

National Study of Treatment and Addiction Recovery Residences Report

INDIANA

The National Study of Treatment and Addiction Recovery Residences (NSTARR) constitutes the largest and most diverse study of recovery housing in the U.S. 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 118 recovery residences (1.77 houses per 100,000 population) in Indiana (see Table 1). Compared to other states (which include DC), Indiana ranked 37 in terms of recovery housing availability per capita. Ninety-seven percent of residences in Indiana could be geocoded for these analyses. Daviess County, a non-adjacent rural county, had the most recovery residences per 100,000 population, and 58 counties had no identified recovery residences, representing a mix of rural-urban classifications counties; 84 had fewer than 5 recovery residences (see Figure 1).

We used geographic information systems to identify hot and cold spots in Indiana. 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 17.10 in Indiana for the years 2009-2019. Indiana ranked 30 on alcohol- and drug-involved mortality out of the 50 states and DC. Fayette County had the highest alcohol- and drug-involved mortality rate and Lagrange County had the lowest alcohol- and drug-involved mortality rate. Of the three counties that had the highest mortality rates in Indiana (i.e., Fayette, Wayne, and Scott), all three of them also ranked in the bottom half recovery housing availability per capita, 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. Six counties were classified as having very high vulnerability, and four of those counties were located in areas ranked in the top half of recovery housing availability per capita, suggesting recovery housing is located in communities with greater need (see Table 1 and Figure 4).

118
RESIDENCES
TOTAL

37
NATIONAL
AVAILABILITY
RANKING

58
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
INDIANA	6,665,703		118	1.77	37	17.10	30	
Adams	35,376	Adjacent rural	0	0.00	92	24.20	83	High
Allen	372,575	Urban	13	3.49	15	35.00	48	High
Bartholomew	82,481	Urban	0	0.00	92	36.10	44	Moderate
Benton	8,677	Urban	0	0.00	92	24.60	81	Low
Blackford	12,013	Adjacent rural	0	0.00	92	56.90	5	Moderate
Boone	65,544	Urban	3	4.58	9	30.70	62	Low
Brown	15,064	Urban	1	6.64	3	33.70	53	Low
Carroll	20,074	Urban	0	0.00	92	27.40	71	Low
Cass	37,880	Adjacent rural	0	0.00	92	26.70	76	Very high vulnerability
Clark	116,507	Urban	3	2.57	21	48.40	14	High
Clay	26,234	Urban	0	0.00	92	30.10	65	Moderate
Clinton	32,273	Adjacent rural	0	0.00	92	35.40	46	High
Crawford	10,569	Adjacent rural	0	0.00	92	45.40	24	Low
Daviess	33,120	Non-adjacent rural	5	15.10	1	32.30	59	Very high vulnerability
De Kalb	42,927	Adjacent rural	1	2.33	23	27.90	70	Low
Dearborn	49,479	Urban	3	6.06	5	48.40	14	Low
Decatur	26,562	Adjacent rural	1	3.76	13	40.10	34	Moderate
Delaware	115,020	Urban	0	0.00	92	54.50	7	Moderate
Dubois	42,543	Non-adjacent rural	0	0.00	92	24.60	81	Low
Elkhart	204,558	Urban	1	0.49	33	30.20	64	Very high vulnerability
Fayette	23,194	Adjacent rural	0	0.00	92	84.70	1	High
Floyd	77,320	Urban	2	2.59	20	48.20	17	Moderate
Fountain	16,430	Adjacent rural	0	0.00	92	32.50	58	Low
Franklin	22,774	Adjacent rural	0	0.00	92	40.20	33	Low
Fulton	20,096	Non-adjacent rural	0	0.00	92	28.20	69	Moderate
Gibson	33,656	Adjacent rural	0	0.00	92	25.70	78	Moderate
Grant	66,452	Adjacent rural	1	1.50	26	51.60	12	High
Greene	32,159	Adjacent rural	0	0.00	92	35.10	47	Moderate
Hamilton	323,117	Urban	2	0.62	31	18.70	89	Very low vulnerability
Hancock	75,164	Urban	0	0.00	92	32.90	56	Low
Harrison	39,940	Urban	0	0.00	92	34.60	49	Moderate
Hendricks	163,799	Urban	1	0.61	32	24.00	84	Low
Henry	48,255	Adjacent rural	2	4.14	11	41.60	31	Moderate
Howard	82,331	Urban	0	0.00	92	53.80	9	High
Huntington	36,359	Adjacent rural	1	2.75	17	29.20	67	Low

