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ORIGINAL ARTICLE

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Opioid use and COVID-19: a secondary analysis of the impact of relaxation of methadone take-home dosing guidelines on use of illicit opioids

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ABSTRACT

Background: An exemption to existing U.S. regulation of methadone maintenance therapy after the onset of the COVID−19 pandemic permitted increased take-home doses beginning March 2020.
Objectives: We assessed the impact of this exemption on opioid use.
Methods: A pre/post study of 187 clients recruited from an OTP who completed a survey and consented to share their urine drug testing (UDT) data. Use of fentanyl, morphine, hydromorphone, codeine, and heroin was assessed via UDT. Receipt of take-home methadone doses was assessed from clinic records for 142 working days pre- and post-COVID exemption. Analysis was conducted using a linear regression model to assess the association between increased take-home doses and use of illicit opioids.
Results: In the pre- vs. post-COVID−19 SAMHSA exemption periods, 26.2% vs. 36.3% of UDTs were positive for 6-acetylmorphine respectively, 32.6% vs. 40.6% positive for codeine, 34.2% vs 44.2% positive for hydromorphone, 39.5% vs. 48.1% positive for morphine, 8.0% vs. 14.4% positive for fentanyl (p-value < .001). However, in the unadjusted descriptive data, when grouped by change in substance use, those clients who experienced a decrease in the use of morphine, codeine, and heroin post-COVID−19 were given significantly more take-home doses than the groups that had no change or an increase in the use of these substances. In the adjusted model, there was no significant relationship between change in opioid use and increased receipt of take-home methadone doses.
Conclusions: Although take-home doses post-COVID−19 nearly doubled, this increase was not associated with a significant change in use of illicit opioids.

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Introduction

In March of 2020 with the onset of the COVID−19 pandemic, the Substance Use and Mental Health Services Administration (SAMHSA), which regulates the ordering and dispensation of methadone in the United States, released an exemption permitting providers to provide up to 28-days of take-home methadone doses to stable clients and up to 14-days of take-home doses to less stable clients enrolled in opioid treatment programs (OTPs) (1). Stable clients as defined by SAMHSA are individuals who meet the following criteria: negative toxicology tests for 60 calendar days, absence of serious behavioral problems, stability in their living arrangements and social relationships, an absence of substance misuse-related behaviors, an absence of recent diversion activity, and assurance that medication can be safely stored. The client must also meet two additional subjective criteria: "that the benefits of providing unsupervised doses to an individual outweigh the risks" and "that the individual demonstrates total adherence per the OTP's discretion with their treatment plan for at least 60 days" (2). This exemption was intended to limit OTP daily client visits in an effort to promote social distancing. Since this exemption has been in effect, the number of clients receiving increases in take-home methadone doses has varied between OTPs, however multiple analyses show that a large proportion of methadone maintenance therapy (MMT) clients have received an increase in take-home doses throughout this period (3–8). Both clinicians and clients have generally responded positively to this policy change (5,7,9–16). In addition, evidence from multiple studies has shown that increases in take-home methadone doses following the SAMHSA exemption are not

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associated with worse treatment outcomes, higher overdose rates, increased emergency department visits, lower adherence to treatment, or significant diversion of doses among clients on MMT (3,6,17–19). However, one aspect of the SAMHSA exemption that has not been fully investigated is its effect on concurrent use of illicit drugs among individuals in treatment.

In a clinical setting, urine drug tests (UDTs) are commonly used to assess compliance with methadone treatment. Before the COVID–19 pandemic, SAMHSA required clients in MMT to receive at least 8 random drug tests per year (20). Clinicians may use UDT to detect missed methadone doses as well as continued use of unprescribed opioids or concurrent use of illicit drugs (21). However, during the COVID–19 pandemic, many OTP clinicians reported decreasing the frequency of and reliance on UDT as a means of assessing abstinence from illicit drugs (5). This decrease in UDT has also been documented in national-level laboratory testing data (22). Indeed, a burgeoning movement of clinicians now advocate for moving away from reliance on UDT in an OTP setting, and for using more patient-centered metrics than simply abstinence from illicit substances to assess patient stability (6,10,23,24). While the efficacy and utility of using UDT data in individual patient management is up for debate, UDT data may provide valuable information about trends in illicit drug use among this population before and after the SAMHSA take-home dose exemption. This manuscript is a secondary analysis of UDT data from clients before and after the SAMHSA take-home exemption. While previous analyses of this dataset have been published previously, neither of them assessed continued use of illicit opioids, making this a novel analysis. Rather, the previous manuscripts focus instead on analyzing the average increase in take-home doses given to each client and comparing overdose rates, methadone adherence, and emergency department visits pre- and post-SAMSHA exemption (4,17).

