Opportunities and Challenges to Utilizing Telehealth Technologies in the Provision of Medication Assisted Therapies in the Medi-Cal Program

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ACKNOWLEDGMENTS

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EXECUTIVE SUMMARY

Opioid overdose is classified by the Department of Health and Human Services (HHS) as a nationwide epidemic and a serious public health issue. Medication-assisted treatment (MAT) combines behavioral therapy and medication to treat opioid use disorder (OUD). Three medications are approved for opioid use disorder: methadone, buprenorphine, and naltrexone. The Substance Abuse and Mental Health Services Administration (SAMHSA) and the American Society of Addiction Medicine (ASAM) both endorse MAT as the gold standard of treatment and recommend that all three medications be widely available, as there is no one treatment that meets all needs. However, access to MAT remains limited, with only 10% of those needing treatment able to access it. Telehealth offers a potential solution to address these treatment access issues by providing MAT services through technology.

Telehealth is the use of technology to provide health services, care coordination, and monitoring from a distance when the patient and provider are not in the same location. Current literature supports the use of telehealth to provide behavioral therapy, and a small number of studies show that using telehealth for medication prescribing and management in MAT delivers equal results to in-person care. While there has been great interest in using telehealth to deliver MAT, policy barriers on the federal and state level have impeded its use, especially for those seeking substance use disordered (SUD) services offered in California’s Medicaid program, known as Medi-Cal.

FEDERAL BARRIERS

There are three medications used in MAT to treat OUD: methadone, buprenorphine, and naltrexone. Methadone and buprenorphine are controlled substances (Schedules II and III, respectively) and are regulated by the Controlled Substances Act (CSA), which states that an in-person exam must take place before prescriptions for controlled substances can be made. An exception is made to the in-person exam requirement if telehealth is used (telemedicine is the term used in statute). This exception comes under the Ryan Haight Online Pharmacy Consumer Protection Act. Under that exception:

- The telehealth provider is a DEA-registered practitioner and registered in his or her own state and in every state(s) his or her patients are located.
- The telehealth provider must follow applicable federal and state laws.
- Live video must be used.

The use of telehealth to prescribe in lieu of an in-person exam is only allowed in very limited situations. Of the potential seven scenarios, the two most frequently relied upon are when the telehealth interaction is conducted while:

- the patient is being treated by, and physically located in, a DEA-registered hospital or clinic and the telehealth provider
  - is acting in the usual course of professional practice and
  - is acting in accordance with applicable state law

OR

- while the patient is being treated by, and in the physical presence of, a DEA-registered practitioner who
  - is acting in the usual course of professional practice and
  - is acting in accordance with applicable state law.
These restrictions serve to limit the tools for providers to provide MAT services and make it difficult for rural and underserved areas to provide MAT services. Naltrexone is not a controlled substance and does not face the same limitations; however, it is also not as effective a medication as methadone and buprenorphine in treating OUD.

STATE BARRIERS

There are a variety of ways behavioral health services and the medications used in MAT are covered in the SUD services offered in Medi-Cal:

- Medi-Cal Managed Care
- Medi-Cal Fee-for-Service (FFS)
- Drug Medi-Cal (DMC)
- Drug Medi-Cal Organized Delivery System DMC-ODS waiver
- County-Based Specialty Mental Health Services

Each of these programs has different requirements and each excludes different services, different providers, and different places of service, creating challenges for Medi-Cal beneficiaries trying to access services and for providers aiming to serve them. Receiving these services via telehealth adds another layer of complexity, as there are also limitations on what services can be delivered via technology. Additionally, there is a lack of clarity about which MAT telehealth services for which beneficiaries in which programs can be covered by Medi-Cal. For example, telehealth services for SUD are excluded from DMC (covered services are defined as “face-to-face,” unless counties participate in the DMC-ODS waiver). FFS telehealth for SUD excludes coverage for certain providers (such as alcohol and drug counselors) and is unclear whether services in the home are covered (if the provider is not with the patient). These differing policies create a confusing environment for both patient and provider to navigate, and decrease the ability of telehealth to help solve California’s MAT access problems.

Additionally, existing California law contains ambiguity about telehealth: While telehealth consultation and treatment are permitted (which telehealth providers commonly interpret to mean the ability to prescribe), California law also requires an “appropriate prior examination” prior to prescribing, without clarifying whether live video suffices.

RECOMMENDATIONS

1. Clarify California telehealth law to define “appropriate examination” as including live video, with the patient in their home or the community, including remote prescribing.
2. Ensure consistent Medi-Cal policies across all programs, modernizing regulations to meet current telehealth models and access demands.
   a. Mandate access to telehealth services for all counties in the DMC-ODS, and ensure a telehealth mandate is built into the next DMC waiver.
   b. Explicitly cover telehealth delivery of individual and group behavioral health treatment for SUD, as well as medication management (buprenorphine and naltrexone), in all
Medi-Cal programs, through State Plan Amendments, building services into the new waiver or other legislative and regulatory mechanisms.

c. Clarify the Medi-Cal policy manual to allow the originating site for telehealth be the patient’s home or community, without a provider present, for all Medi-Cal programs, and specifically define “face-to-face” to include live video visits.

d. Streamline the certification and recertification process for telehealth MAT providers in all Medi-Cal programs, and do not require telehealth providers to have a brick-and-mortar presence in every California county in which they provide services.

