NSTARR
National Study of Treatment and Addiction
RECOVERY RESIDENCES

National Study of Treatment and Addiction Recovery Residences Report

Ohio

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 577 recovery residences (4.95 houses per 100,000 population) in Ohio (see Table 1). Compared to other states (which include DC), Ohio ranked 11 in terms of recovery housing availability per capita. Ninety-eight percent of residences in Ohio could be geocoded for these analyses. Lawrence County, an urban county, had the most recovery residences per 100,000 population, and 19 counties had no identified recovery residences, representing a mix of rural-urban classifications; 59 had fewer than 5 recovery residences (see Figure 1).

577
RESIDENCES TOTAL

We used geographic information systems to identify hot and cold spots in Ohio. 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).

11
NATIONAL AVAILABILITY RANKING

The age-adjusted alcohol- and drug-involved mortality rate (per 100,000 population) was 18.20 in Ohio for the years 2009-2019. Ohio ranked 26 on alcohol- and drug-involved mortality out of the 50 states and DC. Scioto County had the highest alcohol- and drug-involved mortality rate and Holmes County had the lowest alcohol- and drug-involved mortality rate. Of the three counties that had the highest mortality rates in Ohio (i.e., Scioto, Montgomery, and Clark), two of them also ranked in the top half recovery housing availability per capita, suggesting recovery housing is located in communities with greater need (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. Five counties were classified as having very high vulnerability, and four of these counties were located in areas ranked in the top half of recovery housing availability per capita, again suggesting that recovery housing is located in communities with greater need (see Table 1 and Figure 4).

19
COUNTIES WITHOUT RESIDENCES

Literature Cited: Mericle, A. A., Patterson, D., Howell, J., Subbaraman, M. S., Faxio, A., & Karriker-Jaffe, K. J. (2022). Identifying the availability of recovery housing in the U.S.: The NSTARR project. Drug and Alcohol Dependence, 230, 109188.

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]
OHIO	11,655,397		577	4.95	11	18.20	26	
Adams	27,776	Adjacent rural	3	10.80	7	55.60	11	High
Allen	103,175	Urban	19	18.42	2	37.40	47	High
Ashland	53,536	Adjacent rural	3	5.60	29	27.80	79	Moderate
Ashtabula	97,830	Adjacent rural	10	10.22	9	45.20	34	Very high vulnerability
Athens	65,917	Adjacent rural	5	7.59	19	38.10	45	Moderate
Auglaize	45,729	Adjacent rural	0	0.00	88	26.60	81	Low
Belmont	68,024	Urban	6	8.82	14	34.20	61	Moderate
Brown	43,572	Urban	1	2.30	59	67.10	4	Moderate
Butler	380,019	Urban	7	1.84	64	60.50	6	High
Carroll	27,332	Urban	1	3.66	44	39.00	44	Low
Champaign	38,845	Adjacent rural	1	2.57	57	47.70	28	Moderate
Clark	134,726	Urban	12	8.91	12	67.20	3	Very high vulnerability
Clermont	204,275	Urban	3	1.47	66	51.00	19	Low
Clinton	41,957	Adjacent rural	3	7.15	22	50.00	22	Moderate
Columbiana	103,190	Adjacent rural	3	2.91	56	52.00	14	Moderate
Coshocton	36,585	Adjacent rural	3	8.20	18	21.20	84	High
Crawford	41,821	Adjacent rural	4	9.56	10	43.30	38	Moderate
Cuyahoga	1,247,451	Urban	81	6.49	26	48.70	25	Very high vulnerability
Darke	51,513	Adjacent rural	0	0.00	88	43.00	40	Low
Defiance	38,160	Adjacent rural	0	0.00	88	35.90	54	Low
Delaware	201,135	Urban	2	0.99	67	21.00	85	Low
Erie	74,780	Adjacent rural	13	17.38	3	51.60	17	Moderate
Fairfield	154,457	Urban	6	3.88	41	31.10	68	Moderate
Fayette	28,620	Adjacent rural	1	3.49	47	57.20	9	Moderate
Franklin	1,290,360	Urban	69	5.35	30	42.30	41	High
Fulton	42,253	Urban	1	2.37	58	34.60	60	Low
Gallia	30,088	Adjacent rural	2	6.65	24	55.50	12	Moderate
Geauga	93,843	Urban	3	3.20	51	30.50	70	Moderate
Greene	166,502	Urban	10	6.01	27	43.20	39	Low
Guernsey	39,111	Adjacent rural	6	15.34	4	45.80	32	High
Hamilton	813,589	Urban	25	3.07	53	51.80	15	High
Hancock	75,837	Adjacent rural	4	5.27	32	36.40	52	Low
Hardin	31,425	Adjacent rural	1	3.18	52	33.50	64	Moderate
Harrison	15,211	Adjacent rural	1	6.57	25	36.90	49	Moderate
Henry	27,208	Adjacent rural	1	3.68	43	34.90	59	Low
Highland	43,016	Adjacent rural	0	0.00	88	59.00	8	High
Hocking	28,390	Urban	1	3.52	46	41.70	42	Moderate
Holmes	43,901	Non-adjacent rural	1	2.28	60	12.70	88	Moderate
Huron	58,339	Adjacent rural	2	3.43	50	44.60	35	Moderate
Jackson	32,450	Non-adjacent rural	0	0.00	88	50.50	20	High
Jefferson	66,371	Urban	2	3.01	54	55.00	13	Moderate

