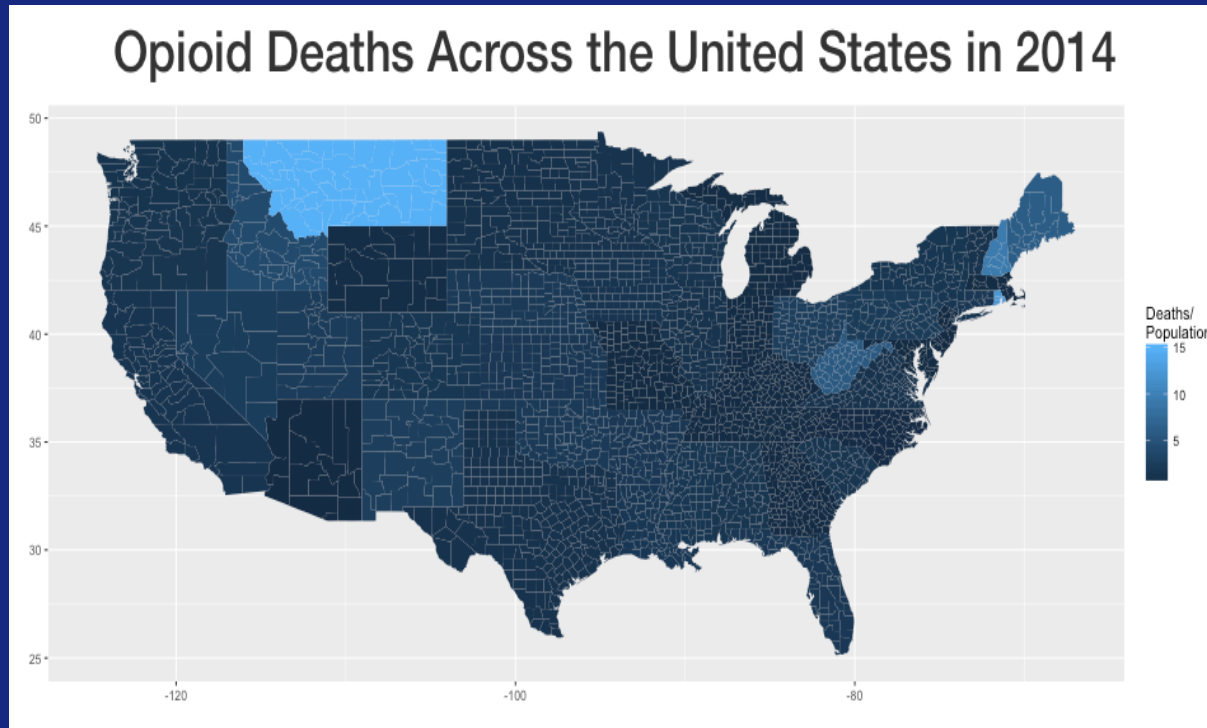


The Opioid Crisis in Connecticut: an Analysis from 2014-2016

Presentation by Katie Critelli

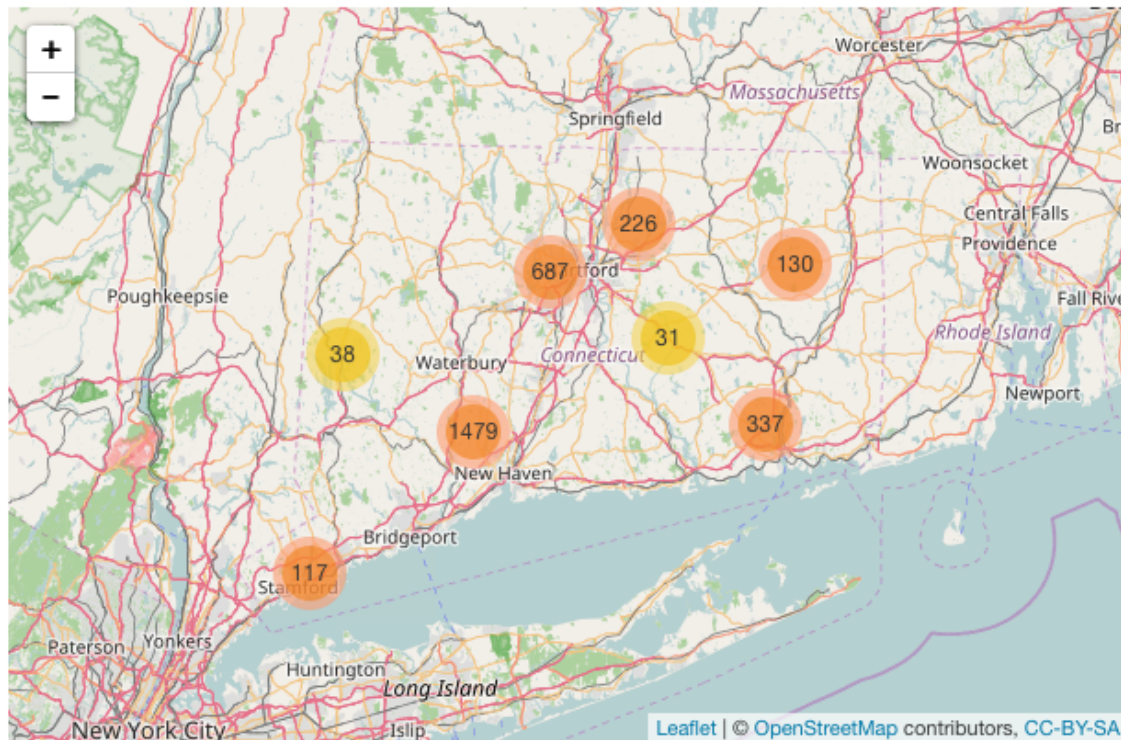
Background: a Modern Epidemic



- In 2016, drug overdose deaths in the United States exceeded 59,000, signifying a record high
- Opioid addiction, including heroin and prescription painkillers, has been highlighted as a modern epidemic
- Drug overdose is now the leading cause of death for Americans under 50 years old
- Source: <https://www.nytimes.com/interactive/2017/06/05/upshot/opioid-epidemic-drug-overdose-deaths-are-rising-faster-than-ever.html?mcubz=1>

Spotlight on Connecticut

Map of Opioid Deaths in CT in 2014



Why Connecticut?

- Connecticut has been hit hard by the national opioid crisis, which appears to be growing and gaining local and national concern
- Connecticut is a state of extremes. It has one of the largest educational achievement gaps in the country, according to the Department of Education, and it boasts the largest income gap, according to the Economic Analysis and Research Network
- Connecticut offers an interesting model for study: Opioid use and prescription data is readily available, different demographic and social extremes are open to analysis, and the question of how to quell the medical crisis remains unresolved

Spotlight on Connecticut

Top Searches: "Connecticut Opioid..."

has surpassed the national death rate for drug and opioid ...

Who is dying in Connecticut's opioid overdose crisis? | The Opioid ...

<https://overdose.trendct.org/story/who> ▼

In Connecticut, death by drug overdose is more common among white people than among other racial and ethnic groups, and that racial disparity is growing. That trend holds for opioid overdose deaths too. We examined state data on 1,912 opioid-related overdose deaths from January ...
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WNPR Covers Connecticut's Opioid Epidemic | WNPR News

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WNPR's Opioid Addiction Crisis Reporting Initiative is supported by Hartford HealthCare ... Connecticut Gets Federal Grant To Combat Opioid Epidemic

Addressing the Opioid Epidemic | Connecticut House Democrats

www.housedems.ct.gov/PR/Addressing_the_Opioid_Epidemic ▼

This year we passed lifesaving legislation to combat the opioid crisis here in Connecticut. We will soon have one of the most comprehensive laws in the nation to ...



Officials: Boy, 10, Among Youngest Victims of Opioid Crisis

NBC Connecticut - 4 hours ago

Prosecutors in Florida believe a 10-year-old boy who died with the painkiller fentanyl in his system is among the state's youngest victims of the ...



