



# The Association between Family History of Drug Problems and Drug Abuse among Adults

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## Introduction

- Schedule II drugs have an extremely heightened risk for use disorders and provide extreme risks for both physical and psychological dependence. They also can bring about misuse disorders (Preuss et al., 2023).
- It was proven that individuals with addicted first-degree relatives are at a greater risk for drug addiction, and that there are certain genetic markers with significant predictive values for addiction (Goldman et al., 2005).
- It is rather widely accepted that the exact contribution of a family history of substance abuse is unclear while examining a current drug user (Taplin et al., 2014).
- These issues are not just present within the United States; in a study done with an Icelandic individuals, it was determined that there was a 7.3 relative risk value for amphetamine abuse for those with blood relatives (Tyrfingsson et al., 2010)

## Research Questions

- Are adults with drug abusing family members more likely to become drug abusers (specifically of Schedule II drugs) themselves?
- Does this relationship differ between those born in the United States and those born abroad?

## Methods

### Sample

- Respondents aged 18 and older (n = 5,838) were drawn from the first wave of the National Epidemiologic Survey on Alcohol and Related Conditions (NESARC) from 2001 – 2002.

### Measures

- The Family history of drug problem variable was measured with the question, “How many relatives (including parents) have had a history of drug problems?” The variable was constructed into three different possible levels; zero family members with a history of drug abuse, 1 to 3 members with a history, and 4 or more members with a history of drug abuse.
- The frequency of drug abuse among adults was measured with the question, “Are you an abuser of amphetamines or cocaine?” The variable was dichotomized into two groups (1 = abuse/dependence of amphetamines or cocaine, and 0 = no abuse/dependence of either).

## Results

### Univariate

- Family History Drug Groups breakdown:  
4+ Fam Members = 0.61%, 1-3 Fam Members = 10.21%, 0 Fam Members = 89.18%
- 2.67% of respondents were classified as Drug Abusers (97.33% were not)

### Bivariate

- An initial logistic regression analysis confirmed the statistical significance among groups found in the Chi-squared test.
- The odds of becoming a drug abuser are 72% less for individuals with zero drug-abusing relatives compared to those with 4+ relatives with a history of drug abuse
- The difference between 1-3 Fam members and 4+ Fam members however is not statistically significant.

