

Trends in substance use screening results before and after the onset of the COVID-19 pandemic among youth in pediatric primary care

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INTRODUCTION

- Substance use (SU) screening in pediatric practices may illuminate the immediate and ongoing impact of the COVID-19 pandemic on youth SU behaviors.

METHODS

Sample: 12- to 22-year-olds from 226 U.S. pediatric practices utilizing the CHADIS online clinical process support system

Table 1. Sample Characteristics	
Characteristic	n (%) ^a
Age (mean ± SD)	15.7 ± 2.2
Female sex ^b	47,322 (51.6)
Region	
Northeast	30,009 (33.0)
Midwest	7,161 (7.9)
South	45,881 (50.5)
West	7,775 (8.6)
CRAFFT Respondent	
Clinician-administered interview	28,812 (31.3)
Self-administered pre-visit questionnaire	63,182 (68.7)
Total:	91,944 total patient records 68,894 unique patients

^a Total patient records.
^b Refers to female sex assigned at birth (vs. male sex).

Measure: CRAFFT screen assessing past-12-month frequency of alcohol, cannabis, and other SU ("anything else to get high"), SU-related driving/riding risk, and signs of problematic use.

Analysis window: CRAFFT data from the same 6-month period (P) in two years before and two years after pandemic onset [P₁=Mar-Aug 2018 (referent), P₂=Mar-Aug 2019, P₃=Mar-Aug 2020*, P₄=Mar-Aug 2021].

- *Start of P₃ = pandemic onset

Statistical methods:

- Change over time analyzed using multivariable logistic regression modeling with Generalized Estimating Equations (GEE) (to account for data clustering within practices and patients), adjusting for adolescent age in years, sex, region, and screening mode (self-administered/clinician-interview)
- Sample stratified by age (12-17 vs. 18-22) due to differences in SU patterns by age.

The COVID-19 pandemic has impacted rates and context of youth substance use.

Figure 1. Trends in youth SU before (P1 & P2) and during (P3 & P4) the pandemic, %^a (top), AOR^b and 95% CI^c (bottom), age-stratified

