



BACKGROUND

- Cannabis use and cannabis use disorders have been rising in the US.
- The probability of transitioning from cannabis use to CUD after 1, 3, 10 and 20 years from the age at onset of cannabis use was previously shown to be 3.9%, 8.4%, 13% and 15.5%, respectively.
- Depressive disorders are associated with cannabis use and CUD, however underlying mechanisms responsible for such associations remain unclear.
- Specifically, little is known about the probability of transition to CUD in populations of cannabis users with predisposing depressive disorders.
- Such data could help target populations that are more likely to develop CUD.

METHODS

SAMPLE

- Cross-sectional study; data drawn from 2012-2013 National Epidemiologic Survey on Alcohol and Related Conditions-III (NESARC-III; N=36,309).

MEASURES

- **Outcome:** DSM-5 CUD.
- **Unit of analysis:** Duration from age at onset of cannabis use to age at onset of first CUD.
- **Covariates:**
 - Depressive disorder (major depressive episode[MDE]/dysthymia) with onset occurring prior to onset of cannabis use.
 - Gender.
 - Age at onset of cannabis use (≤ 15 years; ≥ 16 years at onset of cannabis use).

ANALYSIS

Survival plots assessed the probability of transition from cannabis use to CUD over time since age at onset of cannabis use. Differences in probability between covariate levels were assessed using log-rank test.

RESULTS

Figure 1. Cumulative probability of transition to cannabis use disorder over time among lifetime cannabis users, by depressive disorder levels

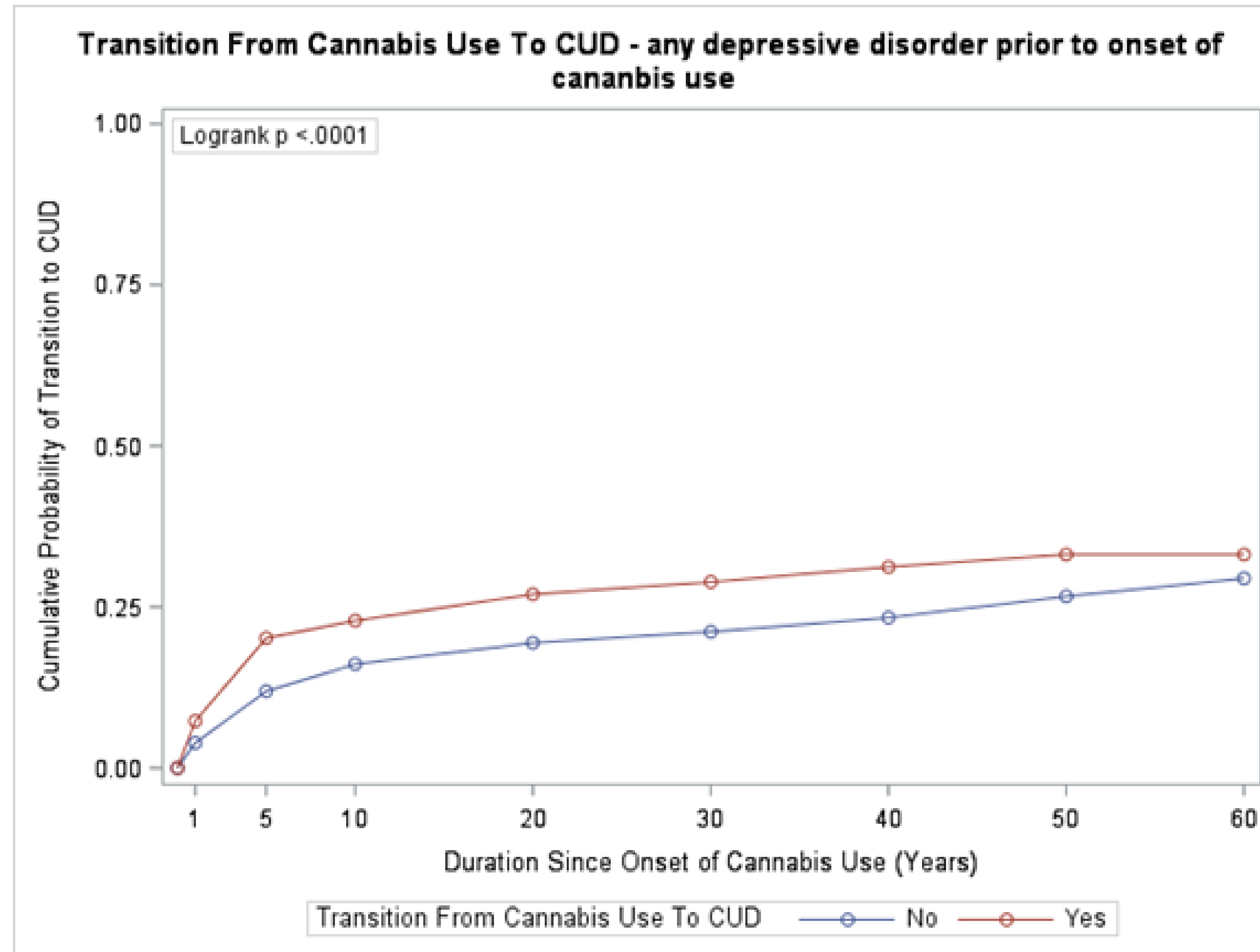


Figure 2. Cumulative probability of transition to cannabis use disorder among cannabis users with depressive disorders, by sex

