

WSIPP Initiative 502 Evaluation: ***Substance use and Health Care***

WASHINGTON STATE INSTITUTE FOR PUBLIC POLICY

WSIPP'S INITIATIVE 502 (I-502) ASSIGNMENT

RCW 69.50.550

WSIPP shall conduct cost-benefit evaluations for the implementation of [this act]...The evaluations shall include, but *not necessarily be limited to*:

- Public health and health care,
- Public safety,
- Substance use,
- Criminal justice,
- Economic impacts, and
- Administrative costs and revenues

abbreviated assignment language

OVERVIEW

Outcomes Evaluated (*September 1, 2023*)

National comparison

- Reported cannabis and other substance use

Retailer Access

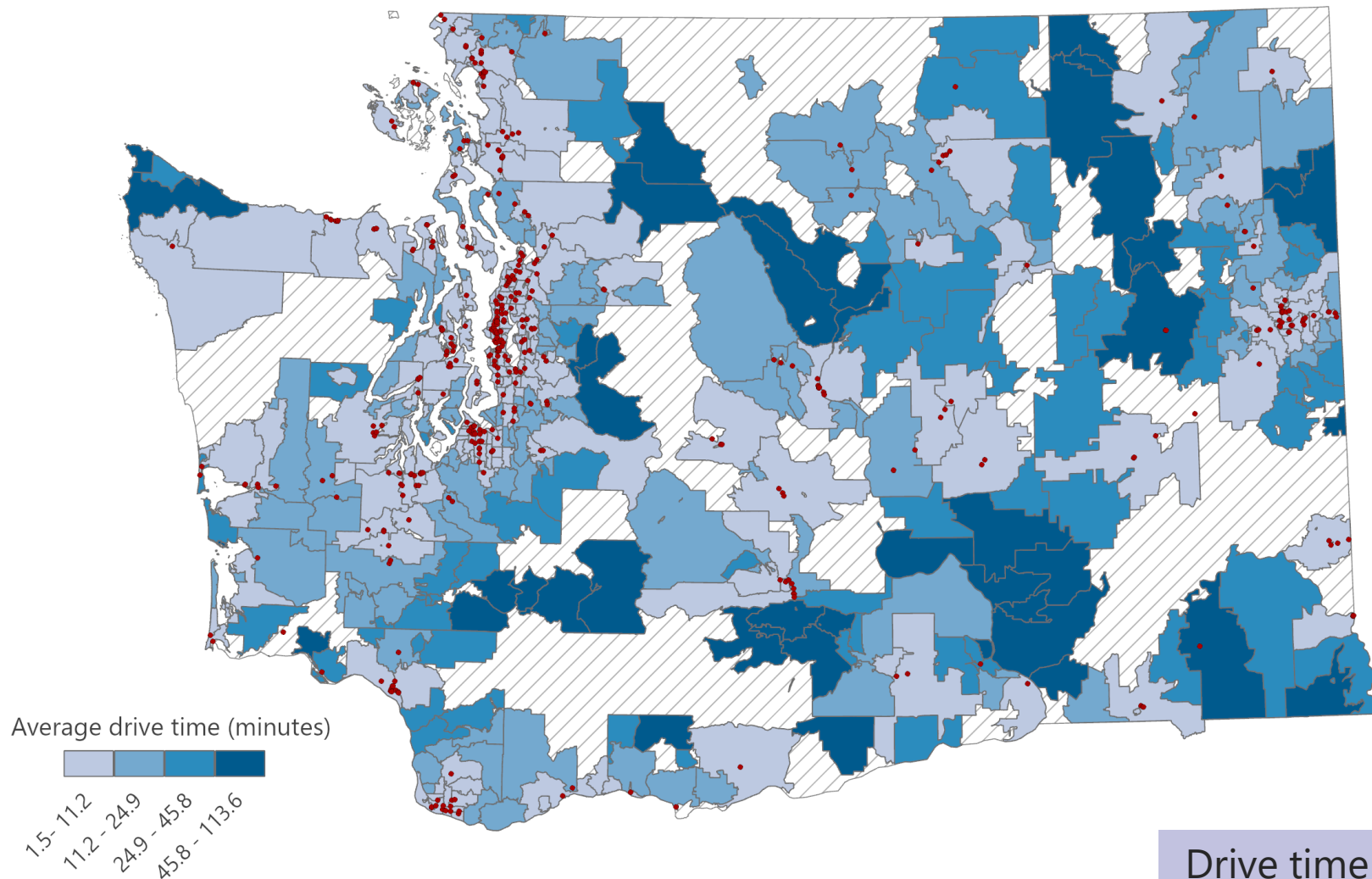
- Reported cannabis use
- Cannabis, opioid, alcohol substance use disorder diagnoses
- Traffic fatalities
- Cannabis possession convictions