Knox	61,481	Adjacent rural	0	0.00	88	33.70	62	Moderate
Lake	229,954	Urban	10	4.35	39	48.30	27	Moderate
Lawrence	60,184	Urban	12	19.94	1	48.70	25	High
Licking	173,750	Urban	6	3.45	49	31.70	67	Moderate
Logan	45,316	Adjacent rural	2	4.41	38	45.70	33	Moderate
Lorain	307,670	Urban	9	2.93	55	45.90	31	High
Lucas	431,102	Urban	8	1.86	63	57.20	9	Very high vulnerability
Madison	44,135	Urban	1	2.27	61	36.10	53	Moderate
Mahoning	229,961	Urban	17	7.39	20	46.60	30	High
Marion	65,299	Adjacent rural	7	10.72	8	49.20	23	High
Medina	177,980	Urban	1	0.56	69	30.40	71	Low
Meigs	23,078	Adjacent rural	0	0.00	88	51.70	16	High
Mercer	40,884	Non-adjacent rural	2	4.89	35	17.50	87	Low
Miami	105,371	Urban	1	0.95	68	37.00	48	Low
Monroe	13,942	Adjacent rural	1	7.17	21	27.50	80	Moderate
Montgomery	531,670	Urban	44	8.28	17	71.60	2	Very high vulnerability
Morgan	14,640	Adjacent rural	0	0.00	88	36.70	50	Moderate
Morrow	35,043	Urban	0	0.00	88	35.90	54	Low
Muskingum	86,131	Adjacent rural	3	3.48	48	35.30	57	High
Noble	14,416	Non-adjacent rural	0	0.00	88	29.70	75	Moderate
Ottawa	40,632	Adjacent rural	2	4.92	34	36.50	51	Low
Paulding	18,809	Adjacent rural	0	0.00	88	29.40	77	Moderate
Perry	36,022	Urban	3	8.33	16	30.80	69	Moderate
Pickaway	57,762	Urban	0	0.00	88	38.00	46	Low
Pike	28,000	Non-adjacent rural	2	7.14	23	60.20	7	High
Portage	162,511	Urban	6	3.69	42	35.10	58	Moderate
Preble	41,093	Adjacent rural	0	0.00	88	49.10	24	Moderate
Putnam	33,911	Adjacent rural	3	8.85	13	17.60	86	Low
Richland	121,100	Urban	7	5.78	28	43.50	37	High
Ross	76,948	Adjacent rural	7	9.10	11	63.20	5	High
Sandusky	59,029	Adjacent rural	3	5.08	33	41.50	43	Moderate
Scioto	76,040	Adjacent rural	10	13.15	5	75.70	1	High
Seneca	55,351	Adjacent rural	2	3.61	45	33.70	62	Moderate
Shelby	48,749	Adjacent rural	2	4.10	40	35.40	56	Low
Stark	372,404	Urban	18	4.83	36	44.60	35	Moderate
Summit	541,334	Urban	24	4.43	37	47.10	29	Moderate
Trumbull	200,367	Urban	22	10.98	6	51.60	17	Moderate
Tuscarawas	92,335	Adjacent rural	2	2.17	62	30.40	71	Moderate
Union	56,707	Urban	3	5.29	31	21.70	83	Low
Van Wert	28,261	Adjacent rural	0	0.00	88	29.90	74	Low
Vinton	13,083	Adjacent rural	0	0.00	88	50.30	21	High
Warren	229,132	Urban	0	0.00	88	30.20	73	Low
Washington	60,426	Adjacent rural	0	0.00	88	33.00	65	Moderate
Wayne	116,099	Adjacent rural	10	8.61	15	29.70	75	High
Williams	36,816	Adjacent rural	0	0.00	88	32.50	66	Low
Wood	130,150	Urban	2	1.54	65	27.90	78	Moderate
Wyandot	22,000	Non-adjacent rural	0	0.00	88	25.20	82	Moderate

