



Statewide Toxicology Surveillance Report

INDIANA DEPARTMENT OF HEALTH
DIVISION OF TRAUMA & INJURY PREVENTION

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Indiana
Department
of
Health



WAYNE STATE UNIVERSITY
School of Social Work
Center for Behavioral Health and Justice



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Prepared by the Center for Behavioral Health and Justice at Wayne State University in collaboration with the Management Performance Hub for the Division of Trauma and Injury Prevention at the Indiana Department of Health.



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PERFORMANCEHUB



Statewide Surveillance

The following report summary provides a breakdown of the Enhanced State Toxicology Surveillance System that was conducted by the Division of Trauma and Injury Prevention at the Indiana Department of Health. As the overdose epidemic continues to persist, one of the efforts by the state was to increase fatal drug overdose reporting by funding standardized toxicology testing on suspected drug overdose deaths. Under Indiana Code 36-2-14-6 (b), all Indiana coroners are required to conduct toxicology screenings to gather information on suspected controlled substances in fatal overdose cases.

Through a collaboration with the Center of Behavioral Health and Justice (CBHJ) at Wayne State University and the Management Performance Hub (MPH), toxicology screens requested by coroners across Indiana were linked by MPH with their respective International Classification of Diseases (ICD) code. Through this linkage process we were able to utilize both the underlying and contributing causes of death to identify trends of substances detected across the state by participating counties.

Ninety counties have contributed to the toxicology database since January 2018. Only two counties (Ohio and Benton County) have not submitted any requests for toxicology screens for any of their coroner's cases.

The information within this report is not fully representative of all fatal overdoses within Indiana. **This snapshot of the opioid crisis in Indiana will be more accurate as the surveillance system obtains additional toxicology reports and participation from each county.**

Displays Counties Without Any Submitted Toxicology Screens



90 / 92
INDIANA
COUNTIES
WITH TOX
REPORTS

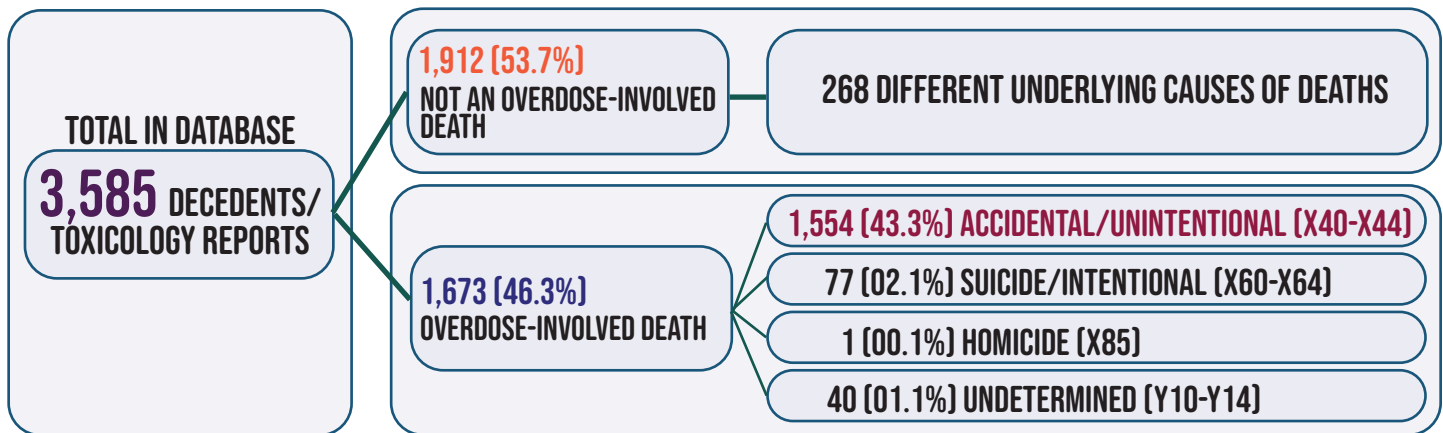


Data Information

The data received by CBHJ contains all toxicology test results from both NMS Labs and Axis Forensic Toxicology from **January 1, 2018** to **April 4, 2020** and are record linked (via MPH) to the ICD codes contained in vital records data. As of January 2019, the vendor responsible for processing state-funded toxicology screens for county coroners transitioned from NMS Labs to Axis Forensic Toxicology. There was a total of **3,585** decedents with toxicology results, located across **90 counties**.

It must be noted though, the focus of the following report will only analyze data from cases that were determined to be a **accidental fatal overdose (ICD Codes X40-X44).**

Decedents Underlying Cause of Death Breakdown



Among the cases, 58.7% (n=907) were determined to contain the unspecified ICD code (T50.9); however, many of these also had other contributing ICD codes specific to substances associated with the death and would not be truly unspecified deaths based on the Centers for Disease Control and Prevention (CDC) criteria. Of these accidental overdose deaths (n=1,554), we found that only 6.2% of cases (n=96) were unspecified since they had the unspecified ICD code and no other contributing opioid substance code.

