

HCV treatment disparities and monthly alcohol intake

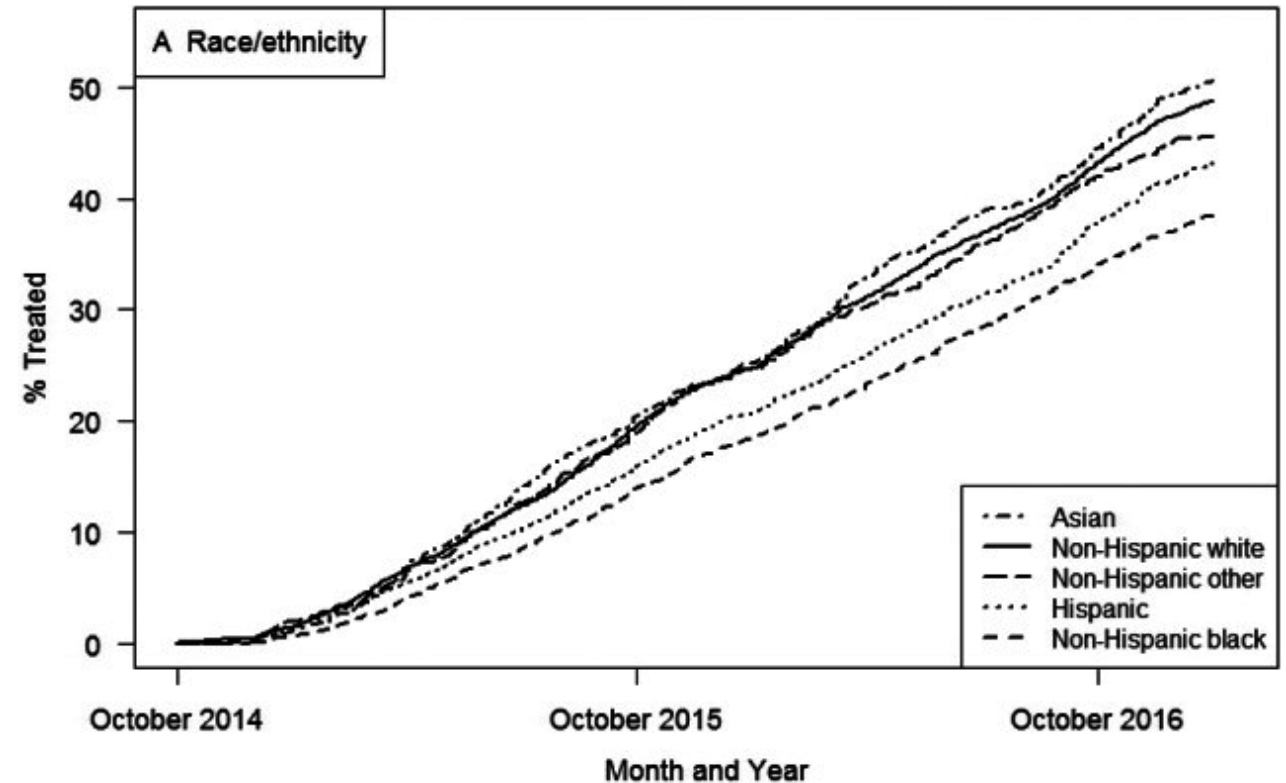
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432 Project 1

HCV treatment disparities

- >3 million people in the U.S. have hepatitis C
- As of 2014, HCV cure rates dramatically increased with the introduction of direct acting antivirals, however treatment can exceed \$100,000, leading to reduced access
- Incidence of hepatitis C treatment initiation is lower among racial minorities



