HHS Public Access

Author manuscript

Subst Use Misuse. Author manuscript; available in PMC 2022 November 30.

Published in final edited form as:

Subst Use Misuse. 2022 ; 57(7): 1144–1153. doi:10.1080/10826084.2022.2064509.

Lessons from the First Wave of COVID-19 for Improved Medications for Opioid Use Disorder (MOUD) Treatment: Benefits of Easier Access, Extended Take Homes, and New Delivery Modalities

Suzan M Walters[a,b], **David C. Perlman**[b,c], **Honoria Guarino**[d], **Pedro Mateu-Gelabert**[d], **David Frank**[b]

[a]New York University, School of Global Public Health

[b]Center for Drug Use and HIV/HCV Research, NYU School of Global Public Health

[c]Icahn School of Medicine at Mount Sinai; New York, NY

[d]City University of New York, Graduate School of Public Health & Health Policy

Abstract

Background: Medications for Opioid Use Disorder (MOUD) are associated with important public health benefits. Program changes implemented in response to COVID-19 hold promise as ongoing strategies to improve MOUD treatment.

Methods: MOUD patients on buprenorphine or methadone, providers, government regulators, and persons who use drugs not in MOUD were recruited in the Northeast region of the U.S. between June and October of 2020 via advertisements, fliers, and word of mouth. Semi-structured qualitative interviews were conducted. Interviews were professionally transcribed and thematically coded by two independent coders.

Results: We conducted interviews with 13 people currently on buprenorphine, 11 currently on methadone, 3 previously on buprenorphine, 4 previously on methadone, 6 people who used drugs but had never been on MOUD, and with MOUD providers, clinic staff, or government officials at agencies that regulate MOUD. Most participants found increased take-home doses, home medication delivery, and telehealth implemented during COVID-19 to be favorable, reporting that these program changes reduced travel time to clinics, and facilitated retention in care. and reduced stigma associated with clinic attendance. However, some participants reported negative consequences of COVID-19, most notably, decreased access to basic resources, such as food,

Corresponding Author: Suzan M Walters, smk556@nyu.edu, Phone: 1-951-443-6351.

Author Contributions: DF was PI on the grant. DF conducted interviews. SW and DF coded interviews. SW and DF conceptualized the study, analyzed data, and wrote the manuscript. DP, HG, and PMG provided substantive feedback and editing. All authors approved the final manuscript.

Declaration of Interest: The authors report no conflicts of interest. The author alone is responsible for the content and writing of the paper.

Availability of data and materials: Data can be made available from the corresponding author on reasonable request.

Ethics approval and consent to participate: This study received research ethics approval from New York University Institutional Review Board (NYU IRB).

clothing, and harm reduction materials that had previously been distributed at some MOUD clinics.

Conclusion: Access to and retention in MOUD can be lifesaving for persons using drugs. COVID-19-impelled program changes, including increased take-home doses, home medication delivery, and telehealth generally improved participants' experiences with MOUD. Making these permanent could improve retention in care.

Introduction

Increases in opioid use in the United States (US) have been associated with increased rates of drug related deaths and health conditions such as HIV, hepatitis C, and bacterial infections (Brady et al., 2016; Compton et al., 2016; Jones et al., 2017; Jones et al., 2015; Mars et al., 2019; Peters et al., 2016; Rudd et al., 2016; Winkelman et al., 2018; Wurcel et al., 2016; Zibbell et al., 2018). Medications for Opioid Use Disorder (MOUD), particularly methadone and buprenorphine, are associated with important public health benefits, including reduced rates of overdose (Degenhardt et al., 2009; Gerra et al., 2011; Sordo et al., 2017), reduced transmission of HIV and hepatitis C (HCV) (Nolan et al., 2014; Palepu et al., 2006; Uhlmann et al., 2010), and reduced criminal recidivism (Bellin et al., 1999; Macswain et al., 2014). However, individual life events, social processes, structural conditions, and large public health emergencies can diminish or impede access to and use of MOUD (Frank, 2020; Frank & Walters, 2021).

During the COVID-19 pandemic there have been increased rates of overdose in the US (Linas et al., 2021; Soares et al., 2021). There has also been decreased access to health services (Strathdee et al., 2006; Walters, 2020), including syringe service programs (SSPs) (Bartholomew et al., 2020; Glick et al., 2020) and MOUD clinics (Peavy et al., 2020), which can adversely affect health outcomes for people who use drugs (Krawczyk et al., 2021). Specifically, people on MOUD may experience increased challenges initiating or continuing treatment (Jenkins et al., 2020; Walters, 2020). A major barrier to MOUD are requirements to pick up medication daily (Borisova & Goodman, 2004; Frank et al., 2021; Peterson et al., 2010). Changes to how treatment is organized, such as reducing daily attendance can have a significant impact on MOUD clients lives and may increase retention in care.

Past large scale societal disruptions (i.e., "big events," (Friedman et al., 2009)) such as Hurricane Sandy, have caused significant disruption in MOUD services, in many cases leading to clinic closures and service disruption for large numbers of patients (Elliott et al., 2017; Matusow et al., 2018; McClure et al., 2014). Since the pandemic began in the US in March 2020, there have been changes to the regulatory and organizational structure of MOUD programs. In response to the risk of COVID-19 transmission – exacerbated by the often crowded conditions of many clinics – the Substance Abuse and Mental Health Services Administration (SAMHSA) instituted amended guidelines for MOUD clinics to allow the increased use of take home doses of medications home (Knopf, 2020; Query & Funari). Clinics have also made increasing use of telehealth technologies. This article examines how the first wave of the COVID-19 pandemic in the US, and the COVID-19 mitigation strategies which were implemented, affected the lives of people who use drugs in relation

to MOUD. We give special attention to how the new guidelines were implemented, and the benefits and challenges for clients.

Methods

Study Design and Interviews

Participants were recruited using Craigslist advertisements, flyers posted at selected MOUD clinics and harm reduction organizations, and through theoretical sampling based on the authors contacts in the MOUD patient and provider communities (Butler et al., 2018; Etikan et al., 2016). Participants were recruited in the Northeast region of the U.S. between June and October of 2020. Eligibility criteria included being 18 years or older, proficient in English. Additionally, participants who used drugs had to meet one of the four criteria: 1) currently in methadone maintenance treatment (MMT) for at least 6 months in duration, 2) currently in buprenorphine treatment for at least 6 months in duration, 3) previously engaged in MMT or buprenorphine (no time limit specified), 4) never engaged in MMT or buprenorphine. Key informant interviews had to meet one of the three criteria: 1) MOUD provider, 2) clinic staff, or 3) work at a regulatory agency.