3. Address geographic barriers by creating a state-wide reciprocity solution, to allow patients moving to new counties access to MAT services without delay.

CONCLUSION

There is great promise in the use of telehealth to deliver MAT services to Medi-Cal program enrollees, especially as fentanyl hits California in force and treatment demands continue to exceed the provider supply — particularly in rural areas and for transient and homeless populations. Current Medi-Cal policies contain several barriers impeding the use of telehealth for the populations that need it the most. By streamlining and modernizing Medi-Cal regulations to facilitate broader telehealth adoption, these services can be delivered to communities with the greatest need. While a new DMC-ODS waiver in 2020 could provide an opportunity to resolve some of the challenges in the Medi-Cal SUD programs, we can’t wait. The opioid epidemic continues to accelerate in California, and we need urgent solutions.

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INTRODUCTION

Opioid overdose is classified by the Department of Health and Human Services as a nationwide epidemic and a serious public health issue. The federal government has declared the opioid crisis a public health emergency.\(^1\) From July 2016 to September 2017, there was a 30% increase in emergency room visits for opioid overdoses in all parts of the United States.\(^2\) In comparison to other states, California’s overall opioid-related death rate is low, although rural California has among the worst death rates in the country, comparable to those in hard-hit states like Virginia and Kentucky, with significant challenges to treatment access\(^3\) (see California county-by-county snapshots for estimates of treatment gaps\(^4\)). In addition, fentanyl brings a new threat, with its death rates tripling in California between 2016 and 2017, and even higher rates of increase in urban areas.\(^5\) There is new urgency to make sure effective treatment for opioid use disorder (OUD) is widespread, addressing needs in rural and urban areas.

Medication-assisted treatment (MAT) combines behavioral therapy and medication to treat OUD and is considered the gold standard — it lowers overdose rates, prevents relapses, and increases retention in treatment.\(^6\) While MAT can be provided by primary care doctors, emergency departments and hospitals, or by specialty opioid treatment programs (OTPs, also known as methadone clinics), access to MAT remains limited, with only 10% of those needing treatment able to access it.\(^7\) The number of providers who have received waivers to administer buprenorphine, one of the primary drugs used in MAT, remains low. As of 2016, there were only 1,400 OTPs in the nation, typically concentrated in urban areas.\(^8\) Telehealth offers a potential solution to address these access issues.

Telehealth is the use of technology to provide health services, care coordination, and remote monitoring when the patient and the provider are not in the same location. There has been a recent increase in interest in the use of telehealth to address the care delivery challenges created by the opioid overdose epidemic. Federal agencies such as the Department of Justice and the Department of Agriculture are exploring ways in which telehealth can be used to address this crisis. The California Department of Health Care Services (DHCS), which operates California’s Medicaid program, Medi-Cal, included telehealth as an option within the 2015 Drug Medi-Cal Organized Delivery System (DMC-ODS) waiver, a county-based pilot program to expand and standardize a full continuum of evidence-based OUD treatment, including MAT.

While California has recognized telehealth in statute and in Medi-Cal policies since 1997, use of telehealth technologies continues to remain low, partly because of regulatory barriers and limitations on Medi-Cal reimbursement. Although DHCS has recently made efforts in pilot projects to increase the use of telehealth to deliver MAT, policy barriers remain. This issue brief identifies the barriers that currently exist in the use of telehealth for MAT under the Medi-Cal program and how they can be addressed.
**Figure 1. Types of Opioid Treatment Programs**

<table>
<thead>
<tr>
<th>MEDICATIONS USED IN OUD TREATMENTS</th>
<th>ALLOWABLE LOCATIONS</th>
<th>FDA INDICATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methadone</td>
<td>Licensed opioid treatment programs (also known as narcotic treatment programs or methadone clinics). Any DEA-licensed clinician may prescribe for pain.</td>
<td>OUD and pain management</td>
</tr>
<tr>
<td>Buprenorphine and buprenorphine/naloxone</td>
<td>Opioid treatment program or any outpatient practice setting with a waivered prescriber. Physicians can receive federal waivers (permission to prescribe) after eight hours of training; nurse practitioners and physician assistants require 24 hours. The number of patients an individual provider can prescribe to is capped at 30, 100, and 275 per provider (depending on experience and setting).9,10,11 Any DEA-licensed provider can prescribe buprenorphine for pain without a waiver.</td>
<td>OUD and pain management</td>
</tr>
<tr>
<td>Naltrexone</td>
<td>Any setting — not a controlled substance, so no limitations on prescribing.</td>
<td>Opioid and alcohol use disorders</td>
</tr>
<tr>
<td>Naloxone</td>
<td>Any setting — not a controlled substance. In California, can be furnished by a pharmacist without a prescription, or dispensed in community settings by standing order.</td>
<td>Not a treatment for OUD, but commonly prescribed for people with OUD to prevent death in the event of an overdose</td>
</tr>
</tbody>
</table>

