

BACKGROUND

- Liver disease is a leading cause of non-AIDS-related death among people living with HIV (PLWH)
- PLWH are 2-4x more likely to use alcohol than the general population, leading to increased liver disease progression in an already vulnerable population
- Alcohol use has also shown to be associated with poor dietary behavior that can additionally lead to liver injury, such as increased sugar and fat intake
- Additionally, alcoholic beverages can also be highly caloric and full of sugar themselves



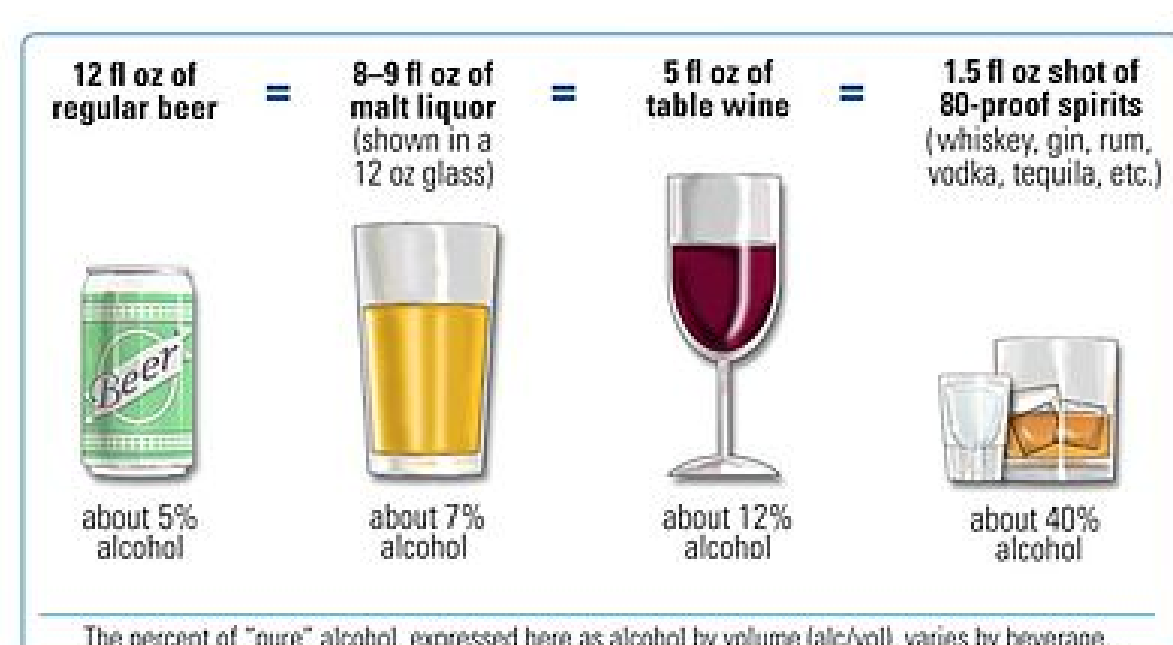
OBJECTIVES

- To assess whether sugar and fat intake are effect modifiers in the association between alcohol use and liver injury among a cohort of PLWH.

METHODS



- N = 231 HIV+ participants from the New Orleans Alcohol use in HIV (NOAH) Study
- Alcohol use was measured by the biomarker phosphatidylethanol (PEth; positive: ≥ 20 ng/ml)
- Sugar and fat intake assessed through 24-hour dietary recall
- Liver injury markers included aspartate and alanine aminotransferase (AST; ALT) and liver fibrosis markers AST/platelet ratio index (APRI) and fibrosis-4 (FIB-4)
- Multivariable linear regression analyses with interaction terms were conducted