The study aimed at understanding the lived experiences of people who use drugs in relation to MOUD during the beginning of the COVID-19 pandemic. Given the complexity of the social phenomenon and the newness of the pandemic, we chose a qualitative method with a loosely structured interview design (Miles et al., 2018; Weiss, 1995). Semi-structured interviews using open-ended questions were conducted through video conferencing by a trained qualitative researcher. Most interviews were conducted by DF (see reflexive statement). We asked participants who used drugs about their drug use and treatment histories, and their motivation for being on MOUD as well as their motivation to refrain from, continue or discontinue MOUD, as applicable. Participants who were currently in treatment, had been in treatment in the past, or were key informants were asked about clinic policies regarding “take home” medication, their perceptions of the culture of the clinic, how clients perceived being treated, and their perceptions and suggestions for improving MOUD. Participants who had never been on MOUD were asked more general MOUD questions, such as “*Do you think that MOUD helps patients? Why/why not?”* and *“Have any of your friends ever been on MOUD?”* and *“If so, what were their experiences?”* COVID-19 questions included, *“How has the COVID-19 virus affected your experience with treatment?”* and *“Please describe any policy changes at your clinic.”* These questions were followed by probes asking participants whether they thought these changes were *“good or bad.”* Participants who used drugs and were not in treatment were asked the following question: *“How has the advent of the Covid-19 virus affected your views of treatment?”* Key informants were asked “*How has the advent of the Covid-19 virus affected treatment provision?”* which was then followed by probes about policy changes, whether these changes were viewed as *“good”* or *“bad”*, and *“what has your experience been so far?”*

Participants received $50 for participating in the study. Informed consent was obtained from all participants. Interviews were conducted by a master’s or doctoral level trained qualitative researcher, lasted between 60–90 minutes, and were conducted via a videoconference platform due to the COVID-19 pandemic. Videos were recorded using audio and video or

just audio if the participant did not have easy access to a computer and/or was uncomfortable with video recording, and professionally transcribed. All protocols were approved by the Institutional Review Board at New York University. Below we present data using pseudonyms to protect the identities of the study participants (Kaiser, 2009).

Data Analysis

Transcripts were initially coded by a single coder (DF) using a thematic approach that aimed to organize data into meaningful categories based on existing literature (Gibbs, 2007). After the initial coding, and the creation of the codebook, the COVID-19 codes were further refined by a second coder (SW), and child codes were applied to organize COVID-19 themes (Charmaz, 2014). Initial coding was done in Atlas.Ti, then exported into Dedoose (Version 8.3.17) for recoding and analysis.

Reflexive statement

The study was conceptualized by DF. In addition, the majority of interviews were conducted by DF who also was one of the coders. This is important to note because DF has been on prescribed methadone maintenance for over 15 years and disclosed his insider status to participants. Having an insider status can impact a research study. First, it can increase access to select groups of people. Second, people may be more willing to share their experiences with someone who has had similar life circumstances. Third, the lived experiences of a researcher affects the way in which studies are created and data is interpreted (Berger, 2015; Charmaz & Belgrave, 2007). Indeed, having experience with drug use and MOUD shaped the way in which the study was developed, and how the data was collected and analyzed. Having a shared experience of opioid use and MOUD treatment also helped develop trust and rapport with participants and greatly enhanced this study, as it has in past studies, allowing for increased comfort among participants (both those on methadone and buprenorphine) which facilitated rich dialogue (Frank, 2018, 2019). During interviews, participants often expressed feeling “understood” because the interviewer had similar experiences (Frank, 2018). People who use drugs may feel distrust towards researchers, thus conducting research with community insiders is important (Fisher et al., 2008; Jaiswal & Halkitis, 2019; Muncan et al., 2021; Souleymanov et al., 2016). Although research conducted by insiders may generate bias, situated approaches to research acknowledge that bias is unavoidable and universal in all forms of research and rather focus on transparency instead of objectivity (Haraway, 1988; Mauthner & Doucet, 2003). However, to limit bias in data analysis, interviews were coded by two coders, the interviewer and another of the authors (SW).

Results

We conducted 37 semi-structured interviews with people who used drugs and 18 semi-structured interviews with MOUD providers, clinic staff, or government officials at agencies that regulate MOUD. Of the 37 semi-structured interviews with people who used drugs, 13 were currently on buprenorphine, 11 were currently on methadone MMT, 3 were previously on buprenorphine, 4 were previously on MMT, and 6 had never been on MOUD. Table

1 provides an overview of the interviews conducted with people who use drugs and key informants. Table 2 provides a summary of the themes that emerged from all interviews.

Most participants talked about MOUD treatment changes they experienced or noticed since the onset of the COVID-19 pandemic, which included MOUD medication take homes and/or home delivery systems, launching telehealth so that face-to-face interactions could be minimized, clinics closing and/or limiting services, and implementing COVID-19 procedures around social distancing. Most participants in all categories of people we sampled found the mitigation strategies to be favorable because they limited the amount of travel time required for MOUD clients to physically go to locations, thus, freeing up clients' time to do other things. Participants, particularly those on MOUD, also reported that the changes reduced stigma associated with clinic attendance. However, some participants reported adverse effects, such as decreased availability of basic resources, such as food, clothes, and harm reduction materials, which were previously distributed at some MOUD clinics.

Medication Take Homes and Deliveries

Many participants noted that the COVID contact-limiting protocols shepherded in new policies that clients benefited from, with the most well-received change being decreased requirements for in-person treatment and increased daily doses of medication to take home. Justin, who was on methadone maintenance, said:

> "Before I would go every week. Now I'm going every two weeks…Definitely better…Well, the thing with work, not having to worry about being late for work on those days."

Flor, a buprenorphine client who prior to COVID went daily to get her medication, echoed this sentiment. Her clinic moved to in person medication pick up every two weeks at the beginning of the pandemic. Specifically, she discussed how increased take-homes allowed her to balance daily responsibilities, such as childcare.

> "It actually made it better because I had got more of my medication, I didn't have to go out as much. And, you know, especially with the baby and not having a daycare, you know, I would have to take him with me and that's a big no-no, I hate that. I hate taking him there around those people, and I just, no. Yeah. So, I was actually, you know, kind of happy. Like I said, I got more of the medication."

In addition to increasing medication take-homes, some New York City participants discussed how methadone clinics instituted a medication delivery system. In May 2020 New York City launched a methadone delivery program for older methadone clients who had been infected with COVID-19 and/or were in a risk category for sever COVID-19 infection (Jaiswal et al., 2021). When talking about a delivery system set up for clients on methadone, Michelle, a government official said:

> The vast majority of patients have been very appreciative of it [methadone delivery]. I mean, we're talking about patients who have got COPD, who have got cancer, who were old and frail. Yeah, and so it has been I think very appreciated by folks that they haven't had to kind of go through Access-A-Ride or however

> they typically travel to their program and I mean some of these folks would have been on longer take-homes already, but even so I think, even having to get to a program every seven days or whatever it is still a trial, especially in these times. So, I think it has been enormously appreciated.

Overall, participants in this study, both MOUD prescribers and clients, felt that loosening the requirements for take-home medications and requiring fewer in-person visits benefited people on MOUD.

