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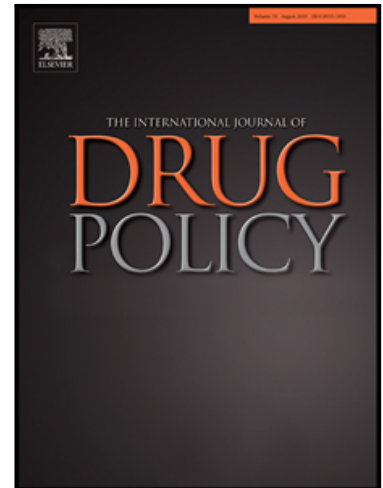
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Increased Solitary Drug Use during COVID-19: An Unintended Consequence of Social Distancing

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Abstract

Background. During the COVID-19 pandemic, overdose rates substantially increased in the United States. One possible contributor to this phenomenon may be solitary drug use resulting from social distancing efforts to prevent COVID-19 transmission.

Methods. We surveyed 458 people who use drugs (PWUD) who were recruited from harm reduction and drug treatment providers located in nine states and the District of Columbia. We assessed if solitary drug use had increased since the start of COVID-19. Associations between increased solitary drug use and sociodemographic characteristics, drug use characteristics, and COVID-19 prevention behaviors were examined using multiple logistic regression.

Results. Half the sample identified as men (52.7%), White (49.7%), and single (49.3%). The average age was 43.2 (SD:11.8) years. Two-thirds (66.8%) recently injected drugs. 44% reported increased solitary drug use since COVID-19. Significant correlates of increased solitary drug use included being single (adjusted Odds Ratio [aOR]=1.99, 95% Confidence Interval [CI]: 1.33, 2.98), increasing drug use (aOR=2.74, 95% CI: 1.72, 4.37), using more in private locations (aOR=1.91, 95% CI: 1.34, 2.72), and social distancing behaviors (aOR=1.31, 95% CI: 1.11, 1.54). Experiencing homelessness (aOR=0.45, 95% CI: 0.31, 0.65) and identifying as a sexual minority (aOR=0.53, 95% CI: 0.31, 0.93) were associated with being less likely to increase solitary drug use.

Conclusions. Solitary drug use increased during the COVID-19 pandemic. Increases in solitary drug use, in the context of a drug market increasingly permeated by fentanyl, indicates an urgent need for comprehensive harm reduction interventions to reduce overdose mortality.

Keywords. Solitary drug use, drug use during COVID-19, social distancing, harm reduction.

Highlights

- Forty-four percent of people who use drugs reported increased solitary drug use during COVID-19.
- Social distancing behaviors were associated with increased solitary drug use.
- Increased drug use during the pandemic and using in private locations were associated with increased solitary drug use.

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Introduction

During the COVID-19 pandemic, overdose rates increased substantially in North America (Imtiaz et al., 2021; Special Advisory Committee on the Epidemic of Opioid Overdoses, 2022). In the United States, there were an estimated 30% increase in overdose fatalities between 2019 and 2020, and there was a further 15% increase in 2021 resulting in 107,622 lives lost to overdose that year (Ahmad et al., 2022). Canada also saw large increases in overdose, as opioid-involved overdose deaths doubled between 2019 and 2021 (Special Advisory Committee on the Epidemic of Opioid Overdoses, 2022). These trends contrast from the more stable rates in Europe (11.5% increase from 2019 to 2020 in the European Union, Turkey, and Norway) and Australia (<1% change) (Australian Institute of Health and Welfare, 2022; EMCDA, 2021, 2022). Non-fatal overdoses have also increased in the US during the pandemic, with emergency department encounters for non-fatal drug overdoses having risen, despite overall decreases in total emergency department encounters (Centers for Disease Control and Prevention and National Center for Injury Prevention and Control, 2021; Czeisler et al., 2020a; Czeisler et al., 2020b; Holland et al., 2021; Ochalek et al., 2020). Understanding why overdoses have risen so dramatically in the US during the pandemic is essential for crafting effective public health responses in the future.