As Senators Consider Health Care Bill, Opioid Crisis Continues ...

Hartford Courant - Jul 10, 2017

Connecticut has seen an increase in fatal overdoses from opioids, fueled in part by the growing prevalence of fentanyl, a powerful synthetic, ...

Opioid Crisis Shows No Signs of Slowing in Connecticut

CT News Junkie - Jul 10, 2017

Opioid crisis summit highlights grim outlook to the epidemic

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Opioid Law A Good Start But Connecticut Crisis Worsening Quickly

Hartford Courant - Jul 12, 2017

Connecticut's opioid crisis, which has already claimed hundreds of lives, is worsening quickly, despite many efforts to stem it. New legislation ...



Connecticut's two senators are holding a summit on opioid crisis

Boston.com - Jul 9, 2017

BRIDGEPORT, Conn. (AP) — Connecticut Sens. Chris Murphy and Richard Blumenthal are planning a summit on the state's opioid crisis to ...

After 917 Fatal ODs In CT, Murphy, Blumenthal Look To Tackle ...

Bridgeport Daily Voice - Jul 9, 2017

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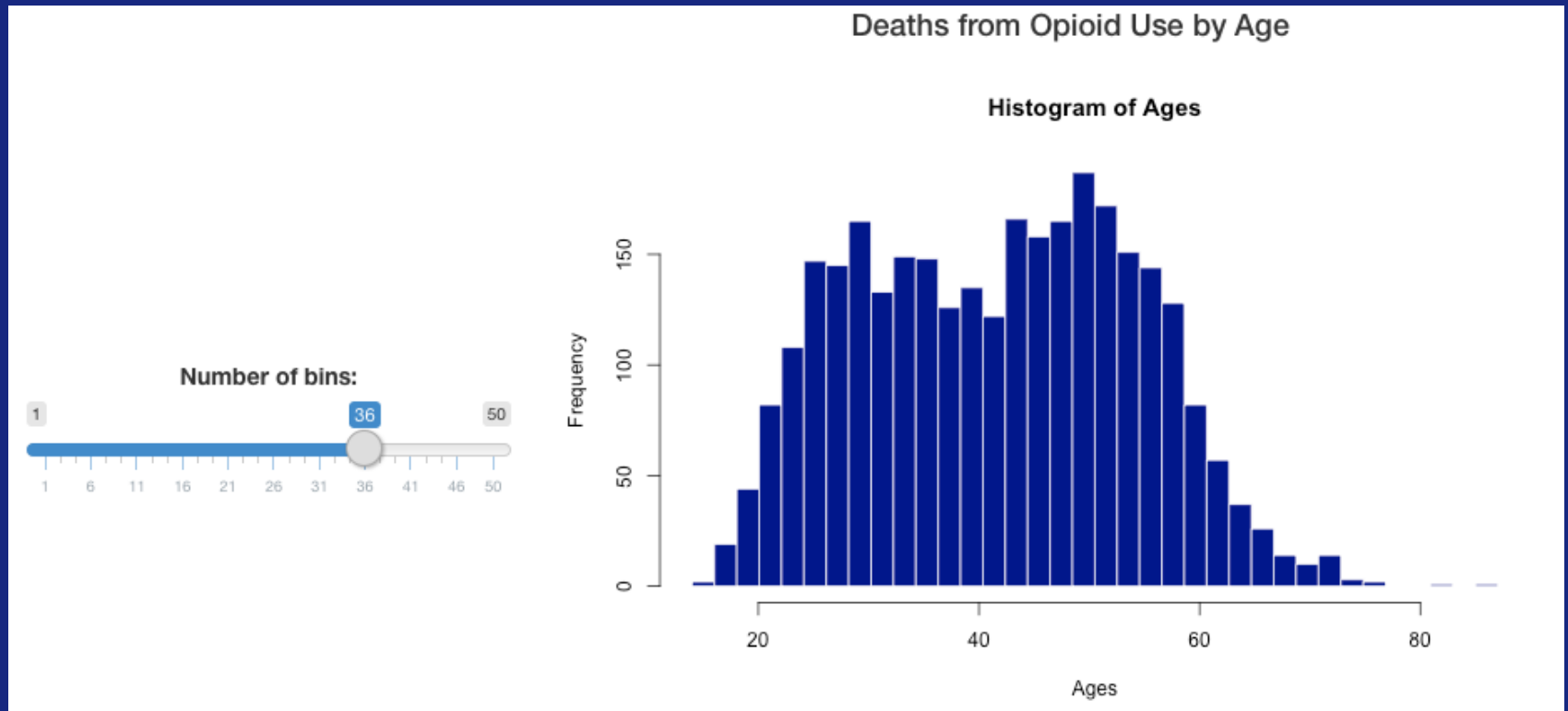
Background: Focus Questions