Telehealth

"Covid-19 has done good things and helped introduce potential innovations." – Stan, buprenorphine provider

Participants noted how telehealth helped providers connect with clients and allowed for fewer in-person meetings. The ability to use the internet or phone to check in with clients allowed for fewer in-person check-ins and created opportunities to reach larger populations. Many participants touted this change and viewed telehealth to be just as effective as in-person treatment. Phil, a buprenorphine provider said:

> "I think that virtual therapy and virtual treatment in general, really, there's a positive light that's shined on it because of the [COVID-19] pandemic. I think, I hope that people can see that virtual treatment can be just as effective as in-person treatment. … We all know in the healthcare system how much red tape sometimes that a patient has to go through from making the appointments and sort of getting a call back and going, waiting and all of the different dynamics that can really be frustrating for our patients, especially our patients that use substances that may have other comorbidities. It's a struggle and a stress for them to really follow up with -- it's a struggle and stress for me to follow up and call my doctors and get the appointments. And when I get there, you know, sort of be directed to the right place. That can be very, very stressful for our population… You know, they have a lot going on, on multiple levels, so I think that, and I hope that virtual treatment really becomes a little bit more widespread and commonplace."

Telehealth also enabled providers to engage historically poorly reached populations in treatment, particularly those living in rural areas where treatment options are limited. As Janet, a buprenorphine provider, described:

> "The beauty of this ritual is that it's -- so I'm working with patients right now in rural Pennsylvania where buprenorphine is very kind of random, but the accessibility to it, the lack of stigma, not having to go to a clinic and possibly see other people and it's like the floodgates have open, people are really gravitating towards this platform."

Participants identified a key challenge linked to the reduced frequency of in-person clinic visits – namely, reduced access to basic goods such as food and clothes that MOUD clients had previously accessed through in-person visits to their programs prior to the COVID-19 pandemic. Jess, a front desk and outreach worker described how the clinic she worked at responded to their clients' needs:

> "Well, it was hard at first but we've gotten some phone conferencing groups off the ground. So, we have like a smart recovery, we have like a meditation group that people just call in. You don't need like a webcam. It's not Zoom… We had to divert, and I've seen a lot of non-profits doing this, a lot of our resources to just giving out food to address people's, like, you know, primary needs. Yeah. So, in the room where we previously used to hold groups and classes, there are now just boxes of pantry goods which is great but it's also kind of sad because, you know, that in person training program and having groups in person is just really important… Hard to watch that but we have still had people coming in because they do need food and we've been trying to reach out to clients but because our lobby is now like, you know, not operating at full capacity, we just don't have as many people coming in as we used to is what I'm told."

Unlike Jess's clinic, not all clinics had the capacity to re-open and provide food, meaning many participants did not have the option, however risky that option may be during the pandemic, to travel to a location to get food or other goods.

Clinic closures, reduced capacity, and clinic transfers

Overwhelmingly, buprenorphine and methadone providers and clients described situations in which clinics were not able to function fully during the pandemic, which resulted in program closures, limitations to service capacity, reductions in the number of clients, and in some instances, transferring clients to other clinics. Phil, a buprenorphine provider explained:

> "From what I hear from some of our patients, it's made it difficult for them to get Suboxone from their providers who had closed down their practices. Yeah, I think it's made it difficult. A lot of private, waivered practitioners closed up shop, so it made it difficult, which is another reason why we had a huge influx of patients when everything got really bad."

Clinic closures were more often discussed in our sample by buprenorphine providers, while methadone providers described having to reduce clinic capacity, which sometimes meant transferring patients who lived further away to more local clinics. Janna, a MMT client who went to a clinic in New York City, explained this:

> It [the clinic] is very small, but they have taken a lot of the patients since the COVID and transferred them to clinics that are close to where they [patients] live. They were people coming in from Long Island and everything else.

Closures, reduced capacity, and transfers caused additional issues for clinics that remained open, as they were tasked with managing their caseload during the pandemic and handling an influx in new clients. Since many clinics not only provided drug treatment, but also harm reduction services and basic goods and services such as food, clothing and linkages to shelter or housing, the consequences of these closures could be devastating for clients. Alisa, a buprenorphine provider explained:

> "We made the accommodations to make sure that they're able to still get what they need, even though you know, maybe we're not up fully functioning, because our Harm Reduction site was closed down for a little while. Now that is back open.

> But we weren't closed completely. We just were all condensed into two sites rather than the five that we have…So, we were just kind of scattered… But you know, unfortunately, the whole pandemic took everybody's eyes off the epidemic. And we try to remind people of that. It's like, even though there is a pandemic we're still in the midst of an epidemic and that still calls for attention because regardless of whether or not there's a pandemic, people are still out there using drugs."

Alisa called attention to the needs of persons who use drugs, many of whom face structural disadvantages such as housing instability and poverty (Suzan M. Walters et al., 2021; Walters et al., 2020). Frank, a front desk staff member at a methadone clinic, echoed this sentiment when he described how the clinic's clients expressed concerns related to basic needs.

> "You got the COVID that hit and everyone's still poor and everyone's watching the news waiting to the stimulus checks to come out again, because they already got stimulus checks. And no one's practicing social distancing and they can barely afford a fresh mask and it's crazy. So, I would say overwhelming, and these are things we try to assist with too. We give them free socks. We give them free deodorant and toiletries and stuff that we know that they need for grooming with the men. And the women, we make sure they have everything they need but the biggest thing is like the masks. And now when they use coats – you know, it's about to get cold in Boston, so we're going to have to come out and give them their gloves, their little hats, and get the coats and the hoodies. Just make sure everyone's taken care of as much as we can."

Frank further talked about the increase in homelessness in the Boston area where the methadone clinic he worked at is located.

Social Distancing

Both buprenorphine and methadone clinics implemented social distancing protocols, which limited their indoor capacity, in an attempt to reduce the likelihood of COVID transmission. However, these protocols had some unintended consequences. Limiting indoor capacity translated into long lines outside of clinics, which presented problems for some clients. One issue was when clinics were not able to ensure that everyone followed social distancing outside of the clinic. Some participants did not feel safe going to the clinic regardless of social distancing because of the inability of the clinic to ensure others were maintaining the appropriate distance. Manny, who was on MMT, said:

> "I don't want to stay down there, because the last place I want to be is around a hospital. And the last place I want to be around is the methadone clinic, because the guy who came and stood next to me a couple of weeks ago, I had to ask him twice until a security guard came outside to please go back another six feet."

Another issue related to drug use stigma. People on MOUD reported not wanting to be seen outside the clinic due to stigma associated with drug use and drug treatment. Maria, a buprenorphine client explained:

> "Since the whole virus thing they've been like it has been like really packed, so to have to wait on line outside a lot it's embarrassing and I'm feeling things oh, look at them the drug addicts."