Objective

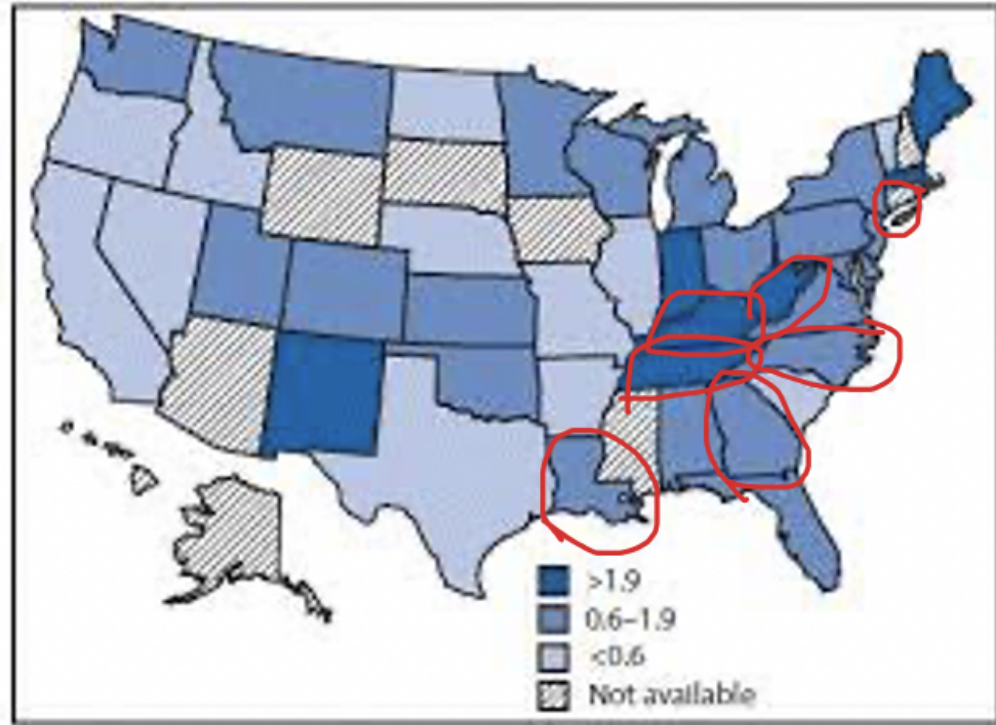


- Among HCV infected adults in the 2019 BRFSS dataset, compare the odds of receiving HCV treatment in adults of non-White race compared to White race



Participants of BRFSS

- Subsample of nationally representative non-institutionalized adults from BRFSS data
 - CT, GA, KY, LA, NC, TN, WV
- Random digit dialing
- History of hepatitis C
- N=569



Predictors and Outcomes

Predictors

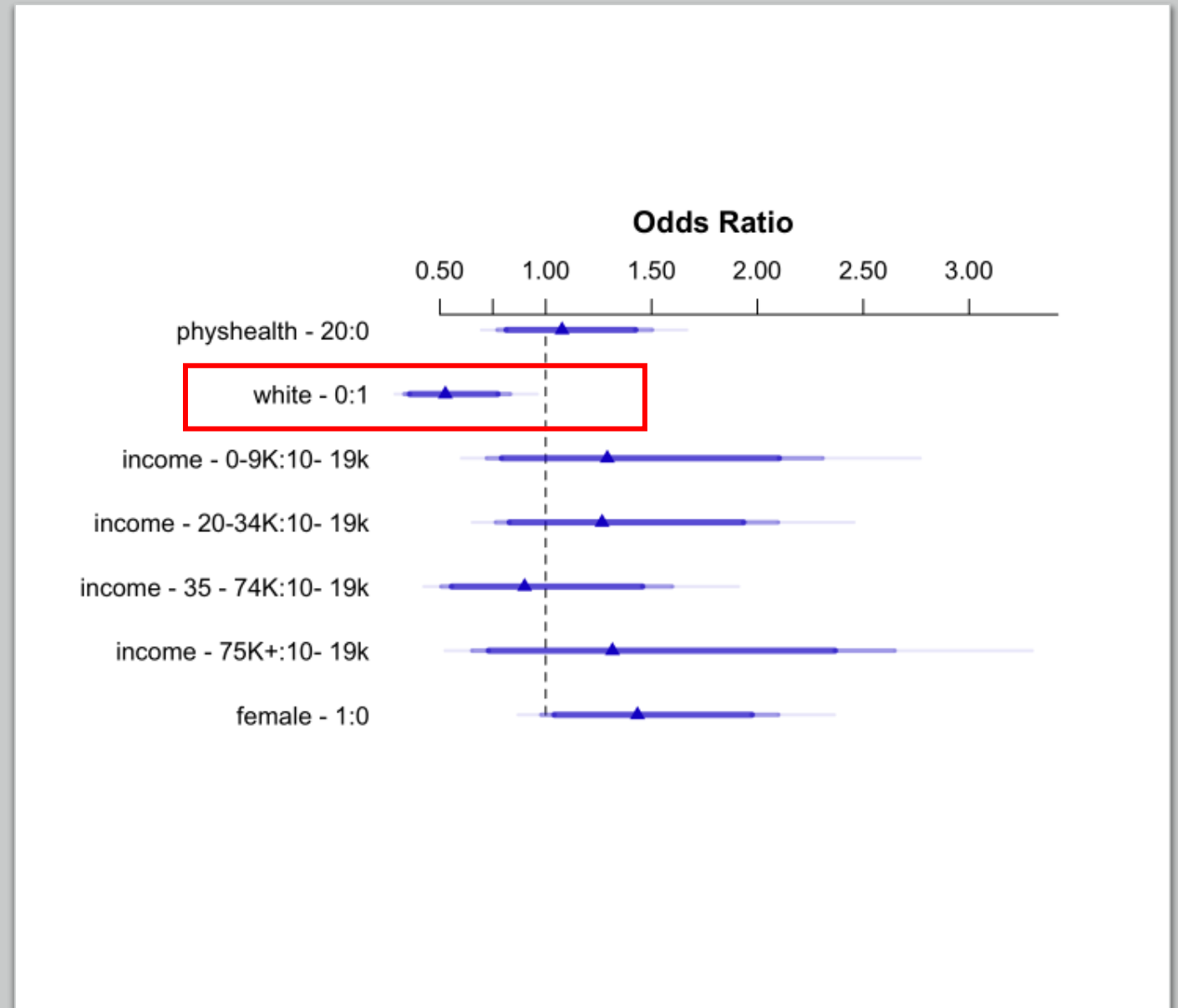
- Non-White race*
- Income
- Sex
- Physical health