**MEDICATION-ASSISTED TREATMENT**

MAT combines behavioral therapy and medication to treat opioid and alcohol use disorders. Three medications are approved for treatment of opioid use disorder — methadone, buprenorphine, and naltrexone. Methadone and buprenorphine have robust evidence that maintenance treatment cuts overdose rates in half, increases long-term recovery, and lower the risk of addiction-associated diseases such as HIV and hepatitis C.12 Detox treatment (brief use of methadone and buprenorphine, then tapering to zero) more than doubles mortality compared to maintenance.13 Naltrexone in pill form has been shown to be largely ineffective,14 but its injectable form (Vivitrol) has been shown to be equivalent to buprenorphine in short-term studies (3–6 months);15,16 its impact on longer-term mortality and retention in treatment is not yet known. The Substance Abuse and Mental Health Services Administration (SAMHSA) and the American Society of Addiction Medicine (ASAM) both endorse MAT as the gold standard of treatment, and recommend that all three medications be widely available, as there is no one treatment that meets all needs.

Telehealth providers have gravitated toward buprenorphine rather than methadone in treating OUD because it is a Schedule III drug, can be prescribed by clinicians outside of drug treatment centers, and can be dispensed at a pharmacy, with refills managed by phone or fax. Under federal law, methadone is a Schedule II substance and can only be administered or dispensed in highly regulated OTPs.17 It should be noted that both methadone and buprenorphine can be used for pain without the above restrictions.18
Naltrexone is a drug used to treat alcohol and opioid use disorders, but it is not a controlled substance and does not face the regulatory requirements of methadone and buprenorphine. Naloxone is an opioid blocker used primarily to prevent overdose deaths due to opioid overdose, and is not an OUD treatment in itself.

MAT drug administration occurs in two phases:

1. **Start-up:** Methadone can be started immediately, buprenorphine requires brief abstinence from opioids, and naltrexone requires at least five days of abstinence from opioids. Methadone is administered in person, and the appropriate doses are based on the patient’s experience of cravings and avoidance of illicit drug use. Buprenorphine can be started in the office (under observation) or at home, with doses adjusted to avoid cravings and illicit drug use. Naltrexone can be given in pill (daily) or injectable (monthly) form.

2. **Maintenance:** Buprenorphine and methadone are typically maintained for at least one to two years; after that, some patients can taper off successfully while others require ongoing maintenance treatment. The recommended length of treatment for naltrexone is not yet standardized; duration depends on the patient and provider.

Counseling and behavioral therapy are required by federal law if MAT services are provided in an OTP. Patients must be offered counseling, but are not required to participate, if they use buprenorphine or naltrexone outside of an OTP; however, most experts recommend that patients have access to behavioral health services.

Telehealth technologies are well-suited for MAT services. Using live video, a behavioral health provider can provide individual or group counseling, and a medical provider can examine a patient, prescribe a course of treatment, observe the patient ingesting the drug, and monitor compliance with urine drug screens and pill counts. Medication management — assessing impact of the medication and making adjustments when necessary — can be done by live video as well. Numerous studies show that live video is as effective for behavioral therapies as in-person visits, with high patient satisfaction. Provision of behavioral therapies via telehealth may be preferred in certain cases, as those services can be offered to a patient in the privacy of their own home. Fewer published, peer-reviewed articles have studied the use of telehealth in the medication management component of MAT.

**LITERATURE REVIEW**

To understand the efficacy of using telehealth for MAT, Center for Connected Health Policy (CCHP) researchers reviewed the published, peer-reviewed literature on telehealth for OUD treatment. Studies that focused on other substance use disorders (e.g., alcohol, cigarettes, or other drugs) were not included. All studies selected under “Addiction Treatment” were US- or Canada-based, published between 2010 and 2017, had a sample size of no fewer than 50 (for studies with control groups, a minimum of at least 30 subjects per group), a study period of no less than six months, and a primary focus on the outcomes, quality, and/or costs of the utilized telehealth modality. The literature review was conducted in late 2017. The search terms used were telehealth or telemedicine and opioid, addiction treatment, buprenorphine, medication-assisted treatment.
CCHP identified four studies that fit the criteria. Other studies were identified, but the study periods were too short or the samples too small. Studies related to the prevention of OUD mainly focused on pain management. A list of these studies can be found in Appendix A.