There are several factors that may have contributed to increases in overdose. Initial evidence has indicated that the drug market has been volatile during the pandemic, as trafficking routes and supply chains were disrupted (Grebely et al., 2020). This has likely driven changes in the availability, price, and potency of drugs since the start of the pandemic and subsequent changes in individual drug use behaviors (Ali et al., 2021). Individual-level drug use has also been exacerbated during this period with research highlighting increased substance use associated with pandemic-related stress (Czeisler et al., 2020a). Interruptions to harm reduction and treatment systems that serve people who use drugs (PWUD) also occurred. Initial research suggests that approximately 15-25% of syringe services programs (SSPs) discontinued services completely during COVID-19 (Bartholomew et al., 2020; Glick et al., 2020). An additional 72% of SSPs that remained open during the COVID-19 pandemic had reduced hours for operation (Bartholomew et al., 2020). Research has further documented a 26% decline in pharmacy

naloxone prescription fills during the pandemic, without any evidence that there has been a recovery in this trend as the pandemic continues (O'Donoghue et al., 2021). While some services have been restored, as of early 2022, many services remain diminished, and concerns regarding COVID-19 exposure while accessing services could deter future service use.

Another potential contributor to increased overdose mortality is increased solitary drug use induced by social distancing efforts. Solitary drug use or using drugs alone is a risk factor for fatal opioid overdose, as it means that no bystanders will be nearby to administer naloxone or call for assistance if an overdose were to occur (Wojcicki, 2019). Prior to the pandemic, studies estimated that 40-76% of PWUD engage in solitary drug use (Mattson et al., 2018; Papamihali et al., 2020; Park et al., 2019), and it is yet unknown how this has changed during the pandemic. PWUD have many reasons for using alone, including safety from robbery or assault, convenience, and better psychological experiences (Papamihali et al., 2020; Project SAFE, 2020). Most recently, COVID-19 has emerged as an additional reason for using drugs alone as PWUD adhere to social distancing guidelines. While social distancing is undoubtedly an essential COVID-19 prevention strategy, it is at odds with the overdose risks associated with solitary drug use for PWUD. Public health messaging during the pandemic has been clear on the importance of social distancing, but there has been a lack of communication for PWUD regarding how to balance the risks of COVID-19 and solitary drug use.

We explore changes in solitary drug use during the COVID-19 pandemic among a sample of PWUD from the US, and measure how these changes vary by sociodemographic characteristics, drug use, and COVID-19 prevention behaviors. We expect that COVID-19 social distancing behaviors will be key drivers of increased solitary drug use during the pandemic. We further assessed substance use characteristics and changes in personal drug use during the pandemic to determine if increased drug use during the pandemic also contributed to increased solitary drug use and to understand if multiple overdose risk factors are occurring in concert.

Methods

The COVID Harm Reduction and Treatment programs Survey (COVID-HARTS) Study.

The full details of the COVID-HARTS study have been reported previously (Saloner et al., 2022). Here we provide a summary of the methods. Recruitment occurred from August 19, 2020 to January 29, 2021. Participants were referred from 21 drug treatment and harm reduction programs across 9 states (Maine n=36, Maryland n=14, Michigan n=40, New Jersey n=83, New Mexico n=61, New York n=11, Pennsylvania n=114, Tennessee n=44, and West Virginia n=41) and the District of Columbia (n=14). Program staff distributed recruitment cards, with a phone number and unique study identifier, to clients who expressed interest in the study. Interested individuals called the study phone number to be screened for eligibility. Eligible participants were: 18 years or older, a client of a participating organization, able to provide informed consent, and able to provide a valid study identifier (from the recruitment card). Eligible participants then completed the 1-hour survey via telephone and received a \$40 incentive for participating (N=587). For this analysis, we restricted the sample to participants who had used drugs in the past 6 months (n=100 removed) and who reported information about using alone during COVID-19 (n=25 missing). We also removed 4 transgender participants from the analytic sample, as gender was a correlate of interest, and the sample size was too small. This process yielded a final sample of 458. The COVID-HARTS Study was approved by the Johns Hopkins School of Public Health Institutional Review Board.