NON-MEDICAL CANNABIS RETAIL ACCESS

- Retail market rolled out over several years, with varying accessibility across regions
 - Difficult to detect the impact of NMC retail using a comparison at a single point in time
 - The impact of NMC retail on cannabis use and subsequent outcomes may differ depending on retail accessibility
- Access measured as the average drive time (in minutes) to the nearest retailer for the average resident in a geographical unit (i.e., ZIP code, census tract, etc.)

Retailers

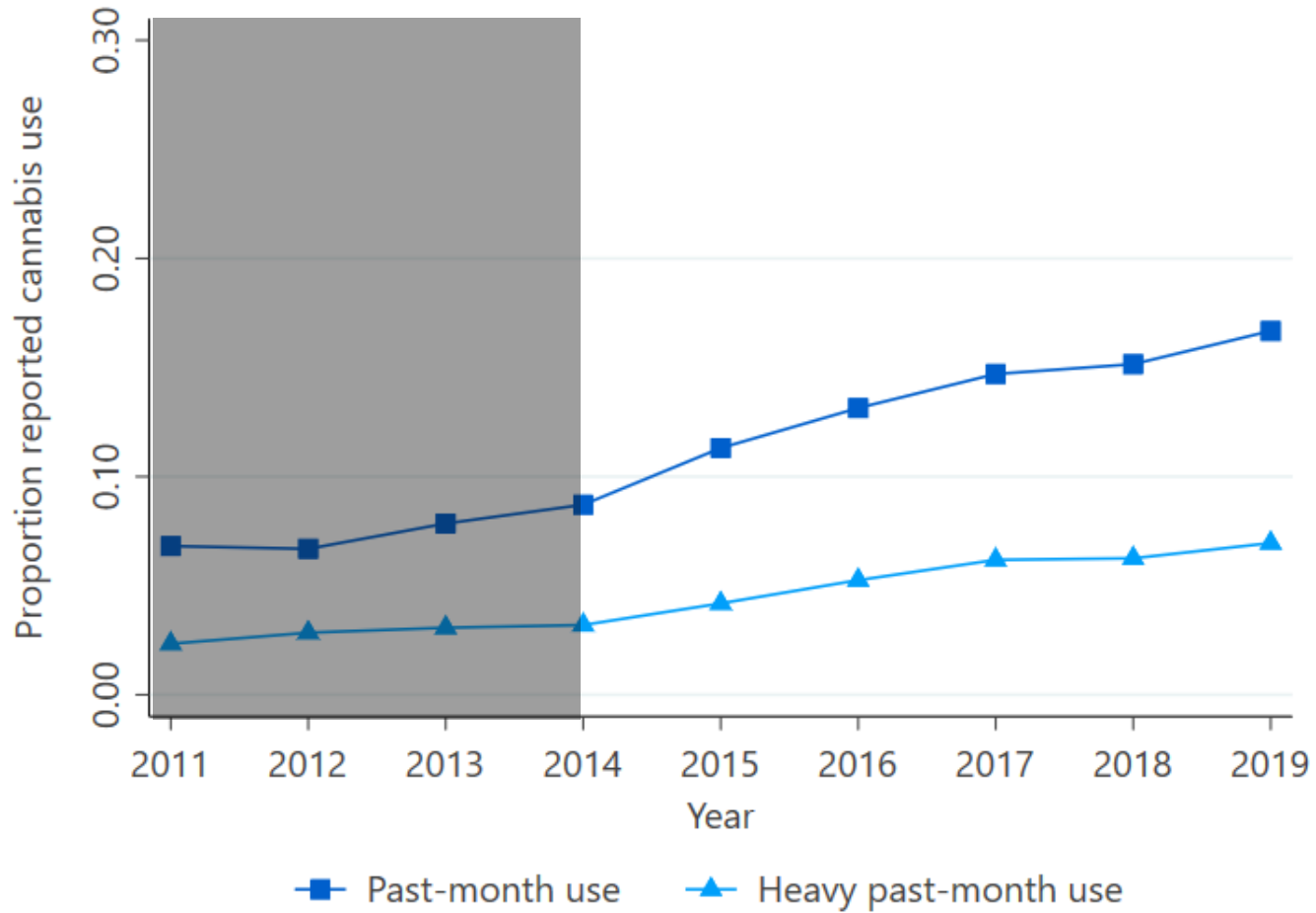
Average Drive Time to Nearest Retailer in Minutes, ZIP codes 2019