Public stigma associated with drug use and drug treatment was a prominent theme that emerged from the data. Bob, who was never on MOUD, described the stigma associated with treatment. He said,

> You stay on methadone, other people, they look at you like you're a piece of shit – excuse my language – or you're an addict, or, you know, they don't want to even bother, they don't want to be around you. And I know people who are on the program and if they didn't tell you that they was on the program, like you didn't see them coming out of there, you would never know. You would never know. Like, you know, society, they look down on people on things like that.

Similarly, Kurt, a participant who had never been on MOUD, explained why he thinks people do not use MOUD.

> Accessibility, having to go every day or every couple days to get it in person. Like, it's hard to, you know, find time to get across town or wherever to get it. And then, I don't know, I guess the stigma of actually going in there every day and people seeing you go in there and knowing what you're getting.

Discussion

This study provides insight into the unique challenges and opportunities that MOUD programs, providers and clients faced in the wake of the first wave of the COVID-19 pandemic. The most well-received changes were increased medication take-home dosages, medication home deliveries, and telehealth. Participants reported that these three changes allowed clients to have more balanced lives, and both clients and providers reported that these changes likely would increase MOUD retention if instituted permanently. These findings echo past research on the success of telehealth (Clark et al., 2021; Wang et al., 2021), with the exception of challenges for people who lack access to stable internet (Molfenter et al., 2021).

Thinking through ways to reach populations without internet access will be critical for engaging more poorly reached populations in MOUD. Maintaining these positive changes will be crucial for retaining MOUD clients in care (Altman, 2013). However, disruptions to in-person clinic operations and social distancing protocols also interfered with MOUD program interventions to provide food, clothing and linkages to housing, and hence to mitigate the effects of structural inequalities such as housing insecurity and poverty. When clinics closed or reduced hours, some participants lost access to much needed resources, including basic goods and housing services. Prior to the pandemic there were high rates of homelessness (Kim et al., 2009; Suzan M. Walters et al., 2021; Walters et al., 2020) and food insecurity (Gundersen & Ziliak, 2015; Schmitz et al., 2016), in the populations served by MOUD programs and it seems both have been exacerbated by the pandemic (Leddy et al., 2020).

In addition, clinics that implemented social distancing protocols were not always able to enforce them. This was a barrier to MOUD for some participants who worried about COVID-19 infection. People who use drugs are at increased risk for severe COVID-19 infection because of underlying health conditions common among people with prolonged drug use such as diabetes, respiratory diseases, and cardiovascular issues (Abadie et al., 2020). Participants understood their risk and they did not want to risk exposure by going to their clinic for their medication and routine check-ins.

Another unintended consequence of social distancing protocols was that participants who had to go to clinics in-person sometimes had to wait in lines outside of clinics until there was sufficient space for them to enter inside. This increased their visibility in the community, and they were concerned about how they might be perceived as drug treatment clients. People in MOUD experience stigma related to their drug use in the form of prejudice, stereotyping, and discrimination from family and friends, co-workers and employers, healthcare workers, and people they interact with daily (Earnshaw et al., 2013; Ellis et al., 2020; Muncan et al., 2021). Once persons who use drugs experience stigma, they may begin to anticipate stigma in the future, which can translate into healthcare avoidance (Biancarelli et al., 2019; Earnshaw & Quinn, 2012; Earnshaw et al., 2013; Walters et al., 2021). Some participants in this study recounted past experiences with drug use stigma and were actively trying to avoid future experiences. In particular, participants in this study noted anticipated stigma as a barrier to beginning and maintaining MOUD.

Access to and retention in MOUD is one factor that can improve health among persons using drugs. Addressing fundamental causes of health disparities, by creating affordable housing (Arum et al., 2021; Doran et al., 2014; Zivanovic et al., 2015) providing affordable and accessible food (Logie et al., 2018), and creating employment opportunities that pay livable wages (Conyers et al., 2017; Richardson et al., 2019) are critical for this population. When clinics closed, clients were unable to access basic goods that were frequently given out at clinics, such as food and clothing. Having systems to distribute basic goods at MOUD clinics may help with retention; however, people who use drugs should have access to shelter, food, and harm reduction regardless of whether they are engaged in MOUD.

This study is not without limitations. First, interviews were done by video conferencing, which eliminated the ability to talk with people who did not have access to a stable internet connection and a device for video conferencing. Second, given the small convenience sample, results are not generalizable. Third, we were sometimes unable to conduct interviews with participants who had certain experiences that we were interested in. For example, while we were able to interview providers who offer MOUD delivery service, we were unable to interview any patients who got their MOUD service by delivery. We also only interviewed people who were on, or had experience with, buprenorphine or methadone, and thus these findings may not be generalizable to people with opioid use disorder receiving extended-release naltrexone. Fourth, the interviews were open-ended and semi-structured, and not structured surveys, and therefore the themes reported emerged organically from participants. However, since not all topics emerged in interviews with each participant, we do not report Ns for each theme as doing so would be potentially misleading (Leung, 2015; Ritchie et al., 2013; Rolfe, 2006). Although this may be a limitation of the

study, it is also a strength of qualitative research, as the flexibility allows for new insights that researchers may not have previously thought about to emerge (Aspers & Corte, 2019; Corbin & Strauss, 1990; Miles et al., 2018; Weiss, 1995). Fifth, given that this was a pilot study we were unable to have additional staff to conduct or attend the interviews, and so interviews were conducted by a single interviewer, but note that there are both advantages and disadvantages to having observers at interviews. We do not believe this negatively impacted the study, rather we believe the insider status of the interviewer enhanced the study. Finally, these interviews were conducted during the first wave of COVID-19 from June through October 2020. Thus, this data was collected both before the roll-out of COVID-19 vaccines, and before the rise of the Delta and Omicron variants in the US; how these subsequent events may impact these findings requires further study.

Structural changes to MOUD provision such as telehealth (if desired and the client has or can be provided with the resources to engage in it), home medication delivery, and regulatory changes allowing for increased take home doses are important changes that could expand access to care, enhance its acceptability and possibly enhance treatment retention. These temporary MOUD program changes, driven by the COVID-19 pandemic, were well received by both providers and clients. Increased take home doses were noted as being extremely helpful for clients. They allowed MOUD clients to focus on their daily lives, such as being on time for work and saving money on gas to travel to the clinic. It also allowed clients with children to be able to focus more on parenting, without having to juggle their children's school drop-offs along with going to the clinic every day. Recent studies have highlighted the benefits of increased take home doses of methadone during COVID-19, noting that they did not observe an increase in fatal overdoses, nor negative treatment outcomes (Amram et al., 2021; Joseph et al., 2021). Although take home doses of methadone have been beneficial, methadone and buprenorphine poisoning in children is a possibility and clinics should educate patients who receive take homes to keep their medications locked in safe places (Farnaghi et al., 2021; Li et al., 2000).

Despite the significant benefits of these changes, however, participants also described how reductions in in-person clinic visits made housing and food security more precarious. It was also noted that lines outside of clinics, intended to enforce social distancing and protect against COVID-19 infection, were not monitored and social distancing was not enforced outside of clinics. Moreover, standing outside clinics increased clients' public visibility, heightening the potential for stigmatization.