Measures.

Solitary Drug Use. The main outcome of interest was increased solitary drug use since COVID-19. Participants were asked to agree or disagree (binary) with the statement, “Since COVID-19, I try to only use drugs alone more than before”. We used this question as an indicator of increased solitary drug use.

Sociodemographic Characteristics. We ascertained participants’ age (in years), gender (man/male or woman/female), sexual orientation (categorized as heterosexual vs sexual minority), race/ethnicity (categorized as non-Hispanic white, non-Hispanic Black, Hispanic/Latinx, and Other), relationship status (single vs in a relationship), education (less than high school, high school diploma or equivalent, or some college or more), employment status (full time, part time, or not working), if they

were currently homeless (self-identified based on the question “Are you currently homeless?”; yes/no), and if they experienced hunger at least once a week (yes/no). Finally, participants reported their state and county, which we coded according to the National Center for Health Statistics Rural Classification Scheme (codes range from 1– large central metro to 6 – non-core) (Ingram & Franco, 2013). We created three categories of urbanicity: large metropolitan (codes 1 and 2), small metropolitan (codes 3 and 4), and non-metropolitan (codes 5 and 6).

Drug Use in the Past 6 Months. Participants reported if they had used each of 14 drugs/combinations of drugs in the past 6 months, including cocaine, heroin, fentanyl, heroin and fentanyl simultaneously, speedball (cocaine and heroin simultaneously), methamphetamine, methamphetamine and heroin simultaneously, prescription opioids, tranquilizers, buprenorphine/suboxone, hallucinogens, other medications (not as prescribed), and other stimulants. Participants also reported if they had injected drugs in the past 6 months. To measure changes in drug use during COVID-19, we used two binary questions asking participants if they had used drugs more or used drugs less during COVID-19. From these questions, we created a three-category variable indicating whether a participant had used more, the same, or less during COVID-19. We recoded responses as missing from participants who reported both increasing and decreasing drug use (n=16 missing). Finally, we asked participants about the physical spaces in which they used drugs. Participants indicated if they used drugs in private locations (e.g., private houses) more than before the pandemic.

Drug Treatment in the Past Month. We included three binary measures of past month drug treatment: any drug treatment, any medication for opioid use disorder (MOUD; buprenorphine, methadone, or naltrexone), and any non-medication treatment (e.g., individual or group counselling, 12 step meetings, doctor consultations).

COVID-19 Prevention Behaviors. We included measures of six COVID-19 prevention behaviors. Participants were asked to indicate which of the following they had done because of the COVID-19 pandemic: avoided crowded places, kept a 6-foot distance from others, worn a face mask, washed hands with soap/used hand sanitizer several times per day, canceled/postponed personal or social

activities, and avoided contact with people who could be high-risk. We also created a sum score (range 0-4) of the social distancing measures (avoided crowded places, kept a 6-foot distance from others, canceled/postponed personal or social activities, and avoided contact with people who could be high-risk).

Analysis.

We first estimated the overall prevalence or mean of each variable. We then used Chi Square tests (or a t-test in the case of age) to assess relationships between each variable and solitary drug use. Based on these results, we included all variables associated with solitary drug use at the $p < 0.1$ level in multivariable logistic regression analyses, except for the individual distancing items. We included the sum score of distancing measures in the regression analyses instead of individual distancing items. Included variables were checked for multicollinearity using variance inflation factors (VIFs); all VIFs were low ($VIF < 1.5$). We clustered standard errors by the recruitment organization from to account for study design in the regression model. Statistical analyses were performed using Stata 17 (StataCorp, College Station, TX).