REPORTED CANNABIS USE: CANNABIS RETAIL ACCESS

- Estimated the relationship between drive time to the nearest NMC retailer and adult reported cannabis use
- Data
 - Washington State Behavioral Risk and Surveillance System (BRFSS)
 - Study period 2014-2019
 - Outcomes include past-month and heavy past-month (i.e., at least 20 days) cannabis use
 - Over the study period 11% of adults (ages 21+) report past-month cannabis use, and 4% report heavy past-month cannabis use.

Proportion Reporting Past-Month Cannabis Use



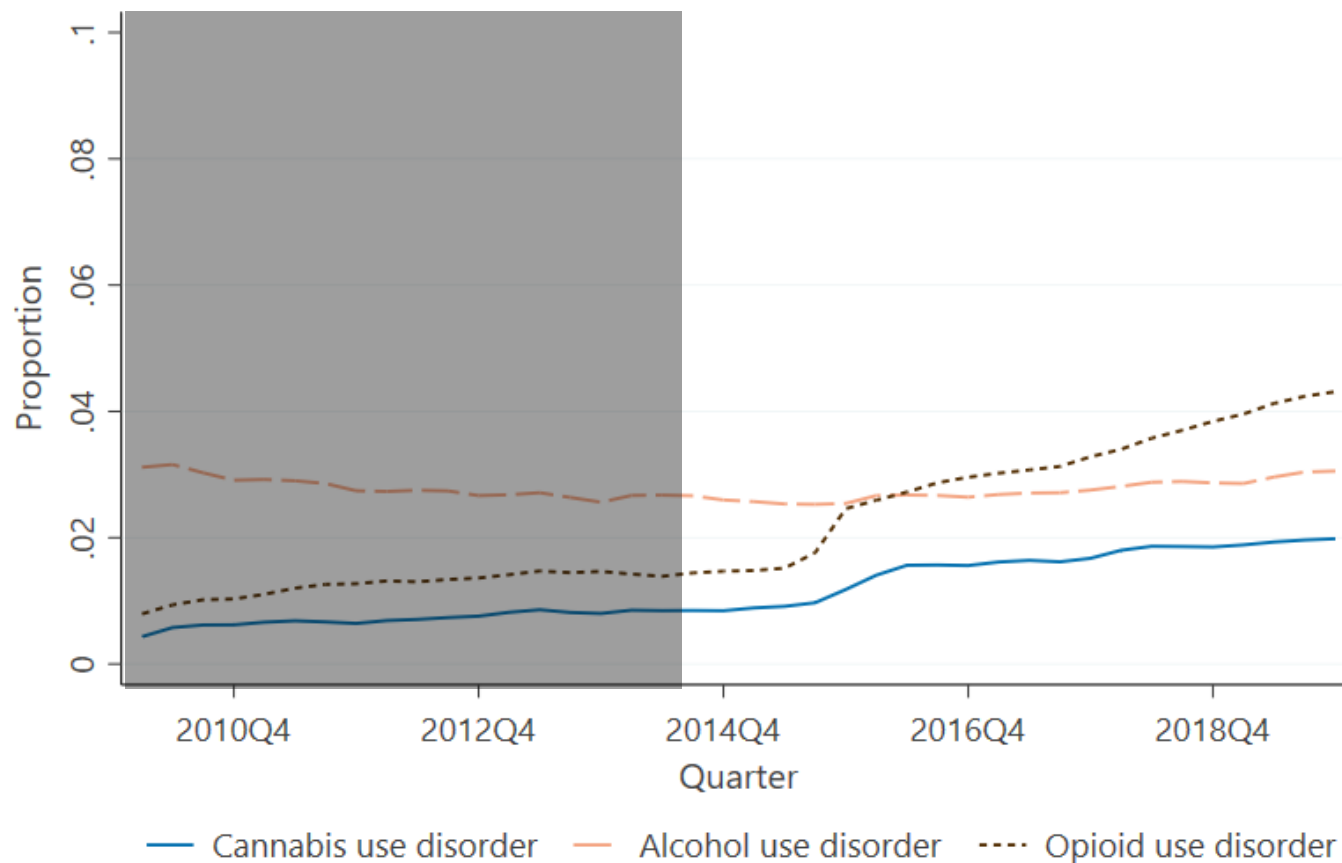
FINDINGS

- A shorter drive time to a licensed retailer relates to a higher probability of reported cannabis use
 - E.g., a 50% reduction in drive time increases the probability of reporting past-month use by 6.0%
 - E.g., a 50% reduction in drive time increases the probability of reporting heavy past-month use by 8.6%

SUBSTANCE USE DISORDER: CANNABIS RETAIL ACCESS

- Examined if changes in local access to licensed NMC retailers over time predict changes in the probability of receiving a substance use disorder diagnosis (annually)
- Data
 - Medicaid claims data
 - Focus on beneficiaries ages 21+
 - Analysis period is July 2014-December 2019
 - Outcomes include:
 - Cannabis use disorder (CUD), alcohol use disorder (AUD), or opioid use disorder (OUD) diagnosis
 - Co-occurring CUD and AUD, or CUD and OUD

Proportion of Medicaid Enrollees with Substance Use Disorder Diagnosis, Ages 21 and Older—Quarterly Averages between 2010-2019



Travel Time to the Nearest NMC Retailer and Differences in the Probability of SUD Diagnosis

	CUD	AUD	OD
25% reduction in average drive time	1.00%***	0.81%***	1.30%***
50% reduction in average drive time	2.30%***	1.80%***	3.30%***
75% reduction in average drive time	4.70%***	3.80%***	6.70%***

Note:

***Significant at the 0.001-level, **significant at the 0.05-level, and *significant at the 0.10-level.

Travel Time to the Nearest NMC Retailer and Differences in the Probability of SUD Diagnosis

	CUD & AUD	CUD & OUD
25% reduction in average drive time	1.00%**	1.75%***