In conclusion, some unintended effects of the changes to clinic processes made in response to the first wave of the COVID-19 pandemic, such as reduced access to free food, clothing and housing and fiscal support services, will require additional strategies to minimize adverse impacts on clients. Yet, other changes made in response to the COVID-19 pandemic, such as increased take home doses, telehealth and home medication delivery, hold important potential to improve clients' lives. Moving forward, policymakers should seriously consider making these beneficial changes, which were largely conceived as temporary, permanent.

Funding source:

This work was funded by the National Institute on Drug Abuse (NIDA) [grant numbers K01DA053159, PI Walters; P30DA011041, PI: Hagan; T32 DA007233-31, PI: Falkin)

References

Abadie R, Gelpi-Acosta C, Aquino-Ruiz F, & Aponte-Melendez Y. (2020). "COVID-19 risks among people who inject drugs in Puerto Rico". International Journal of Drug Policy, 102903. 10.1016/j.drugpo.2020.102903

Altman D. (2013). Power & Community. Routledge.

Amram O, Amiri S, Panwala V, Lutz R, Joudrey PJ, & Socias E. (2021). The impact of relaxation of methadone take-home protocols on treatment outcomes in the COVID-19 era. The American Journal of Drug and Alcohol Abuse, 47(6), 722–729. 10.1080/00952990.2021.1979991 [PubMed: 34670453]

Arum C, Fraser H, Artenie AA, Bivegete S, Trickey A, Alary M, Astemborski J, Iversen J, Lim AG, Macgregor L, Morris M, Ong JJ, Platt L, Sack-Davis R, Van Santen DK, Solomon SS, Sypsa V, Valencia J, Van Den Boom W, . . . Strathdee, S. A. (2021). Homelessness, unstable housing, and risk of HIV and hepatitis C virus acquisition among people who inject drugs: a systematic review and meta-analysis. The Lancet Public Health. 10.1016/s2468-2667(21)00013-x

Aspers P, & Corte U. (2019). What is Qualitative in Qualitative Research. Qualitative Sociology, 42(2), 139–160. 10.1007/s11133-019-9413-7 [PubMed: 31105362]

Bartholomew TS, Nakamura N, Metsch LR, & Tookes HE (2020). Syringe services program (SSP) operational changes during the COVID-19 global outbreak. International Journal of Drug Policy, 102821. 10.1016/j.drugpo.2020.102821

Bellin E, Wesson J, Tomasino V, Nolan J, Glick AJ, & Oquendo S. (1999). High Dose Methadone Reduces Criminal Recidivism in Opiate Addicts. Addiction Research, 7(1), 19–29. 10.3109/16066359909004372

Berger R. (2015). Now I see it, now I don't: researcher's position and reflexivity in qualitative research. Qualitative Research, 15(2), 219–234. 10.1177/1468794112468475

Biancarelli DL, Biello KB, Childs E, Drainoni M-L, Salhaney P, Edeza A, Mimiaga MJ, Saitz R, & Bazzi AR (2019). Strategies used by people who inject drugs to avoid stigma in healthcare settings. Drug and alcohol dependence.

Abadie R, Gelpi-Acosta C, Aquino-Ruiz F, & Aponte-Melendez Y. (2020). "COVID-19 risks among people who inject drugs in Puerto Rico". International Journal of Drug Policy, 102903. 10.1016/j.drugpo.2020.102903

Altman D. (2013). Power & Community. Routledge.

Amram O, Amiri S, Panwala V, Lutz R, Joudrey PJ, & Socias E. (2021). The impact of relaxation of methadone take-home protocols on treatment outcomes in the COVID-19 era. The American Journal of Drug and Alcohol Abuse, 47(6), 722–729. 10.1080/00952990.2021.1979991 [PubMed: 34670453]

Arum C, Fraser H, Artenie AA, Bivegete S, Trickey A, Alary M, Astemborski J, Iversen J, Lim AG, Macgregor L, Morris M, Ong JJ, Platt L, Sack-Davis R, Van Santen DK, Solomon SS, Sypsa V, Valencia J, Van Den Boom W, . . . Strathdee SA. (2021). Homelessness, unstable housing, and risk of HIV and hepatitis C virus acquisition among people who inject drugs: a systematic review and meta-analysis. The Lancet Public Health. 10.1016/s2468-2667(21)00013-x

Aspers P, & Corte U. (2019). What is Qualitative in Qualitative Research. Qualitative Sociology, 42(2), 139–160. 10.1007/s11133-019-9413-7 [PubMed: 31105362]

Bartholomew TS, Nakamura N, Metsch LR, & Tookes HE (2020). Syringe services program (SSP) operational changes during the COVID-19 global outbreak. International Journal of Drug Policy, 102821. 10.1016/j.drugpo.2020.102821

Bellin E, Wesson J, Tomasino V, Nolan J, Glick AJ, & Oquendo S. (1999). High Dose Methadone Reduces Criminal Recidivism in Opiate Addicts. Addiction Research, 7(1), 19–29. 10.3109/16066359909004372

Berger R. (2015). Now I see it, now I don't: researcher's position and reflexivity in qualitative research. Qualitative Research, 15(2), 219–234. 10.1177/1468794112468475

Biancarelli DL, Biello KB, Childs E, Drainoni M-L, Salhaney P, Edeza A, Mimiaga MJ, Saitz R, & Bazzi AR (2019). Strategies used by people who inject drugs to avoid stigma in healthcare settings. Drug and alcohol dependence.

Borisova NN, & Goodman A. (2004). The effects of time and money prices on treatment attendance for methadone maintenance clients. Journal of substance abuse treatment, 26(1), 43–50. 10.1016/s0740-5472(03)00157-0

Brady KT, McCauley JL, & Back SE (2016). Prescription Opioid Misuse, Abuse, and Treatment in the United States: An Update. American journal of Psychiatry, 173(1), 18–26. 10.1176/appi.ajp.2015.15020262 [PubMed: 26337039]

Butler AE, Copnell B, & Hall H. (2018). The development of theoretical sampling in practice. Collegian, 25(5), 561–566.

Charmaz K. (2014). Constructing grounded theory. Sage.

Charmaz K, & Belgrave LL (2007). Grounded theory. The Blackwell encyclopedia of sociology.