It is important to note that the linked toxicology and vital records data do not necessarily represent all the accidental overdose deaths during the reported time frame. For example, there may be a time lag in receiving the toxicology data, a county may be using a different toxicology provider, the coroner might not have run a toxicology test, or the coroner may have submitted a preliminary underlying cause of death (such as ICD code R99 which is an ill defined and unknown cause of mortality) on the death certificate before final certification. For preliminary cases, we will be able to update future reports as they released quarterly to include the any accidental overdose deaths that were certified between report releases.

Key Findings

- **Opioids** were involved in over **85% (n=1312)** of accidental overdoses deaths
- **Fentanyl** was present in over **64% (n=987)** of all deaths and most common illicit opioid found
- Only **6% (n=97)** of all deaths were **undercounted** as opioid-involved overdoses



County and Number of Accidental Fatal Overdoses

Adams	5	Marion	541
Allen	146	Marshall	5
Bartholomew	22	Monroe	26
Boone	5	Montgomery	12
Clark	56	Morgan	18
Clay	2	Newton	1
Clinton	9	Noble	1
Daviess	2	Parke	1
Dearborn	11	Perry	1
Delaware	25	Porter	48
Elkhart	13	Posey	1
Floyd	9	Pulaski	2
Fountain	4	Putnam	2
Fulton	5	Rush	44
Gibson	2	Scott	9
Greene	2	Starke	8
Hamilton	29	Steuben	1
Harrison	10	Sullivan	1
Henry	5	Tippecanoe	34
Howard	41	Tipton	3
Huntington	7	Union	2
Jackson	8	Vanderburgh	51
Jasper	2	Vermillion	4
Jennings	14	Vigo	19
Lagrange	3	Warrick	4
Lake	185	Wayne	56
LaPorte	26	White	1
Madison	10	Total	1554

Demographics

GENDER

34% FEMALE (N=526)

66% MALE (N=1028)

RACE

84% WHITE (N=1296)

13% BLACK (N=208)

03% OTHER (N=50)

AGE

08% < 24 (N=120)

29% 25 - 34 (N=455)

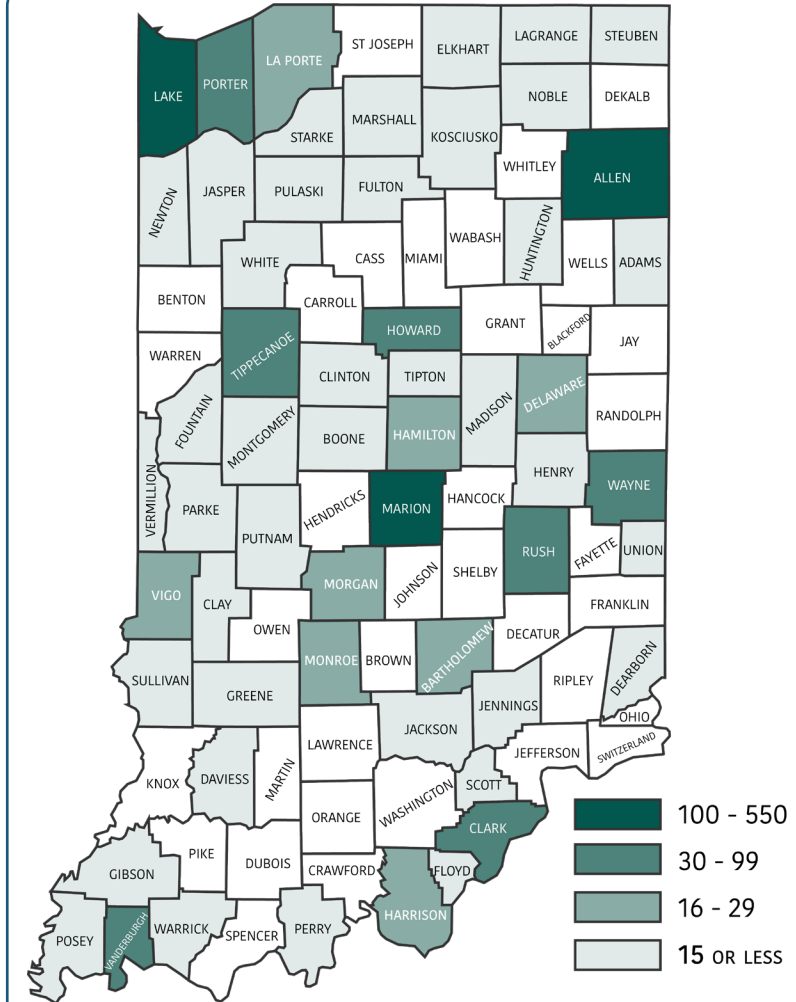
28% 35 - 44 (N=437)