Overall, during the COVID–19 pandemic, the drug overdose crisis in the United States worsened, with a dramatic rise in accidental overdose fatalities exceeding 100,000 annually for the first time on record (25,26). Overdose deaths involving opioids continued to increase during the COVID–19 pandemic, from an estimated 93,655 deaths in 2020 to 107,622 in 2021 (27). A substantial proportion of opioid-related overdoses are attributable to fentanyl (26). Likewise, illicit substances such as stimulants are also increasingly found to be contaminated with fentanyl (28). Termed a "fourth wave" of the opioid overdose crisis, recent reports have shown that fentanyl-related overdose is increasing in new geographic areas in the U.S., such as the western states (29). Given these data, it is clear that there is an urgent need to expand access to medications for opioid use disorder (MOUD) to address the ongoing opioid overdose crisis.

It is unclear exactly how trends in opioid use during the COVID–19 pandemic have affected clients on MMT. One analysis of substance use among methadone clients in Wuhan, China, during the COVID–19 lockdown showed a significant decrease in the use of methamphetamine and other opioids compared to pre-pandemic levels. This was hypothesized to be secondary to increased difficulty in obtaining illicit substances due to the restriction of international and domestic travel and trade – as craving and psychological stress scores actually increased during this period (30). Similarly, an analysis conducted at two rural OTPs in Oregon found that only patients who were engaged in treatment longer than 130 days received increased take-home doses after the SAMHSA take-home dose exemption was implemented, and that among these individuals, this increase in take-home dosing was negatively associated with both urine drug screens positive for opioids and with treatment discontinuation (7). Finally, a pre- vs. post-COVID–19 analysis of patients on Opioid Agonist Therapy (OAT) in Sydney, Australia, found that patients who received increases in take-home dosing during the pandemic were not found to have increased rates of substance use (31). A study conducted at an OTP in Minnesota found that the percentage of UDTs positive for benzodiazepines, opiates, and methamphetamine was greater in July 2020 than in July 2019 (32). This trend was borne out at a national level as well – U.S. drug testing laboratories have reported positive urine drug screens increased most dramatically for amphetamines, with an 89% increase, and likewise increased for opioids and benzodiazepines, by 39% and 48%, respectively (22).

We hypothesized that an increase in take-home dose receipt would not be associated with increased use of illicit substances as measured in UDT data, while keeping in mind that an absence of evidence is not evidence of absence. A previous study conducted with this data set showed no significant association between increasing take-home doses and negative outcomes – including ED utilization and overdose rates (33). However, a separate analysis of this dataset showed that clients who self-reported using methamphetamine in the prior 30 days experienced a significantly larger increase in take-home doses compared to clients who did not use methamphetamine (4).

Methods

Study sample

We completed this study at the OTP located in Spokane County, Washington, and compared data from before

and after the COVID−19-era pandemic methadone treatment exemption March of 2020. Spokane is the second most populous city in the state of Washington, with approximately 222,000 residents as of July 2019 (34). Methadone is used as the primary medication for opioid use disorder (MOUD) at the Spokane OTP and is offered in conjunction with cognitive behavioral therapy sessions. To reduce financial barriers to treatment, the Spokane OTP is publicly funded, and is the only publicly funded OTP serving Spokane and the surrounding area. The Spokane OTP started allowing increased take-home medication in response to the SAMHSA exemption in March 23, 2020. The decision to grant the release of additional take-home doses was made by the Medical Director, in consultation with counselors and medical staff, based on guidelines provided by SAMHSA and clinician discretion.

