

demographic factors. Pandemic experiences were assessed via the COVID-19 Exposure and Family Impact Survey (CEFIS) for AYA. The CEFIS exposure scale (range: 0–32) is the sum of COVID-19 related social and economic stressors, including direct COVID-19 experiences in family members. The CEFIS impact scale (range: 1–4) assesses the mean impact on personal, emotional and physical wellbeing and family interaction. Logistic regression was used to assess the association between past 12-month cannabis use and COVID-19 related exposure, impact, and distress, adjusting for age, sex, ethnicity, household composition, anxiety and depression. Analyses were performed on the total sample, and after stratifying the sample into general adolescent and subspecialty care groups given the potential for the pandemic to differentially affect AYA with underlying chronic conditions.

Results: Our sample was comprised of N=458 participants, including n=203 adolescents seen at an urban adolescent medicine clinic and n=255 youth with chronic medical conditions (YCMC), including type 1 diabetes, inflammatory bowel disease, and rheumatic disease, seen at specialty clinics. The mean score for CEFIS exposure was 9.2 (SD 3.9), CEFIS impact score was 2.9 (SD 0.6), and CEFIS distress score was 5.9 (SD 2.3). The average age of study participants was 19.3 years (SD: 1.6), 69% were female and 58.0% were white non-Hispanic. Compared to non-cannabis users, youth reporting past year cannabis use were older (19.7 vs 19.0, $p < 0.001$), reported more past year alcohol use (90.7% vs 38.8%, $p < 0.001$) and were more likely to screen positive for potential major depressive disorder (i.e. PHQ-2 score ≥ 3 ; 25.8% vs 12.7%, $p < 0.001$) and anxiety disorder (i.e. GAD-2 score ≥ 3 ; 34.1% vs 21.7%, $p = 0.003$). In unadjusted models, past 12-month cannabis use was significantly associated with the CEFIS impact (OR 1.75 95%CI: 1.25–2.46) and CEFIS Distress scale (OR 1.10 95%CI: 1.01–1.19) in the combined sample. When adjusting for covariates, the CEFIS scales were no longer significantly associated with past 12-month cannabis use. Past 12-month cannabis use was significantly associated with CEFIS impact among YCMC (adjusted OR 1.76 95%CI: 1.01–3.08), but not among AYA in the general adolescent medicine cohort (AOR 1.07 95%CI: 0.63–1.82).

Conclusions: Past year cannabis use was associated with the impact of the pandemic in YCMC but not in a general adolescent clinic population. Findings raise questions about whether the disruption in specialized treatment during the pandemic increased the potential for YCMC to use cannabis in an attempt to alleviate disease symptoms or side effects.

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WHAT DO YOU CONSIDER MARIJUANA USE? LIMITATIONS OF CURRENT SURVEILLANCE SYSTEMS TO MONITOR ADOLESCENT MARIJUANA USE

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Purpose: Adolescent health surveillance systems are critical for understanding patterns of marijuana use and generating data to evaluate changes in use following marijuana legalization and during the COVID-19 pandemic. The wording of survey questions may be misaligned with adolescents' language about marijuana use and the ways they consume it. Our objectives were to compare terminology

and prevalence of marijuana use between data from a local surveillance system and from a participatory research study.

Methods: To understand marijuana use trajectories over the course of adolescence/young adulthood, we conducted the "Model Building with Adolescents on Peers, Partners, and Substance Use" (MAPPS) study. MAPPS was IRB-approved and included participatory group model building (GMB) with youth in Baltimore City. MAPPS participants were recruited from a health clinic and through community partners. Participants' marijuana use was assessed with the eligibility screener, an enrollment survey, and through GMB exercises that were conducted over the course of four two-hour workshops. GMB exercises included structured activities with youth, including behavior over time graphs and documenting their mental models in real time. Two independent reviewers interpreted youths' graphed estimates of marijuana use. Lifetime and past 30-day marijuana use prevalence estimates from MAPPS were compared to estimates from the Baltimore Youth Risk Behavior Survey (YRBS), which is conducted in partnership with CDC's National YRBS program.

Results: MAPPS participants (n=20) had an average age of 18; 7 (35%) were male and 19 (95%) were Black. MAPPS participants almost exclusively used the terms weed and blunts for marijuana, whereas the Baltimore YRBS used the term marijuana, and mentioned that it was also called "pot, weed, or cannabis." Results from MAPPS revealed several discrepancies between different assessments of marijuana use; 100% reported lifetime use during GMB activities, whereas 50% (n=10) reported lifetime use on the eligibility screener and 60% (n=12) reported lifetime use on the enrollment survey. Collectively, MAPPS participants estimated that 86% of Baltimore 16-year-olds use marijuana, whereas data from the Baltimore YRBS indicate that 30.2% of eleventh graders report past 30-day use. MAPPS participants perceived that there was a high frequency of use among youth who use and explained that youth who "hit a blunt" off someone else, but who do not buy marijuana themselves, would be unlikely to self report as having used marijuana.

Conclusions: Our participatory research with urban, Black youth suggests that the terminology they use for marijuana (i.e., weed, blunt) differs from terms used in local surveillance (e.g., marijuana, pot). We also found that they would consider prevalence estimates from surveillance studies to be underestimated because youth who consume peers' blunts would not characterize themselves as having used marijuana. Therefore, surveillance questionnaires may be misestimating marijuana use due to discrepancies in terminology in questions versus in spoken language, and because collective use is not considered. Misestimations of use limit effective prevention programming, and bias studies that quantify changes in marijuana use following policy changes or during the pandemic. A more comprehensive understanding of patterns of marijuana use is an important step for improving surveillance, evaluation, and clinical assessment.

