# Characterizing Traumatic Brain Injury Prevalence in Concurrent Disorder Treatment In-Patients

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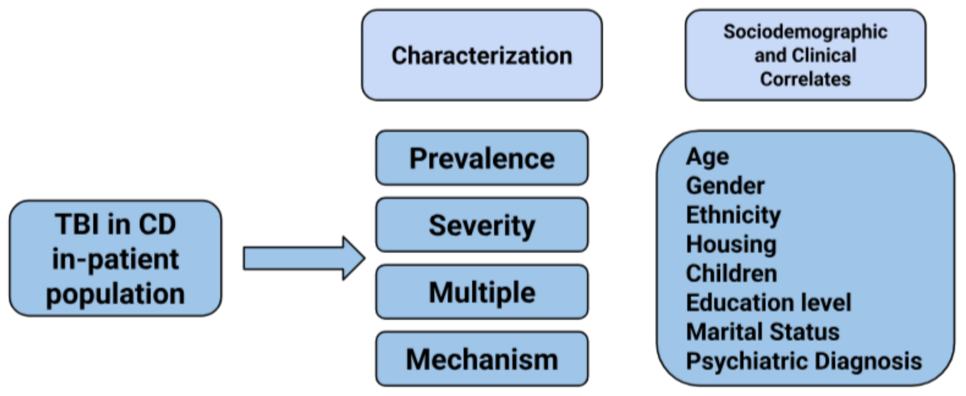
BC MENTAL HEALTH & SUBSTANCE USE SERVICES

## INTRODUCTION

Traumatic brain injury (TBI) is defined as the alteration in brain function caused by an external force to the head (Menon et al., 2010). Concurrent disorders (CD: dual diagnosis of psychiatric disorder and other mental illnesses) are one of the most at risk populations for TBI (Fu, 2015). Recent literature has focused on CD out-patients, finding high screening for TBI history (McHugo et al., 2017, & Allen et al., 2016). Limited research has been conducted on CD tertiary care in-patients, those that have exhausted all other measures of treatment (Schutz et al., 2025).