Clark SA, Davis C, Wightman RS, Wunsch C, Keeler LAJ, Reddy N, & Samuels EA (2021). Using telehealth to improve buprenorphine access during and after COVID-19: A rapid response initiative in Rhode Island. Journal of substance abuse treatment, 124, 108283. 10.1016/j.jsat.2021.108283

Compton WM, Jones CM, & Baldwin GT (2016). Relationship between nonmedical prescription-opioid use and heroin use. New England Journal of Medicine, 374(2), 154–163. [PubMed: 26760086]

Conyers LM, Richardson LA, Datti PA, Koch LC, & Misrok M. (2017). A critical review of health, social, and prevention outcomes associated with employment for people living with HIV. AIDS Education and Prevention, 29(5), 475–490. [PubMed: 29068719]

Corbin JM, & Strauss A. (1990). Grounded theory research: Procedures, canons, and evaluative criteria. Qualitative Sociology, 13(1), 3–21. 10.1007/bf00988593

Degenhardt L, Randall D, Hall W, Law M, Butler T, & Burns L. (2009). Mortality among clients of a state-wide opioid pharmacotherapy program over 20 years: Risk factors and lives saved. Drug and alcohol dependence, 105(1–2), 9–15. 10.1016/j.drugalcdep.2009.05.021 [PubMed: 19608355]

Doran KM, Misa EJ, & Shah NR (2014). Housing as health care: New York's boundary-crossing experiment. Obstetrical & Gynecological Survey, 69(4), 195–197.

Earnshaw V, Smith L, & Copenhaver M. (2013). Drug Addiction Stigma in the Context of Methadone Maintenance Therapy: An Investigation into Understudied Sources of Stigma. International journal of mental health and addiction, 11(1), 110–122. 10.1007/s11469-012-9402-5 [PubMed: 23956702]

Earnshaw VA, & Quinn DM (2012). The Impact of Stigma in Healthcare on People Living with Chronic Illnesses. Journal of health psychology, 17(2), 157–168. 10.1177/1359105311414952 [PubMed: 21799078]

Earnshaw VA, Smith LR, Chaudoir SR, Amico KR, & Copenhaver MM (2013). HIV Stigma Mechanisms and Well-Being Among PLWH: A Test of the HIV Stigma Framework. AIDS and Behavior, 17(5), 1785–1795. 10.1007/s10461-013-0437-9 [PubMed: 23456594]

Elliott L, Benoit E, Matusow H, & Rosenblum A. (2017). Disaster preparedness among opioid treatment programs: Policy recommendations from state opioid treatment authorities. International Journal of Disaster Risk Reduction, 23, 152–159. 10.1016/j.ijdrr.2017.05.001

Ellis K, Walters S, Friedman SR, Ouellet LJ, Ezell J, Rosentel K, & Pho MT (2020). Breaching trust: A qualitative study of healthcare experiences of people who use drugs in a rural setting. Frontiers in Sociology, 5, 98.

Etikan I, Musa SA, & Alkassim RS (2016). Comparison of convenience sampling and purposive sampling. American journal of theoretical and applied statistics, 5(1), 1–4.

Farnaghi F, Gholami N, Hassanian-Moghaddam H, McDonald R, Zamanzadeh R, & Zamani N. (2021). Unintentional buprenorphine and methadone poisoning in children: a matched observational study. Clinical Toxicology, 1–11. 10.1080/15563650.2020.1869755

Fisher CB, Oransky M, Mahadevan M, Singer M, Mirhej G, & Hodge D. (2008). Marginalized populations and drug addiction research: realism, mistrust, and misconception. Irb, 30(3), 1.

Frank D. (2018). “I was not sick and I didn’t need to recover”: Methadone Maintenance Treatment (MMT) as a refuge from criminalization. Substance use & misuse, 53(2), 311–322. [PubMed: 28704148]

Frank D. (2019). ‘We’re Gonna Be Addressing Your Pepsi Use’. Journal of Extreme Anthropology, 3(2), 1–20.

Frank D. (2020). Methadone maintenance treatment is swapping one drug for another, and that’s why it works: Towards a treatment-based critique of the war on drugs. International Journal of Drug Policy, 83, 102844.

Frank D, Mateu-Gelabert P, Perlman DC, Walters SM, Curran L, & Guarino H. (2021). “It’s like ‘liquid handcuffs”: The effects of take-home dosing policies on Methadone Maintenance Treatment (MMT) patients’ lives. Harm Reduction Journal, 18(1). 10.1186/s12954-021-00535-y

Frank D, & Walters SM (2021). “I’m Going to Stop Myself Before Someone Stops Me”: Complicating Narratives of Volitional Substance Use Treatment. Frontiers in Sociology, 6. 10.3389/fsoc.2021.619677

Friedman SR, Rossi D, & Braine N. (2009). Theorizing “Big Events” as a potential risk environment for drug use, drug-related harm and HIV epidemic outbreaks. International Journal of Drug Policy, 20(3), 283–291. 10.1016/j.drugpo.2008.10.006 [PubMed: 19101131]

Gerra G, Saenz E, Busse A, Maremmani I, Ciccocioppo R, Zaimovic A, Gerra ML, Amore M, Manfredini M, Donnini C, & Somaini L. (2011). Supervised daily consumption, contingent take-home incentive and non-contingent take-home in methadone maintenance. Progress in Neuro-Psychopharmacology and Biological Psychiatry, 35(2), 483–489. 10.1016/j.pnpbp.2010.12.002 [PubMed: 21147192]

Gibbs GR (2007). Thematic coding and categorizing. Analyzing qualitative data, 703, 38–56.

Glick SN, Prohaska SM, Lakosky PA, Juarez AM, Corcorran MA, & Des Jarlais DC (2020). The Impact of COVID-19 on Syringe Services Programs in the United States. AIDS and Behavior, 24(9), 2466–2468. 10.1007/s10461-020-02886-2 [PubMed: 32333209]

Gundersen C, & Ziliak JP (2015). Food insecurity and health outcomes. Health affairs, 34(11), 1830–1839. [PubMed: 26526240]

Haraway D. (1988). Situated knowledges: The science question in feminism and the privilege of partial perspective. Feminist studies, 14(3), 575–599.

Jaiswal J, Dunlap K, Griffin M, Cox A, Singer SN, Hascher K, Loschiavo C, Walters SM, & Mumba M. (2021). Pre-exposure prophylaxis awareness, acceptability and potential stigma among medical and non-medical clinic staff in methadone treatment settings in northern New Jersey: The key role of non-medical staff in enhancing HIV prevention. Journal of substance abuse treatment, 129, 108371. 10.1016/j.jsat.2021.108371

Jaiswal J, & Halkitis PN (2019). Towards a more inclusive and dynamic understanding of medical mistrust informed by science. Behavioral Medicine, 45(2), 79–85. [PubMed: 31343962]

Jenkins WD, Bolinski R, Bresett J, Van Ham B, Fletcher S, Walters S, Friedman SR, Ezell JM, Pho M, Schneider J, & Ouellet L. (2020). COVID-19 During the Opioid Epidemic - Exacerbation of Stigma and Vulnerabilities. The Journal of Rural Health. 10.1111/jrh.12442

Jones CM, Christensen A, & Gladden RM (2017). Increases in prescription opioid injection abuse among treatment admissions in the United States, 2004–2013. Drug and alcohol dependence, 176, 89–95. 10.1016/j.drugalcdep.2017.03.011 [PubMed: 28531769]