Question 1: Which populations are most vulnerable to opioid use and opioid-related death?

Question 2: How can local government intervene most effectively to prevent opioid-related deaths?

Question 1: Which populations are most vulnerable to opioid use and opioid-related death?

Demographics of Opioid Death: Age

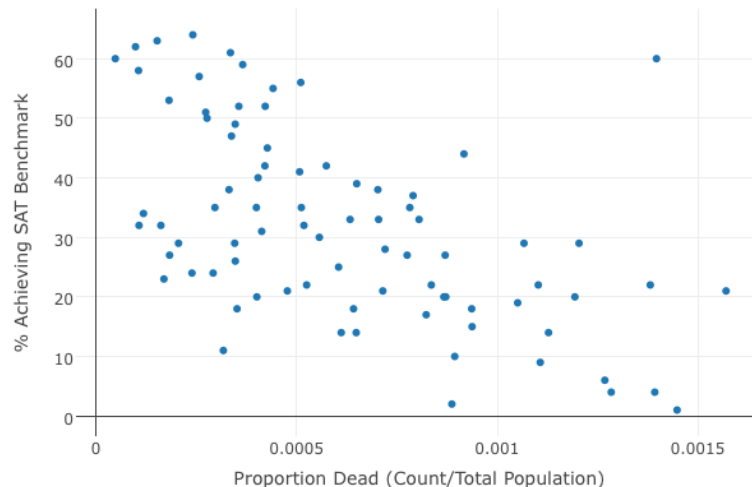


Demographics of Opioid Death: Race and Gender

Show	25 ▾	entries	Search:	<input type="text"/>
Demographic_Group ▾	Opioid_Deaths ▾	Per_Opioid_Deaths ▾	CT_Population_Numbers ▾	Per_CT_Population ▾
White M	1746	57.4	1345691	36.6
White F	685	22.5	1434663	39.0
Hispanic M	257	8.5	155036	4.2
Hispanic F	60	2.0	165286	4.5
Black M	179	5.9	149964	4.1
Black F	71	2.3	159878	4.3
Asian M	11	0.4	39839	1.1
Asian F	5	0.2	42472	1.2
Other M	22	0.7	90137	2.4
Other F	5	0.2	96096	2.6
<input type="text" value="Demographic_Group"/>	<input type="text" value="Opioid_Deaths"/>	<input type="text" value="Per_Opioid_Deaths"/>	<input type="text" value="CT_Population_Numbers"/>	<input type="text" value="Per_CT_Population"/>
Showing 1 to 10 of 10 entries				Previous 1 Next