## OBJECTIVES



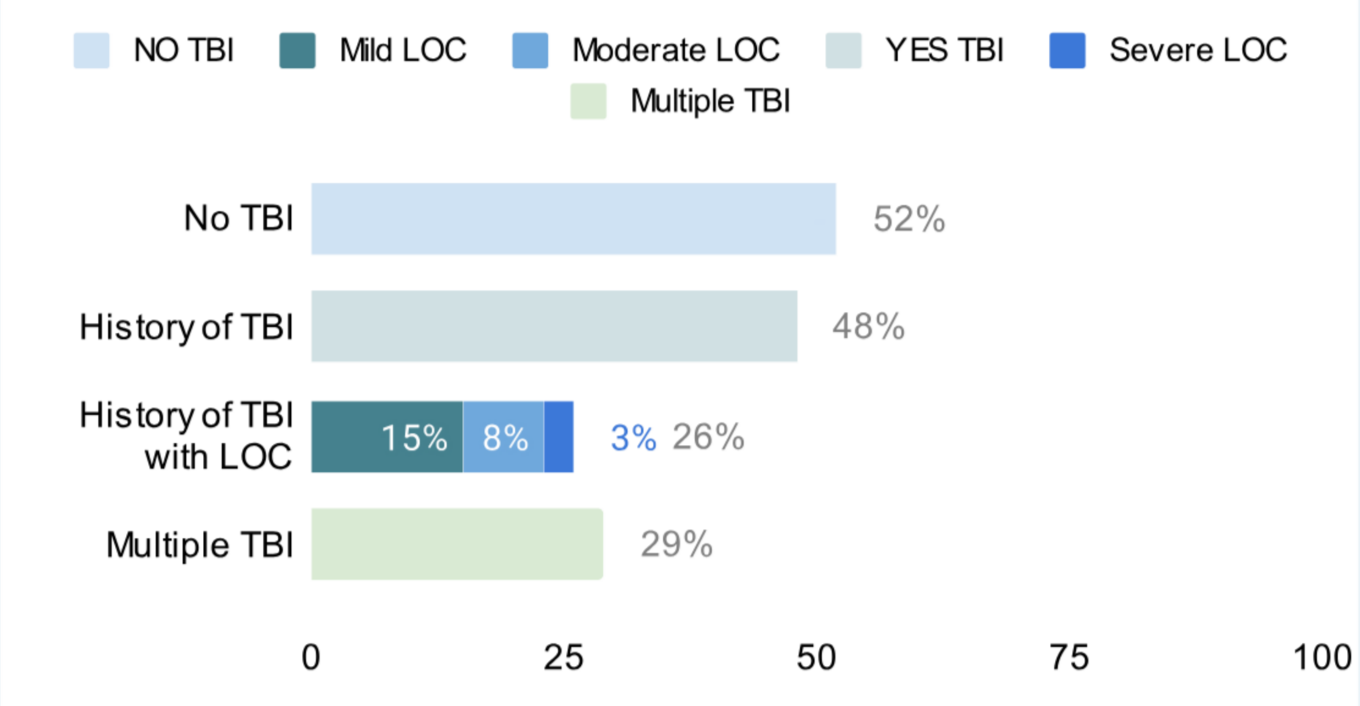

## METHODS

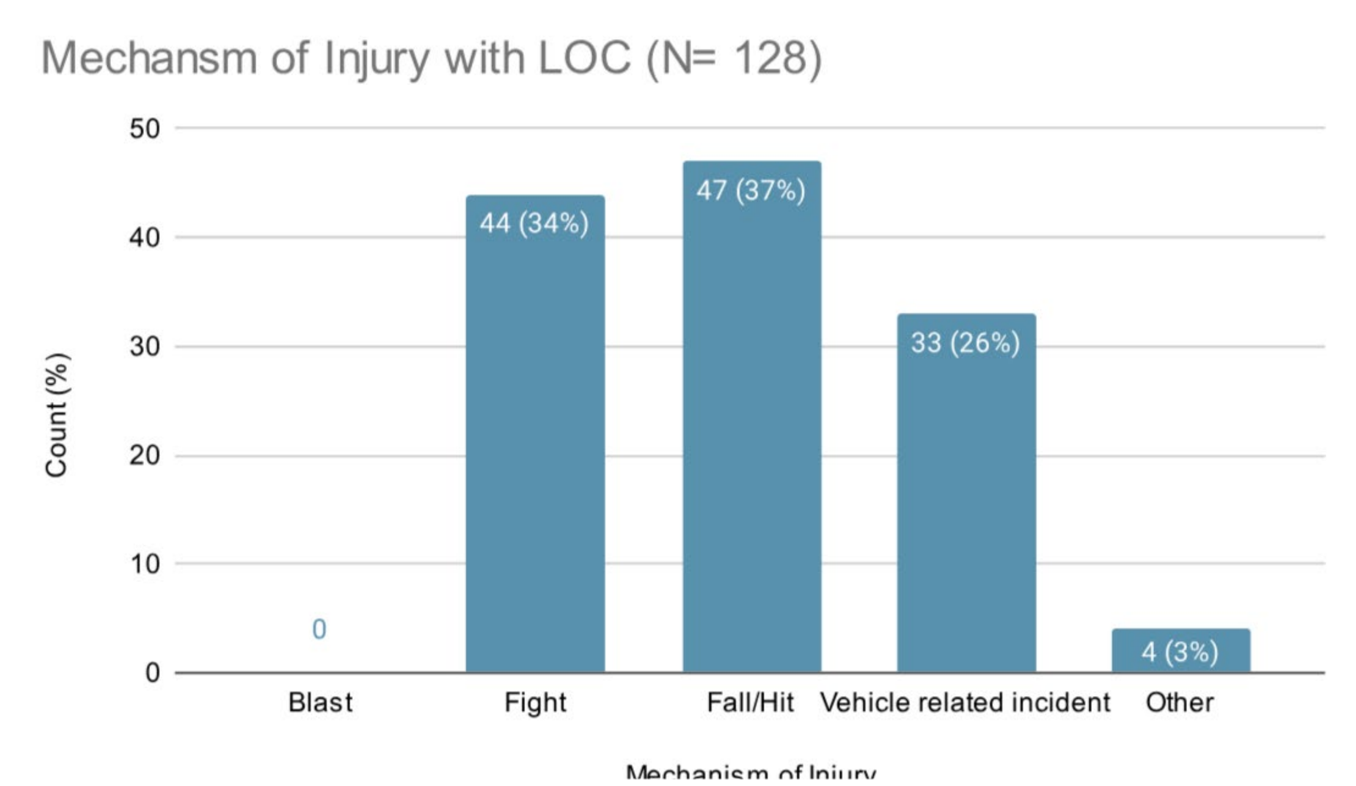
Using the multi-site longitudinal data set from the **Reducing Overdose and Relapse: Concurrent Attention to Neuropsychiatric Ailments and Drug Addiction (ROAR CANADA)** project.