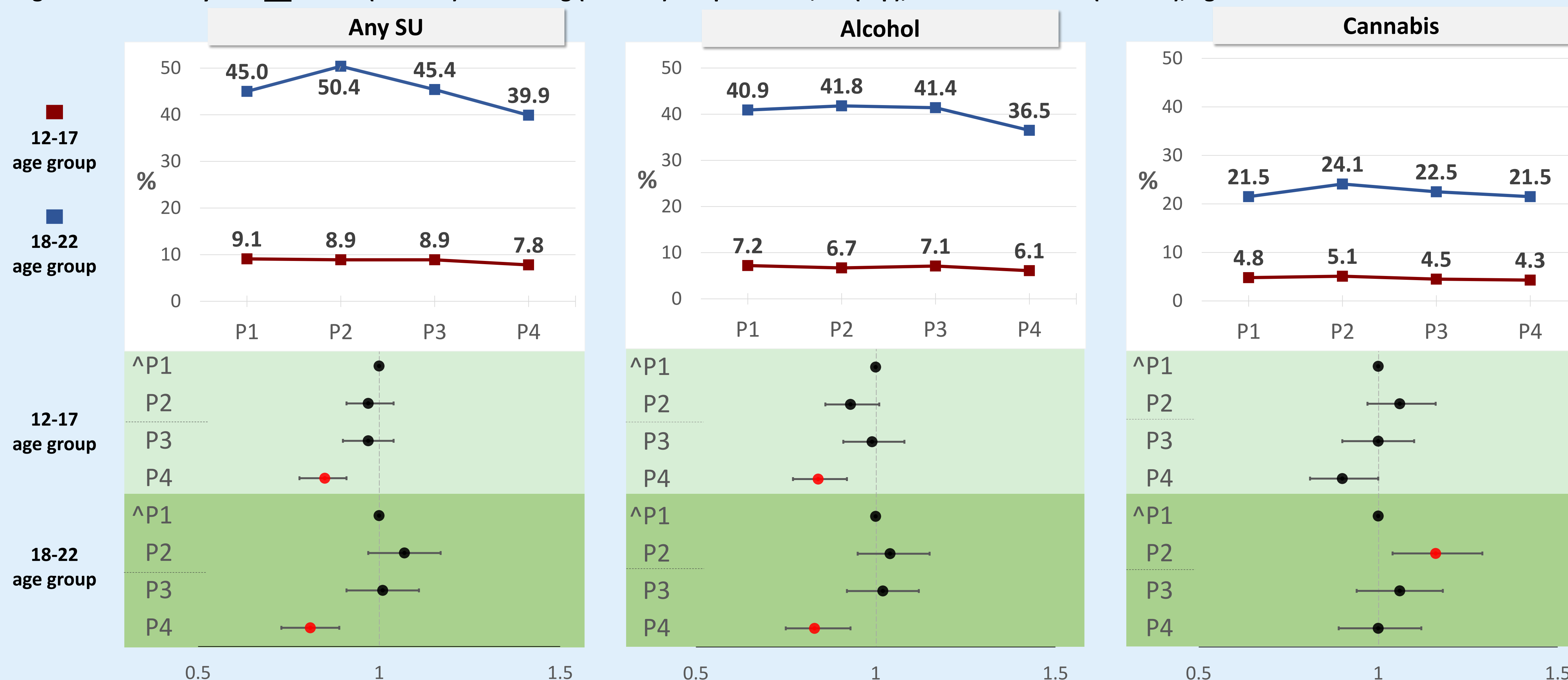
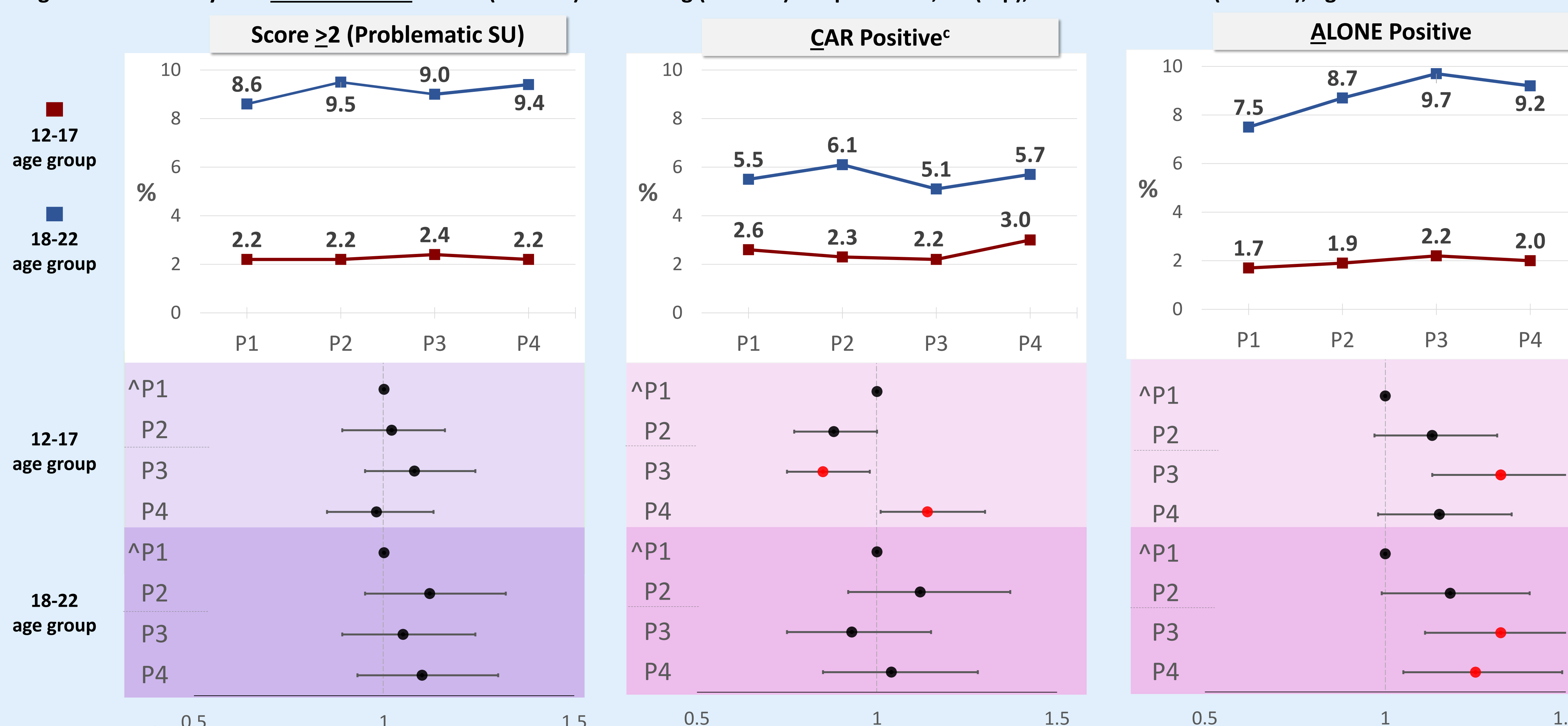