All four studies found that the use of a telehealth application either produced the same results as in-person care or enhanced care in some way. For example, Wanhong Zheng, MD, conducted a retrospective review of 100 rural West Virginia patient records to assess the difference between in-person care and telepsychiatry (psychiatry delivered via live video) programs for OUD. The telepsychiatry intervention included both counseling and medication management of buprenorphine through live video. Outcome measures included the average time to achieve 30 and 90 days of abstinence, as well as retention rates at 90 and 365 days. Zheng found no significant difference in these measures between the two groups. In fact, the researcher noted that there was a slight trend toward better outcomes for the telepsychiatry patients in the 30- and 90-day abstinence measures, but recognized the need for a larger sample size to verify these results.21

Joseph Eibl, PhD, and team also examined videoconferencing for buprenorphine and methadone treatment. The study used a nonrandomized cohort comparison method that consisted of 59 clinic sites and 3,733 patients in Canada. The researchers defined three groups, each of which received varying amounts of in-person and telemedicine-delivered services. A patient receiving less than 25% of their physician encounters via telehealth was sorted into the in-person group; a patient receiving between 25% and 75% of their physician encounters via telehealth was placed in the mixed group; and a patient receiving more than 75% of their physician encounters via telehealth was placed in the telehealth group. The study found that the telehealth group had significantly better retention rates (50%) than the in-person group (39%). The mixed group also had better retention rate than the in-person group, at 47%.22

The third study, authored by Sunny Jung Kim, PhD, evaluated a computer-based behavioral health intervention for 160 patients in the northeastern US. Patients were randomized to receive either standard in-person counseling or reduced in-person counseling supplemented by a computer-based therapeutic education system (TES) over 52 weeks. Participants were recruited from a methadone maintenance treatment program. TES consists of 65 interactive modules designed to help patients with problem solving, self-regulation, and coping skills. It did not include an interactive live video component. The researcher examined how the effectiveness of TES varied by demographic (e.g., age, education level, cocaine use). Although the study was focused on opioid use, it also examined if illicit drugs were being used (cocaine was the most common one). Participants who had used cocaine in the past 30 days at baseline showed lower dropout rates in the standard treatment group, while those who had not used the drug exhibited lower dropout rates in the TES group. The TES group also showed better treatment outcomes for participants with the following characteristics: employed, high anxiety scores, and high ambivalence scores for opioid abstinence.23

The final study was a secondary analysis of the previously described Kim study, this time assessing the acceptability and quality of web-based videoconferencing and the TES system for patients with multiple prior substance use disorder (SUD) treatments. The findings were that even among patients with a history of multiple addiction treatment episodes, the use of the technology-based behavioral therapy was more effective than standard care. TES produced better opioid or cocaine abstinence for participants with a moderate or high frequency of lifetime SUD treatment episodes and for those with...
Bright Heart Health (Bright Heart) is an eating disorder and addiction treatment program with an office located in San Ramon, California. It is one of the first nationwide opioid use disorder treatment programs to use telehealth. Bright Heart’s staff includes medical doctors, psychologists, therapists, counselors, and dietitians treating adult patients meeting DSM-V criteria for OUD or opioid dependence. All patients receiving MAT meet with a therapist by live video for a full assessment, and meet with a physician in-person once for an initial examination. Buprenorphine prescriptions and ongoing medication management (including urine drug screens) are done by live video telehealth, as are individual and/or group therapy sessions. Patients may access services by phone, tablet, or computer in their home or in community settings, and the company is setting up phone booths with tablets to allow patients to access services in homeless encampments and soup kitchens. Tablets are also deployed in emergency departments (EDs) and primary care offices to allow collaborative management, with the physician on video helping the ED or primary care provider with appropriate evaluation, diagnostic, or medication management support. The patient may choose to receive ongoing services through telehealth or may be transferred to local in-person treatment providers. Police officers are starting to carry the tablets as well, to bring services to transient patients.

INTERVIEWS

CCHP conducted interviews with two California telehealth providers: Bright Heart Health, delivering medication management and counseling for opioid use disorder (see more detailed information in Figure 2), and TeleConnect Therapies, providing behavioral health services (mostly mental health counseling, with some integrated OUD counseling).

Interviewees noted that the avenues through which a Medi-Cal enrollee may access OUD services are varied and complicated, especially if telehealth is utilized, since different Medi-Cal programs have different rules about which services are reimbursable.

Figure 2. Bright Heart Health

*Bright Heart Health (Bright Heart)* is an eating disorder and addiction treatment program with an office located in San Ramon, California. It is one of the first nationwide opioid use disorder treatment programs to use telehealth. Bright Heart’s staff includes medical doctors, psychologists, therapists, counselors, and dietitians treating adult patients meeting DSM-V criteria for OUD or opioid dependence. All patients receiving MAT meet with a therapist by live video for a full assessment, and meet with a physician in-person once for an initial examination. Buprenorphine prescriptions and ongoing medication management (including urine drug screens) are done by live video telehealth, as are individual and/or group therapy sessions. Patients may access services by phone, tablet, or computer in their home or in community settings, and the company is setting up phone booths with tablets to allow patients to access services in homeless encampments and soup kitchens. Tablets are also deployed in emergency departments (EDs) and primary care offices to allow collaborative management, with the physician on video helping the ED or primary care provider with appropriate evaluation, diagnostic, or medication management support. The patient may choose to receive ongoing services through telehealth or may be transferred to local in-person treatment providers. Police officers are starting to carry the tablets as well, to bring services to transient patients.
REGULATORY CONTEXT FOR TELEHEALTH ADDICTION TREATMENT