We designed a study and recruited a convenience sample of 249 individuals when recruitment occurred in May of 2019. This manuscript is a secondary analysis of this dataset, other analyses of which have been published previously (4,17). For this study, we included all English-speaking clients aged 18+ receiving methadone at the Spokane County OTP who remained in treatment and on stable methadone dosing for 142 working days prior to March 1st, 2020 (pre-COVID−19 SAMHSA exemption) and 142 working days after June 4th, 2020 (post-COVID−19 SAMHSA exemption). This amounted to the following time periods: August 1, 2019 – March 1, 2020 (pre-exemption) and June 1 – December 30, 2020 (post-exemption). While the total number of days was 213 in the pre-exemption time period, and 210 in the post-time period, the total number of working days (i.e. Monday – Friday, non-statutory holidays) in both time periods was 142, which provides a better estimate of the days that the methadone clinic in Spokane, Washington was open and providing treatment. Urine drug screening data from March – May of 2020 was not included in this analysis as drug testing was not conducted regularly during this time, to aid with social distancing requirements. Research staff emphasized that study participation would be confidential, voluntary, and would not affect their OTP enrollment. Surveys were completed after providing written consent in small conference rooms to ensure confidentiality. Participants also received $15 for completing the survey. Survey items included questions about race/ethnicity, current employment, current homelessness, sex, and age. Having difficulty obtaining transportation to clinic was assessed by the survey question "Has a lack of transportation kept you from medical appointments, meetings, work or from getting things needed for daily living?" The survey was linked to clinic electronic health record data which include drug test data. The clinic data contains information on the methadone dose level administered and the number of take-home dosages for each client. The clinic performs a Urine Drug test (UDT) for clients at the clinic to assess treatment adherence. UDTs are performed randomly at the clinic every 4–6 weeks but are done more frequently if positive tests are identified. For each UDT, screening was first performed via commercial Immunoassay, and if positive, confirmation testing was provided via liquid chromatography with tandem mass spectrometry (LC-MS-MS). The following commercial immunoassays assays were used for initial screening of urine drug samples: DRI Oxycodone Thermoscientific immunoassay screen, ARK Diagnostics Fentanyl II immunoassay screen, Immunalysis Tramadol by Homogenous Immunoassay screen, Siemens Syva EMIT II Plus Opiate Assay, and Siemens Emit II plus 6-acetylmorphine screen by Immunoassay. The lower limit of quantitation for all substances confirmed by LC-MS-MS was as follows: Fentanyl 2.5 ng/mL, 6-acetyl-morphine 10 ng/mL, Hydromorphone 25 ng/mL, Codeine 25 ng/mL, and Morphine 25 ng/mL. Urine drug testing was performed by Concordant Health Solutions©, and analyses were conducted on the confirmatory test result data. The Washington State University Ethics Review Committee provided ethics approval for this study.

Study variables

Outcome variables

Five variables were used to assess trends in illicit opioid use before and after the COVID−19 SAMHSA exemption

Opioids screen

We calculated the percentage of positive opioid urine drug tests in both the pre- and post-time periods, then calculated the difference between these two percentages. The specific opioids tested for in this analysis were fentanyl, heroin, hydromorphone, codeine, and morphine. The marker 6-acetylmorphine was used to assess for heroin in UDTs.

Covariates

Our main independent variable was the difference in the total number of take-home doses dispensed 213 days before and 210 days after the COVID−19 SAMHSA exemption (continuous). Additional variables included age (continuous), sex (female versus male), race/ethnicity (non-Hispanic white versus other), education level

(at least high school diploma or equivalent, yes vs. no), and employment (employed at least 15 days in the past month (yes vs. no)).

Analysis

Univariate analyses included the reporting measure of central tendency and variability for continuous variables and frequency distributions, and percentages for categorical variables. Bivariate statistics included chi-square, McNemar's chi-square or Fisher's exact to test for differences in demographic, take-home doses, and treatment outcomes. A paired sample t-test was used to compare the differences in percentages of positive opioid urine drug tests in both the pre- and post-time periods. We used linear regression to explore the association between the change in take-home medication and each of the opioid use outcomes in the post COVID−19 SAMHSA exemption period while controlling for covariates. The data were analyzed using R and the significance level was set at 0.05 (two tailed). There was no collinearity between the predictor variables.

Results

Of the 249 clients who completed the survey, we excluded 62 who dropped or transferred to another facility ($n = 22$), were deceased ($n = 3$), or for whom we could not link UDT data for the five opioids analyzed ($n = 37$). On average, the 187 included clients were on treatment for more than 3 years. As shown in Table 1, the participants' median age was 40 (Interquartile range 32–50), 109 (58.3%) were female, and 137 (73.3%) were non-Hispanic white. This is a similar sample as described previously in a published study for our research team (33).

