

Accessibility to Opioid Treatment Programs Via Personal Vehicle vs Mass Transit

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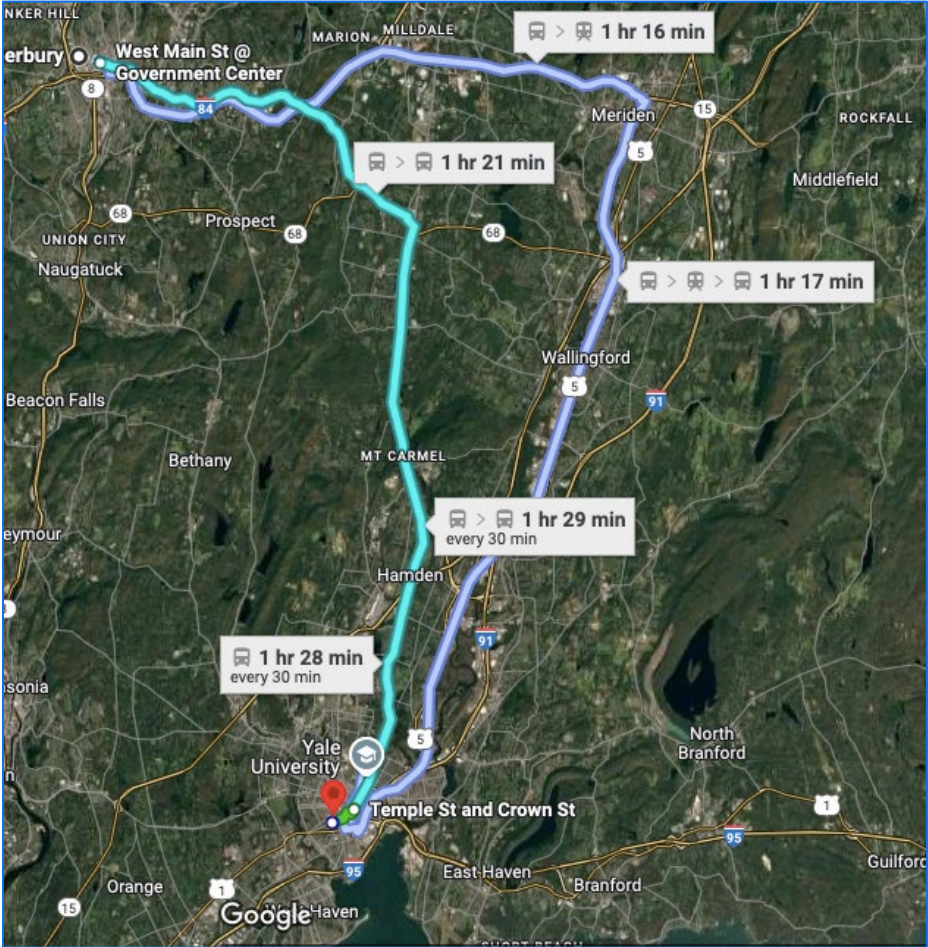
AMERSA, Chicago, IL; November 16, 2024

Yale SCHOOL OF MEDICINE



YALE PROGRAM IN
**ADDICTION
MEDICINE**

Daily travel from Waterbury to New Haven



Transportation barriers are a social determinant of health



- Transportation barriers to health care leads to worse health outcomes across a range of diseases
- Travel times to fixed location Opioid Treatment Programs (OTPs) are a barrier to treatment initiation and retention
- Previous work has demonstrated geographical disparities in transportation access to OTPs via personal vehicle travel
 - 9% of individuals in the United States live in households without a car
 - People with OUD more likely to rely on mass transit

Objectives

Compare average travel time to the nearest OTP from all parts of Connecticut by personal vehicle and mass transit

Identify regions of Connecticut with poor mass transit OTP access, low car ownership, and high per capita overdose rates

Methods: Average travel times to closest OTP

1

Obtained of OTP locations (N=29) from CT Department of Mental Health and Addiction Services (DMHAS)