Jackson	44,025	Adjacent rural	0	0.00	92	47.40	18	High
Jasper	33,447	Urban	0	0.00	92	30.80	61	Low
Jay	20,840	Adjacent rural	0	0.00	92	47.20	20	High
Jefferson	32,201	Adjacent rural	0	0.00	92	38.40	39	High
Jennings	27,710	Adjacent rural	0	0.00	92	53.70	10	Moderate
Johnson	153,716	Urban	2	1.30	27	29.60	66	Low
Knox	37,065	Non-adjacent rural	1	2.70	18	34.50	50	Moderate
Kosciusko	79,035	Adjacent rural	1	1.27	28	25.30	79	High
La Porte	110,154	Urban	1	0.91	30	46.10	22	High
Lagrange	39,193	Adjacent rural	0	0.00	92	14.30	92	Moderate
Lake	485,707	Urban	1	0.21	34	33.70	53	Very high vulnerability
Lawrence	45,548	Adjacent rural	0	0.00	92	38.90	38	Moderate
Madison	129,455	Urban	2	1.54	25	55.80	6	High
Marion	951,869	Urban	12	1.26	29	53.20	11	Very high vulnerability
Marshall	46,461	Adjacent rural	0	0.00	92	27.30	73	High
Martin	10,212	Non-adjacent rural	0	0.00	92	34.10	52	Low
Miami	35,815	Adjacent rural	0	0.00	92	26.80	75	Moderate
Monroe	146,461	Urban	9	6.14	4	36.60	43	Low
Montgomery	38,287	Adjacent rural	1	2.61	19	37.50	40	Moderate
Morgan	69,922	Urban	0	0.00	92	42.50	29	Low
Newton	13,992	Urban	0	0.00	92	44.40	25	Moderate
Noble	47,506	Adjacent rural	2	4.21	10	27.40	71	High
Ohio	5,874	Urban	0	0.00	92	45.60	23	Very low vulnerability
Orange	19,545	Adjacent rural	1	5.12	8	32.30	59	Moderate
Owen	20,835	Urban	0	0.00	92	33.50	55	Moderate
Parke	16,946	Adjacent rural	0	0.00	92	27.10	74	Moderate
Perry	19,102	Adjacent rural	0	0.00	92	19.70	88	Low
Pike	12,378	Adjacent rural	0	0.00	92	32.70	57	Low
Porter	168,636	Urban	4	2.37	22	41.10	32	Low
Posey	25,560	Urban	0	0.00	92	26.40	77	Very low vulnerability
Pulaski	12,559	Adjacent rural	0	0.00	92	48.30	16	Low
Putnam	37,384	Urban	0	0.00	92	29.10	68	Moderate
Randolph	24,926	Adjacent rural	0	0.00	92	54.20	8	Moderate
Ripley	28,391	Adjacent rural	0	0.00	92	37.20	42	High
Rush	16,641	Adjacent rural	0	0.00	92	44.30	26	Moderate
Scott	23,759	Urban	0	0.00	92	73.80	3	High
Shelby	44,438	Urban	5	11.25	2	39.50	36	Moderate
Spencer	20,447	Adjacent rural	0	0.00	92	20.40	87	Very low vulnerability
St. Joseph	270,216	Urban	10	3.70	14	47.40	18	High
Starke	22,952	Adjacent rural	0	0.00	92	63.20	4	Moderate

Steuben	34,453	Non-adjacent rural	1	2.90	16	17.50	91	Moderate
Sullivan	20,730	Urban	0	0.00	92	40.00	35	Moderate
Switzerland	10,685	Adjacent rural	0	0.00	92	42.80	28	Moderate
Tippecanoe	191,553	Urban	4	2.09	24	30.40	63	Moderate
Tipton	15,162	Adjacent rural	0	0.00	92	34.50	50	Low
Union	7,113	Urban	0	0.00	92	46.30	21	Very low vulnerability
Vanderburgh	181,291	Urban	10	5.52	7	44.00	27	High
Vermillion	15,539	Urban	0	0.00	92	37.30	41	Moderate
Vigo	107,459	Urban	6	5.58	6	42.40	30	High
Wabash	31,389	Adjacent rural	0	0.00	92	39.00	37	Moderate
Warren	8,237	Adjacent rural	0	0.00	92	20.50	86	Very low vulnerability
Warrick	62,280	Urban	0	0.00	92	17.80	90	Very low vulnerability
Washington	27,848	Urban	0	0.00	92	51.30	13	Moderate
Wayne	66,342	Non-adjacent rural	0	0.00	92	75.30	2	Very high vulnerability
Wells	28,011	Urban	0	0.00	92	25.20	80	Low
White	24,149	Adjacent rural	1	4.14	12	35.50	45	Moderate
Whitley	33,730	Urban	0	0.00	92	22.10	85	Low