Possible Correlations: Education and Wealth

Correlation: Education (SAT) vs. Proportion Dead

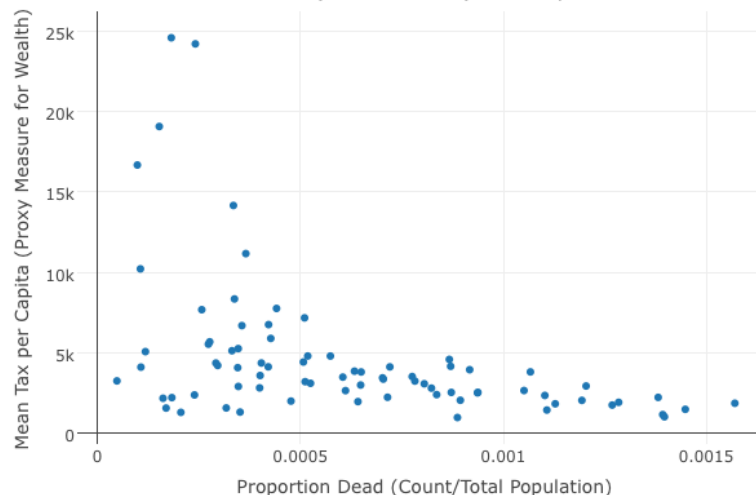


Education

This scatter plot examines the correlation between education level and proportions of opioid-related deaths. SAT benchmark achievement, or the percentage of students in a town meeting SAT benchmarks, is used as a comparative measure of educational achievement. The number of opioid-related deaths was measured in each town and then normalized by population.

```
cor(SAT_dc$Benchmark.x,  
SAT_dc$Proportion)  
[1] -0.5599098
```

Correlation: Income (Measure:Tax) vs. Proportion Dead



Wealth

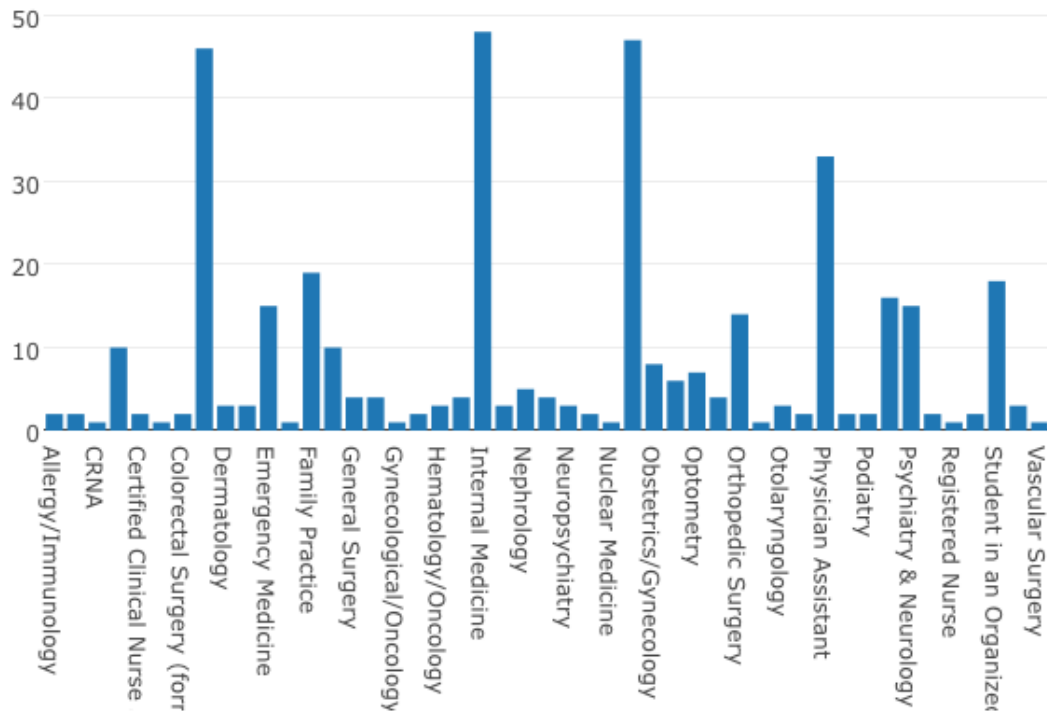
This scatter plot examines the correlation between wealth and proportions of opioid-related deaths. Tax per capita is used as a proxy for wealth and is compared across towns. The number of opioid-related deaths was measured in each town and then normalized by population.

```
cor(cor_income$Proportion,  
cor_income$Tax.Per.Capita) [1]  
-0.4494215
```

Question 2: How can local government intervene most effectively to prevent opioid-related deaths?