Figure 2. Trends in youth CRAFFT scores before (P1 & P2) and during (P3 & P4) the pandemic, %^a (top), AOR^b and 95% CI^c (bottom), age-stratified



^a Adjusted frequency. See ^a.
^b AOR = Adjusted Odds Ratio. Adjusted for age in years, respondent (self-administered versus clinician interview), and region (Northeast, Midwest, South, West). Generalized Estimating Equations account for data clustering within practices and patients. • denotes significance.
^c CI = Confidence Interval.
^d Car item is asked of all respondents regardless of any SU reported. Other items only asked if any SU is reported.
^e P1 (Mar to Aug 2018) = referent period.

C Have you ever ridden in a CAR driven by someone (including yourself) who was "high" or had been using alcohol or drugs?	No	Yes
R Do you ever use alcohol or drugs to RELAX , feel better about yourself, or fit in?	No	Yes
A Do you ever use alcohol or drugs while you are by yourself, or ALONE ?	No	Yes
F Do you ever FORGET things you did while using alcohol or drugs?	No	Yes
F Do your FAMILY or FRIENDS ever tell you that you should cut down on your drinking or drug use?	No	Yes
T Have you ever gotten into TROUBLE while you were using alcohol or drugs?	No	Yes

RESULTS

- SU:** In P₄ vs. P₁, both age groups reported lower rates of:
 - Any SU:** 12-17 (7.8% vs. 9.1%); 18-22 (39.9% vs. 45.0%)
 - Alcohol use:** 12-17 (6.1% vs. 7.2%); 18-22 (36.5% vs. 40.9%)
 - These rates did not differ across P₁-P₃.
- Problematic SU:** Did not change in either group
- SU-related car risk:** Lower in P₃ (immediately post-pandemic onset) vs. P₁ for the younger age group
 - 12-17 (2.2% vs. 2.6%)
- Using alone:** In P₃ (immediately post-pandemic onset) vs. P₁, increased use while alone in both groups:
 - 12-17 (2.2% vs. 1.7%); 18-22 (9.7% vs. 7.5%)

DISCUSSION

- Adolescents in pediatric primary care reported less SU during vs. before the COVID-19 pandemic.
- Problematic SU did not decrease or increase.
- SU when adolescents were alone increased, which may reflect COVID-19-related isolation from peers.
- Changes in SU-related car risks may reflect decreased travel during "lockdown" (P₃) and subsequently increased travel during "reopening" (P₄)
- Limitations:** Only generalizable to pediatric practices using CHADIS
- Routine SU screening in pediatric primary care provides critical information about the pandemic's effects on SU risk in youth.

