

Impact of the COVID-19 Pandemic on the Prevalence of Substance Use Disorders in Medically Hospitalized Patients

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INTRODUCTION

Since September 2018, NYU Langone Health has integrated the Tobacco, Alcohol, and Prescription Substance (TAPS) screening tool into the admission process for all inpatients in order to proactively identify and provide consultation to hospitalized patients at risk for substance use disorders.

Proactive addiction psychiatry consultation became especially important during the COVID-19 pandemic, as people with substance use disorders experienced increased overdose rates, decreased access to addiction treatment, and increased risk for adverse COVID-19 outcomes [1].

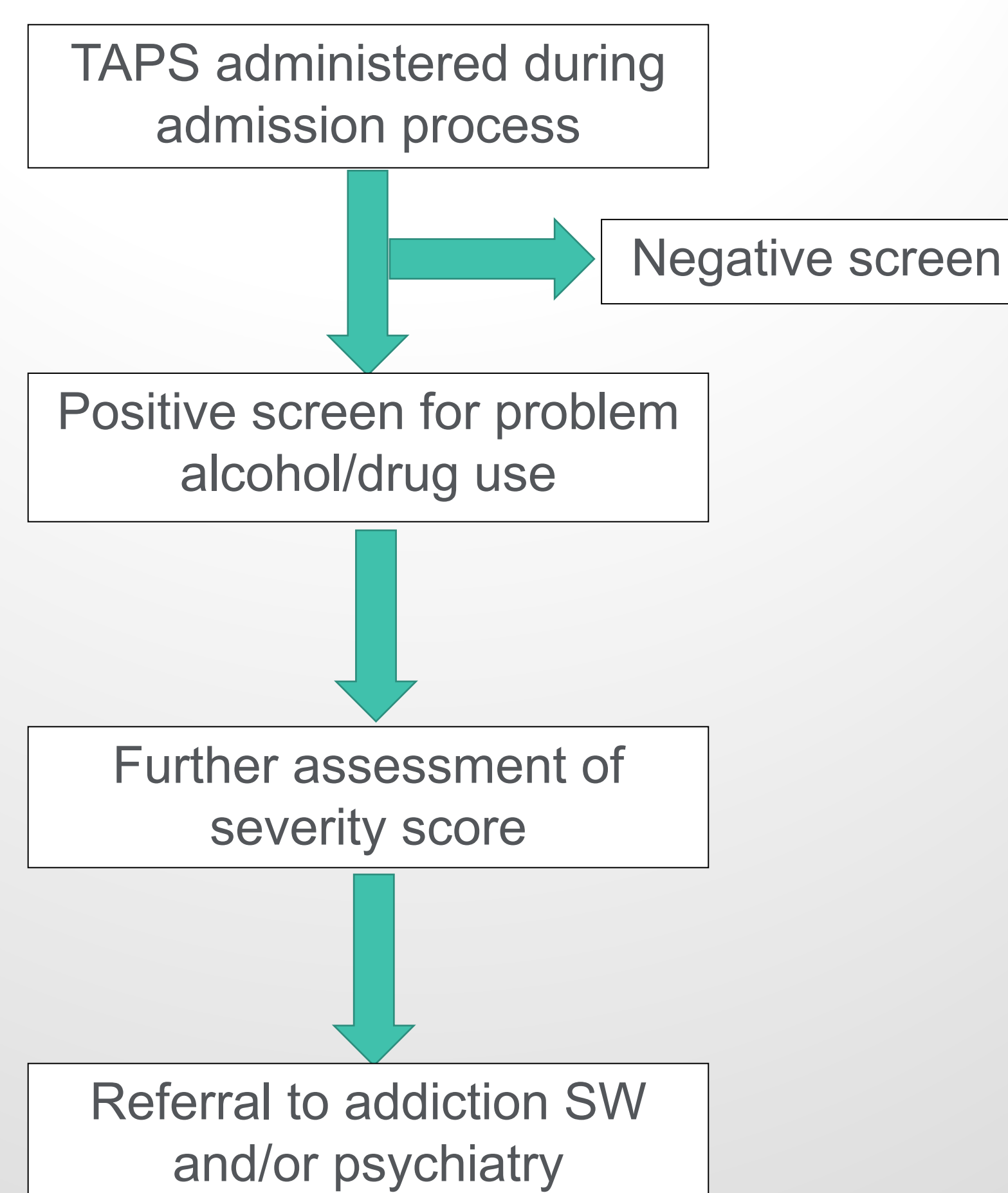
Here we present findings since implementation of hospital-wide TAPS screening, including the impact of the pandemic on nursing compliance with tool administration and the prevalence of patients at risk for substance use disorders.

METHODS

We conducted a retrospective review of adult inpatient medical and surgical admissions to NYU Langone Health using data from a pre-defined Epic report. We compared groups pre-pandemic (9/2018-9/2019) and during pandemic (3/2020-3/2021) for the following outcomes: (1) compliance with TAPS administration, (2) prevalence of substance use disorders as measured by positive TAPS screen, and (3) alcohol use disorder severity among positive alcohol screens.

