



Opioid Prescribing and Overdose Trends in Tennessee (2015–2018)

Analyzing Medicare Part D and overdose death data



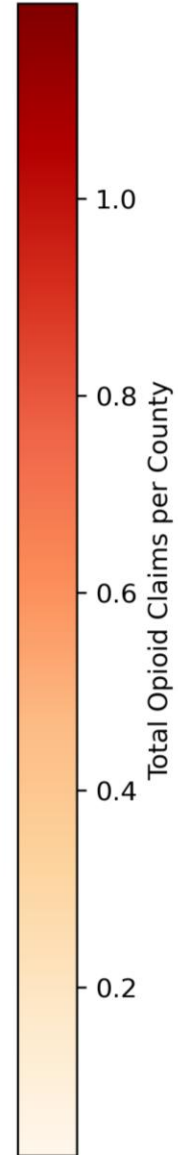
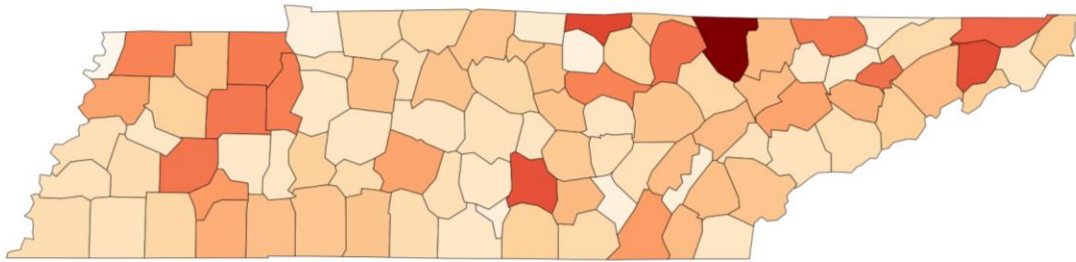
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Overview

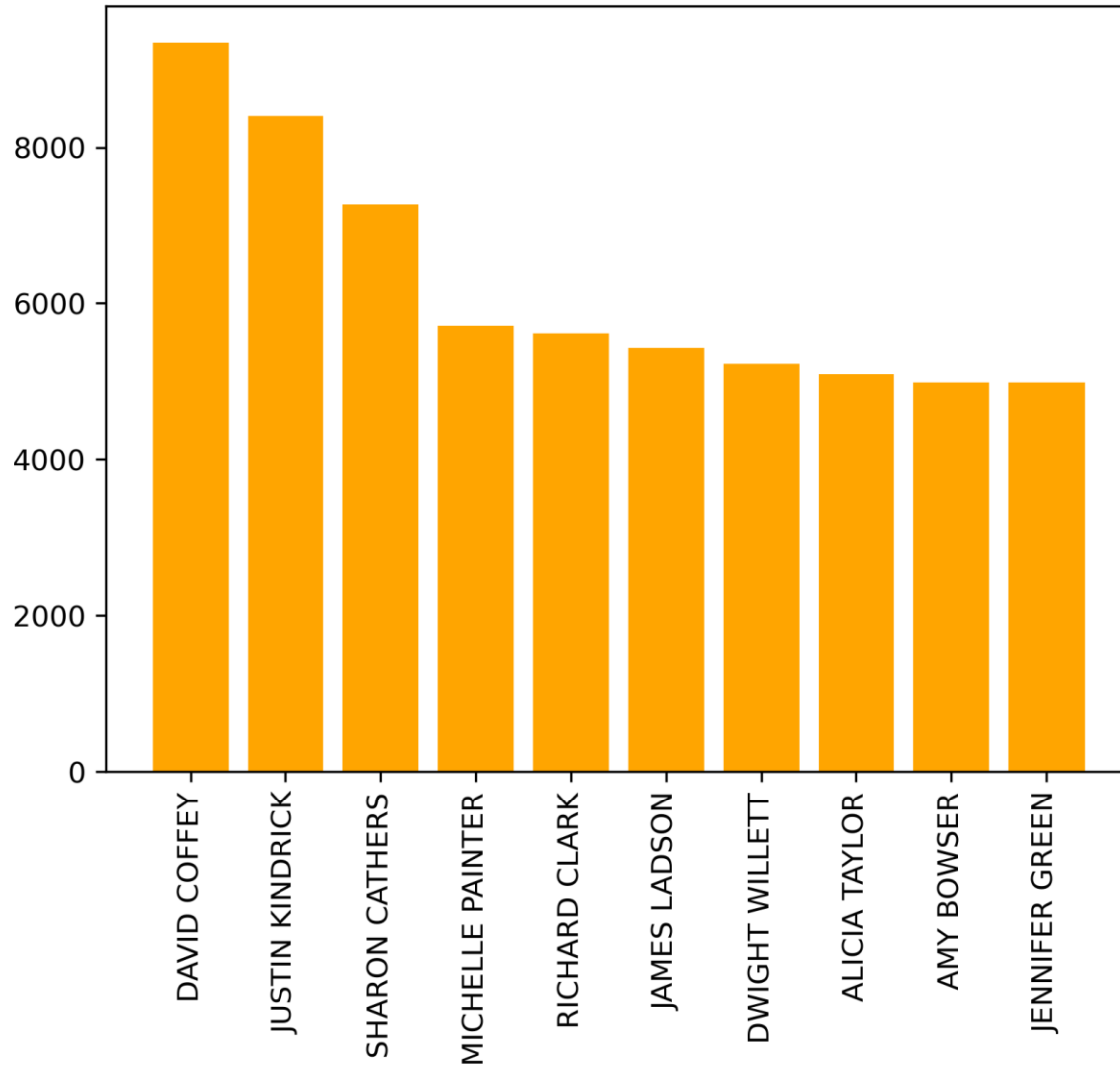
- § *Hotspots in Tennessee: Counties with Alarming High Opioid Prescriptions*
- § *Who's Prescribing the Most? Tennessee's Leading Opioid Dispensers*
- § *Opioid Overdose Deaths in Tennessee (2015–2018)*
- § *Prescription Trends and Associated Overdose Outcomes*
- § *Association Between Specific Opioids and Deaths*
- § *Critical Insights: What the Data Reveals*
- § *Questions & Thoughts?*