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. Four (4) recovery residences in the state were not successfully geocoded due to lack of adequate address information, and thus were not assigned to a county.

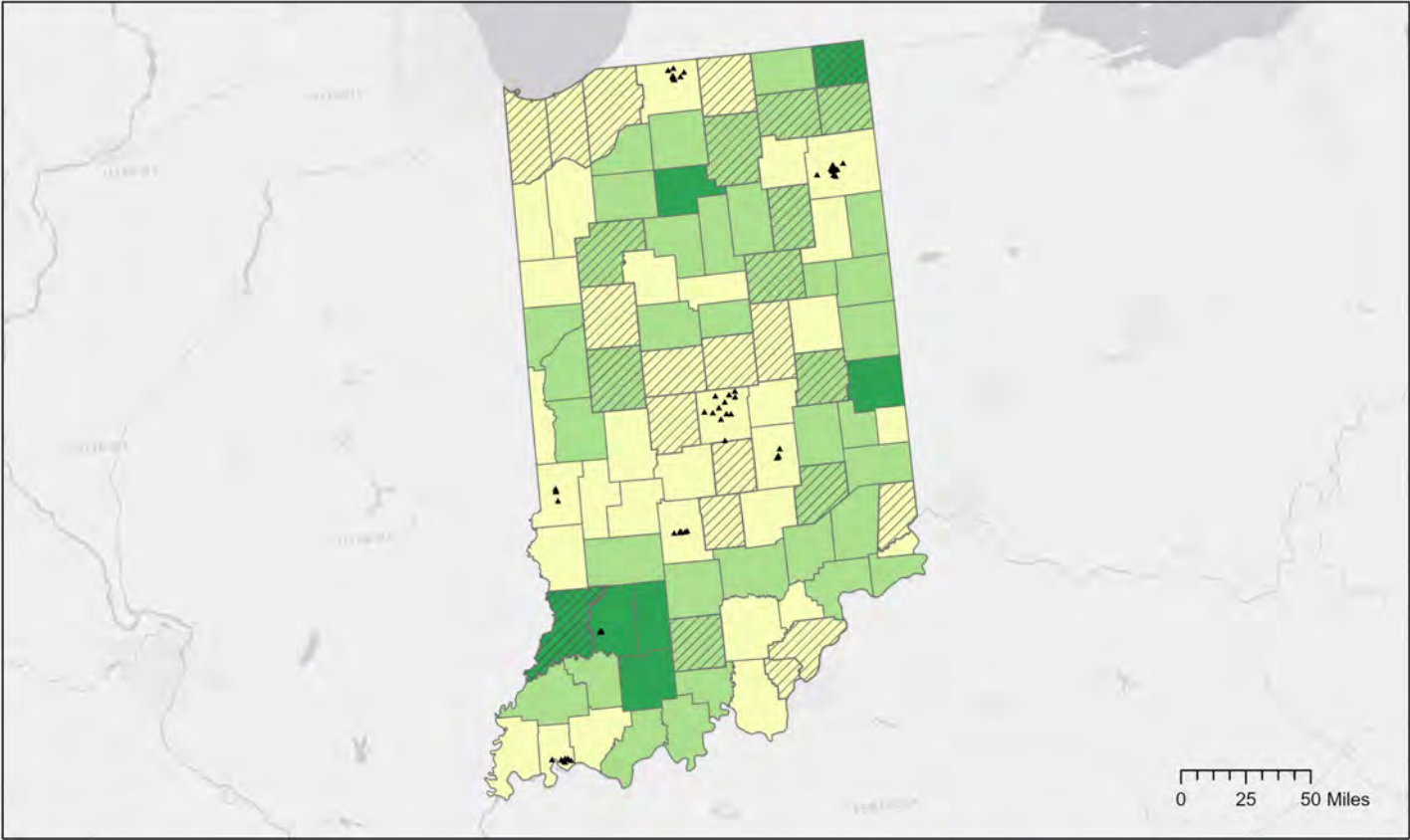
⁴Recovery residences availability per capita is ranked in order of decreasing recovery residence density per 100,000 population per county, with 1 (highest number of residences per 100,000) to 92 (lowest number of residences per 100,000 population). Counties without recovery residences were all assigned a tied rank of 92.