We attempted to exclude units with low compliance (<86%), and separate data from the peak COVID-19 period in New York City (3/2020-6/2020, based on NYC public health data [2]); however, neither impacted outcome measures. As such, we present findings based on all data collected.

TAPS IMPLEMENTATION FLOWCHART



RESULTS & DISCUSSION

TAPS positivity rates and compliance rates are presented in the table below. Substance use disorder prevalence rates and alcohol use severity scores pre- and mid-pandemic are presented in separate charts.

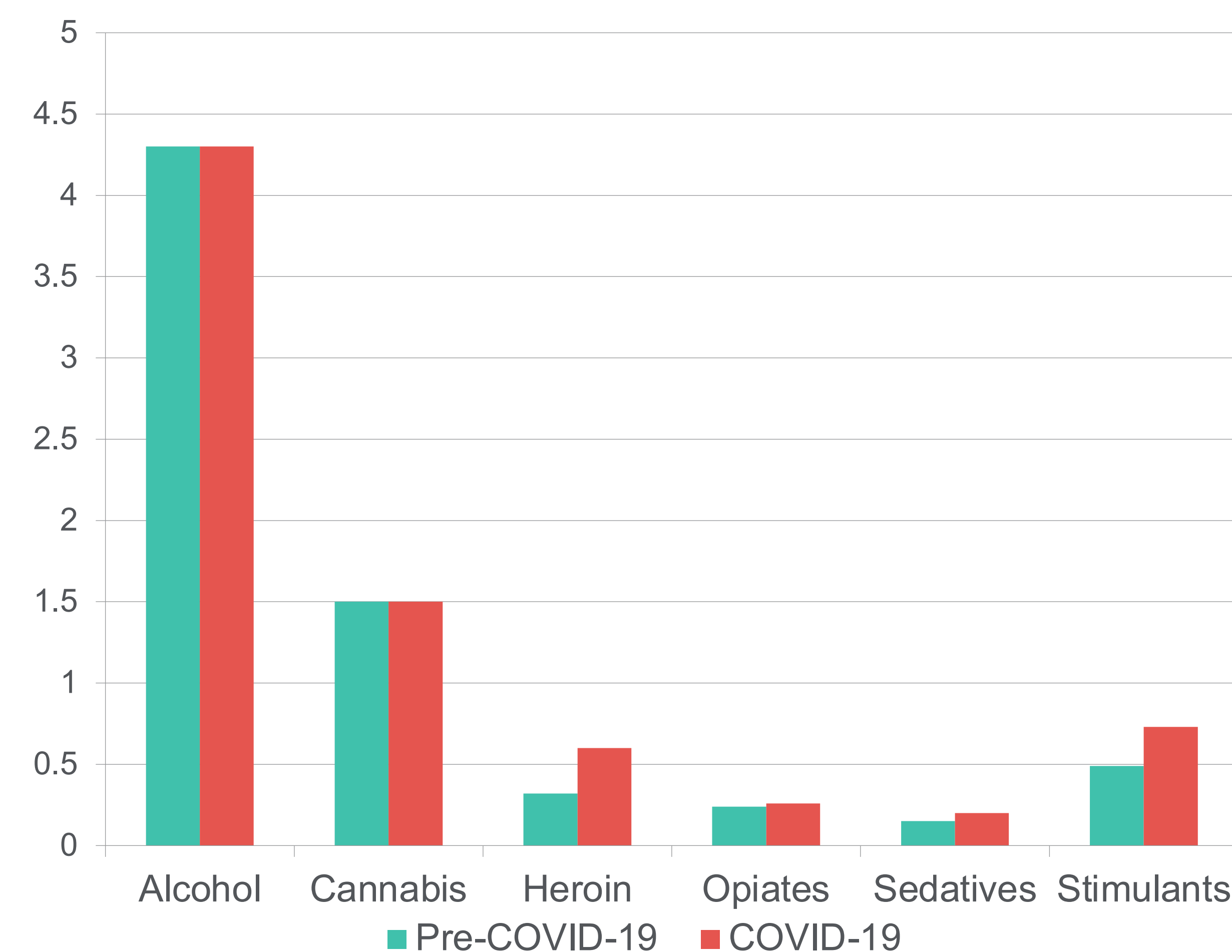
Epic reports did not include demographics or other potential confounding variables, so we were unable to meaningfully test for significance of differences between years. Staffing and patient composition of units changed throughout the COVID-19 year, with many units temporarily functioning as ICUs, further complicating interpretation of data. As such, data analysis was limited to descriptive statistics.

We suspect that patients not screened during both periods were more likely to require ICU-level care, given consistently poor ICU compliance rates. Since people with substance use disorders are at increased risk for worse COVID-19 outcomes [1] and often present with altered mental status (due to intoxication, overdose, or withdrawal), we hypothesize that patients not screened were also more likely to have substance use disorders. As such, our findings likely underestimate substance use disorder prevalence.