Results

Overall, approximately half the sample identified as male (52.7%), White (49.7%), and single (49.3%) (Table 1). The average age was 43.2 (SD:11.8). Among participants, 12.5% identified as a sexual minority. Participant education varied: 28.4% of participants had less than a high school education, 42.8% had a high school diploma or equivalent, and 28.8% had some college education or more. About one quarter of the sample reported experiencing homelessness (25.1%) or weekly hunger (28.2%). More than half the sample live in large metropolitan areas (53.5%), 29.8% lived in small metropolitan areas, and 16.7% lived in non-metropolitan areas. Heroin (76.4%) and cocaine (50.1%) were the most commonly used drugs. Two-thirds (66.8%) reported injecting drugs in the past 6 months. During COVID-19, 29.4% of participants reported using drugs less than before the pandemic, while 41.6% reported using drugs more. Two-thirds reported using drugs in private locations more (64.7%). About half of the sample had received any drug treatment (57.6%), MOUD treatment (49.9%), or non-MOUD treatment (52.8%) in the

past month. Most participants reported engaging in each COVID-19 prevention behavior, ranging from 96.7% reporting mask wearing and hand washing to 85.4% avoiding high risk individuals to 75.3% reporting cancelling plans.

Increased solitary drug use was reported by 43.9% of the sample. In the bivariate analyses, participants who reported being a sexual minority or experiencing homelessness were less likely to report increased solitary drug use, while persons who were single were more likely to report increased solitary drug use. Of the substances measured, only prescription opioid and other stimulant use were marginally associated with changes in solitary drug use. Increased overall drug use during COVID-19 was also associated with increased solitary drug use. Using more in private locations was further associated with increased solitary drug use. Drug treatment was not significantly associated with changes in solitary drug use. Of the six COVID prevention behaviors, cancelling plans was significantly associated with increased solitary drug use, and social distancing and avoiding high-risk people were marginally associated with increased solitary drug use. The social distancing sum score was significantly associated with solitary drug use, such that those who reported increased solitary drug use had higher average distancing scores.

In the multivariable logistic regression model (Table 2), experiencing homelessness (adjusted Odds Ratio [aOR]=0.45, 95% CI: 0.31, 0.65) and identifying as a sexual minority (aOR= 0.53, 95% CI: 0.31, 0.93) were associated with being less likely to have reported increased solitary drug use. Being single (aOR=1.99, 95% CI: 1.33, 2.98) was associated with more solitary drug use. Using more drugs during COVID-19 (aOR=2.74, 95% CI: 1.72, 4.37) was associated with increased solitary drug use. Using more in private locations (aOR=1.91, 95% CI: 1.34, 2.72) was further associated with increased solitary drug use. Finally, higher social distancing scores (aOR=1.31, 95% CI: 1.11, 1.54) were also associated with increased solitary drug use.

Discussion

Using data from a sample of PWUD from nine states and the District of Columbia, we found that there were substantial increases in solitary drug use during the COVID-19 pandemic. Solitary drug use is a known risk factor for experiencing a fatal overdose (Wojcicki, 2019), so these findings are consistent

with the increases in overdose fatalities during the pandemic. Individuals experiencing homelessness were less likely to report using alone more, likely due to their socioeconomic vulnerabilities limiting access to stable private locations in which to do so. Being single was associated with more solitary drug use, which is may be due to PWUD often use drugs with their romantic or sexual partners. Participants who identified as sexual minorities were also less likely to report increase solitary drug use. It is not clear from this data why sexual minority individuals would have used alone less, so additional research is needed to explore this phenomenon and its possible implications for COVID-19 and overdose risk among sexual minority populations.