Opioid Claims by County (Tennessee)

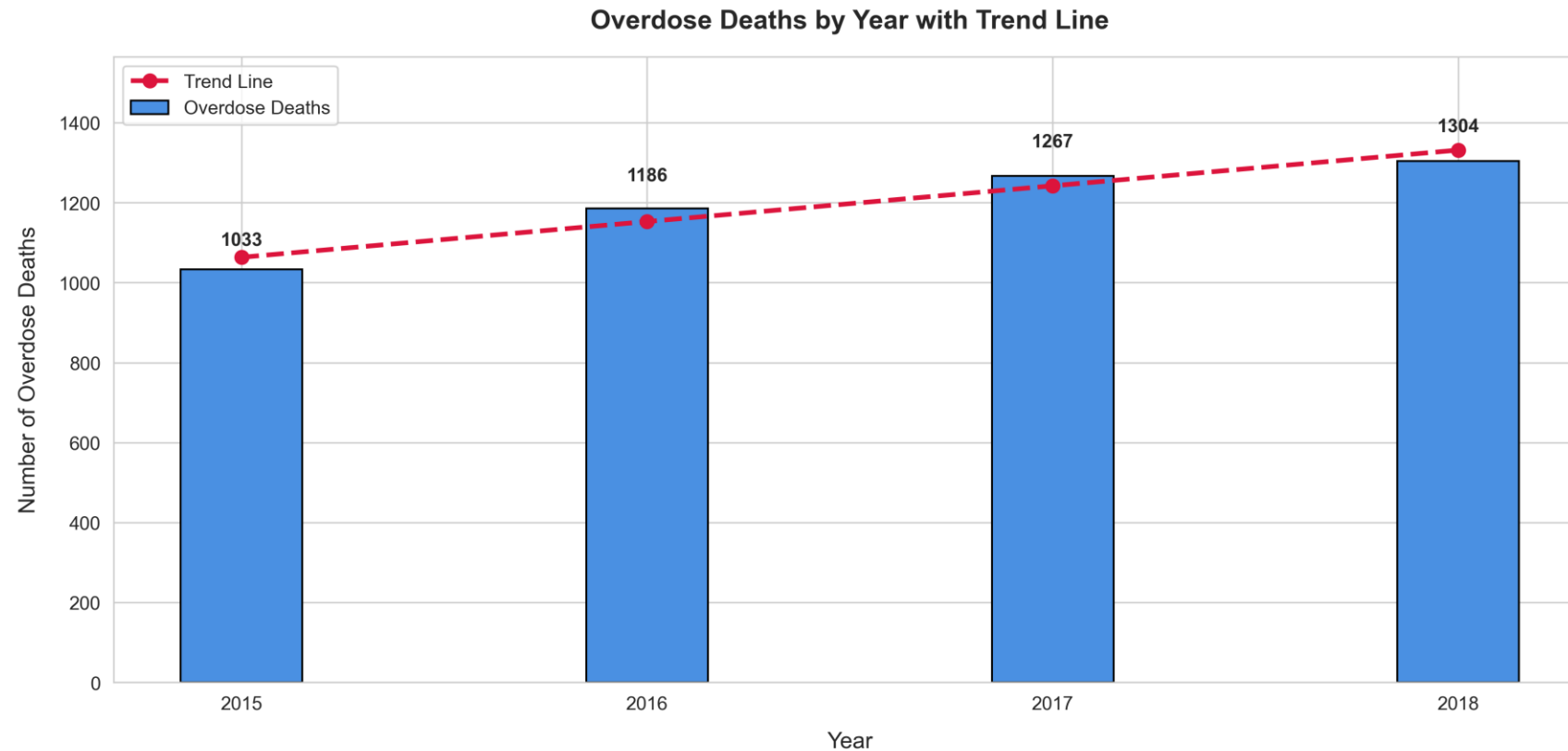


Hotspots in
Tennessee: Counties
with Alarming High
Opioid Prescriptions

Who's Prescribing the Most? Tennessee's Leading Opioid Dispensers

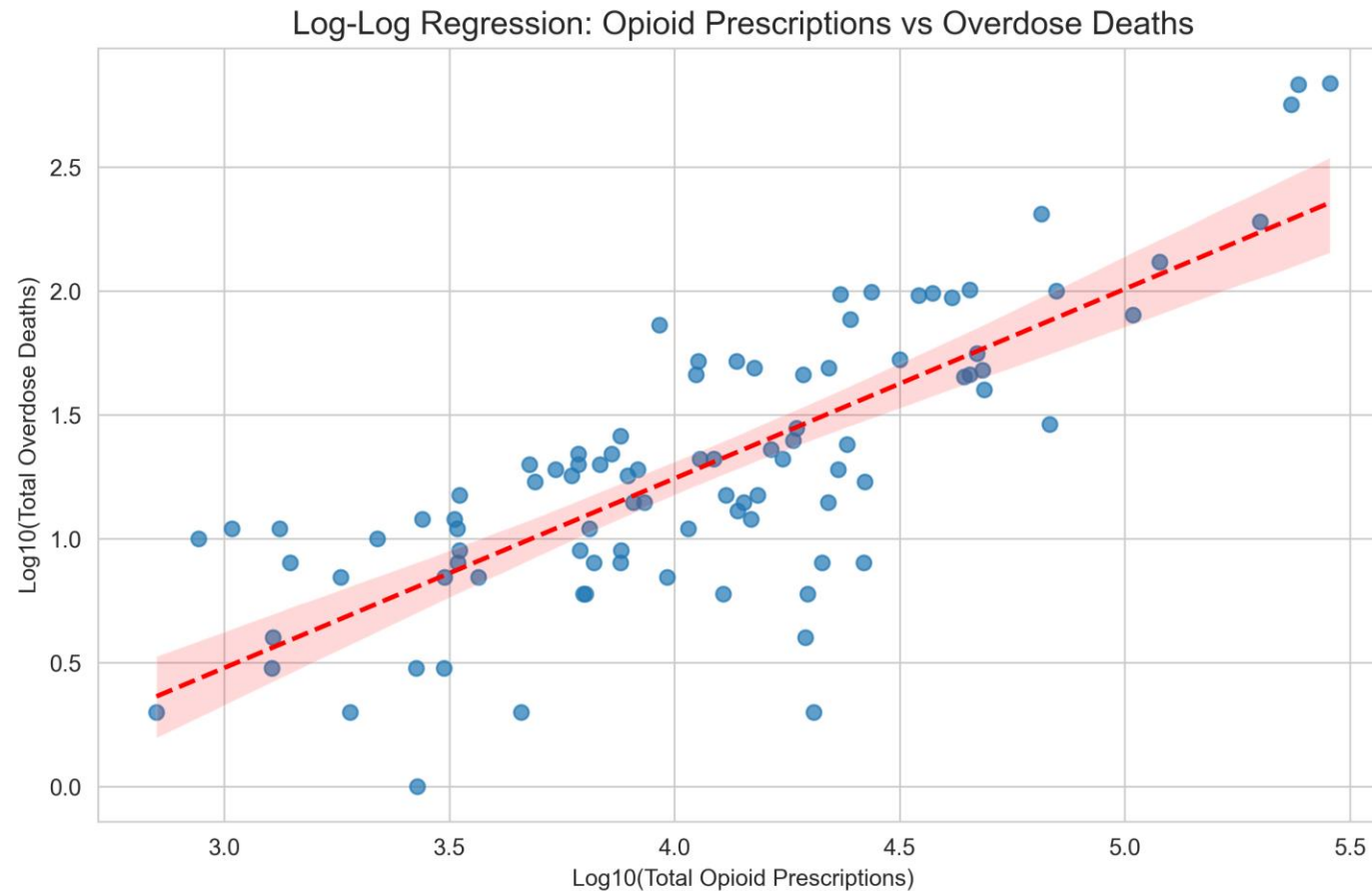


Opioid Overdose Deaths in Tennessee (2015–2018)



The number of opioid overdose deaths increased steadily from 2015 to 2018. The upward trend line suggests a consistent year-over-year rise, highlighting a growing public health concern.

Prescription Trends and Associated Overdose Outcomes



The log-log regression reveals a positive correlation between the number of opioid prescriptions and overdose deaths at the county level.

Association Between Specific Opioids and Deaths