Jones CM, Logan J, Gladden RM, & Bohm MK (2015). Vital signs: demographic and substance use trends among heroin users—United States, 2002–2013. MMWR. Morbidity and mortality weekly report, 64(26), 719. [PubMed: 26158353]

Joseph G, Torres-Lockhart K, Stein MR, Mund PA, & Nahvi S. (2021). Reimagining patient-centered care in opioid treatment programs: Lessons from the Bronx during COVID-19. Journal of substance abuse treatment, 122, 108219. 10.1016/j.jsat.2020.108219

Kaiser K. (2009). Protecting Respondent Confidentiality in Qualitative Research. Qualitative health research, 19(11), 1632–1641. 10.1177/1049732309350879 [PubMed: 19843971]

Kim C, Kerr T, Li K, Zhang R, Tyndall MW, Montaner JS, & Wood E. (2009). Unstable housing and hepatitis C incidence among injection drug users in a Canadian setting. 9(1), 270. 10.1186/1471-2458-9-270

Knopf A. (2020). DEA, SAMHSA relax OTP/OBOT regulations due to COVID-19. Alcoholism & Drug Abuse Weekly, 32(12), 3–5. 10.1002/adaw.32664

Krawczyk N, Bunting AM, Frank D, Arshonsky J, Gu Y, Friedman SR, & Bragg MA (2021). "How will I get my next week's script?" Reactions of Reddit opioid forum users to changes in treatment access in the early months of the coronavirus pandemic. International Journal of Drug Policy, 92, 103140.

Leddy AM, Weiser SD, Palar K, & Seligman H. (2020). A conceptual model for understanding the rapid COVID-19–related increase in food insecurity and its impact on health and healthcare. The American Journal of Clinical Nutrition, 112(5), 1162–1169. 10.1093/ajcn/nqaa226 [PubMed: 32766740]

Leung L. (2015). Validity, reliability, and generalizability in qualitative research. Journal of family medicine and primary care, 4(3), 324.

Li L, Levine B, & Smialek JE (2000). Fatal Methadone Poisoning in Children: Maryland 1992–1996. Substance use & misuse, 35(9), 1141–1148. 10.3109/10826080009147476 [PubMed: 11349679]

Linas BP, Savinkina A, Barbosa C, Mueller PP, Cerdá M, Keyes K, & Chhatwal J. (2021). A clash of epidemics: Impact of the COVID-19 pandemic response on opioid overdose. Journal of substance abuse treatment, 120, 108158. 10.1016/j.jsat.2020.108158

Logie CH, Wang Y, Marcus N, Kaida A, O'Brien N, Nicholson V, Webster K, Conway T, de Pokomandy A, & Loutfy M. (2018). Factors associated with the separate and concurrent experiences of food and housing insecurity among women living with HIV in Canada. AIDS and Behavior, 22(9), 3100–3110. [PubMed: 29679243]

Macswain M-A, Farrell-Macdonald S, Cheverie M, & Fischer B. (2014). Assessing the Impact of Methadone Maintenance Treatment (MMT) on Post-release Recidivism among Male Federal Correctional Inmates in Canada. Criminal Justice and Behavior, 41(3), 380–394. 10.1177/0093854813501495

Mars SG, Rosenblum D, & Ciccarone D. (2019). Illicit fentanyls in the opioid street market: desired or imposed? Addiction, 114(5), 774–780. [PubMed: 30512204]

Matusow H, Benoit E, Elliott L, Dunlap E, & Rosenblum A. (2018). Challenges to Opioid Treatment Programs After Hurricane Sandy: Patient and Provider Perspectives on Preparation, Impact, and Recovery. Substance use & misuse, 53(2), 206–219. 10.1080/10826084.2016.1267225 [PubMed: 28296524]

Mauthner NS, & Doucet A. (2003). Reflexive Accounts and Accounts of Reflexivity in Qualitative Data Analysis. Sociology, 37(3), 413–431. 10.1177/00380385030373002

McClure B, Mendoza S, Duncan L, Rotrosen J, & Hansen H. (2014). Effects of regulation on methadone and buprenorphine provision in the wake of Hurricane Sandy. Journal of Urban Health, 91(5), 999–1008. [PubMed: 25163931]

Miles MB, Huberman AM, & Saldaña J. (2018). Qualitative data analysis: A methods sourcebook. Sage publications.

Molfenter T, Roget N, Chaple M, Behlman S, Cody O, Hartzler B, Johnson E, Nichols M, Stilen P, & Becker S. (2021). Use of Telehealth in Substance Use Disorder Services During and After COVID-19: Online Survey Study. JMIR Mental Health, 8(2), e25835. 10.2196/25835

Muncan B, Jordan AE, Perlman DC, Frank D, Ompad DC, & Walters SM (2021). Acceptability and Effectiveness of Hepatitis C Care at Syringe Service Programs for People Who Inject Drugs in New York City. Substance use & misuse, 1–10. 10.1080/10826084.2021.1892142

Nolan S, Dias Lima V, Fairbairn N, Kerr T, Montaner J, Grebely J, & Wood E. (2014). The impact of methadone maintenance therapy on hepatitis C incidence among illicit drug users. Addiction, 109(12), 2053–2059. 10.1111/add.12682 [PubMed: 25041346]

Palepu A, Tyndall MW, Joy R, Kerr T, Wood E, Press N, Hogg RS, & Montaner JSG (2006). Antiretroviral adherence and HIV treatment outcomes among HIV/HCV co-infected injection drug users: The role of methadone maintenance therapy. Drug and alcohol dependence, 84(2), 188–194. 10.1016/j.drugalcdep.2006.02.003 [PubMed: 16542797]

Peavy KM, Darnton J, Grekin P, Russo M, Green CJB, Merrill JO, Fotinos C, Woolworth S, Soth S, & Tsui JI (2020). Rapid Implementation of Service Delivery Changes to Mitigate COVID-19 and Maintain Access to Methadone Among Persons with and at High-Risk for HIV in an

Opioid Treatment Program. AIDS and Behavior, 24(9), 2469–2472. 10.1007/s10461-020-02887-1 [PubMed: 32347404]

Peters PJ, Pontones P, Hoover KW, Patel MR, Galang RR, Shields J, Blosser SJ, Spiller MW, Combs B, & Switzer WM (2016). HIV infection linked to injection use of oxymorphone in Indiana, 2014–2015. New England Journal of Medicine, 375(3), 229–239. [PubMed: 27468059]

Peterson JA, Schwartz RP, Mitchell SG, Reisinger HS, Kelly SM, O'Grady KE, Brown BS, & Agar MH (2010). Why don't out-of-treatment individuals enter methadone treatment programmes? International Journal of Drug Policy, 21(1), 36–42. 10.1016/j.drugpo.2008.07.004 [PubMed: 18805686]

Query J, & Funari V. Live Nude Girls Unite

Richardson L, Mammel M, Milloy M, & Hayashi K. (2019). Employment Cessation, Long Term Labour Market Engagement and HIV Infection Risk Among People Who Inject Drugs in an Urban Canadian Setting. AIDS and Behavior, 1–10.