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/mcd-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 92 (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 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](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



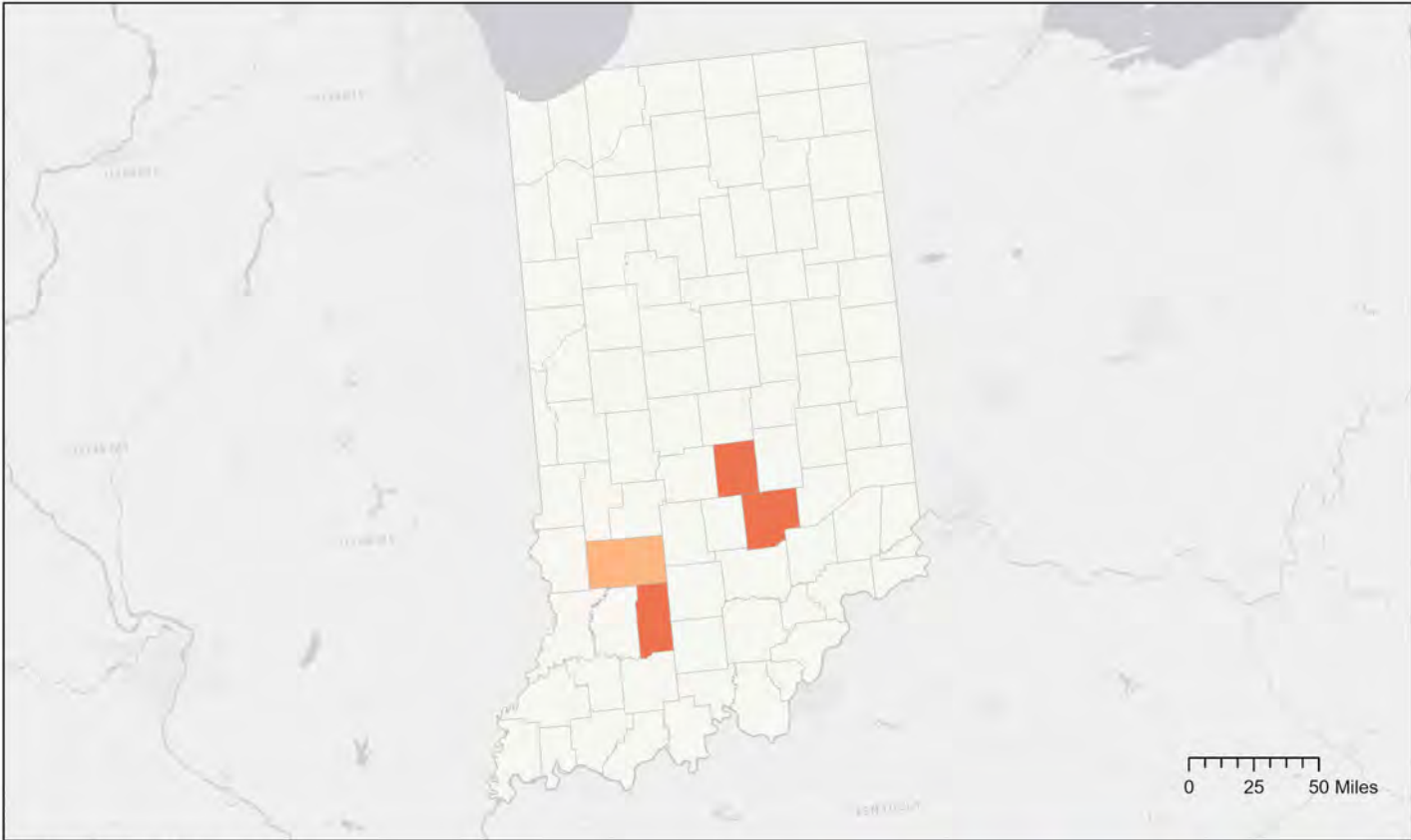
- ▲ Recovery residences
- Rural-Urban Classification Code (RUCC)
 - Urban
 - Adjacent rural
 - Non-adjacent rural
 - Counties with residence locations suppressed (1-4 residences) to protect privacy