[1]Population 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.

[2]The 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

[3]Recovery residences are from the NSTARR project and are current as of 2020. Nine (9) recovery residences in the state were not successfully geocoded due to lack of adequate address information, and thus were not assigned to a county.

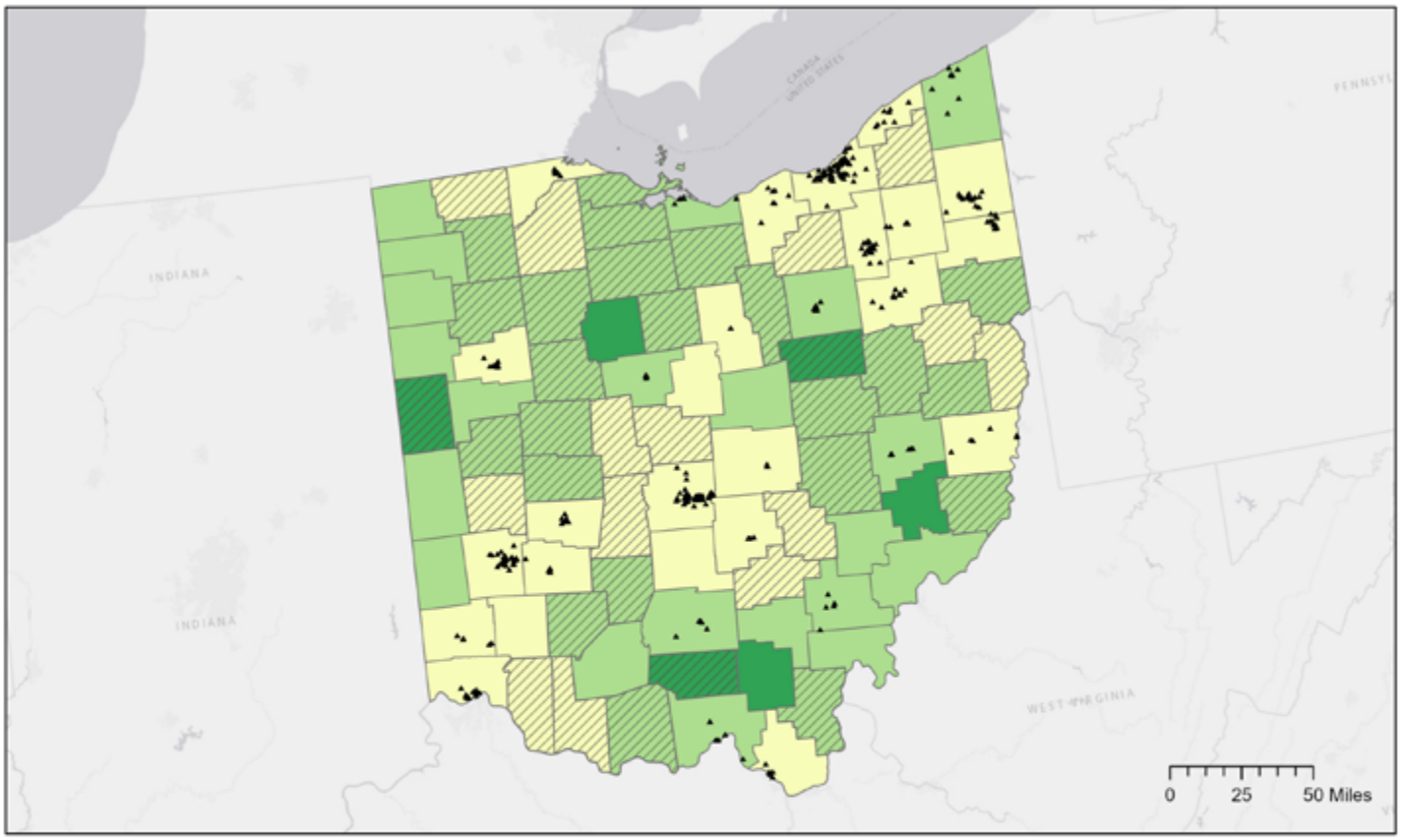
[4]Recovery residences availability per capita is ranked in order of decreasing recovery residence density per 100,000 population per county, with 1 (highest number of residences per 100,000) to 88 (lowest number of residences per 100,000 population). Counties without recovery residences were all assigned a tied rank of 88.