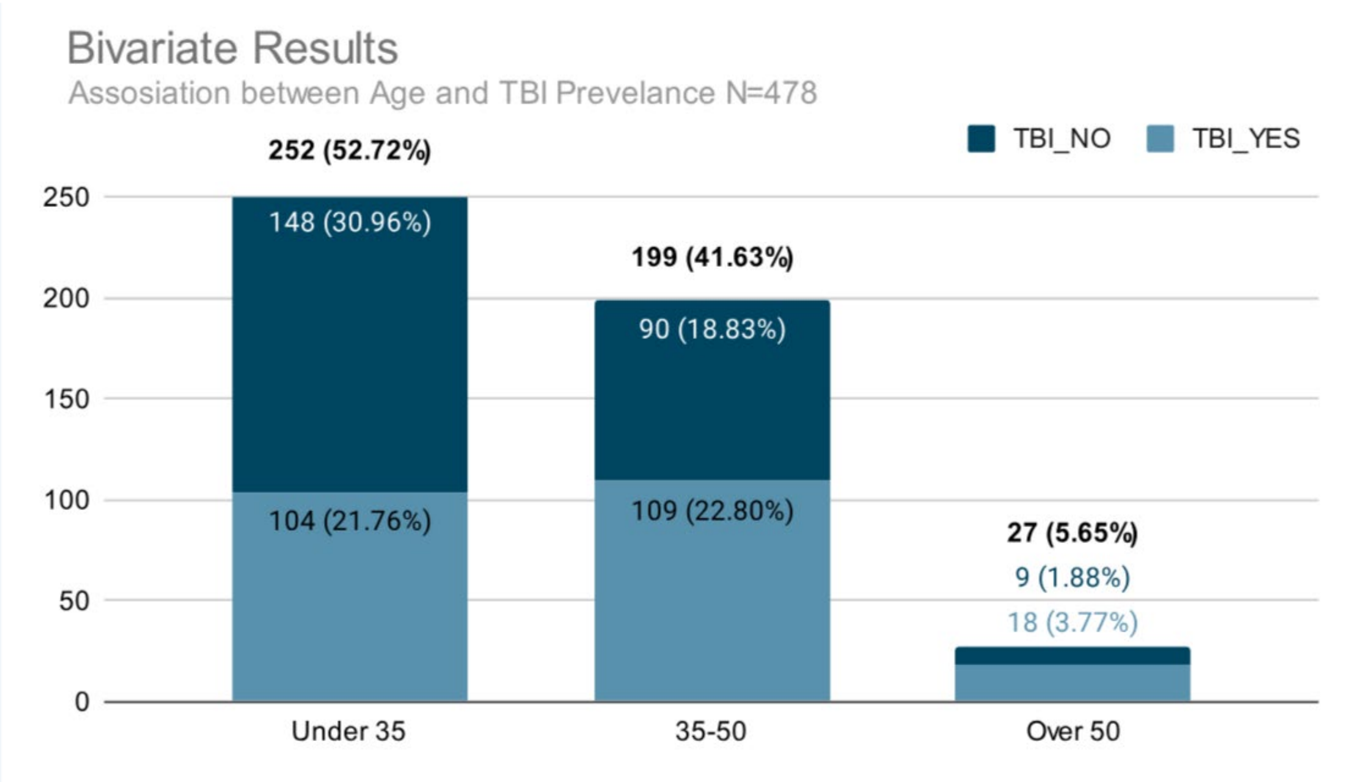
This study uses the adjusted questionnaire version of the **Ohio State University- Traumatic Brain Injury** to assess TBI in 478 participants. TBI severity is categorized by LOC time (loss of consciousness) mild (LOC under 30 min) , moderate (LOC 30 min - 24 hrs), severe (LOC over 24 hrs).

1. Statistical methods included a univariate analysis with variables of TBI severity, mechanism, first age of TBI, and repeated impact.
2. The bivariate analysis uses the chi-square test to demonstrate sociodemographic and clinical associations to TBI prevalence using chart review data during treatment intake.

## RESULTS




## CONCLUSION

The preliminary results demonstrate that **TBI is highly prevalent** in this sample of tertiary care in-patient with Concurrent Disorders across Canada. **Multiple TBI** incidents were reported in more than half of the positively screened sample. As well, **age of TBI was found to be significantly associated with TBI prevalence** in the sample. No association was found between other demographic variables assessed and TBI prevalence. Suggesting that high TBI prevalence in the concurrent disorder in-patient sample may be driven by mechanisms besides demographics.

## LIMITATIONS

1. **Self Report:** The adjusted version of the OSU-TBI doesn't account for limitations of memory inaccuracy, sampling bias, and availability bias.
2. **Interpretation Bias:** In academic literature *severe TBI* has near fatal outcomes due to the extent of brain damage with over 24hrs of LOC (Glover et al., 2018, & Gordon et al., 2000). But, the general population interprets the word "severe" with less weight.

## FUTURE DIRECTIONS

Further studies should assess TBI rehabilitation for people with severe concurrent disorder and TBI.

## REFERENCES

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