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



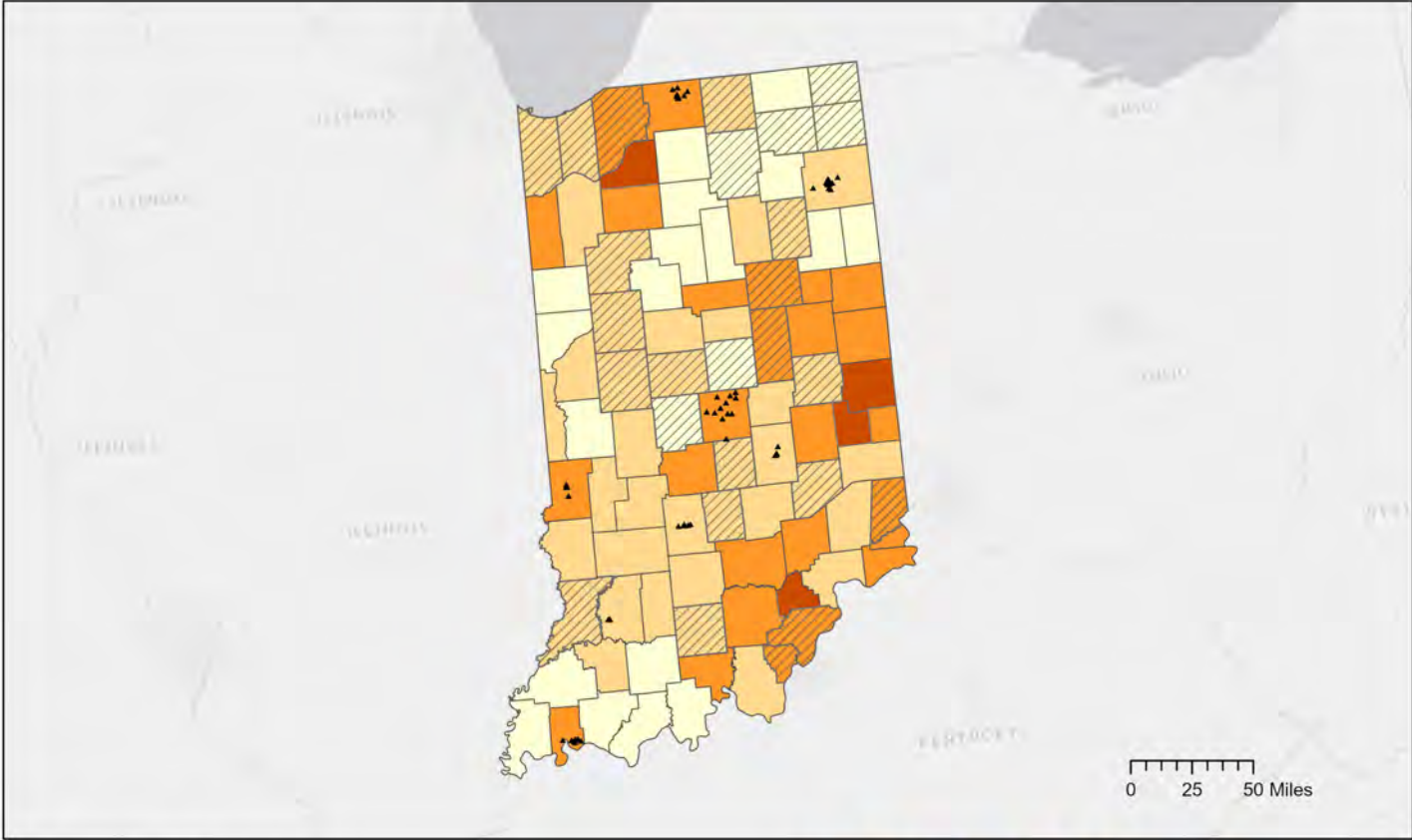
- Hot Spot Analysis (Getis-Ord GI*)**
- Cold Spot with 99% Confidence
 - Cold Spot with 95% Confidence
 - Cold Spot with 90% Confidence
 - Not Significant
 - Hot Spot with 90% Confidence
 - Hot Spot with 95% Confidence
 - Hot Spot with 99% Confidence