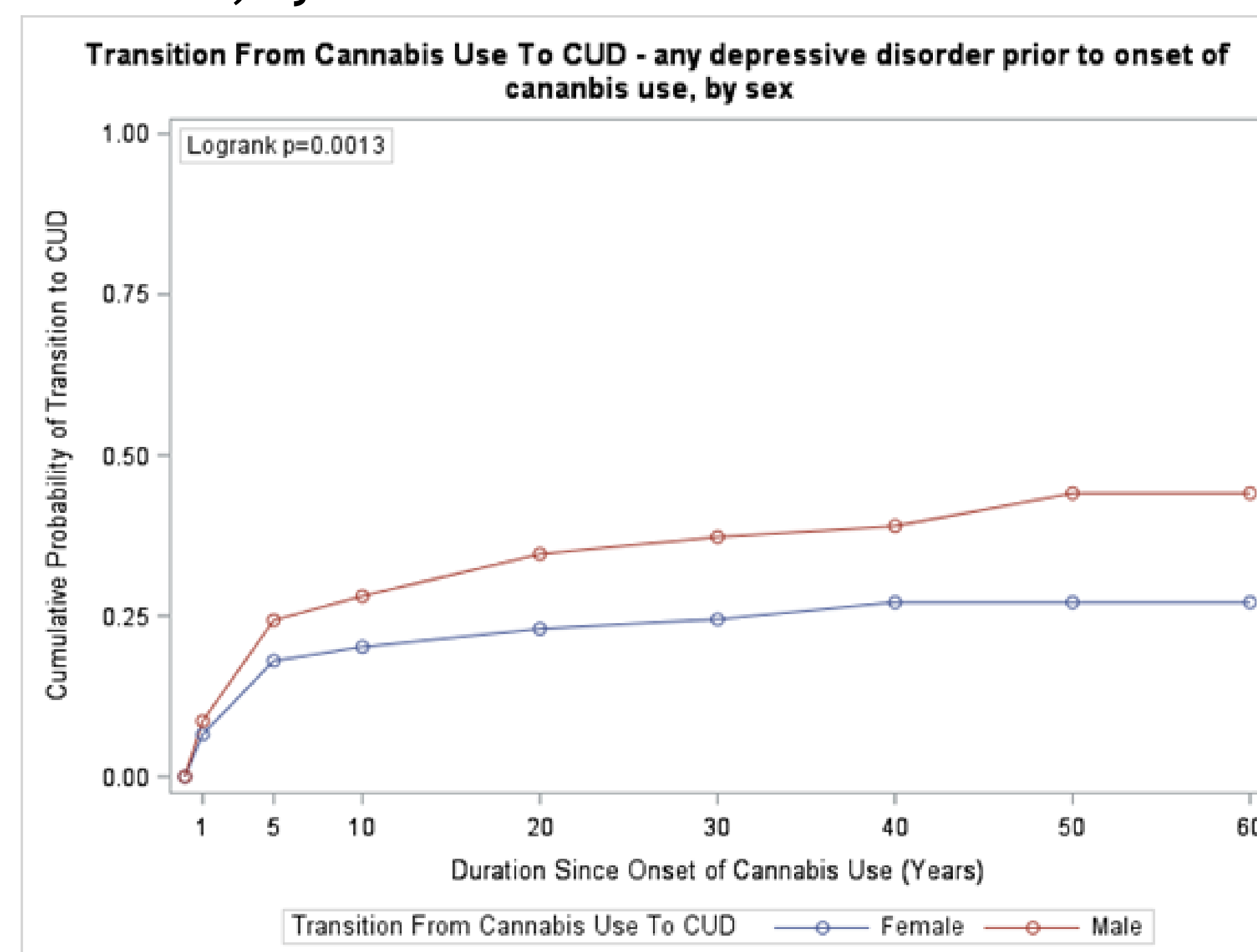
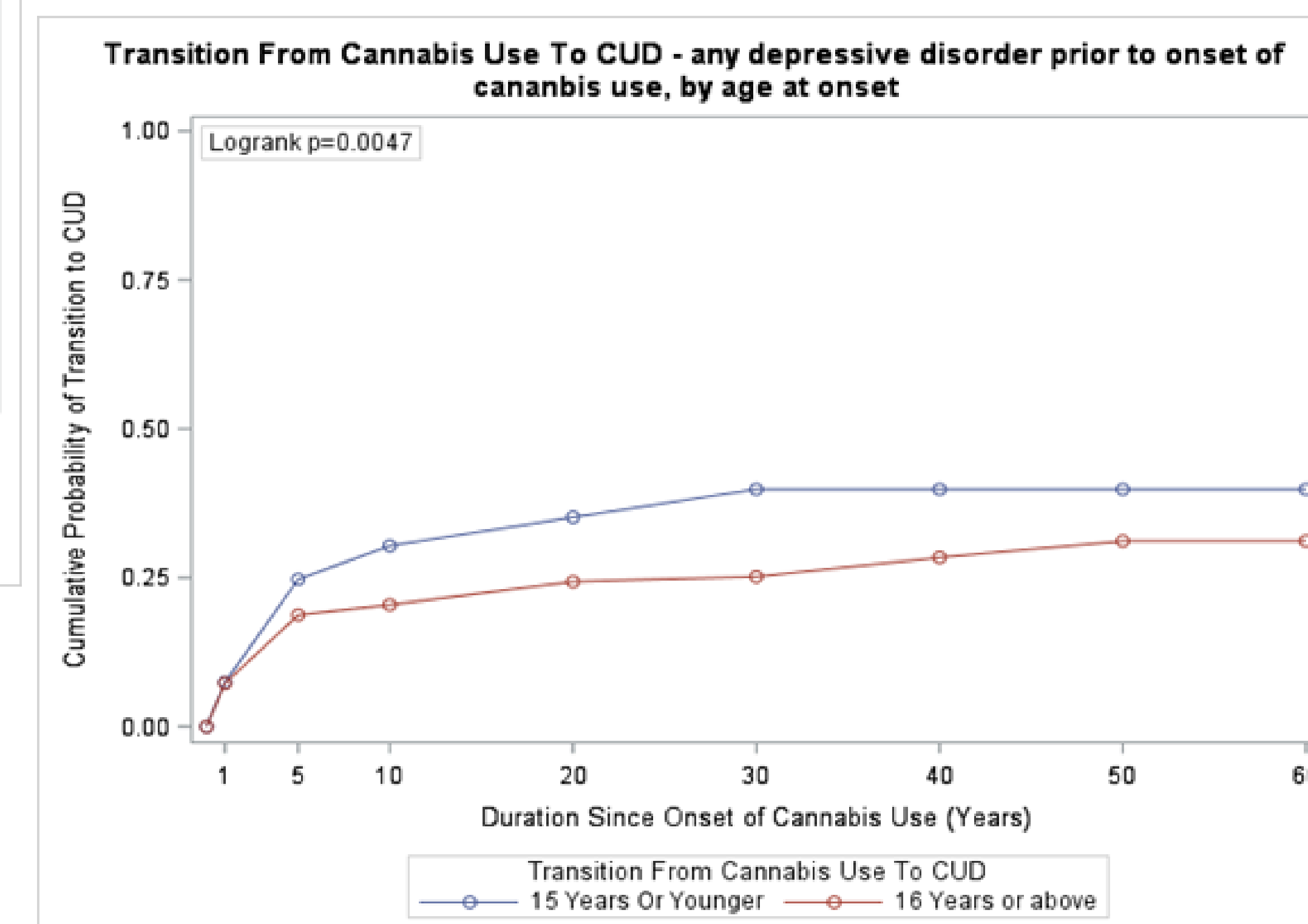