The mean number of take-home doses increased 93% from an average of 102.6 take-home doses before COVID−19 to an average of 198.44 after the COVID−19 SAMHSA exemption. Of the 187 clients,

Table 1. Characteristics of clients at the Spokane Regional Health District opioid treatment program ($n = 187$).

Characteristics	Total, n (%)	Increase in methadone take-home doses post the COVID−19 SAMHSA exemption, per 213 days (mean, standard deviation)	*P*-value
Age (median, IQR)	40 (32-50)	–	
High School Diploma or equivalent			.31
Yes	81 (43.3%)	90.9 (71.0)	
No	90 (48.1%)	100.4 (71.4)	
Employed			.94
Yes	27 (14.4%)	97.3 (78.2)	
No	160 (85.6%)	95.2 (69.9)	
Non-Hispanic White			.14
Yes	137 (73.3%)	100.2 (70.1)	
No	37 (19.8%)	80.2 (72.5)	
Sex			.65
Male	78 (41.7%)	97.5 (70.0)	
Female	109 (58.3%)	94.1 (71.9)	
Homeless			.33
Yes	15 (8.0%)	112.5 (58.9)	
No	172 (92.0%)	94.0 (71.8)	
Difficulty getting transportation to the clinic			.54
Yes	50 (26.7%)	100.7 (72.5)	
No	124 (66.3%)	94.1 (70.4)	
Use of heroin post- vs. pre-COVID			.014
Decrease	19 (10.2%)	137.1 (59.3)	
No change	124 (66.3%)	86.8 (74.0)	
Increase	44 (23.5%)	102.2 (60.0)	
Use of codeine post- vs. pre-COVID			.001
Decrease	22 (11.8%)	145.0 (52.1)	
No change	119 (63.6%)	85.9 (73.8)	
Increase	46 (24.6%)	96.8 (61.6)	
Use of hydromorphone post- vs. pre-COVID			.112
Decrease	23 (12.3%)	121.1 (77.7)	
No change	116 (62.0%)	89.8 (73.6)	
Increase	48 (25.7%)	97.0 (58.6)	
Use of morphine post- vs. pre-COVID			.013
Decrease	22 (11.8%)	130.6 (72.3)	
No change	109 (58.3%)	85.6 (71.8)	
Increase	56 (29.9%)	101.1 (64.7)	
Use of fentanyl post- vs. pre-COVID			.103
Decrease	9 (4.8%)	141.3 (28.4)	
No change	158 (84.5%)	92.0 (72.1)	
Increase	20 (10.7%)	102.4 (69.3)	

17 experienced a drop in take-home doses in the period post COVID−19 exemption, with an average drop of 27.17 doses. The rest, 170 clients, all experienced an increase in take-home doses with an average increase of 107.7 days.

No significant differences in the number of take-home doses based on client demographics were observed in this analysis, indicating that most clients experienced a large increase in take-home doses post COVID−19 SAMHSA exemption regardless of their sociodemographic characteristics.

Overall, in the pre-COVID−19 SAMHSA exemption period, 26.2% of UDTs were positive for 6-acetylmorphine, and in the post-COVID−19 SAMHSA exemption data set 36.3% of UDTs were positive for 6-acetylmorphine (p-value < .001). For codeine, 32.6% and 40.6% of UDTs were positive for codeine in the pre- and post-COVID−19 SAMHSA exemption time periods, respectively (p-value < .001). For hydromorphone, 34.2% and 44.2% of UDTs were positive for hydromorphone in the pre- and post-COVID−19 SAMHSA exemption time periods, respectively (p-value < .001). For morphine, 39.5% and 48.1% of UDTs were positive for morphine in the pre- and post-COVID−19 SAMHSA exemption time periods, respectively (p-value < .001). For fentanyl, 8.0% and 14.4% of UDTs were positive for fentanyl in the pre- and post-COVID−19 SAMHSA exemption time periods, respectively (p-value < .001). The average number of UDTs per person in both time periods were comparable. In the pre-COVID time period, an average of 5.23 opioid urine drug screens for per person were performed, while in the post-COVID time period an average of 5.82 urine drug screens for opioids per person were performed.