2

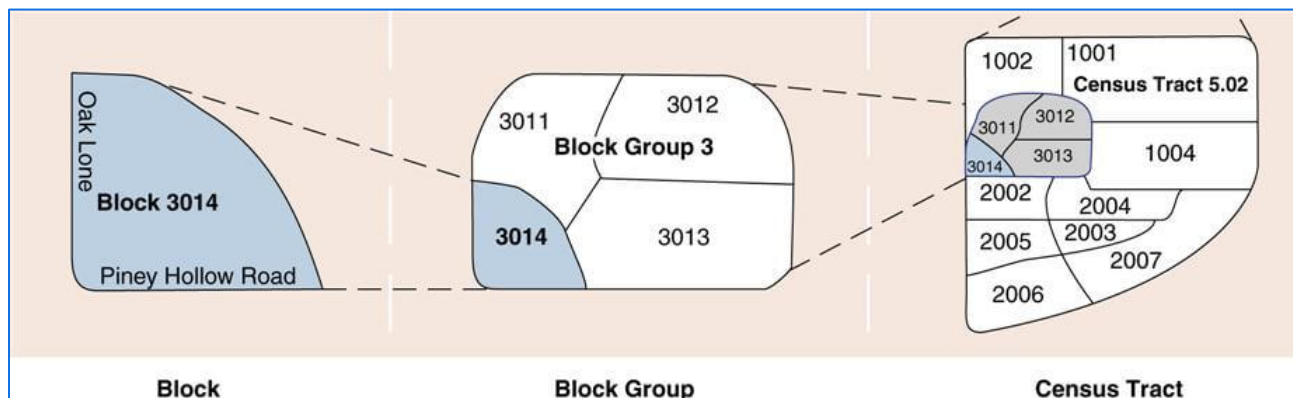
Calculated travel times via personal vehicle and mass transit from centroid of all 2,702 census block groups to nearest OTP (Wed 8am departure)

- Personal vehicle travel time via Google API
- Mass transit travel time via schedule-aware transit network via General Transit Feed Specification dataset

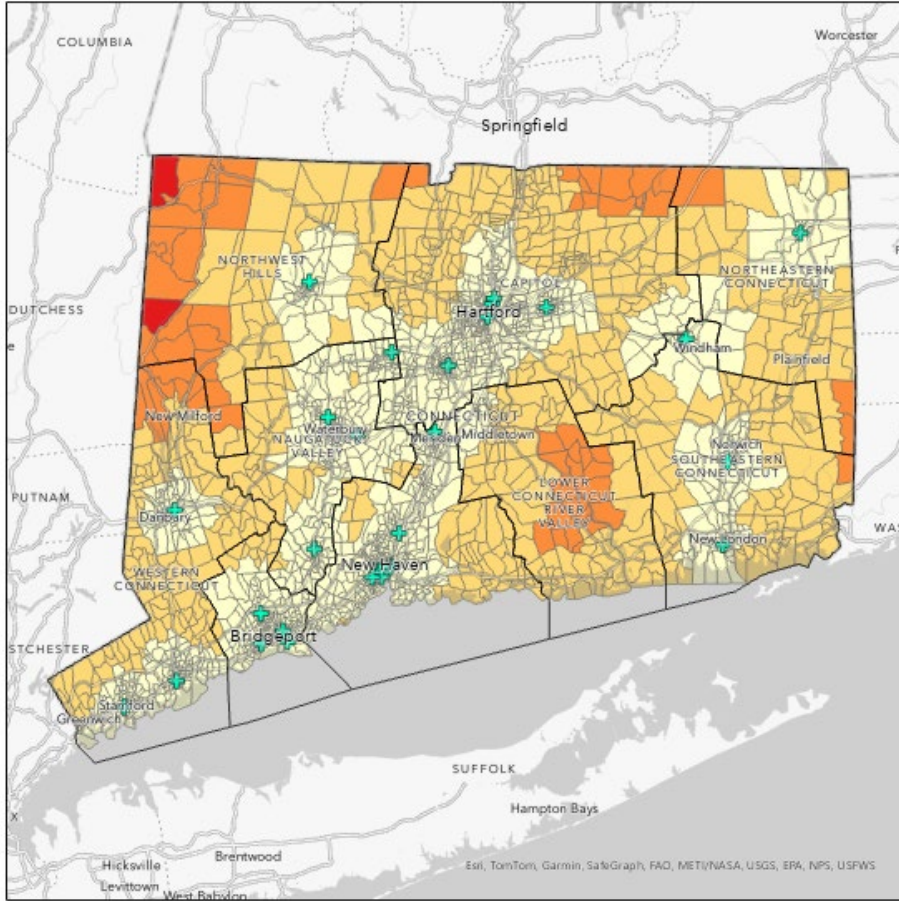
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Classified Census Block Groups by:

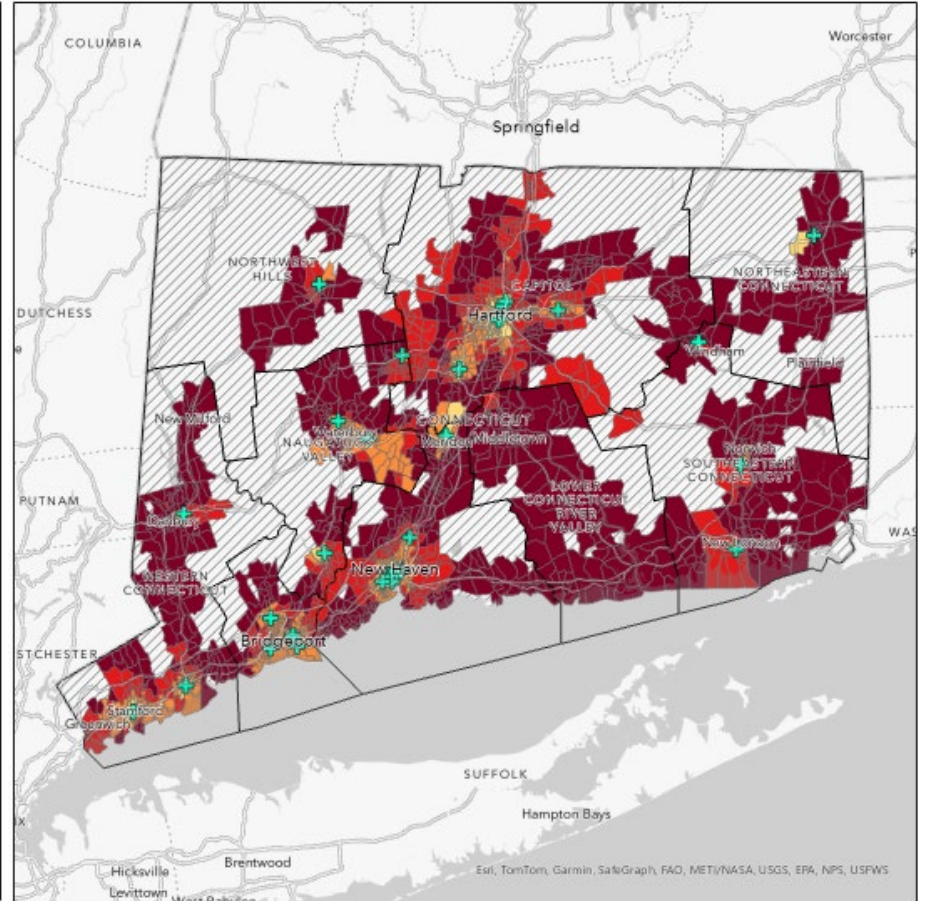
- demographic data from 2022 American Community Survey
- per capita overdose deaths using residential address of opioid overdose decedents from 2019-2021



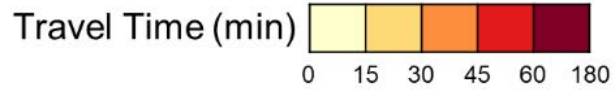
(a) Driving



(b) Transit



⊕ OTP Facilities



Transit Trips to OTP
Are Not Available

Results

98 of 489 (20%) of high overdose census block groups had low car ownership and poor mass transit access (>60 mins or none)

Census Block Group Characteristics (N)	Personal Vehicle Travel Time* - Median (IQR)	Mass Transit Travel Time* - Median (IQR)	No Mass Transit Trips Available
All (2,702)	11.0 (7.5, 16.3)	54.5 (38.9, 79.0)	18%
Urban (845)	8.2 (6.1, 11.0)	40.7 (28.6, 60.9)	1.0%
Suburban (1,611)	12.5 (8.7, 17.5)	60.1 (46.8, 87.5)	21%
Rural (246)	19.4 (12.4, 27.9)	74.7 (115, 129.3)	55%
<u>% households w/o car</u>			
< 5% (1,329)	13.7 (10.1, 19.1)	64.4 (49.5, 93.0)	29%
≥ 5% (1,373)	8.6 (6.0, 12.6)	47.5 (13.2, 66.8)	7%
<u>Overdoses per 100K</u>			
<50 (1,202)	12.8 (9.2, 18)	59.2 (43.9, 87.5)	22%
>50, <100 (454)	11 (7.3, 16.3)	58.1 (38.7, 83.8)	17%
>100, <200 (557)	9.9 (7.0, 14.6)	52.2 (37.5, 75.1)	18%
>200 (489)	8.2 (5.9, 11.7)	45.4 (30.7, 63.3)	9%