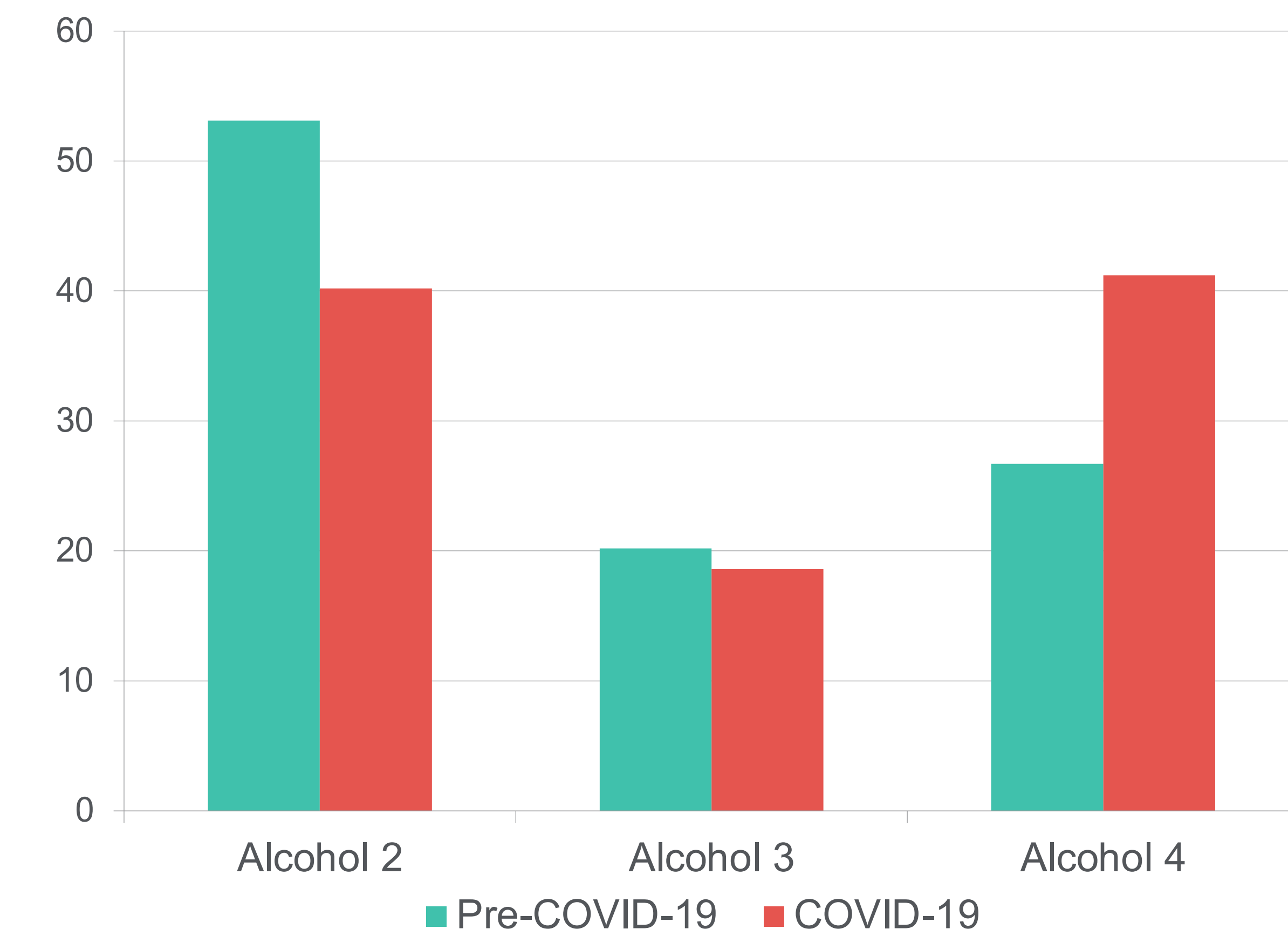
	PRE-COVID (2018-2019)	COVID (2020-2021)
TOTAL PATIENTS SCREENED	24,057	17,931
% TAPS POSITIVE	6% (N=1673)	6% (N=1347)
OVERALL COMPLIANCE	90%	82%
ICU COMPLIANCE	84%	74%*

*Only includes official ICUs; does not include non-ICU units that functioned as ICUs at varying times during the pandemic

Prevalence of Patients at Risk for Substance Use Disorder, by Substance



Alcohol Use Severity Scores Among Patients with Positive Alcohol Screens (Scored 2-4, with 4 representing highest severity)



CONCLUSIONS

- A proactive addiction psychiatry consultation model, including use of the TAPS screening tool, can be successfully implemented in acute care settings with high compliance rates (90% prior to the pandemic, and 82% even during the height of the pandemic in NYC).
- Poor compliance rates in ICUs and throughout the pandemic suggest that critical illness and altered mental status may be barriers to TAPS administration. We plan to revise our model to include additional TAPS screening upon transfer from the ICU to the floor. This will hopefully capture patients at high risk for substance use disorders who are unable to complete screening during admission.
- These results suggest a change in patterns of substance use during the COVID-19 pandemic, including increased heroin and other opioid use as well as increased high-risk alcohol use. This is consistent with findings from prior studies of increased opioid overdoses [3, 4] and severity of substance use [1] during the pandemic.

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