19% 45 - 54 (N=290)

13% 55 - 64 (N=202)

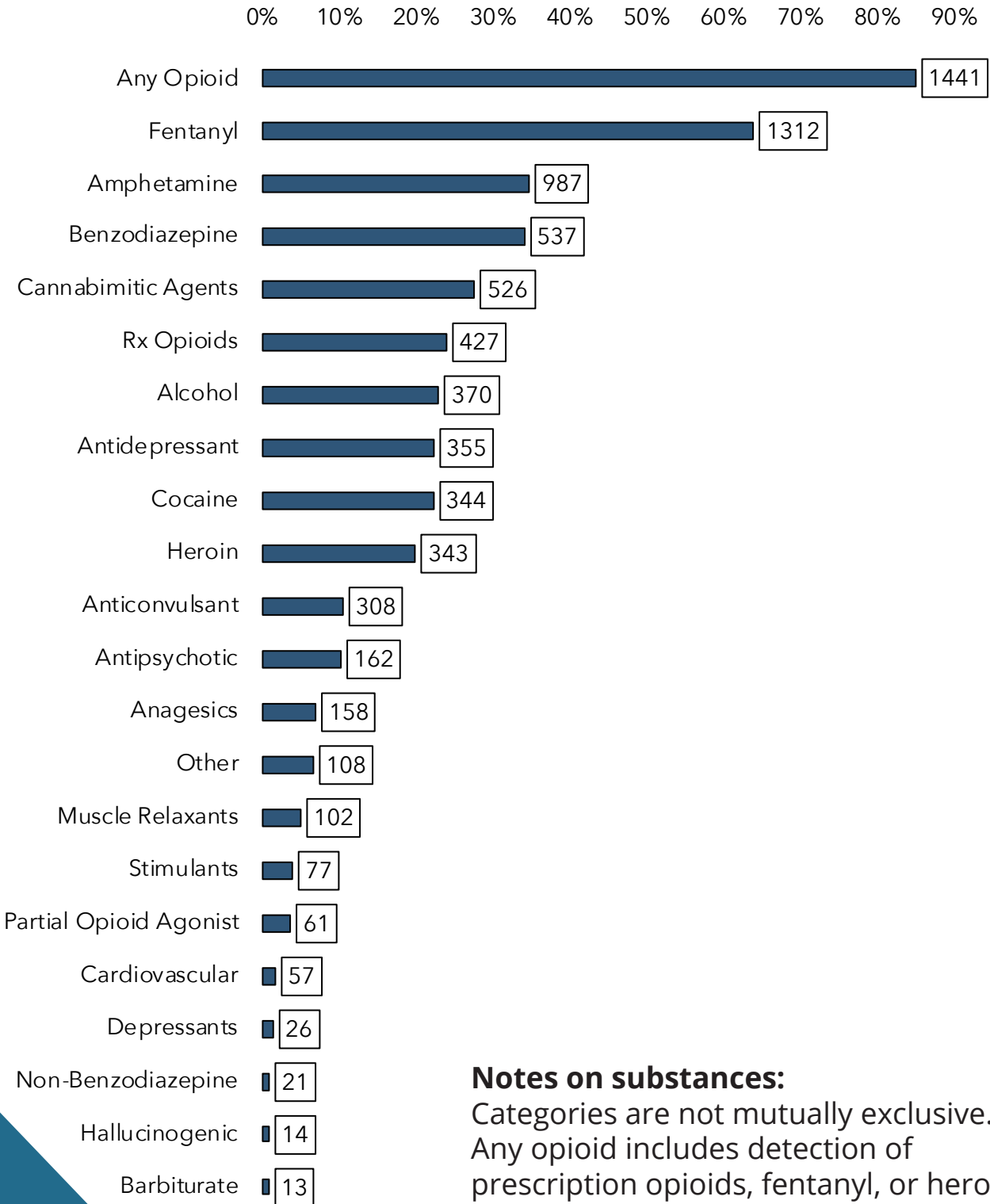
03% 65 > (N=50)