50% reduction in average drive time	2.00%**	3.80%***
75% reduction in average drive time	5.10%**	8.60%***

Note:

***Significant at the 0.001-level, **significant at the 0.05-level, and *significant at the 0.10-level.

Travel Time to the Nearest NMC Retailer and Differences in the Probability of SUD Diagnosis

	Ages 12-17 CUD	Ages 18-20 CUD
25% reduction in average drive time	2.00%***	0.33%
50% reduction in average drive time	4.70%***	0.77%
75% reduction in average drive time	10.00%***	1.50%

Note:

***Significant at the 0.001-level, **significant at the 0.05-level, and *significant at the 0.10-level.

SUBSTANCE USE DISORDER: CANNABIS RETAIL ACCESS

- Examined if changes in local retail density predicts differences in the probability of CUD diagnoses
- Density is defined as the local average number of retailers within 5/10/15 minutes
- Greater concentration of local retailers leads to greater competition through advertising, pricing, or product selection

Travel Time to the Nearest NMC Retailer and Differences in the Probability of SUD Diagnosis

	CUD
Number of retailers within 5 minutes	4.20%***
Number of retailers within 10 minutes	1.33%***
Number of retailers within 15 minutes	0.00%

Note:

***Significant at the 0.001-level, **significant at the 0.05-level, and *significant at the 0.10-level.

LIMITATIONS

- Limitations
 - Retailers are not randomly located throughout the state
 - We do not account for local changes in health care access and related policy and programming
 - Need more information about the prices, potency, and types of products used

DISCUSSION

- Other Results

- Cannabis possession misdemeanor conviction rates substantial decreased after I-502 went into effect
 - For legal aged adults and minors ages 12-20
- Less travel time to an NMC retailer predicts more drivers involved in a fatal traffic crash and a higher prevalence of (Delta-9) THC-positive drivers

- Future Work

- Explore more healthcare outcomes such as relevant psychiatric disorder diagnoses
- Focus on reported adolescent cannabis use (HYS) and school outcomes

THANK YOU!