Until 2000, opioid use disorder was treated almost exclusively in federally regulated OTPs, and physicians practicing outside those settings were prohibited from treating addiction with medication. That year, Congress passed the Drug Addiction Treatment Act of 2000 (DATA 2000), allowing physicians to prescribe buprenorphine in their practices after completing an eight-hour training course and obtaining a federal waiver, with certain restrictions (e.g., a cap of 30 patients for the first year after receiving the waiver, and 100 patients thereafter). In 2016, the Comprehensive Addiction and Recovery Act expanded office-based opioid use disorder treatment with buprenorphine by giving prescribing privileges to nurse practitioners (NPs) and physician assistants (PAs). It also increased the cap to 275 patients for doctors meeting certain criteria, such as 24-hour call coverage, use of electronic medical records, and other requirements. NPs and PAs may obtain a waiver and can prescribe after 24 hours of training under supervision by a qualifying physician (in states that require this).

Federal Laws Related to Telehealth Prescribing

Both methadone and buprenorphine are controlled substances (Schedules II and III, respectively) and are regulated by the Controlled Substances Act (CSA),25 which states that an in-person exam must take place before prescriptions for controlled substances can be made. An exception is made to the in-person exam requirement if telehealth is used (telemedicine is the term used in statute). This exception comes under the Ryan Haight Online Pharmacy Consumer Protection Act.26 Under that exception:

- The telehealth provider is a DEA-registered practitioner and registered in their own state and in every state(s) their patients are located.
- The telehealth provider must follow applicable federal and state laws.
- Live video must be used.

The use of telehealth to prescribe in lieu of an in-person exam is only allowed in very limited situations. Of the potential seven scenarios, the two most frequently relied upon are when the telehealth interaction is conducted while:

- the patient is being treated by, and physically located in, a DEA-registered hospital or clinic and the telehealth provider
  - is acting in the usual course of professional practice and
  - is acting in accordance with applicable state law
- while the patient is being treated by, and in the physical presence of, a DEA-registered practitioner who
  - is acting in the usual course of professional practice and
  - is acting in accordance with applicable state law. (See Appendix B.)27

These restrictions serve to limit the tools for providers to provide MAT services. Congress is proposing to amend the CSA to allow more telehealth providers to prescribe controlled substances. The telehealth portion of the CSA only relates to the prescribing for a controlled substance. The treatment of the patient once the initial visit has been made does not fall under this portion of the CSA, and telehealth can be used without these restrictions.
SAMHSA’s federal guidelines for OTPs clarify opioid treatment standards for these programs, stating that “when buprenorphine is administered or dispensed for a patient enrolled in the OTP, the provision of care via telemedicine is not impacted by the Controlled Substances Act (28 USC § 802) which defines the limits on the use of telemedicine in the context of providing a valid prescription for a controlled substance.” In other words, the CSA does not limit administration (giving the patient the medication and observing ingestion) or dispensing (giving take-home doses) of controlled substances, just prescribing (giving an order to be filled at a pharmacy).

California Laws Related to Prescribing with Telehealth

California statute defines telehealth as “the mode of delivering health care services and public health via information and communication technologies to facilitate the diagnosis, consultation, treatment, education, care management, and self-management of a patient’s health care while the patient is at the originating site and the health care provider is at a distant site.” This definition is broad enough to include prescribing, and therefore some telehealth providers use live video to conduct virtual exams and to prescribe noncontrolled substances for their patients.

California law also requires an “appropriate” examination of the patient prior to a prescription being made. Without a definition for “appropriate,” or explicit reference that telehealth would be “appropriate” (along with lack of explicit language authorizing “prescribing” as part of telehealth), some providers may hesitate to use telehealth for prescribing even for noncontrolled substances, such as naltrexone. This hesitation persists among some providers despite current California telehealth statute defining telehealth as including “diagnosis, consultation, [and] treatment,” which implies the inclusion of prescribing, as it is a common way for physicians to provide treatment, and “treatment” is explicitly covered in California telehealth law.

In recent years, there has been a policy trend for states to make clear the connection between telehealth and prescribing. Currently, 29 states explicitly allow for the establishment of a patient-provider relationship to take place via telehealth, so providers may prescribe noncontrolled substances without an initial in-person encounter unless otherwise stated in statute. Fifteen states explicitly allow for prescribing through telehealth. Certain conditions must be met in many of these laws, and controlled substances are often excluded. (See Appendix C.)