Overall Accidental





Substances Present

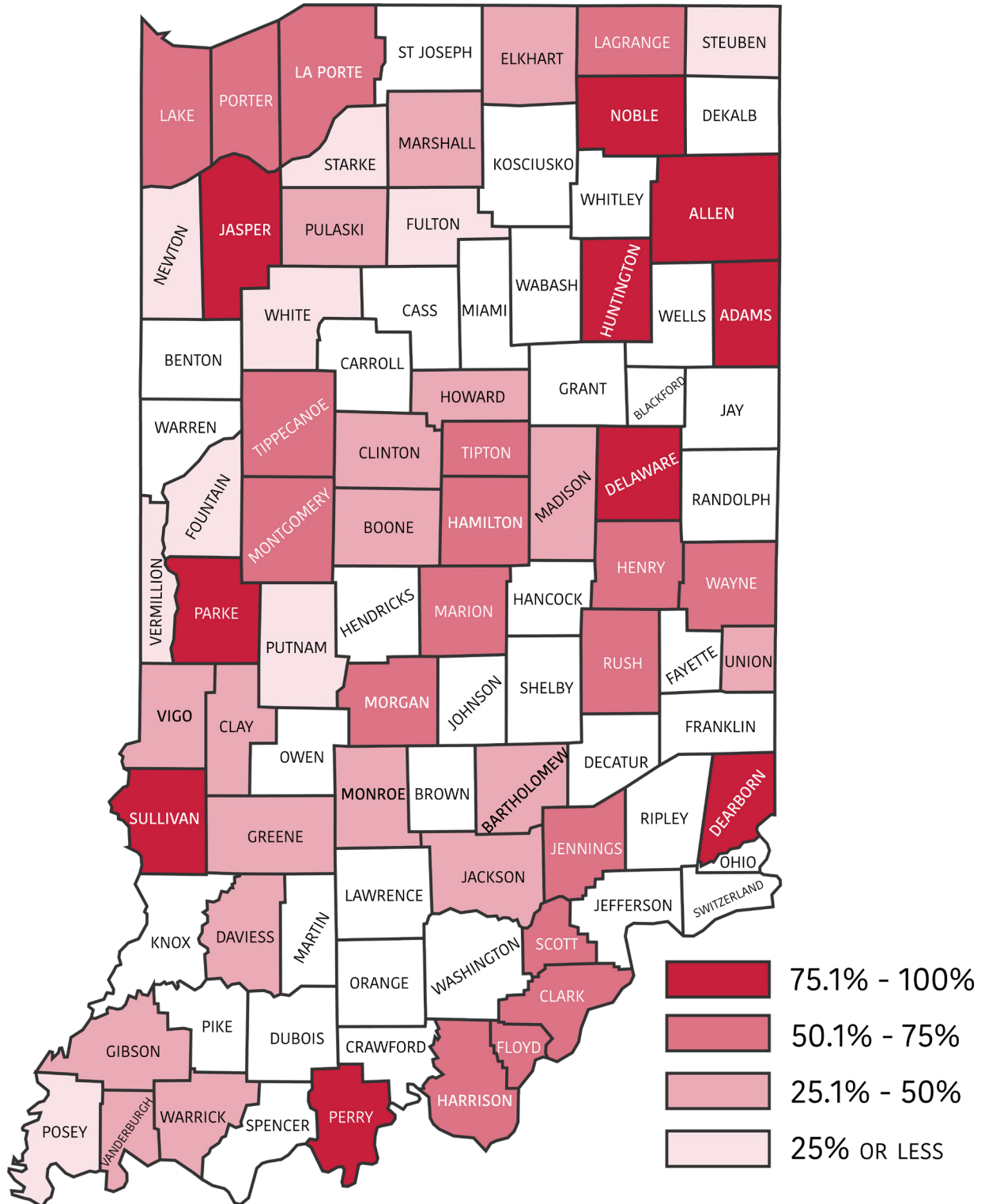


Notes on substances:

Categories are not mutually exclusive. Any opioid includes detection of prescription opioids, fentanyl, or heroin.

