

## Rideshare Trips and Assaults at On-Premise Alcohol Outlets

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**Introduction and Aims:** Recent studies link the availability of rideshare services (e.g., Uber, Lyft) to increased quantity of alcohol consumption and increased duration of drinking at on-premise alcohol outlets (e.g., bars, restaurants). The aim of this study was to examine associations between ridesharing and assaults at on-premise outlets.

**Design and Methods:** The units of analysis for this spatial ecological case-crossover study were taxi zone-hours in New York City, 2017-2018. There are 262 taxi zones that cover the extent of the city. Cases were taxi zone-hours in which New York Police Department reported any assault at a bar or restaurant from 10pm to 6am. Controls were taxi zone-hours matched to case units one week before (-168 hours) and one week after (+168 hours) the case unit. The main independent measure was a count of rideshare trips originating in each taxi zone-hour. Conditional autoregressive logistic regression models compared the odds of observing an assault in relation to counts of rideshare trips, controlling for vehicular traffic flow.

**Results:** A total of 2,482 taxi zone-hours contained any bar assault and 693 taxi zone-hours contained any restaurant assault. An increase of 100 rideshare trips ending in the taxi zone-hour was associated with 5% increase in bar assaults (OR=1.050, 95% CI: 1.002 to 1.100) and a non-significant 5% increase in restaurant assaults (OR=1.049, 95% CI: 0.943, 1.168).

**Discussions and Conclusions:** Rideshare trips are associated with increased assault incidence at on-premise alcohol outlets, possibly due to increased quantity of alcohol consumed and duration of drinking for rideshare passengers.

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