Individuals who reported increased drug use during COVID-19 also reported more solitary drug use. This is worrying as increasing substance use confers substantial risk for experiencing an overdose, especially in the context of a toxic drug supply. Illicitly manufactured fentanyl and its analogs have become increasingly prevalent in the drug supply, resulting in substantial increases in overdose mortality (Ciccarone, 2017; Han et al., 2019). Combining amplified substance use and a toxic drug supply with solitary drug use likely results in increased mortality risks beyond those of each individual factor. These findings indicate the need for expanded interventions that specifically address the toxicity of the drug market to reduce overdose risks, such as drug checking programs or fentanyl test strips distribution.

Similarly, using drugs in private locations increases the risk of an overdose being fatal, as a person would be less likely to be found and helped by a bystander. While related, using drugs alone and using in private locations have separate and additive effects on the risk of an overdose being fatal. PWUD who use alone often report using in public or semi-public places so that they can be found and revived in case of an overdose as part of their safety plan (Dovey et al., 2001). Our finding that more individuals report using both alone and in private in the context of COVID-19 represents a challenge for overdose prevention initiatives in this new landscape of drug use habits.

Unfortunately, social distancing efforts to reduce COVID-19 transmission may have had the unintended consequence of increasing solitary drug use during the pandemic. Increased solitary drug use was higher among individuals who reported more social distancing behaviors, suggesting that concern

about COVID-19 was a driver of using alone during the pandemic. This finding is consistent with previous qualitative reports from service providers (Frost et al., 2022). With this potential consequence in mind, public health messaging to PWUD needs to be amended to balance the risks of COVID-19 and overdose using creative harm reduction strategies to reduce overdose risks. For example, “spotting,” or remotely monitoring someone’s drug consumption, may be particularly valuable in the COVID-19 context. Spotting has been used by PWUD for year via several modalities (e.g., phone, video calls) to intervene by calling for help if the person experiences an overdose (Perri et al., 2021). Initial evidence suggests that spotting during COVID-19 is a viable strategy to help fill service gaps and maintain social distancing will preventing solitary drug use (Perri et al., 2021). Spotting interventions using technology are limited to PWUD who have access to cell phones or the internet and should be paired with further overdose prevention strategies.

Structural solutions to mitigate overdose risks compliment and facilitate individual behavior changes. One potential structural solution that can simultaneously address the risks associated with solitary drug use, while maintaining rigorous COVID-19 prevention protocols, is the implementation of overdose prevention sites (OPS). OPS provide a safe and hygienic space for PWUD to consume previously acquired drugs using sterile equipment while supervised by medical or case management staff who can respond during overdose (Pauly et al., 2020; Wallace et al., 2019). OPS are often co-located with other treatment and supportive services for PWUD, including case management, housing programs, drug checking, wound care, and vaccination initiatives. Such facilities have a wealth of empirical support for their effectiveness at preventing fatal overdose and infectious disease transmission (European Monitoring Centre for Drugs and Drug Addiction, 2016; Marshall et al., 2011; Medically Supervised Injection Centre Evaluation Committee, 2003; Otter, 2016; Wood et al., 2006). During the pandemic, OPS in other countries have maintained operations, though capacity has been reduced to ensure COVID-19 safety. Implementation of OPS in the US is even more critical in the context of COVID-19, given the notable increases in solitary drug use and overdose.

This study has the following limitations to consider. First, the sampling method used in the COVID-HARTS Study only recruited participants who were engaged with a least one type of service. As many PWUD do not utilize treatment or harm reduction services, our sample is not representative of the broader PWUD populations. Second, as this study uses cross-section self-reported data, it is subject to potential recall biases. Some of the measures used lack the specificity needed to provide additional nuance to our findings. For example, we do not have information about how frequently each COVID-19 prevention behavior was done. Recall periods also varied for variables used in this analysis. It is also worth noting that the pandemic severity and associated public health guidance did vary during the course of data collection. Further, we did not ascertain the frequency in which participants used drugs alone and if, and to what extent, they implemented additional measures to reduce overdose when using alone (e.g., going slow). We also did not collect information about the frequency of police practices, which may have impacted solitary drug use. These data were collected near the beginning of the pandemic, so it is also possible that behavioral patterns changed with time. We also do not have explanatory data (e.g., qualitative interviews) to determine if solitary drug use increased as a direct result of COVID-19 prevention efforts, though this explanation is consistent with the results and our hypotheses.