MEDI-CAL

An individual with OUD trying to access SUD services through a government program must navigate a confusing maze of different options where certain services may be covered in one program but not another. Most SUD services are carved out of Medi-Cal Managed Care plans, but some MAT services are covered by Medi-Cal Managed Care when offered in primary care settings, and are covered by other Medi-Cal programs when offered in other settings. These varied programs can create a complicated process for a person seeking out and receiving SUD services, especially for patients with unstable living situations who may cross county lines. The programs include:

- Drug Medi-Cal Organized Delivery System (DMC-ODS): as of May 2018, 40 out of 58 counties had opted in to this program.
- Drug Medi-Cal (DMC) state program: for counties not participating in the DMC-ODS waiver.
• Medi-Cal Managed Care: covering physical health and mild to moderate mental health coverage, as well as MAT in primary care settings.
• Medi-Cal Fee-For-Service (FFS): providing SUD services in all counties, and physical health services for categories of patients exempted from managed care.
• County-Based Specialty Mental Health Services: not an SUD program, but a provider of mental health services for patients with both SUD and mental health conditions.

Although not a Medi-Cal program, the MAT Expansion Project is a large federally funded grant program designed to increase the number of MAT treatment providers in California and is run by DHCS, which also oversees Medi-Cal. Grant funding can be used to provide care for uninsured and underinsured patients, and telehealth was explicitly permitted in this program in the effort to resolve access challenges in rural areas.

**Drug Medi-Cal Organized Delivery System Waiver**

**Program description.** DMC-ODS builds a new type of health care services delivery system for SUD managed by counties, and is meant to make significant improvements over the current DMC system. Critical elements of DMC-ODS include:

• Provides a continuum of care modeled after the ASAM Criteria for SUD treatment services, increasing the range of services available to Medi-Cal beneficiaries.
• Requires all counties to cover all MAT services.
• Increases local control and accountability with greater administrative oversight.
• Creates utilization controls to improve care and efficient use of resources.
• Increases program oversight and integrity.
• Provides more intensive services for the criminal justice population.
• Requires evidence-based practices in SUD treatment.
• Increases coordination with other systems of care including physical and mental health.

Counties must opt-in to participate in the program. As of May 1, 2018, 40 counties had submitted plans, and 11 had gone live with their projects. DMC-ODS was designed to be more patient-centered than older programs, and it covers telehealth services provided in the home and the community, though utilizing telehealth is optional. Some counties have incorporated telehealth for counseling, care coordination, MAT medication management, and medical necessity determination. For example, Alameda County will be using telehealth for medication management, and it is exploring the use of a recovery services app. The app would be programmed to alert clients to risky areas (such as a bar serving alcohol) and prompt the client to reflect on messages they have identified to help them counter thoughts of using alcohol or drugs. A regional model application for the counties of Humboldt, Lassen, Mendocino, Modoc, Shasta, Siskiyou, Solano, and Trinity, organized through the local Medi-Cal plan, looks to use telehealth more extensively, including for follow-up visits on a mobile device or at the client’s home after an initial in-person intake in a telehealth clinic.

**Challenges for Telehealth**

*Optional county contracting.* As mentioned above, contracting with telehealth providers is optional for counties, and some counties have chosen to exclude telehealth as they build up their new networks.
Excluded services. Group counseling conducted via telehealth is not reimbursed in the DMC-ODS program, as it was not included as part of the waiver. It could, however, be included in the next waiver proposal, which would launch in 2020.

Administrative and regulatory barriers for telehealth providers. Providers participating in the DMC-ODS waiver must first be enrolled in Drug Medi-Cal, and must also receive a contract from the county in which they want to provide services. Some counties require that providers have a physical brick-and-mortar location within the county, which creates challenges for telehealth providers aiming to provide coverage across the state. This is a particularly acute problem for patients with SUD, since unstable housing, eviction, and homelessness are common. Patients frequently cross county lines and then have difficulty accessing services (since each county requires enrollment in their individual DMC plan, and each county has its own network of providers, which may not include telehealth providers). Telehealth services are ideal for transient patients, and could serve as a bridge for patients who are relocating to a new county until they can enroll in the county plan and get established with a local provider.

Drug Medi-Cal

Program description. The DMC program was established in 1980 and provides medically necessary SUD treatment services for a narrower range of services than what is provided in the DMC-ODS program. Counties NOT participating in the Organized Delivery System waiver, and those whose programs have not launched yet, remain in DMC. While buprenorphine is not covered in Drug Medi-Cal, patients living in these “opt-out” counties could access buprenorphine MAT services through FFS Medi-Cal.

Challenges for Telehealth

Excluded services. Telehealth for SUD services are excluded completely — all services must be provided “face-to-face,” defined as “occurring in person, at a certified facility. Telephone contacts, home visits, and hospital visits shall not be considered face-to-face.”