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



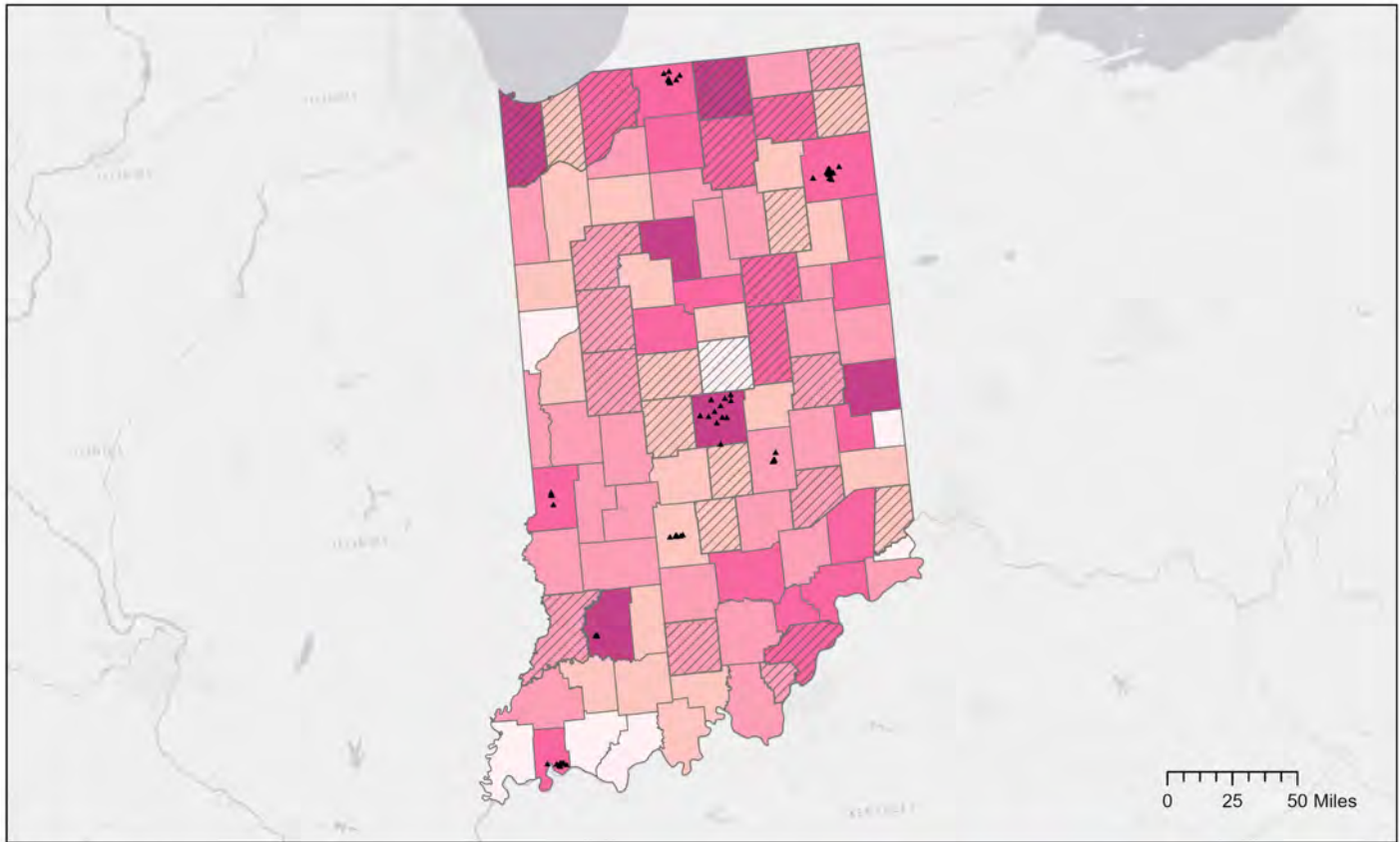
- ▲ Recovery residences
- Age-adjusted alcohol and drug mortality rate per 100,000 population
- 9 - 18
- 19 - 28
- 29 - 52
- 53 - 79
- Suppressed/Unreliable
- Counties with residence locations suppressed (1-4 residences) to protect privacy



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



Figure 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
- 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)





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