Conclusions. Increased solitary drug use during COVID-19 was common among this sample of PWUD. This change may be due to social distancing efforts to prevent COVID-19, indicating an unintended and potentially deadly consequence of public health efforts to stop the pandemic. Multi-level solutions are needed to prevent fatal overdoses when solitary use occurs, such as spotting programs and overdose prevention sites. Public health messaging for PWUD needs to balance the risks of solitary drug use with other health topics, including COVID-19 prevention.

Contributors. KES conceptualized the manuscript, conducted the data analysis, and wrote the initial draft of the manuscript. STA and SR contributed to the interpretation of the results. MM and KH contributed to data collection and management. BS and SGS obtained project funding, contributed to the overall study design, and supervised the project. All authors contributed to revising the manuscript and approved of the final version.

Declaration of interests

The authors declare the following financial interests/personal relationships which may be considered as potential competing interests:

Dr. Sherman has served as an expert witness in opioid litigation cases. The authors have no other financial interests/conflicts of interest to disclose.

Ethics approval

The authors declare that they have obtained ethics approval from an appropriately constituted ethics committee/institutional review board where the research entailed animal or human participation.

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Table 1. Sample Characteristics and Correlates of Increased Solitary Drug Use during COVID-19.

	Total	Increased Solitary Drug Use		p
		No	Yes	
	n=458	257 (56.1)	201 (43.9)	--
Sociodemographic Characteristics				
Age, M (SD)	43.2 (11.8)	42.6 (11.6)	44.0 (12.0)	0.205
Gender				
Man/Male	241 (52.7)	138 (53.9)	103 (51.2)	0.571
Women/Female	216 (47.3)	118 (46.1)	98 (48.8)	
Sexual Minority	57 (12.5)	39 (15.2)	18 (9.0)	0.047
Race/Ethnicity				
Non-Hispanic white	227 (49.7)	130 (50.6)	97 (48.5)	0.616
Non-Hispanic Black	105 (23.0)	58 (22.6)	47 (23.5)	
Hispanic or Latinx	110 (24.1)	63 (24.5)	47 (23.5)	
Other	15 (3.3)	6 (2.3)	9 (4.5)	
Single	225 (49.3)	117 (45.7)	108 (54.0)	0.079
Education				
<HS	130 (28.4)	71 (27.6)	59 (29.4)	0.843
HS or equivalent	196 (42.8)	113 (44.0)	83 (41.3)	
Some college +	132 (28.8)	73 (28.4)	59 (29.4)	
Employment				
Full time	27 (5.9)	15 (5.8)	12 (6.0)	0.165
Part time	43 (9.4)	30 (11.7)	13 (6.5)	
Not working	388 (84.7)	212 (82.5)	176 (87.6)	
Homeless	114 (25.1)	75 (29.4)	39 (19.5)	0.015
Weekly Hunger	129 (28.2)	68 (26.5)	61 (30.4)	0.358
Urbanicity Categories				
Large Metropolitan Area	244 (53.5)	136 (53.1)	108 (54.0)	0.941
Small Metropolitan Area	136 (29.8)	78 (30.5)	58 (29.0)	
Non-Metropolitan Area	76 (16.7)	42 (16.4)	34 (17.0)	
Past 6-Month Drug Use				
Cocaine	229 (50.1)	122 (47.7)	107 (53.2)	0.237
Heroin	349 (76.4)	200 (77.8)	149 (74.5)	0.407
Fentanyl	155 (34.1)	89 (34.9)	66 (33.0)	0.671
Heroin & Fentanyl	190 (41.5)	106 (41.3)	84 (41.8)	0.906
Speedball	65 (14.2)	37 (14.4)	28 (13.9)	0.887
Methamphetamine	168 (36.8)	100 (39.1)	68 (33.8)	0.250
Methamphetamine & Heroin	88 (19.2)	48 (18.7)	40 (19.9)	0.742
Prescription Opioids	117 (25.7)	58 (22.7)	59 (29.5)	0.097
Tranquilizers	141 (30.8)	77 (30.1)	64 (31.8)	0.686
Buprenorphine/Suboxone	63 (13.8)	32 (12.5)	31 (15.4)	0.360
Hallucinogens	34 (7.4)	17 (6.6)	17 (8.5)	0.446
Other Medications	71 (15.5)	39 (15.2)	32 (15.9)	0.827
Other Stimulants	32 (7.0)	13 (5.06)	19 (9.50)	0.065
Injected Drugs	306 (66.8)	175 (68.1)	131 (65.2)	0.510
Drug Use Changes During COVID				
Change in Using Drugs				
Decreased Use	130 (29.4)	83 (33.7)	47 (24.0)	<0.001
Maintained Use	128 (29.0)	87 (35.4)	41 (20.9)	
Increased Use	184 (41.6)	76 (30.9)	108 (55.1)	
Used More in Private Locations	293 (64.7)	144 (56.7)	149 (74.9)	<0.001