Alcohol Use and Liver Injury in PLWH: Sugar and Fat Intake as Effect Modifiers

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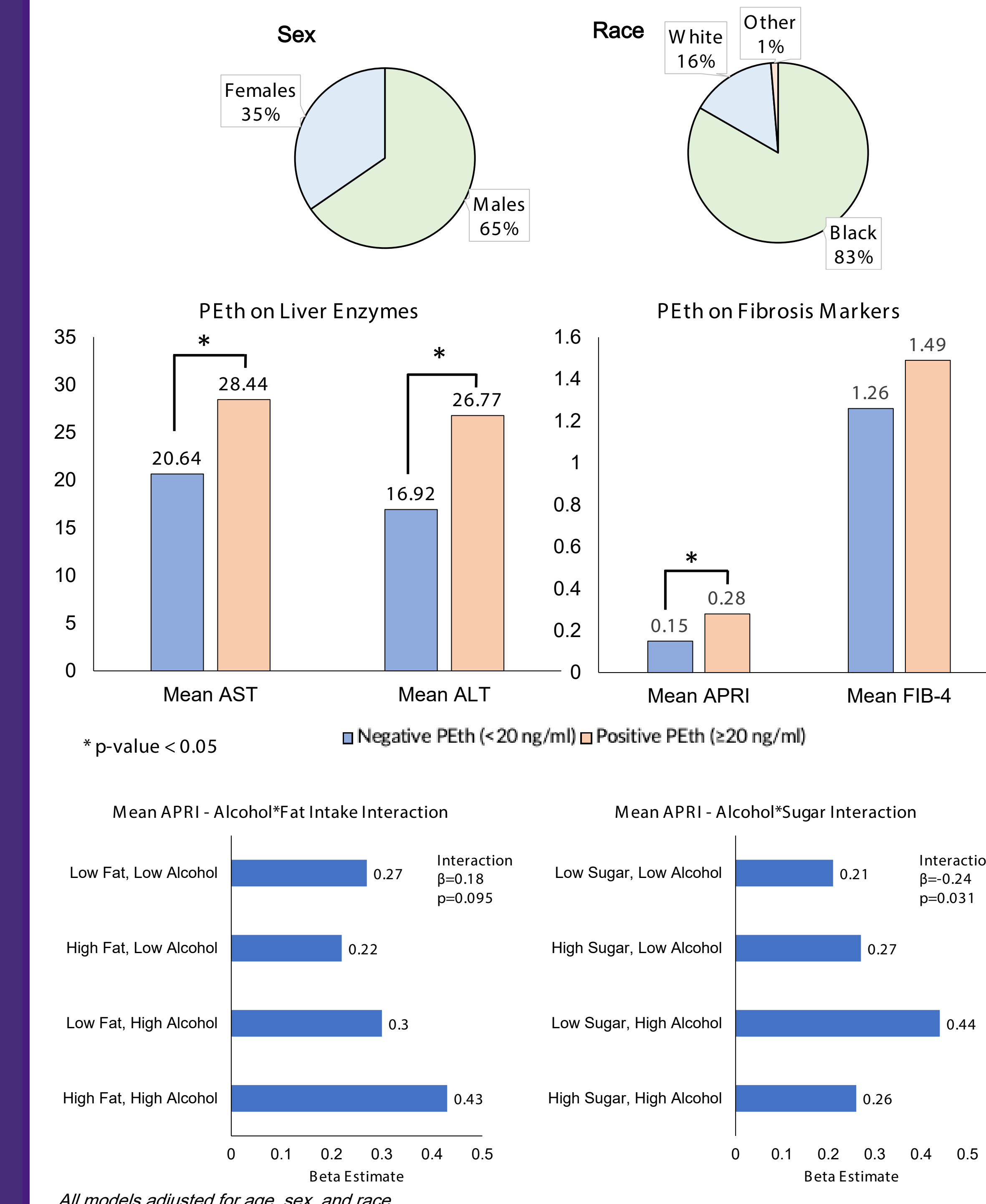
In this cohort of PLWH, high fat intake exacerbated liver injury associated with alcohol use. In contrast, high sugar intake seemed to diminish the association between high alcohol intake and liver injury.