Figure 3. Cumulative probability of transition to cannabis use disorder among cannabis users with depressive disorders, by age at onset of cannabis use



RESULTS

- Lifetime cannabis users (N = 11 272) represented 32.2% of the NESARC-III sample.
- Among lifetime cannabis users, 733 (6.1%) and 259 (2.2%) reported a DSM-5 diagnosis of MDE and dysthymia prior to onset of cannabis use, respectively. Further, 791 (6.6%) reported any lifetime depressive disorder prior to onset of cannabis use.
- Cannabis users with a depressive disorder with onset prior to onset of cannabis use were primarily: female (63%), white (78.8%), aged 18-29 years (36%), and married (or living with someone as if married; 47%).
- Probability estimates indicated that cannabis users reporting any depressive disorder prior to onset of cannabis use were more likely to transition to CUD at any point during their lifetime compared to those without a depressive disorder occurring prior to onset of cannabis use or without any depressive disorder throughout their lifetime ($p < 0.0001$; Figure 1).
- Among cannabis users with depressive disorders, males were more likely to transition to CUD at any point during their lifetime compared to females ($p < 0.05$; Figure 2).
- Except for the first 2 years since onset of cannabis use, early-onset cannabis users (≤ 15 years or younger at onset of cannabis use) with depressive disorders had a higher probability of transitioning to CUD compared those reporting age at onset of 16 years or above ($p < 0.05$; Figure 3).

CONCLUSIONS

- Findings emphasize the importance of identifying populations at risk of developing CUD; specifically, individuals with depressive disorders prior to initiating cannabis use have a significantly higher probability of developing CUD. Among these, males and early-onset users are especially at risk of CUD.

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