*Travel time in minutes

Limitations

All measures at the census block group-level may not reflect actual individual-level conditions of people with OUD

Per capita overdose rates may not reflect actual treatment need

Our analysis does not account for variability in OTP model (e.g., low-barrier, take-home privileges) or quality of treatment

- Some individuals may bypass OTPs and travel greater distances to an OTP that better meets their treatment needs

Discussion

- In Connecticut, mass transit travel times to the closest OTP are 5x longer than personal vehicle travel times; including in census block groups with low car ownership and high overdose rates
- Mass transit travel times to OTPs in Connecticut represent a significant barrier to accessing and staying on methadone treatment
- Long mass transit travel times highlight:
 - Deficiencies in the mass transit network
 - Opportunities for mobile methadone units or additional fixed location OTPs
 - Need for liberalized take-home policies and alternative methadone treatment delivery models (e.g., physician-prescribed/pharmacy dispensed)



Travel time analysis included in state report to inform use of Opioid Settlement Funds.



■ HEALTH

The problem with accessing opioid treatment in parts of CT: Getting there

State officials want to fill in the map for methadone treatment



by Andrew Brown

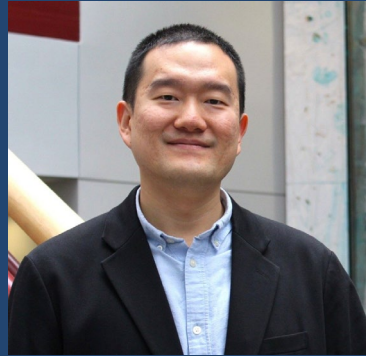
April 28, 2024 @ 5:00 am



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Funding:

Connecticut Department of Mental Health and Addiction Services (DMHAS)

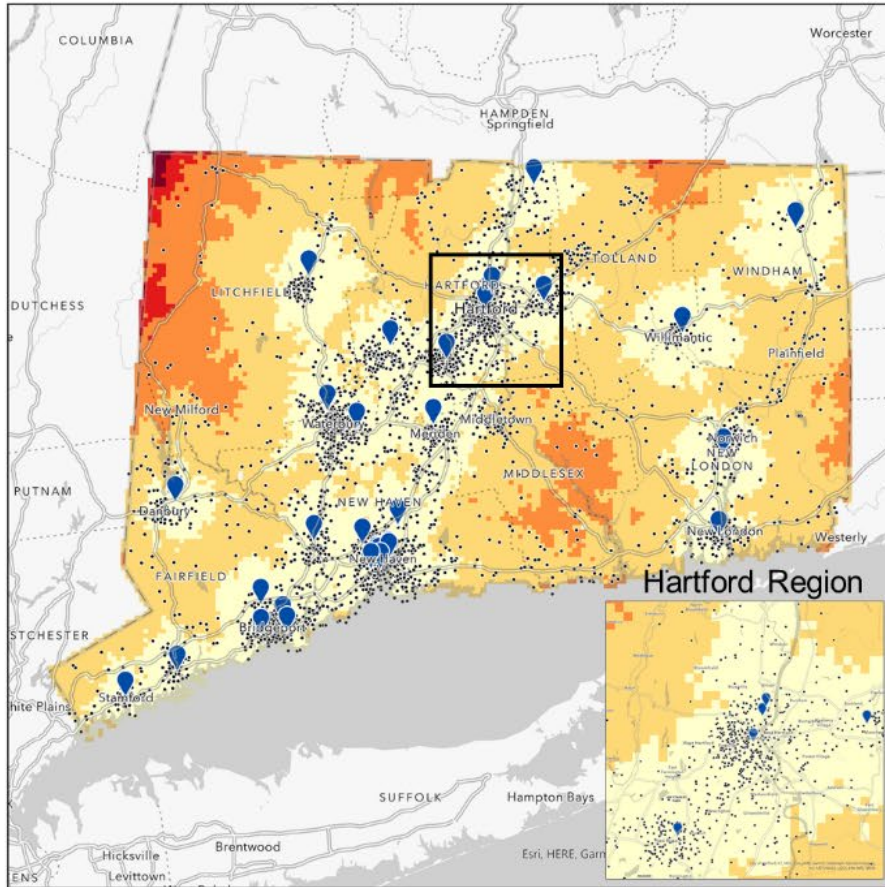
Thank you. Questions?