In the unadjusted descriptive data, when grouped by change in substance use, those who experienced a decrease in the use of morphine post-COVID−19 were given significantly more take-home doses than the groups that had no change or an increase in morphine use. This trend is the same for codeine and heroin as well. While those who experienced no change in use of morphine, codeine, and heroin were given significantly less take-home doses than those whose substance use increased or decreased, we hypothesize that this is due to these clients being more stable at baseline, which would mean that they likely already had high numbers of take-home doses compared to the rest of the sample. The data are normally distributed.

Table 2 shows the differences in illicit opioid use pre- and post-COVID−19 SAMHSA exemption. In the adjusted linear regression model with illicit opioid use as the outcome, there was no significant association between any of the sociodemographic variables (changes in take-home doses, homelessness, age, gender, race, education, employment, and access to transportation to a clinic) and changes to the rate of opioid-positive urine drug screens post-COVID−19 SAMHSA exemption. Higher values in the changes in take-home doses variable indicate that more take-home doses were received post-exemption.

Discussion

In this study of clients receiving MMT at an OTP in Spokane, Washington, we assessed the impact of increased take-home doses on use of illicit opioids. Overall rates of positive urine drug screens for illicit opioids increased post-COVID−19 SAMHSA exemption. As these data are unadjusted, these findings could be due to a number of factors, including the impact of the pandemic on worsening mental health and substance use outcomes, a relationship that has been reported extensively elsewhere (35). However, contrary to our initial hypothesis of increased substance use with increases in take-homes, our results from the adjusted model showed that although almost all clients received increases in their number of allotted take-home doses, this was not associated with any significant change in rates of illicit opioid use. In this case, given that the structure and flexibility of methadone dosing in the era of COVID was so drastically changed, the fact that we found no significant change in illicit opioid use while take-home dosing requirements were relaxed is in itself an important finding. This provides more evidence that the extremely restrictive methadone regulations currently in effect in the United States are not actually linked to improved clinical outcomes, and is consistent with similar findings both within the U.S. and internationally (7,30,31).

According to the way that methadone treatment is regulated in the United States, this would appear to be something of a Catch−22. In order to access increases in take-home doses, a patient must remain "adherent" to treatment – which is measured in part by a lack of use of other illicit opioids as detected by UDT. However, as shown in this study, increases in take-home dosing, even when it is applied at the level of an entire cohort that has not been assessed for adherence, does not necessarily result in increases in the concomitant use of illicit opioids. Given the complexity of this issue, more studies are needed to understand the relationship between increasing take-home doses and substance use. As increases in take-home dosing were given out based on provider discretion and assessment of clinical stability, this has the potential to introduce bias to what would otherwise be a large-scale naturalistic

Table 2. Adjusted generalized linear models for the five outcome variables.

	Change in fentanyl use		Change in morphine use		Change in hydromorphone use		Change in codeine use		Change in heroin use	
Predictors	Estimates (CI)	*p*	Estimates (CI)	*p*	Estimates (CI)	*p*	Estimates (CI)	*p*	Estimates (CI)	*p*
(Intercept)	5.09 (−2.99–13.18)	.215	12.97 (−4.52–30.47)	.145	7.66 (−9.80–25.12)	.387	10.37 (−7.03–27.78)	.241	−0.78 (−16.55–14.99)	.922
Difference in take-home doses	−0.01 (−0.04–0.01)	.339	−0.05 (−0.10–0.00)	.073	−0.04 (−0.09–0.01)	.155	−0.04 (−0.09–0.01)	.097	−0.02 (−0.06–0.03)	.506
Age	−0.04 (−0.20–0.12)	.611	0.02 (−0.32–0.35)	.929	0.14 (−0.20–0.47)	.414	0.03 (−0.31–0.36)	.867	0.16 (−0.14–0.46)	.291
homeless [Yes]	0.47 (−5.43–6.38)	.875	−1.17 (−13.95–11.61)	.856	−5.41 (−18.16–7.35)	.404	−5.62 (−18.33–7.10)	.384	−3.58 (−15.10–7.94)	.541
Sex [Male]	0.11 (−3.33–3.56)	.949	1.89 (−5.56–9.34)	.616	2.12 (−5.31–9.55)	.574	2.21 (−5.20–9.62)	.557	4.66 (−2.06–11.37)	.173
white [Yes]	−1.05 (−5.20–3.10)	.618	−4.01 (−13.00–4.97)	.379	−6.07 (−15.04–2.89)	.183	−2.93 (−11.87–6.01)	.518	−2.11 (−10.21–5.99)	.607
High school diploma or equivalent [Yes]	1.71 (−1.69–5.12)	.322	−5.81 (−13.18–1.56)	.121	−2.69 (−10.05–4.66)	.471	−3.31 (−10.65–4.02)	.374	−0.51 (−7.16–6.13)	.879
employed [Yes]	−1.82 (−6.47–2.82)	.440	−2.79 (−12.84–7.26)	.585	−2.81 (−12.84–7.22)	.581	−0.33 (−10.33–9.67)	.948	1.41 (−7.65–10.47)	.759
Difficulty getting transportation to the clinic [Yes]	0.84 (−2.91–4.58)	.660	5.42 (−2.68–13.52)	.188	1.95 (−6.14–10.03)	.635	3.28 (−4.78–11.35)	.422	0.23 (−7.08–7.53)	.951
R^2 /R^2 adjusted	0.021/−0.027		0.047/−0.000		0.043/−0.004		0.034/−0.014		0.028/−0.020	