Past Month Drug Treatment				
Any treatment, past month	264 (57.6)	147 (57.2)	117 (58.2)	0.828
MOUD treatment, past month	226 (49.9)	125 (48.8)	101 (51.3)	0.606
Non-MOUD treatment, past month	239 (52.8)	134 (52.6)	105 (53.0)	0.919
COVID Prevention Behaviors				
Avoid crowded places*	418 (91.3)	231 (89.9)	187 (93.0)	0.236
Kept a 6-foot distance*	430 (93.9)	237 (92.2)	193 (96.0)	0.092
Wore a face mask	443 (96.7)	248 (96.5)	195 (97.0)	0.758
Washed Hands/Sanitizer	443 (96.7)	247 (96.1)	196 (97.5)	0.402
Cancel Plans*	345 (75.3)	181 (70.4)	164 (81.6)	0.006
Avoid high risk people*	391 (85.4)	213 (82.9)	78 (88.6)	0.088
Social Distancing Score, M (SD)	3.5 (0.9)	3.4 (1.0)	3.6 (0.8)	0.007

Note. Change in drug use during COVID-19 was missing for 16 records. All other variables had ≤ 5 records missing.

* Indicates variables included in the social distancing score

Table 2. Bivariable and Multivariable Logistic Regression Results for Increased Solitary Drug during Use during COVID-19 (n=428)

	Crude			Adjusted		
	Odds Ratio	p-value	95% CI	Odds Ratio	p-value	95% CI
Single	1.39	0.061	0.99, 1.97	1.99	0.001	1.33, 2.98
Homeless	0.58	0.001	0.42, 0.80	0.45	<0.001	0.31, 0.65
Sexual Minority	0.55	0.009	0.35, 0.86	0.53	0.027	0.31, 0.93
Prescription Opioids	1.43	0.109	0.92, 2.21	1.19	0.515	0.70, 2.03
Other Stimulants	1.97	0.153	0.78, 4.99	2.06	0.108	0.85, 4.98
Change in Drug Use During COVID-19						
Decreased Use	REF	--	--	REF	--	--
Maintained Use	0.83	0.465	0.51, 1.36	0.96	0.873	0.56, 1.65
Increased Use	2.51	<0.001	1.67, 3.77	2.74	<0.001	1.72, 4.37
Used More in Private Locations	2.28	<0.001	1.57, 3.30	1.91	<0.001	1.34, 2.72
Social Distancing Score	1.33	<0.001	1.14, 1.57	1.31	0.001	1.11, 1.54