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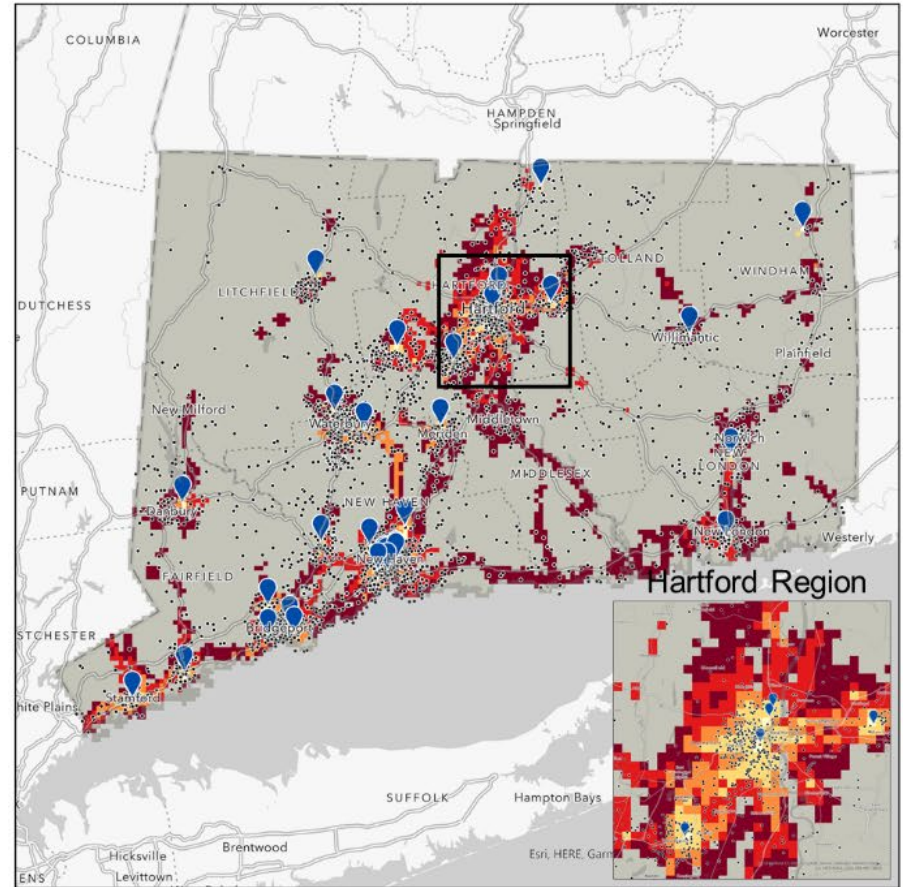
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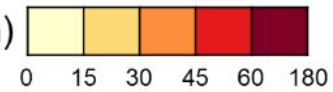
(a) Driving



(b) Transit



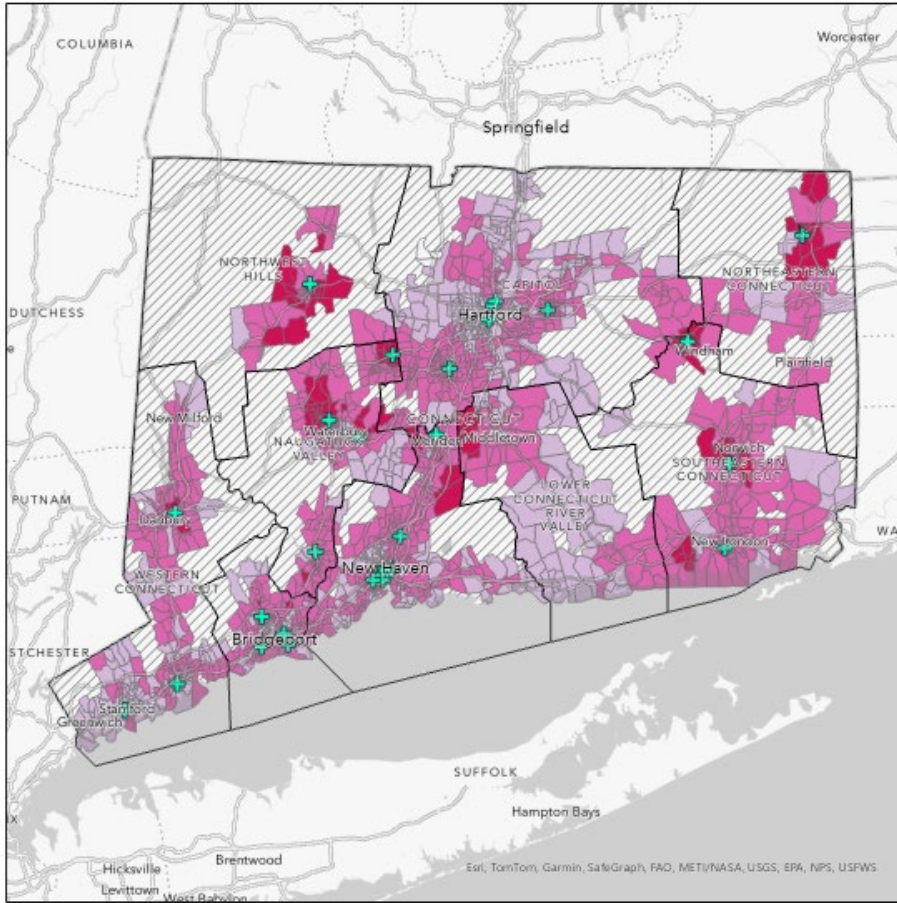
📍 OTP Facilities • Overdose Deaths (Geo-masked) Travel Time (min)