Administrative and Regulatory Barrier for SUD Providers

SUD treatment providers must be enrolled in Drug Medi-Cal and contract directly with DHCS or with counties to provide services to eligible beneficiaries, with the limitations described above. Participation in FFS Medi-Cal requires an entirely different enrollment process: enrollment by DHCS as a provider, and separate enrollment by the FFS system.

Medi-Cal Managed Care and Fee-For-Service Medi-Cal

Program description. Payment for physical health care services comes through Medi-Cal Managed Care (for over three-quarters of Medi-Cal enrollees, covered under plans) or FFS Medi-Cal (for some specific groups such as foster youth and residents in long-term care settings). Medi-Cal Managed Care plans (MCPs) contract with the state to deliver medical and pharmacy benefits for a capitated payment for each enrollee. Services for SUD and severe mental illness for adults over 18 are carved out, meaning they are provided outside of managed care and administered by counties. MAT is the one exception: If buprenorphine or naltrexone is prescribed by a primary care provider, these professional services are covered by Medi-Cal Managed Care, while these medications would be billed by the dispensing pharmacy to FFS Medi-Cal. In addition, Screening, Brief Intervention, and Referral for Treatment (also called SBIRT services), are covered by Medi-Cal Managed Care.
Medi-Cal members can access carved-out SUD services in FFS Medi-Cal or in DMC (either DMC-ODS, or DMC State Plan, described above). Medi-Cal MCPs have some flexibility in deciding what telehealth-delivered services they will cover, and may cover telehealth for physical health providers or for physicians providing MAT services. Anecdotally, some plans have indicated that they follow the FFS Medi-Cal program’s policies for telehealth reimbursement.

**Challenges for Telehealth**

**Excluded providers.** FFS Medi-Cal limits reimbursement to a select group of licensed providers — physicians, nurse practitioners, physician’s assistants, licensed clinical social workers (LCSWs), marriage and family therapist (MFTs) — and does NOT cover alcohol or other drug (AOD) counselors. The limitation makes it difficult to scale low-cost SUD treatment, as LCSWs are paid much more than AOD counselors and are in short supply. At the time this report is being written, legislation to add AOD counselors among the eligible providers to receive Medi-Cal reimbursement for individual outpatient counseling services for SUD provided via telehealth was currently being considered in the state legislature.

**Managed Care carve-outs.** While Medi-Cal MCPs are responsible for buprenorphine medication management, MCPs are unlikely to cover telehealth MAT providers, as these providers are typically specialty providers (not integrated into primary care) and therefore are carved out of Medi-Cal MCP responsibility.

**Outdated telehealth reimbursement model and inconsistent information in provider manual.** The original and most familiar telehealth model was designed for a patient located in a facility with one provider (the originating site) connecting to another provider in a different location (distant site). Newer and more cost-effective telehealth models aim to improve efficiency, access, and patient experience by going directly to patients through smartphones, tablets, and computers, allowing patients to access live video provider visits. However, the Medi-Cal policy manual contains inconsistent language, and it is unclear whether the FFS program covers telehealth services in the home. For example, the manual states in one section that “for purposes of reimbursement for covered treatment or services provided through telehealth, the type of setting where services are provided for the patient or by the health care provider is not limited (W&I Code Section 14132.72(e)).” However, officials with the Medi-Cal program have stated that the home can only be an eligible location if a provider is physically with the patient at the time of the telehealth encounter, though this policy is not written in any policy manual or any other official resource from DHCS.

The requirement for a provider to be present for telehealth to be reimbursable in home and community settings is a significant barrier for patients in remote rural settings, those with transportation barriers due to homelessness or disability, and those with unstable housing who may frequently move across counties (making participation through FFS a more accessible choice than DMC, since DMC requires patients to re-enroll in each new county of residence).

**County-Based Specialty Mental Health Services**

**Program description.** Mental health services are managed and reimbursed in two separate systems in California. Patients suffering from mild to moderate mental health conditions are covered by Medi-Cal MCPs. Adult patients with serious mental illnesses or psychiatric hospitalizations are covered under the Specialty Mental Health Services (SMHS) program administered by counties. To be accepted into SMHS,
beneficiaries must meet certain medical necessity criteria including a diagnosis of an eligible condition (for example, schizophrenia), have a significant impairment, and the probability of significant deterioration. There must also be the expectation that the intervention will address the impairment and a reasonable chance the patient’s impairment will improve. SUD services (including MAT) are not specifically covered under this program, but individual and group mental health therapies are included. While these services ideally would provide integrated behavioral health approaches (since many patients with mental illness also have SUD), mental health providers may not have training in SUD services and are not reimbursed for these services in mental health treatment settings.

In interviews with telehealth providers providing counseling, they noted that while SUD services are not reimbursed if provided on their own, the provider can provide some SUD services if a mental condition has also been diagnosed. They are not being paid for the delivery of two services. Providers are simply offering additional SUD services when treating the other mental condition.