Pinpointing Medical Sources of Opioids

Count of Opioid Prescriptions Written by Medical Specialty

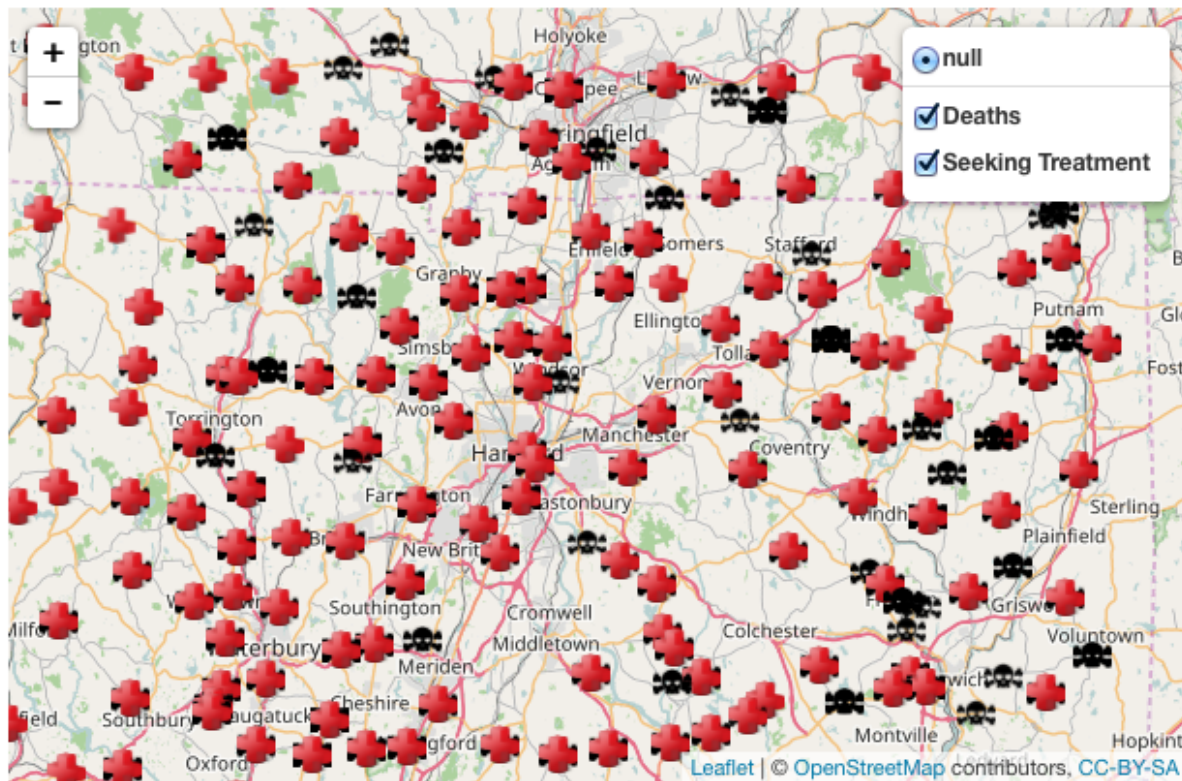


Medical Sources

This plot examines a dataset documenting medical prescriptions for opioids written in Connecticut in the year 2014. It examines how many clinicians in each specialty were recorded prescribing opioids. Notably, this plot does not take into account how many prescriptions individual providers wrote.

Treatment Admissions: Successes and Failures

Overlap Between Treatment Centers and Locations of Death in 2016



Treatment Admissions

This plot maps town level data depicting the number of admissions in treatment programs funded or operated by the Department of Mental Health against the number of deaths in the year 2016. The viewer is able to visually see where treatment services are utilized and where they are under-utilized or non-existent.

Conclusions

- Demographic conclusions
- Educational and economic correlations
- Medical sources for further investigation
- Current treatment landscape