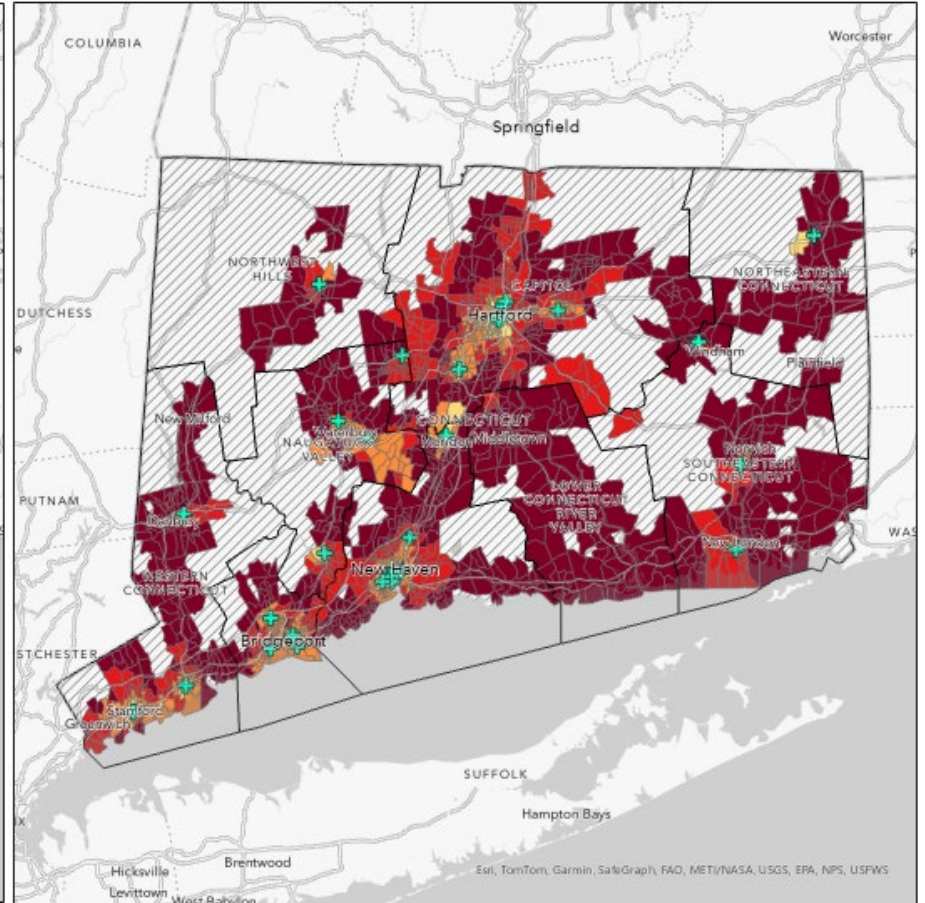
Transit Trips to OTP Are Not Available



(a) Overdoses per capita 2017-2019



(b) Transit



⊕ OTP Facilities

Travel Time (min) 0 15 30 45 60 180

Transit Trips to OTP Are Not Available

