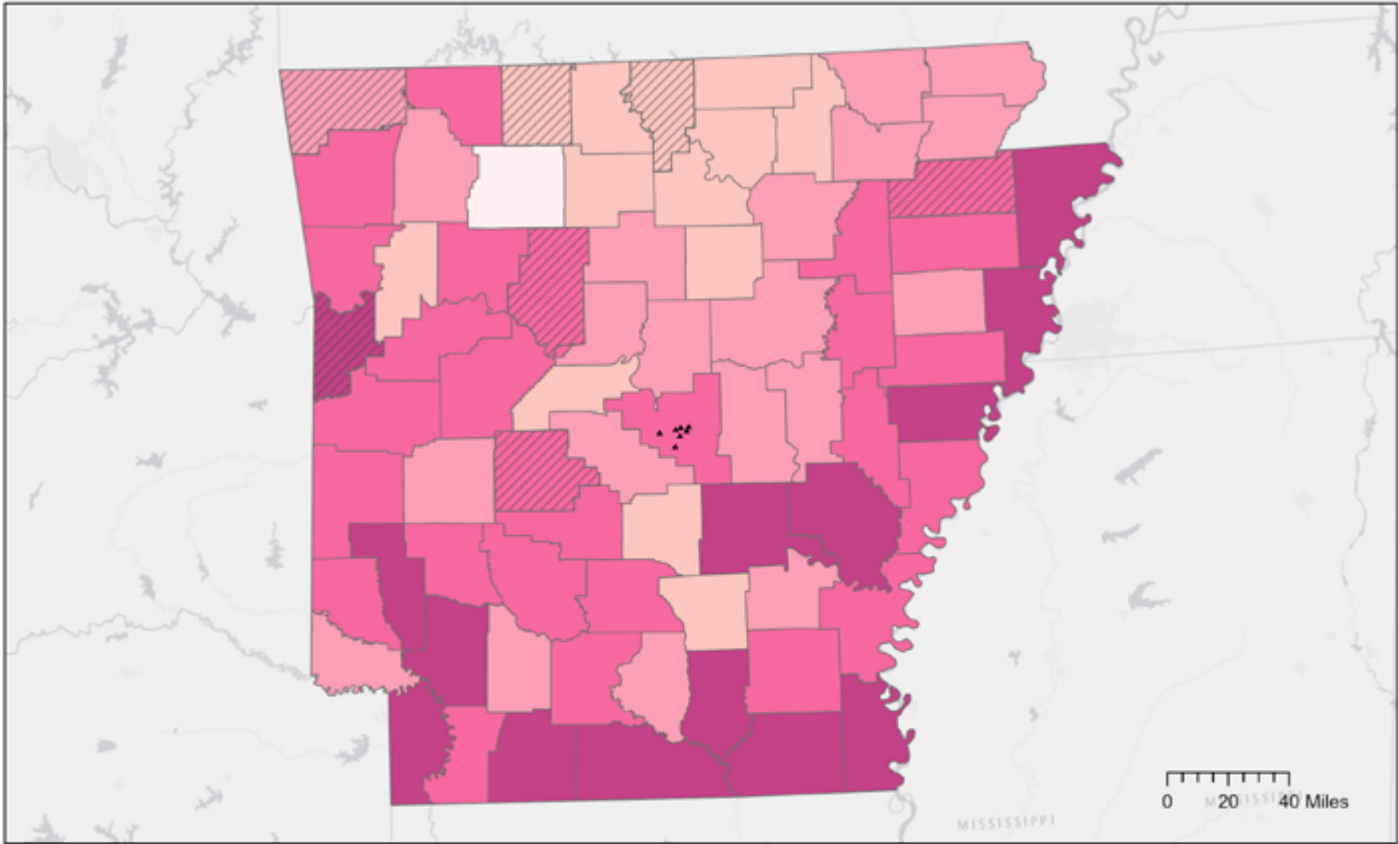


Figure 4. Distribution of Residences by COVID-19 Community Vulnerability Index



- ▲ Recovery Residences
- COVID-19 Community Vulnerability Index (CCVI)
- Very low vulnerability
- Low
- Moderate
- High
- Very high vulnerability
- Countries with residence locations suppressed (1-4 residences) to protect privacy



Data Credits: Esri, HERE, Garmin, USGS, EPA, NPS
 Recovery residence locations: 2020
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