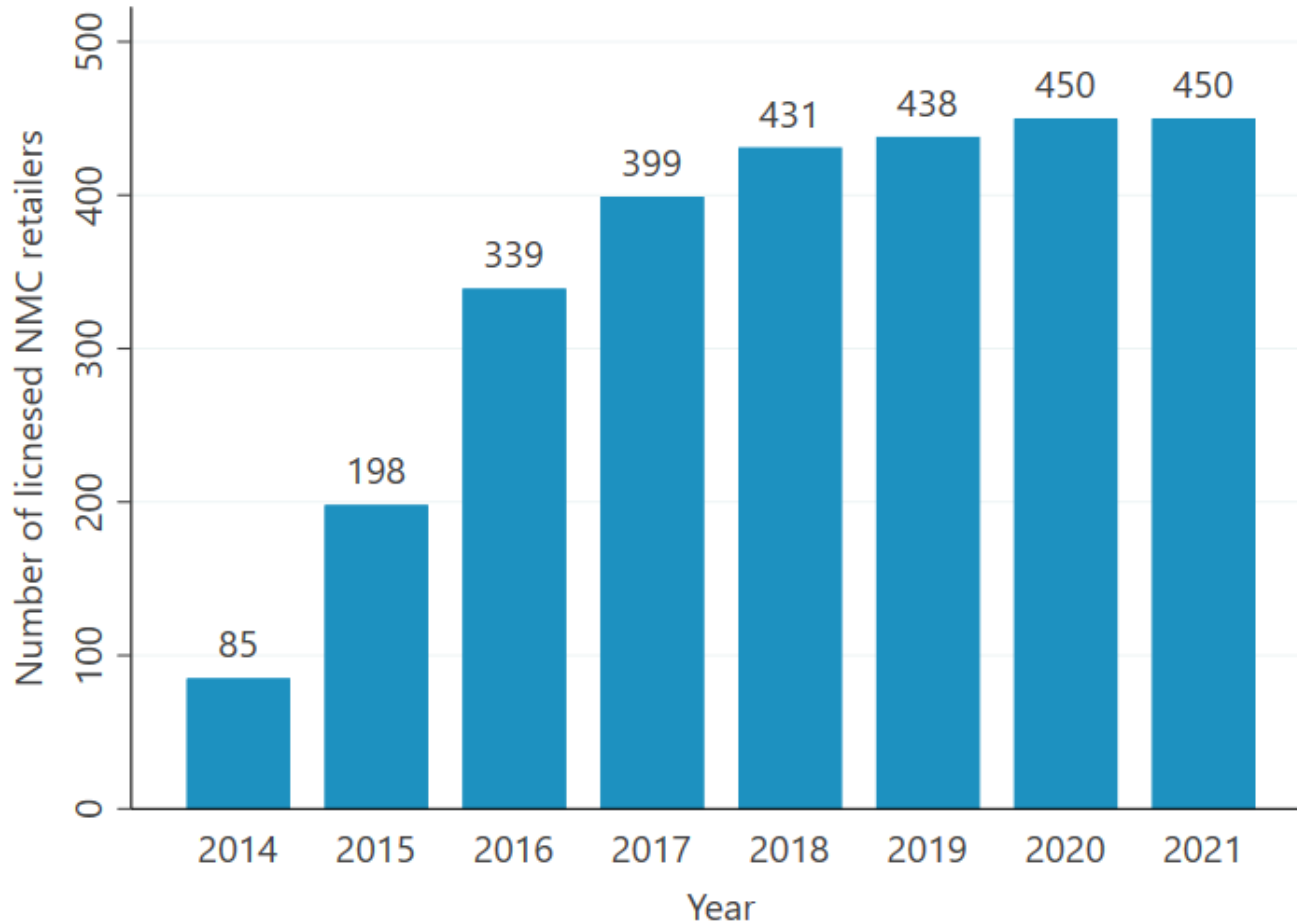
Questions?