Ritchie J, Lewis J, Nicholls CM, & Ormston R. (2013). Qualitative research practice: A guide for social science students and researchers. sage.

Rolfe G. (2006). Validity, trustworthiness and rigour: quality and the idea of qualitative research. Journal of advanced nursing, 53(3), 304–310. [PubMed: 16441535]

Rudd RA, Aleshire N, Zibbell JE, & Matthew Gladden R. (2016). Increases in drug and opioid overdose deaths—United States, 2000–2014. American Journal of Transplantation, 16(4), 1323–1327.

Schmitz J, Kral AH, Chu D, Wenger LD, & Bluthenthal RN (2016). Food insecurity among people who inject drugs in Los Angeles and San Francisco. Public Health Nutrition, 19(12), 2204–2212. [PubMed: 26956477]

Soares WE, Melnick ER, Nath B, D'Onofrio G, Paek H, Skains RM, Walter LA, Casey MF, Napoli A, Hoppe JA, & Jeffery MM (2021). Emergency Department Visits for Nonfatal Opioid Overdose During the COVID-19 Pandemic Across Six US Health Care Systems. Annals of Emergency Medicine. 10.1016/j.annemergmed.2021.03.013

Sordo L, Barrio G, Bravo MJ, Indave BI, Degenhardt L, Wiessing L, Ferri M, & Pastor-Barriuso R. (2017). Mortality risk during and after opioid substitution treatment: systematic review and meta-analysis of cohort studies. BMJ, j1550. 10.1136/bmj.j1550

Souleymanov R, Kuzmanović D, Marshall Z, Scheim AI, Mikiki M, Worthington C, & Millson MP (2016). The ethics of community-based research with people who use drugs: results of a scoping review. BMC medical ethics, 17(1), 1–13. [PubMed: 26732279]

Strathdee SA, Stachowiak JA, Todd CS, Al-Delaimy WK, Wiebel W, Hankins C, & Patterson TL (2006). Complex Emergencies, HIV, and Substance Use: No "Big Easy" Solution. Substance use & misuse, 41(10–12), 1637–1651. 10.1080/10826080600848116 [PubMed: 17002996]

Uhlmann S, Milloy MJ, Kerr T, Zhang R, Guillemi S, Marsh D, Hogg RS, Montaner JSG, & Wood E. (2010). Methadone maintenance therapy promotes initiation of antiretroviral therapy among injection drug users. Addiction, 105(5), 907–913. 10.1111/j.1360-0443.2010.02905.x [PubMed: 20331553]

Walters S. (2020). COVID-19 and People Who Use Drugs - A Commentary. Health Behavior and Policy Review, 7(5), 489–497. 10.14485/hbpr.7.5.11 [PubMed: 33134405]

Walters SM, Frank D, Van Ham B, Jaiswal J, Muncan B, Earnshaw V, Schneider J, Friedman SR, & Ompad DC (2021). PrEP Care Continuum Engagement Among Persons Who Inject Drugs: Rural and Urban Differences in Stigma and Social Infrastructure. AIDS and Behavior, 1–13.

Walters SM, Kral AH, Lamb S, Goldshear JL, Wenger L, & Bluthenthal RN (2021). Correlates of Transactional Sex and Violent Victimization among Men Who Inject Drugs in Los Angeles and San Francisco, California. Journal of Urban Health. 10.1007/s11524-020-00494-y

Walters SM, Kral AH, Simpson KA, Wenger L, & Bluthenthal RN (2020). HIV Pre-Exposure Prophylaxis Prevention Awareness, Willingness, and Perceived Barriers among People Who Inject Drugs in Los Angeles and San Francisco, CA, 2016–2018. Substance use & misuse, 1–11. 10.1080/10826084.2020.1823419

Wang L, Weiss J, Ryan EB, Waldman J, Rubin S, & Griffin JL (2021). Telemedicine increases access to buprenorphine initiation during the COVID-19 pandemic. Journal of substance abuse treatment, 124, 108272. 10.1016/j.jsat.2020.108272

Weiss RS (1995). Learning from strangers: The art and method of qualitative interview studies. Simon and Schuster.

Winkelman TN, Admon LK, Jennings L, Shippee ND, Richardson CR, & Bart G. (2018). Evaluation of Amphetamine-Related Hospitalizations and Associated Clinical Outcomes and Costs in the United States. JAMA Network Open, 1(6), e183758-e183758.

Wurcel AG, Anderson JE, Chui KKH, Skinner S, Knox TA, Snydman DR, & Stopka TJ (2016). Increasing Infectious Endocarditis Admissions Among Young People Who Inject Drugs. Open Forum Infectious Diseases, 3(3), ofw157. 10.1093/ofid/ofw157

Zibbell JE, Asher AK, Patel RC, Kupronis B, Iqbal K, Ward JW, & Holtzman D. (2018). Increases in acute hepatitis C virus infection related to a growing opioid epidemic and associated injection drug use, United States, 2004 to 2014. American Journal of Public Health, 108(2), 175–181. [PubMed: 29267061]

Zivanovic R, Milloy M, Hayashi K, Dong H, Sutherland C, Kerr T, & Wood E. (2015). Impact of unstable housing on all-cause mortality among persons who inject drugs. BMC public health, 15(1). 10.1186/s12889-015-1479-x

Table 1.

Participant Subgroups (n=55)

People Who Use Drugs (n=37)	
Currently on buprenorphine	13
Previously on buprenorphine	3
Currently on methadone	11
Previously on methadone	4
Never in MOUD treatment	6
Key Informants (n=18)	
Buprenorphine provider	8
Methadone provider	7
Government official	3

Table 2.

Summary of MOUD Treatment Themes

POSITIVE CHANGES	
Medication Take Homes and Deliveries	Most participants found increased medication take home doses and newly initiated deliveries to be a favorable change • Found less in-person MOUD program contact to be a positive change • Allowed for a better life balance
Telehealth	Most participants found telehealth to be a favorable change • Found less in-person MOUD program contact to be a positive change • Allowed for providers to reach underserved communities in rural and other difficult locations
CHALLENGES	
Medication Take Homes and Deliveries	A few participants noted decreased access to basic goods that they were able to previously obtain via in-person visits at some MOUD clinics
Telehealth	A few participants noted decreased access to basic goods that they were able to previously obtain via in-person visits at some MOUD clinics
Clinic Closures, Reduced Capacity, and Clinic Transfers	Most participants described clinics not being able to operate at full capacity • Mostly buprenorphine prescribers discussed clinic closures while methadone staff/clients discussed clinics reducing capacity
Social Distancing	Instituted to prevent/reduce COVID-19 spread, some participants noted challenges of • Inability of clinics to enforce social distancing protocols • Long lines outside clinics which could increase visibility and stigma