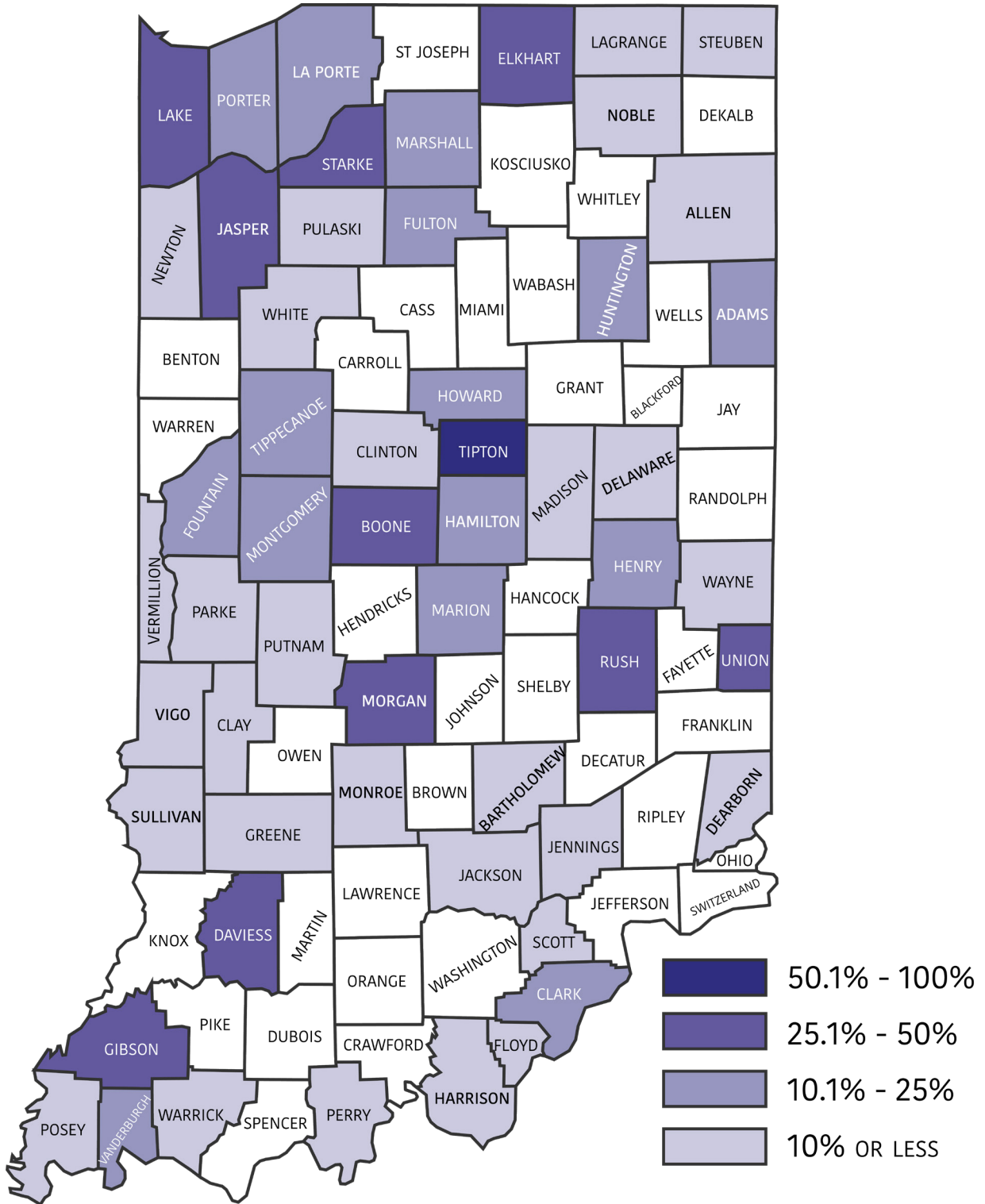


Fentanyl-Involved



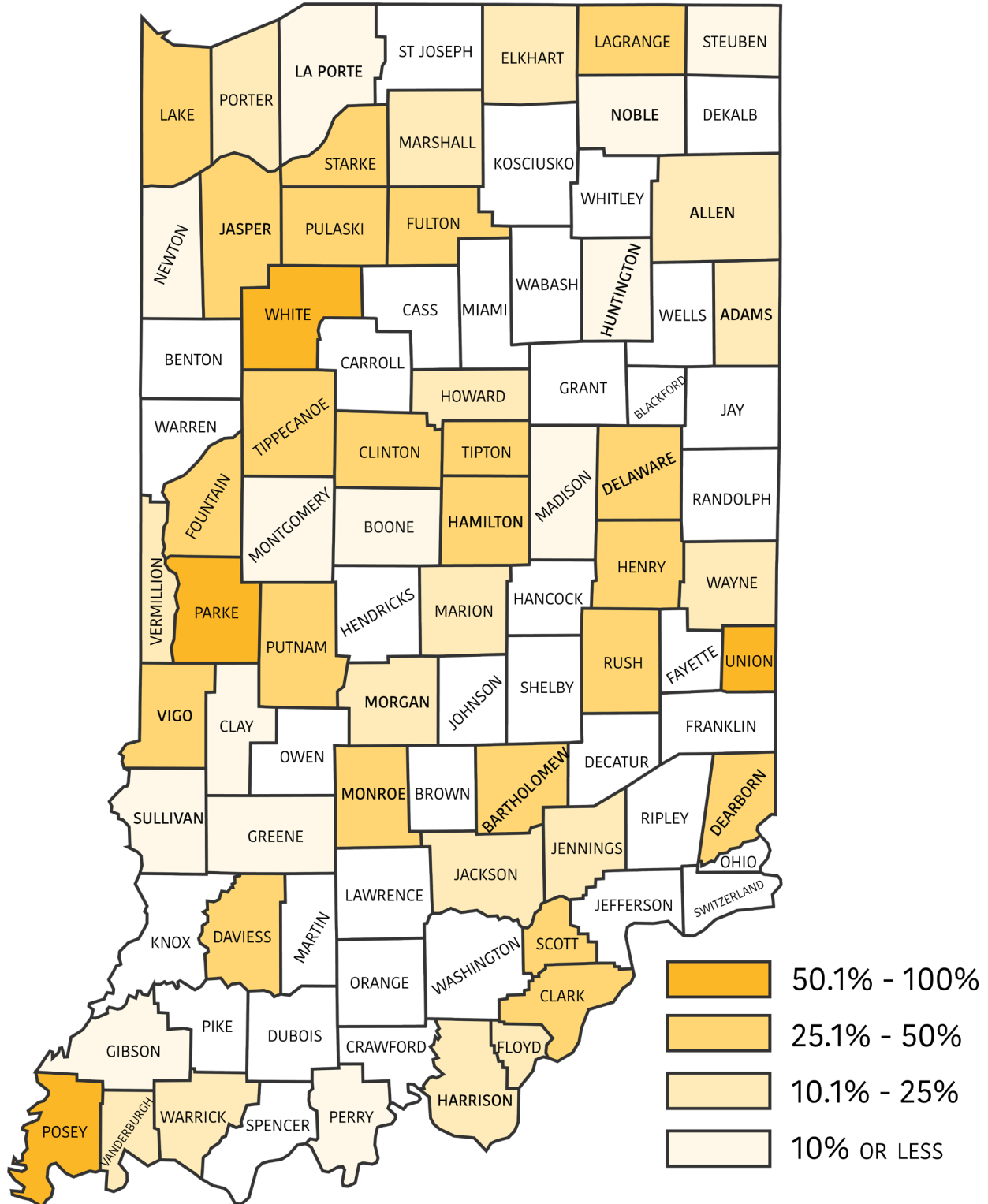


Heroin-Involved



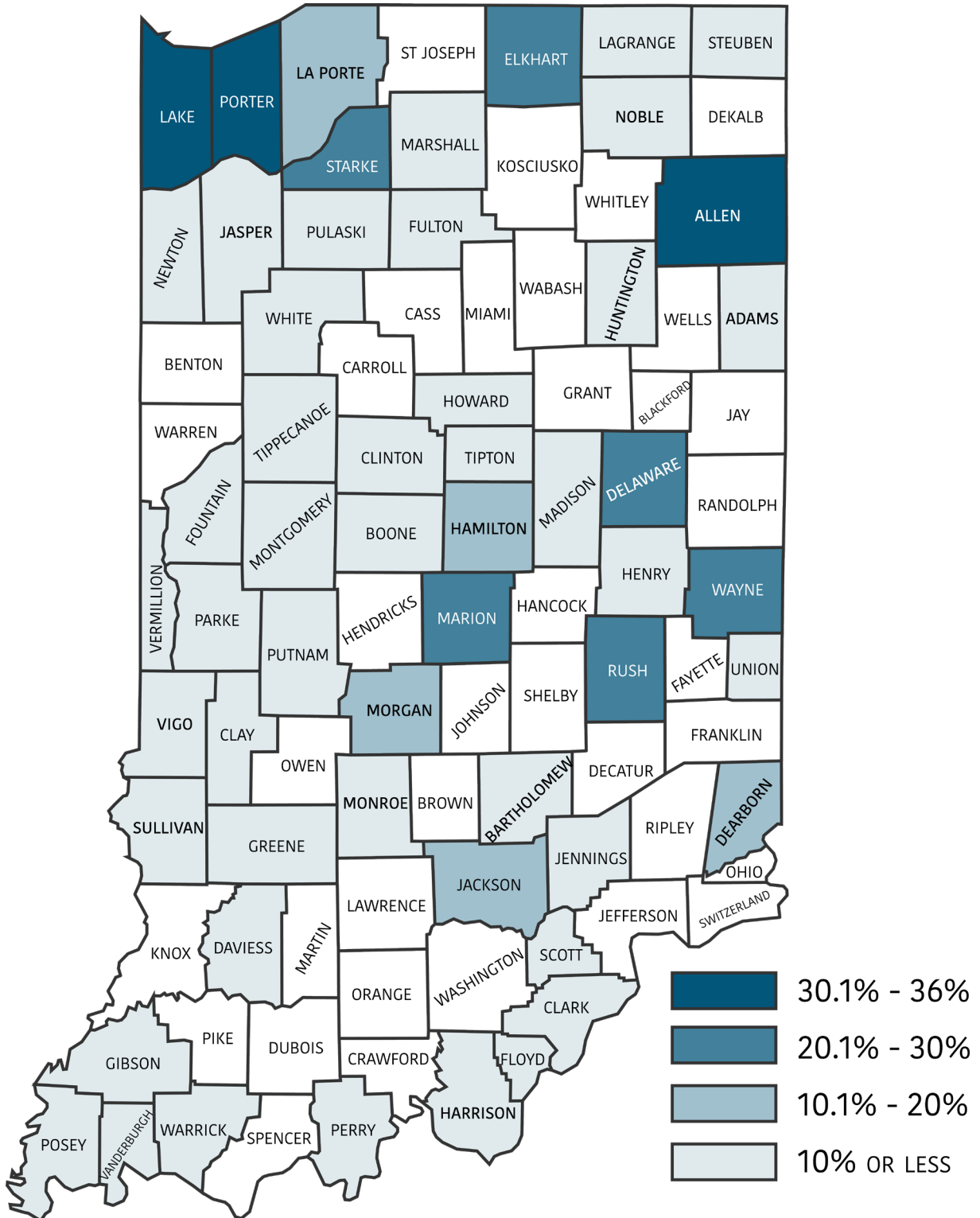


Rx Opioid-Involved



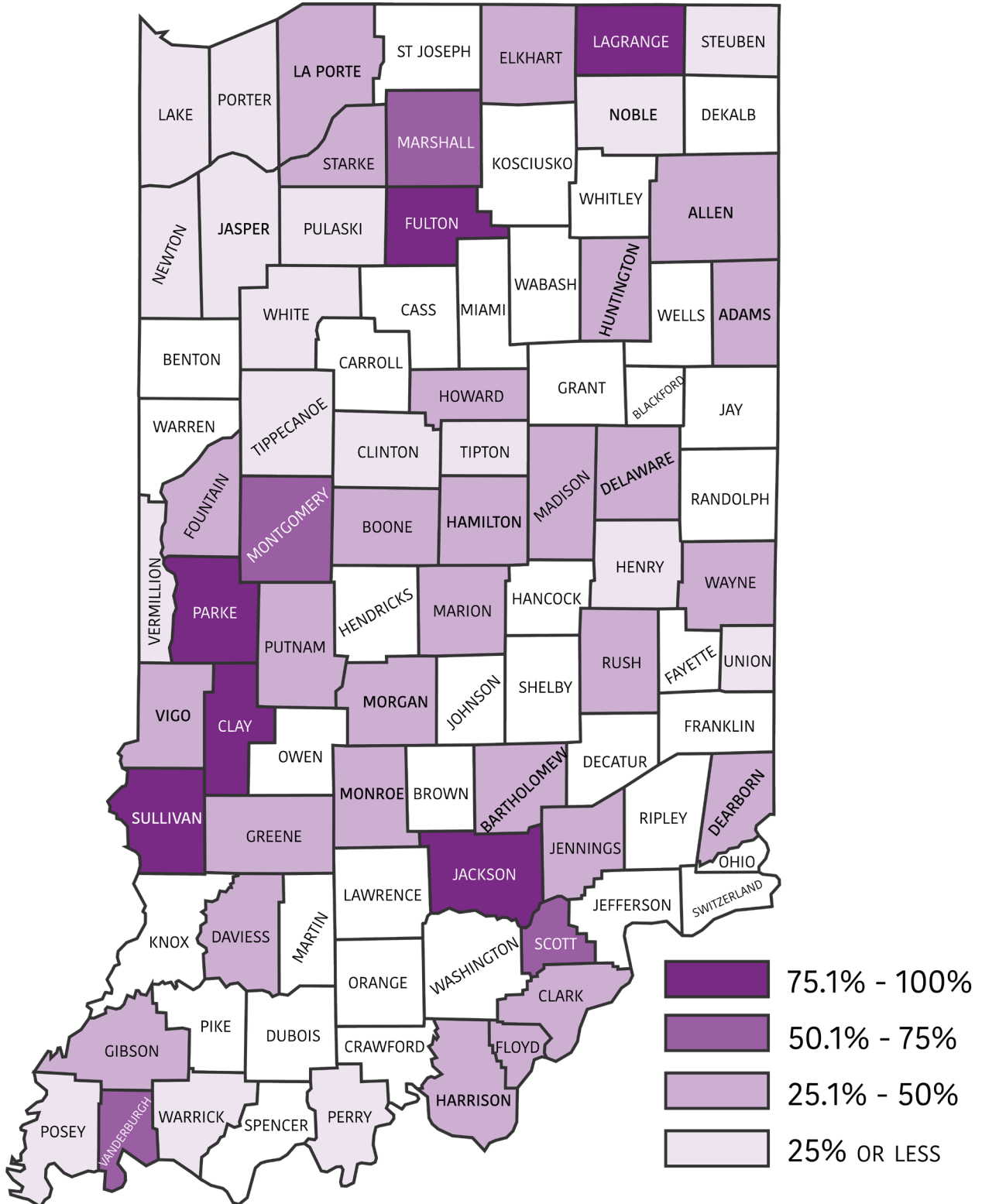


Cocaine-Involved





Methamphetamine-Involved





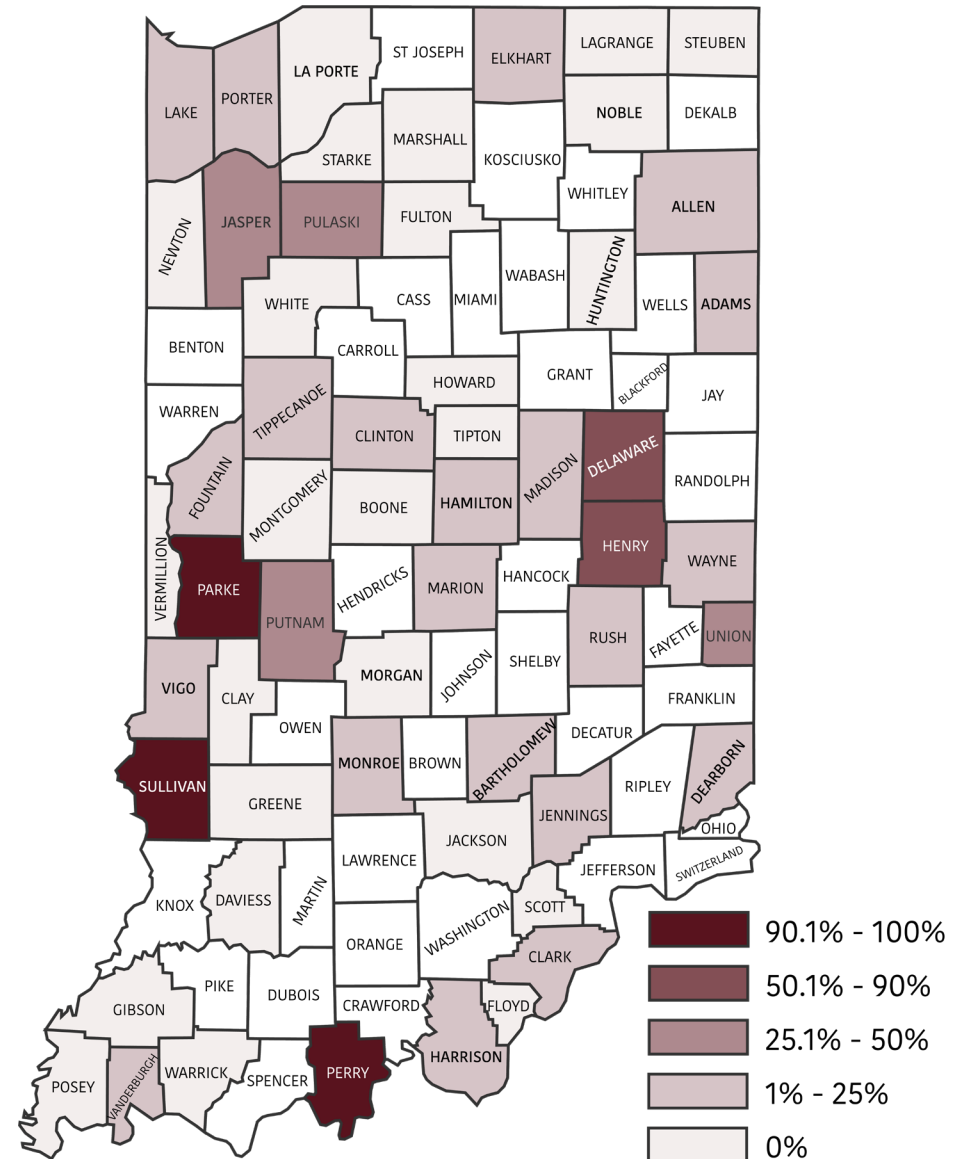
Undercounting

Undercounting of opioid-involved overdoses was a significant issue prior to 2018 when fentanyl became prevalent among the majority of drug overdose deaths. As guidelines were released to coroners across Indiana, improvements were made to accurately identify all opioid-involved overdoses.

The undercounting numbers were calculated using both toxicology results and the respective ICD codes assigned to the decedent and cross matching which cases had opioids in their toxicology results but no assigned opioid-involved ICD code (T40.0-T40.4).

Conclusions

- Only **96 (6%)** of opioid-involved cases were missed among all counties
- 24/55 counties correctly identified all opioid deaths
- Remaining 31 counties had at least 1 missed opioid-involved death
- All missed opioid-involved cases contained the T50.9 code (unspecified drugs) with fentanyl present among the case
- Most likely due to incomplete nomenclature for the cause of death on the death certificate





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