[5]Alcohol- 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/mcd-icd10.html accessed on August 9 2021.

[6]Mortality rate is ranked in order of decreasing alcohol- and drug-involved mortality from 1 (highest mortality per 100,000 population) to 88 (lowest mortality per 100,000 population).

[7]COVID-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 I 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

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

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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

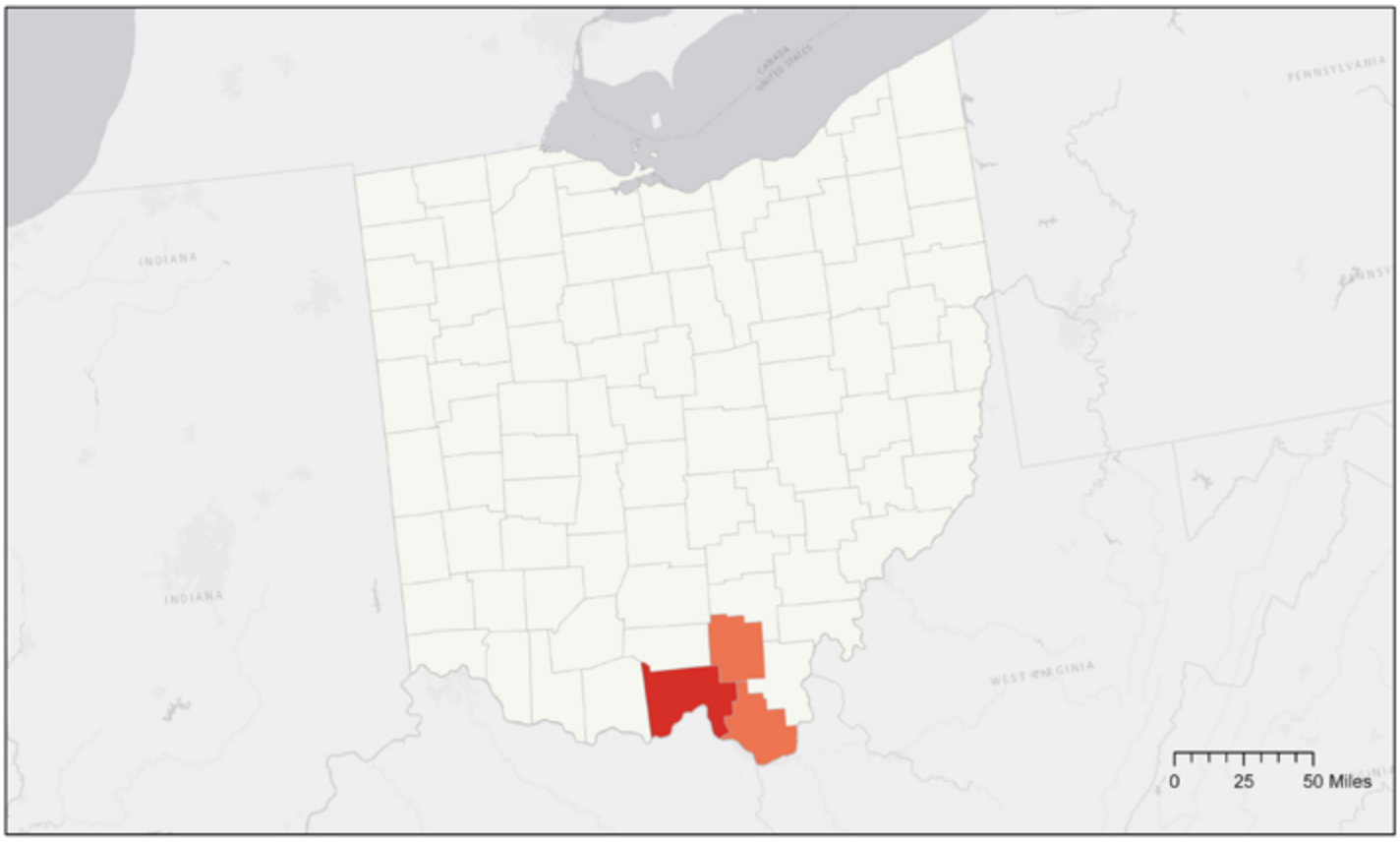


Figure 3. Distribution of Residences by Age-adjusted Alcohol- and/or Drug-involved Mortality