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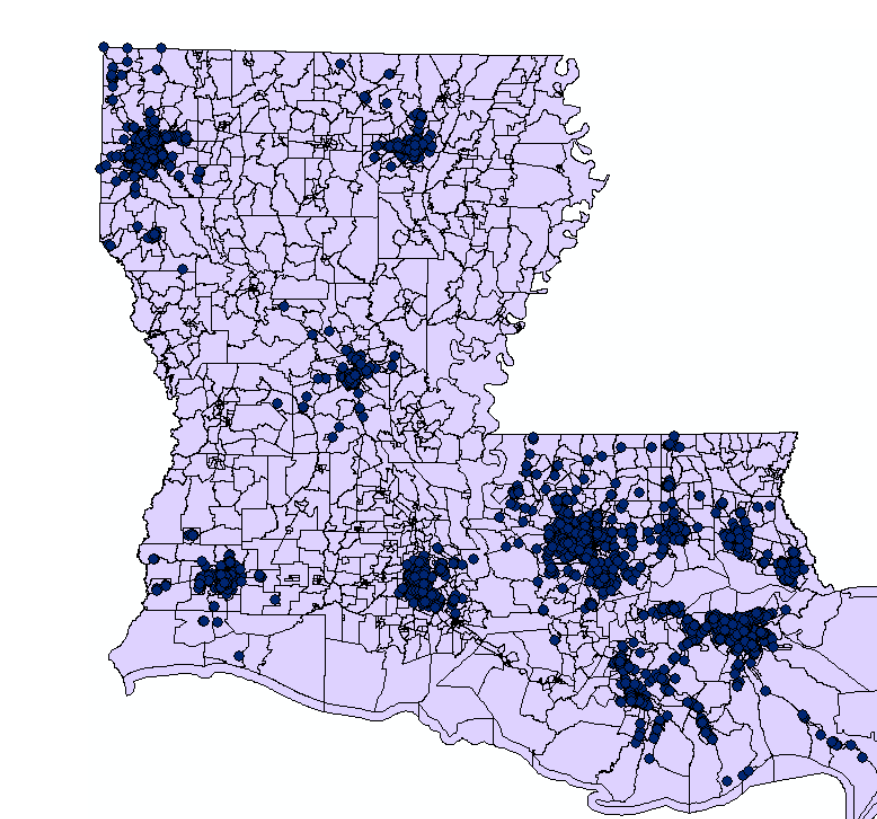


RESULTS

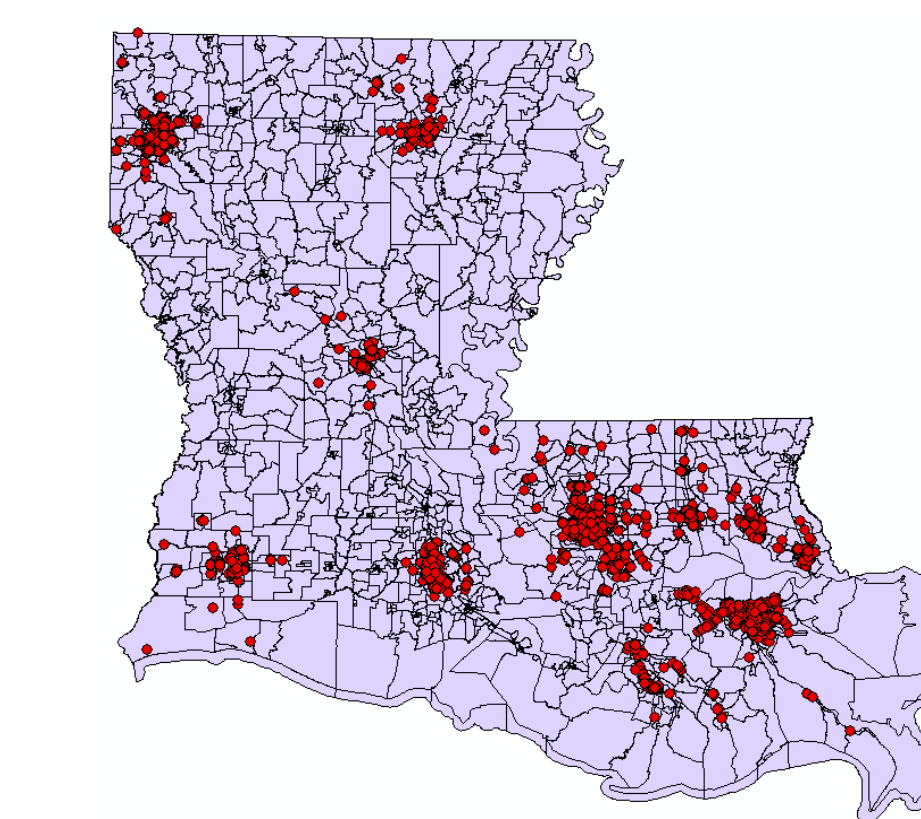


DISCUSSION

- In this cohort of PLWH, alcohol use was associated with multiple liver injury markers and these associations were modified by sugar and fat intake
- This is especially of concern in an area like Louisiana which is abundant in facilitators of alcohol use, sugar intake, and fat intake



Alcohol Outlets



Unhealthy Food Outlets

RECOMMENDATIONS

- Further research to identify the complex interactions of lifestyle behaviors that lead to liver disease among PLWH is warranted that will inform effective interventions to decrease disease burden

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