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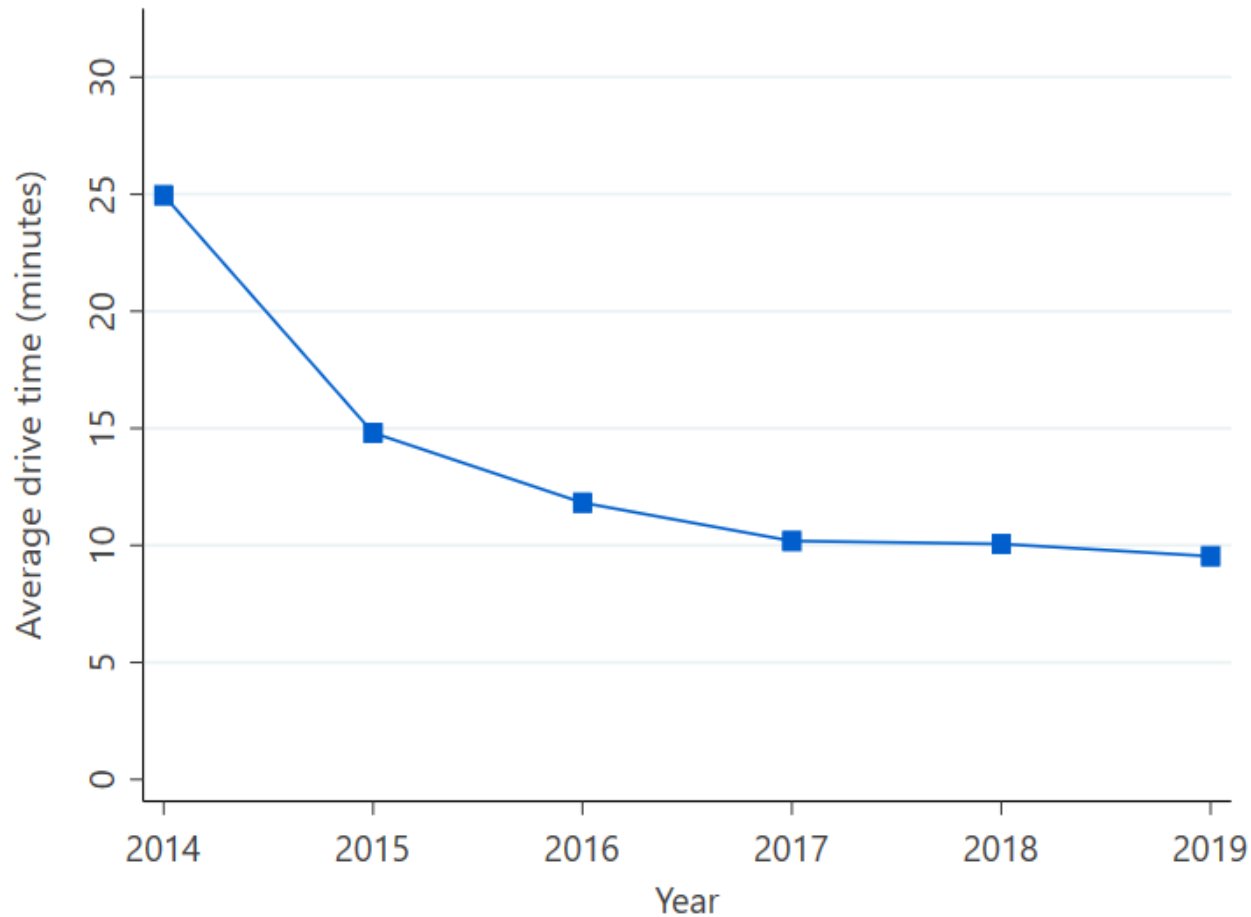
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Number of Licensed NMC Retailers



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Average Drive Time (in Minutes) to Nearest NMC Retailer



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