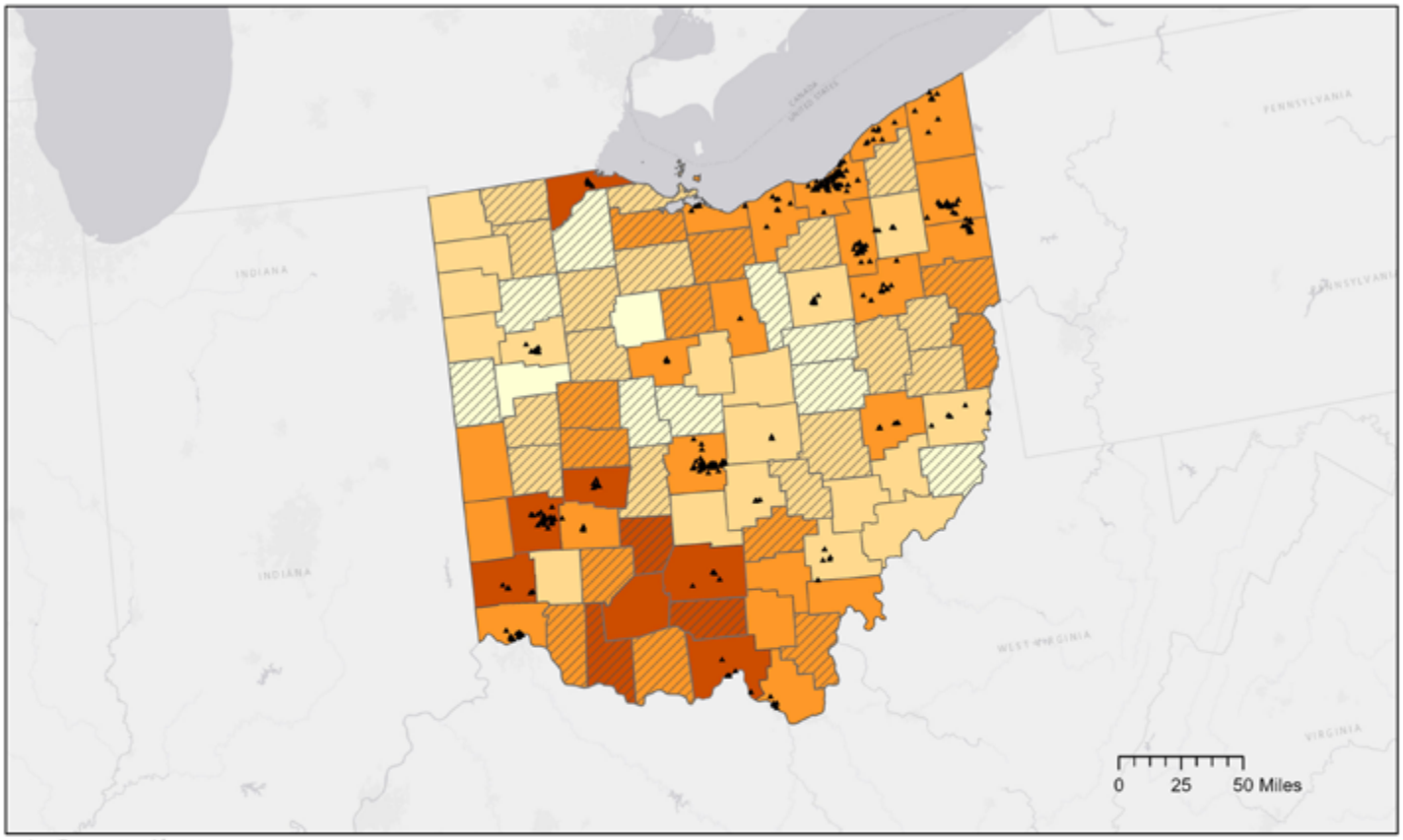
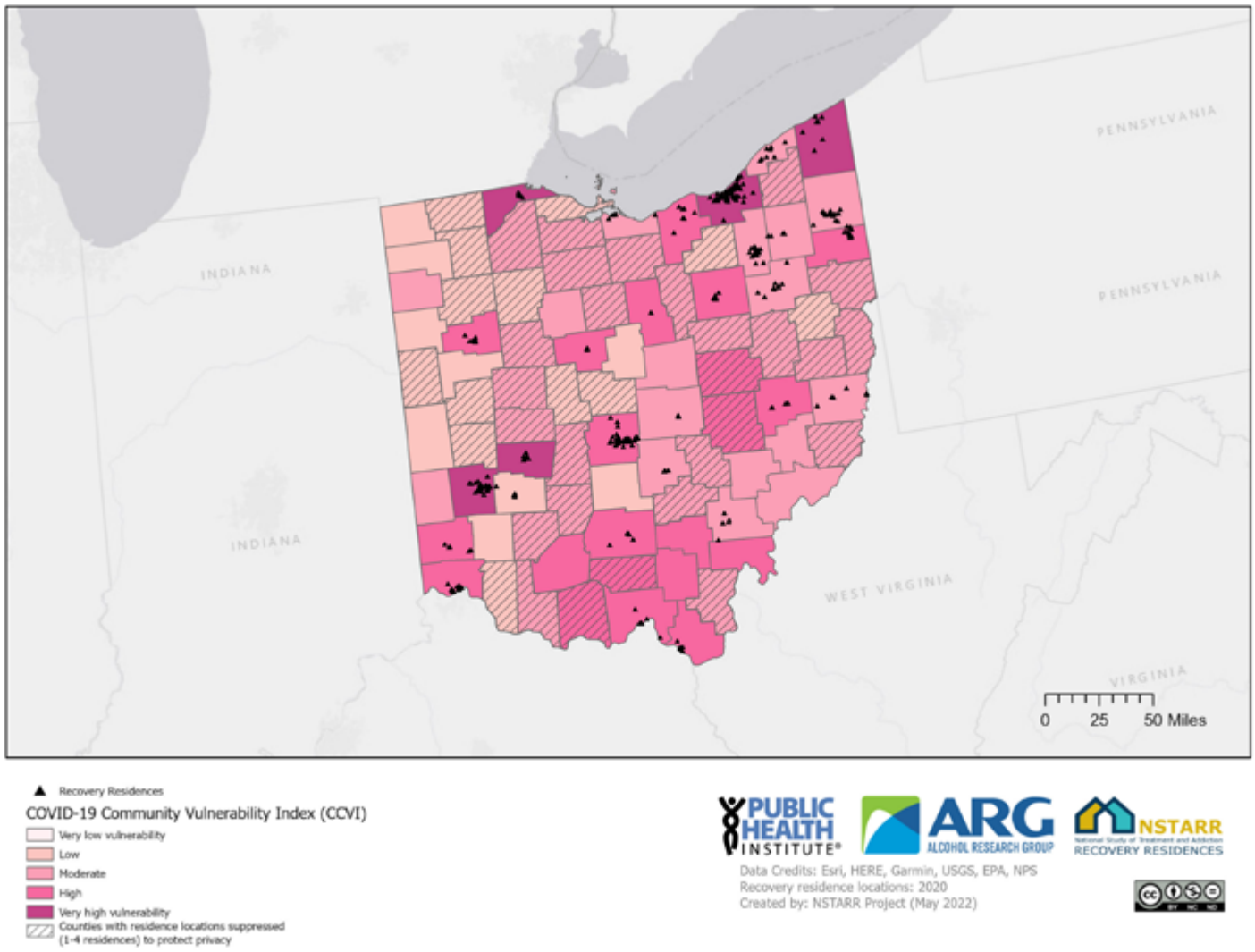


Figure 4. Distribution of Residences by COVID-19 Community Vulnerability Index



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