experiment. It could be that the lack of increase in opioid use with an increasing number of take-home doses is reflective of client stability rather than take-home dosing, and that an experiment wherein all clients regardless of stability would receive the same number of take-home doses would have different findings. However, given how broadly take-home doses were given out to almost every client, and the fact that the most clinically "stable" clients likely already had significant numbers of take-home doses and thus would have a lower "increase" in take-homes following the exemption, this is likely not the case. These data still contribute to an evidence base to support transitioning the United States methadone regulatory system from one based on surveillance and punishment to a system grounded in harm reduction and patient-centered care. Daily dosing requirements, in particular, have long been acknowledged as a barrier to individuals seeking care for opioid use disorder (36). Particularly in the rural U.S., where patients may have to travel long distances to access MMT, one barrier to treatment adherence is the requirement to go to an OTP every day (37–39). Given the crisis of opioid-related deaths in the United States, policymakers should take all available steps to curb the rise in overdose deaths, including changing methadone policy to make it easier for people who use drugs to both access and remain in treatment.

Strengths and limitations

This study has several limitations which must be acknowledged. First, the study sample used for this analysis was a convenience sample, which can introduce selection bias. Second, only clients who were in treatment over the entire time period from August 1st 2019 to December 30th 2020 were included in this analysis, thus excluding individuals who dropped out of treatment or initiated treatment during the COVID −19 pandemic. It is important to note that this study was conducted at a single, very stable site, which limits generalization of these findings. It is also important to keep in mind that urine drug screening only has a detection window of 6 days, making it an imperfect measurement of continued use of opioids. Lastly, we did not have access to data on methadone dose, and how dosing may or may not have changed for clients during the COVID−19 pandemic. In terms of strengths, the average number of urine drug screens per client performed in each time period was very similar (5.23 vs 5.82 tests per client in each time period) despite changes in social distancing protocols – which makes these data sets easy to compare. In addition, there are no outcomes on potential adverse effects from increase in take homes such as decrease in methadone treatment retention, non-fatal overdose, death (all cause or overdose), hospitalizations, emergency department visits

Policy implications

The federal regulatory network around methadone ordering and dispensation, and specifically the requirements for supervised dosing of methadone, were created in an environment with limited scientific data on the harms and benefits of unsupervised dosing (40). As a result, there have been few long-term randomized controlled trials on expanding access to take-home methadone treatment. Therefore, the regulatory changes brought on by the COVID−19 pandemic provide a unique opportunity to revisit the utility of current guidelines. The current take-home methadone exemption guidelines have been extended for one year after the end of the COVID−19 public health emergency, which at this time of writing, has not yet ended. According to their press release about this extension, SAMHSA is currently considering mechanisms to make this flexibility in take-home dosing permanent (2). Emerging data on a wide variety of health outcomes, to include the use of illicit opioids, supports the expansion of take-home methadone dosing in the United States as a policy change that could improve the health of people who use drugs.

Conclusions

Expanding access to take-home methadone dosing during the COVID−19 pandemic in the United States provided a unique opportunity to assess how changes in methadone treatment delivery may impact use of illicit opioids. This study conducted at an OTP in Eastern Washington demonstrated that there is no association between the increase in take-home doses and use of illicit opioids. These findings add to an existing body of research which supports increasing access to take-home methadone doses, and loosening requirements for daily, supervised doses.

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