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IMPACT OF COVID-19 RISK MITIGATION INTERVENTIONS ON DRUG OVERDOSE IN THE EMERGENCY DEPARTMENT AMONG ADOLESCENTS AND YOUNG ADULTS IN ST. PETERSBURG, FLORIDA

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Purpose: The COVID-19 pandemic has brought unprecedented challenges to the health to the United States. Understanding the consequences of national, state, and local risk mitigation interventions (e.g. school closures, social gathering restrictions) on substance use outcomes among adolescents and young adults (AYA) remains an unexplored area of investigation. AYA are at increased risk for depression, anxiety, post-traumatic stress, and familial violence all which might contribute to elevated substance use and overdose risk. In this study, we compare overdose emergency department (ED) visits among AYA before and after risk mitigation interventions were implemented to reduce transmission of COVID-19 in St. Petersburg, Florida.

Methods: We analyzed 30,795 ED visits from April 1, 2018 to December 31, 2020 among 16,962 unique patients aged 12-21 years at one children's hospital in St. Petersburg Florida. The primary exposure of interest was calendar period, before or after COVID-19 risk mitigation interventions went into effect (after March 15, 2020). Multivariable logistic regression with generalized estimating equations was used to determine if an ED visit during the COVID-19 period resulted in higher odds of experiencing a drug overdose (e.g. intentional or adverse effect). Segmented regression was used to determine if overdose rates changed linearly over time, within and between COVID-19 periods.

Results: The median age at first ED encounter was 15 years (13-17). The proportion of ED visits due to overdose increased from 1.8% (n=436) to 2.5% (n=166) in the pre-COVID and COVID periods, respectively. The univariate model demonstrates that visits during the COVID-19 period were associated with 39% (95% CI: 1.15-1.68, p=0.001) higher odds of experiencing an overdose compared to observations in the pre-COVID period. A multivariable model was constructed with variables including COVID-19 period, sex, age at encounter, race/ethnicity, type of insurance, active alcohol abuse, inpatient unit admission, and mood disorder diagnosis. This association remained significant in the multivariable model in which overdoses were 21% (95% CI: 1.00 – 1.48, p=0.05) more likely to occur during COVID-19 period visits. Furthermore, mood disorder diagnosis was significantly associated with overdose in the multivariable model (adjusted odds ratio: 3.71, 95% CI: 2.95-4.67, p=<0.001). Segmented regression analysis revealed a significant average increase of 9 per 1,000 (p=0.046) visit increase in the immediate change from the pre-COVID to COVID-19 period while no significant linear changes over time were detected within either period.

Conclusions: Drug overdose in the ED increased significantly from the pre-COVID to the COVID-19 period indicating that risk mitigation interventions might have accelerated this increase among AYA. Social and physical isolation and underlying mental health disorder might be contributing to increased overdose risk in this population. Screening of co-occurring mental health disorders and substance use behaviors is needed among AYA.

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RESEARCH POSTER PRESENTATION II: HEALTH EQUITY/COVID

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COVID-19 EXPOSURE AND CARE-SEEKING BEHAVIORS AMONG VULNERABLE URBAN ADOLESCENTS AND YOUNG ADULTS—BALTIMORE, MARYLAND USA

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Purpose: During the coronavirus disease 2019 (COVID-19) pandemic, the Centers for Disease Control and Prevention called for pragmatic syndromic management approaches to compensate for reductions in care access to sexual health services due to COVID-19. This study seeks to determine the relationship between fear of COVID-19 acquisition and care seeking behaviors among urban adolescents and young Adults (AYA), with the aim of assessing the utilization of telemedicine as part of health services offered to AYA in Baltimore, MD.

Methods: Participants in the COVID-19 Youth Study were 13-25 years old and recruited from four existing sexual health studies focused on 1) pelvic inflammatory disease, 2) HIV, 3) emerging sexually transmitted infections, and 4) a dyadic STI prevention. Participants agreed to be re-contacted for future studies and completed an interviewer-administered telephone survey developed to inquire about the impacts of COVID-19 on care seeking behaviors including: provider visits and use of in-person or telemedicine for care. Bivariate analyses tested for correlations between fear of COVID-19 acquisition, demographic variables, and care-seeking behaviors. Multivariable logistic regression modeled associations between fear of COVID-19 acquisition and care seeking behaviors, adjusting for insurance and HIV status.

Results: The final analytical sample included 194 participants. Approximately 81% (n=158) were female, mean age (sd) = 23 (2.8) years, 95% (n=184) had health insurance, 77% (n=149) had public health insurance, 78% (n=151) had a provider visit, and 34% (n= 52) had visits via telemedicine. Of the participants who had a doctor visit, 93% (n=141) reported being willing to use telemedicine, while 7% (n=10) were unwilling. Adjusted multivariable logistic regression revealed a statistically significant association between fear of COVID-19 acquisition and having a provider visit; AYA who feared COVID-19 were at greater than 2 times increased odds a provider visit compared to AYA who did not fear COVID-19 acquisition (OR: 2.37, 95%CI: 1.02, 6.15). Among those with a provider visit, fear of COVID-19 acquisition was associated with two-fold increased odds of having a telemedicine visit vs an in-person visit (OR: 2.23, 95%CI: 1.09, 4.51), however this was not statistically significant in the adjusted model. There were significant associations in the adjusted model for HIV status and insurance type. Among patients who had a provider visit, the odds of a telemedicine visit were increased for those living with HIV (OR: 2.41, 95%CI: 1.05 5.51) and decreased for those who had public health insurance (OR: 0.34, 95%CI: 0.14, 0.82).