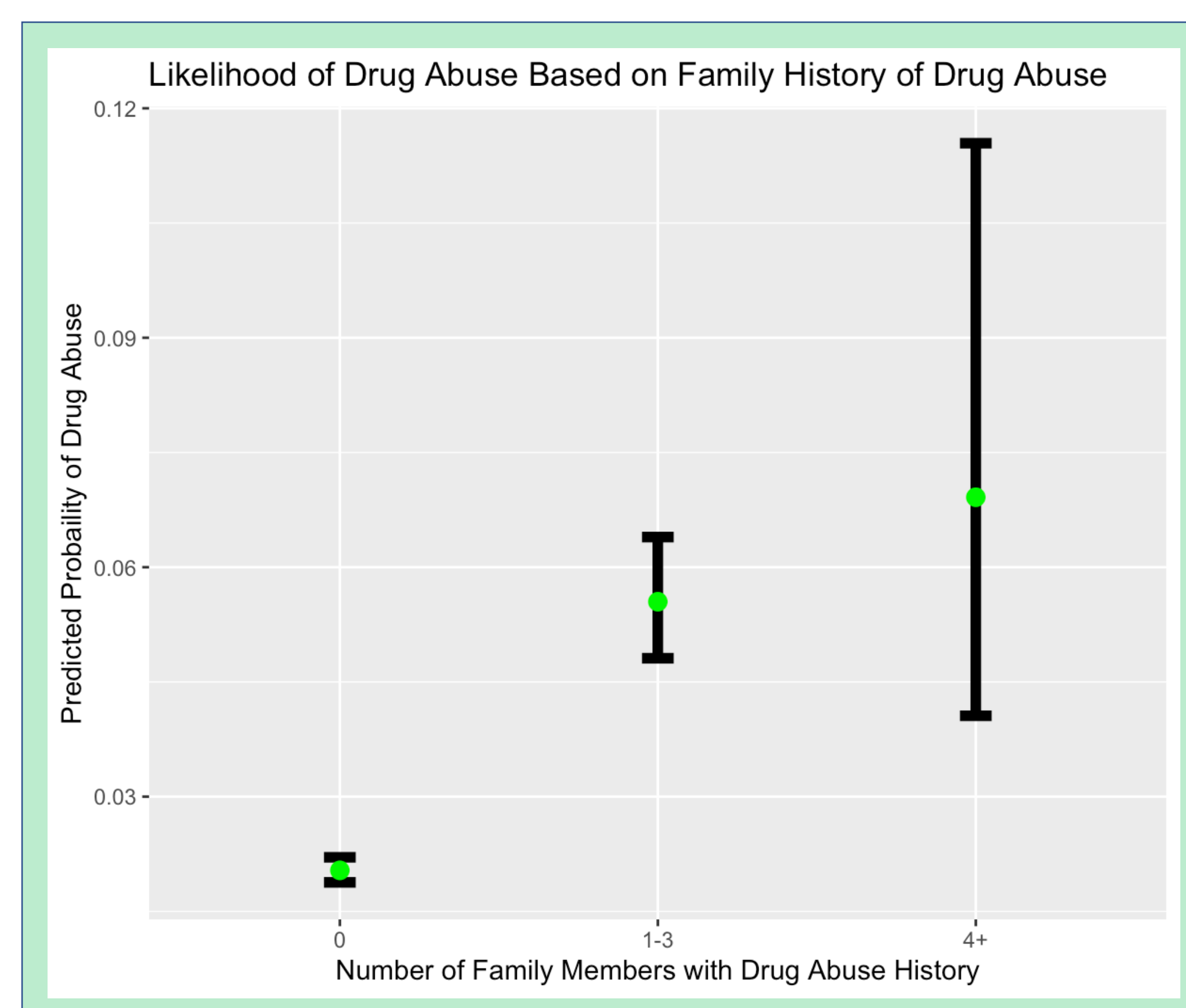


Figure 1: Likelihood of Drug Abuse Based on Family History of Drug Abuse

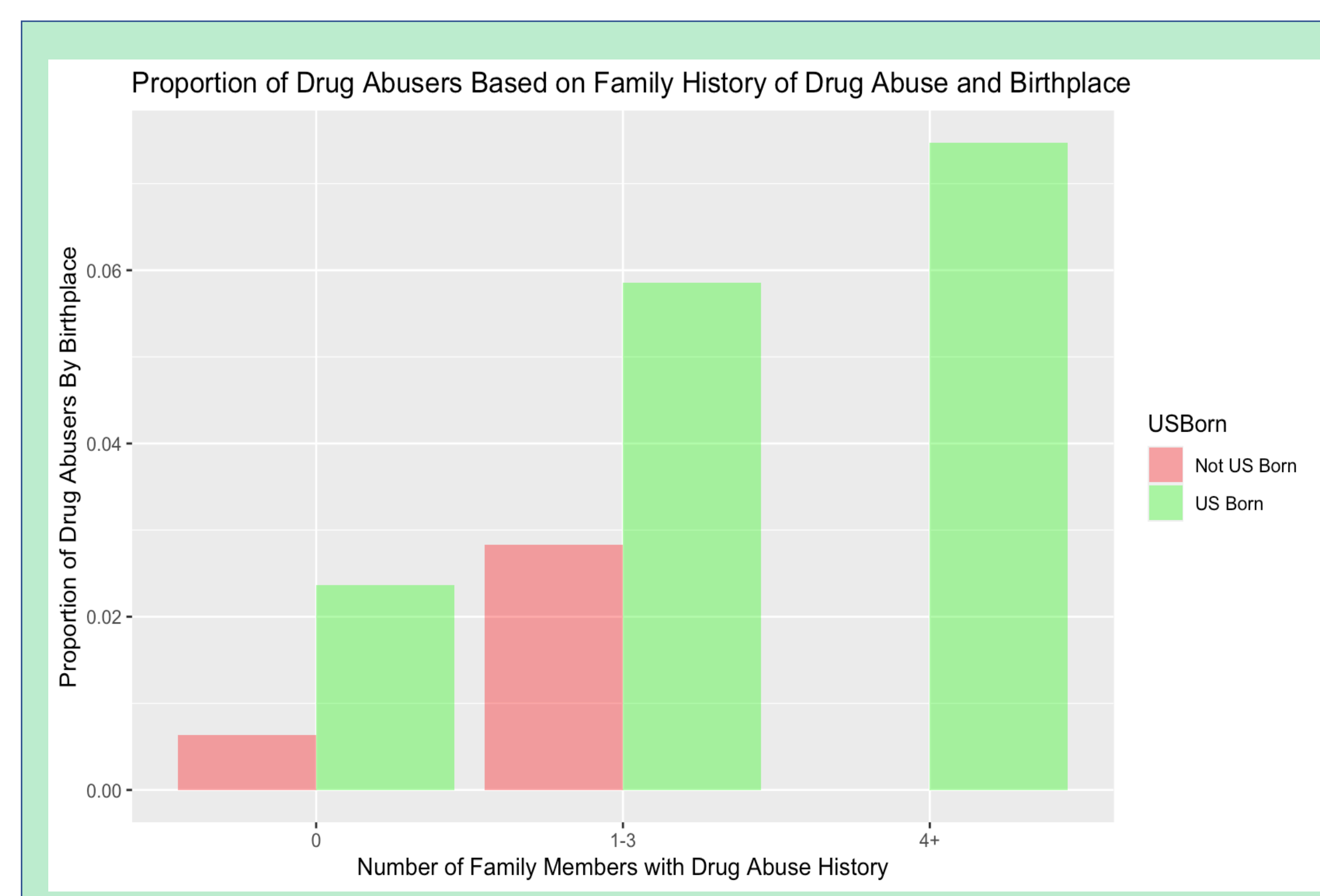


Figure 2: The Proportion of Drug Abusers Based on Family History of Drug Abuse and Birthplace

### Multivariate

- A second logistic regression was run including whether the respondent was US Born.
- With the covariate-inclusive model, The odds of becoming a drug abuser are 69.4% less for individuals with zero drug-abusing relatives compared to those with 4+ relatives with a history of drug abuse.
- Being US born (O.R. 3.47, CI: 2.5821, 4.8039, p<0.001) is significantly and positively associated with odds of becoming a drug abuser in the model stated above. In particular, the odds of being a drug abuser is expected to increase by a factor of 3.47 if the respondent is born in the US

## Discussion

- The more drug abusing relatives that an individual has, the more likely they are to become a drug abuser themselves.
- These findings may contribute to future medical treatments in several ways
- For example, If databases were created to identify individuals who have multiple relatives with drug abuse problems, there is the possibility that those more susceptible to developing drug abuse problems can be identified before the abuse occurs.
- Preventative medical measures could be implemented to keep these individuals from ever developing these addictive tendencies.
- However, future research will be needed to further determine how this relationship can be possibly change due to extraneous variables, such as specific ethnicities.

## References

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