Initial Question

Is there any association between a particular type of opioid and number of overdose deaths?

Data Limitation

No direct connection exists in the dataset between drugs and overdose deaths.

We cannot determine which drug was involved in which death.

ERD Explanation

Overdose deaths are linked only to county and year.

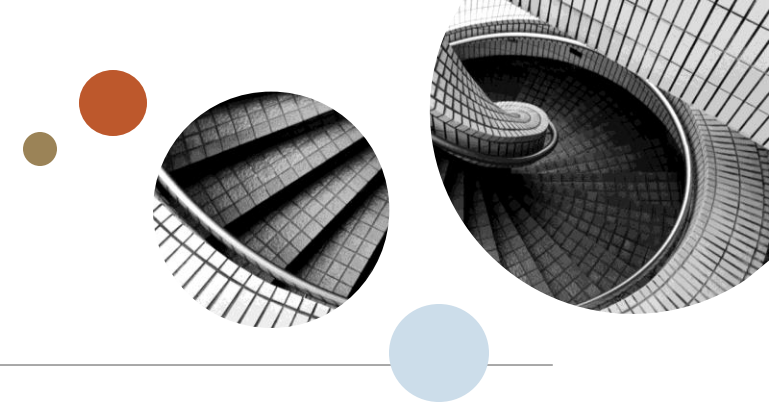
Drug information exists only in prescription records, not in death records.

→ No table joins allow matching deaths to specific drugs.

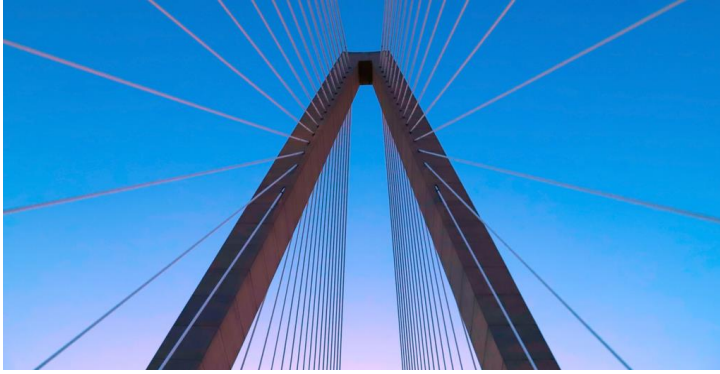
What Would Be Needed

To answer the question, we would need case-level overdose data, indicating which drug(s) were involved in each death.

Critical Insights: What the Data Reveals



- The number of opioid overdose deaths in Tennessee rose steadily from 2015 to 2018, suggesting a worsening public health issue.
- A strong positive correlation was found between the number of opioid prescriptions and overdose deaths at the county level.
- Certain counties—such as Scott—had extremely high overdose-to-prescription ratios, indicating localized risk zones.
- A small group of prescribers accounted for a disproportionately high number of opioid prescriptions, with the top 10 providers issuing thousands of claims.
- Despite high prescription volumes, no direct evidence connects specific opioids to overdose deaths due to data limitations.



Questions & Thoughts?