Outcome

- Odds of receiving HCV treatment

Effect of race on history of HCV treatment

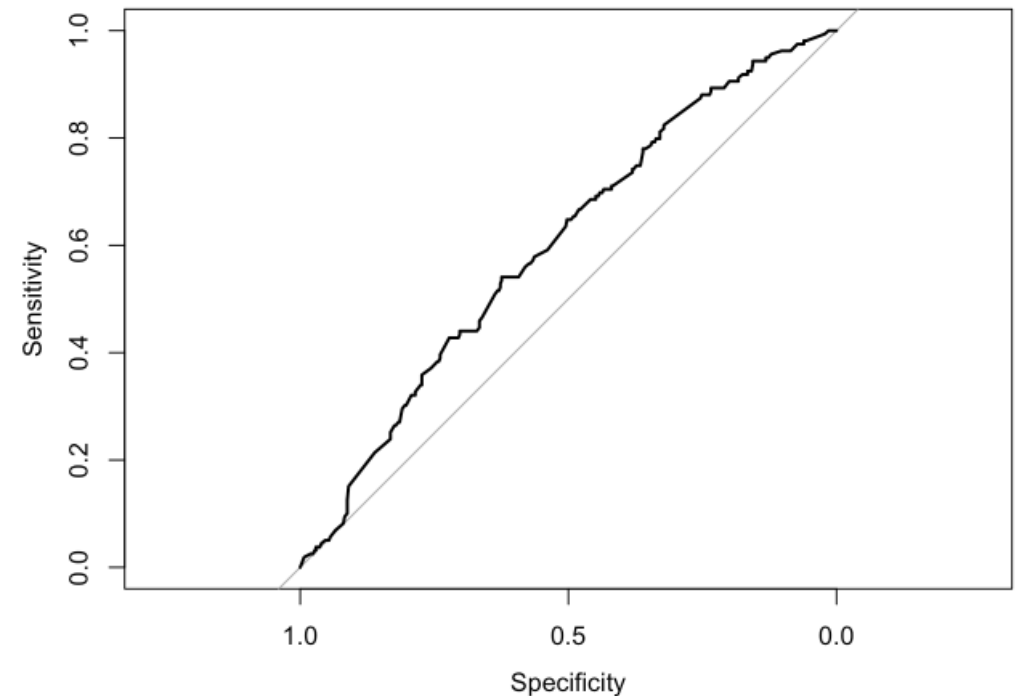
- Given equivalent sex, income, and physical health..
 - **the odds of receiving HCV treatment for non-White HCV infected adults is 0.526 (90% CI= 0.358, 0.772) times the odds of receiving HCV treatment in HCV infected adults of White race.**
- Covariates do not provide much value



How well does the model fit the results?

- **Calibration (R^2):**
 - close to the null model
- **Discrimination (C statistic):**
 - similar to guessing

	Index	Corrected
Nagelkerke R^2	0.042	0.011
C statistic	0.605	0.567



How could this improve?

Increase sample size and external validity

- HCV questionnaire in all states
- Include institutionalized (HCV a problem amongst incarcerated)

Better measured exposure & outcome

- Verification with medical records

Improve covariate adjustment

- Age & income as continuous variables
- More relevant past medical history (eg cirrhosis, fibrosis, HCV genotypes, spontaneous clearing of HCV infection, time since diagnosis, drug/alcohol abuse)