Buprenorphine and naltrexone can be prescribed by providers in the SMHS program and be covered if the services are integrated into professional services to treat the patient’s mental illness. (The medications would be billed to FFS Medi-Cal when filled at the pharmacy.) However, few psychiatrists in county mental health systems have been trained in addiction and are comfortable integrating addiction treatment. Methadone maintenance is not a service of the SMHS program, but is available to clients of specialty mental health if they seek services at an opioid treatment program.

**Challenges for Telehealth**

*Excluded services.* While patients in the specialty mental health system have high incidences of opioid use disorder, and telehealth is permitted in specialty mental health programs, there are currently no mechanisms to cover SUD counseling services by mental health providers (unless those providers take an integrated approach and combine mental health and SUD counseling into one service, and receive reimbursement for only one service, not two).

*Siloed workforce.* While psychiatry commonly uses telehealth, few psychiatrists treating serious mental illness are also trained in MAT, and were they to provide MAT by telehealth, they would be subject to the same limitations described above.

**MAT Expansion Project**

In 2017, under the 21st Century Cures Act, California was allocated $89 million for a two-year program, the State Targeted Response to the Opioid Crisis, administered by SAMHSA. The program is called the California Medication-Assisted Treatment (MAT) Expansion Project. While not a Medi-Cal program, the project is building new MAT access points across the state, predominantly in safety-net delivery settings treating Medi-Cal patients (such as community health centers, emergency departments, hospitals, and jails). The program aims to expand treatment access for low-income Californians and build an infrastructure of MAT services across the state.

Nineteen applicants were selected to act as “hubs” and will cover 36 counties, eight of which are in the 10 counties with the highest opioid overdose rates in the state. OTPs will offer consultative support to primary care or other practices prescribing buprenorphine. Methadone, buprenorphine, naltrexone, naloxone, and other services are covered by grants for uninsured and underinsured patients. Telehealth is allowed in this program and can be used to provide services via live video from the opioid treatment
programs and clinics, as well as covering services for patients in their own home. Grants can be used to support telehealth infrastructure costs. See Appendix D for more information.

**Challenges for Telehealth**

*Cross-county services.* This program is organized specific to each individual county. Uninsured or underinsured patients accessing services via telehealth through these grant-funded programs are unable to access these services if they leave their current county and move to a county that does not participate in the grant, unless they self-pay for services.

**Barriers Across All Medi-Cal Programs**

*Clarity about telehealth reimbursement.* While the Medi-Cal provider manual was updated in 2013 and 2017, lack of clarity persists due to the complexity of the multiple Medi-Cal SUD programs and their differences in reimbursement and coverage. The provider manual does not clearly explain which telehealth services are reimbursed, who are eligible providers, and what are eligible settings (e.g., the patient’s home).

*Certification.* Other than buprenorphine prescribers in primary care and hospital settings, telehealth addiction treatment providers interested in treating low-income Californians face a confusing array of enrollment and certification processes that can include enrollment in DHCS as a Medi-Cal Fee-For-Service provider, certification by DMC, and contracting with up to 58 counties. If an SUD telehealth organization wants to provide services in multiple counties in the DMC program, to receive reimbursement, some counties require a physical location within the county, which greatly decreases the cost-effectiveness and practicality of the telehealth model of service. These administrative requirements create substantial barriers to entry for new telehealth providers interested in providing access in hard-hit areas, especially rural areas where telehealth is a logical solution.

*Provider shortage.* While several statewide efforts are in place to provide better MAT access, almost all California counties have a significant mismatch of supply and demand — there are far fewer waivered prescribers and OTP slots compared to the estimated demand. It would take at least 11,000 new waivered buprenorphine prescribers to meet the projected demand according to the Urban Institute’s 2017 county scorecards, and most of the current prescribers are concentrated in urban environments. Telehealth provides a unique ability to link patients with providers across geographic boundaries.

**DISCUSSION**

The opioid epidemic is accelerating in California, with fentanyl deaths tripling between 2016 and 2017. California faces an urgent need to ramp up MAT treatment access, yet telehealth providers trying to meet these treatment needs are faced with a confusing and fragmented regulatory landscape. Enrollment, contracting, and reimbursement vary dramatically across the different Medi-Cal programs. Each excludes different services, different providers, and different places of service.

Telehealth, while proven effective in delivering MAT services and showing promise in solving problems for rural, homeless, and transient populations, is only allowed in a patchwork manner by the different Medi-Cal programs. The current DMC program, outside of the DMC-ODS pilots, does not allow telehealth to be used in counseling, and not all counties are including telehealth in their DMC-ODS plans. Medi-Cal is lagging behind other state Medicaid programs in its use of telehealth to address the epidemic: Maryland explicitly covers telehealth for the administration of buprenorphine, and
Wisconsin has been covering SUD services delivered via telehealth in its FFS program since 2004. Once considered a leader in telehealth policy for the nation, California is finding itself falling further back.

RECOMMENDATIONS

The following is a list of recommendations to alleviate the challenges in using telehealth to deliver MAT services in the Medi-Cal program. The recommendations are focused purely on state actions and do not include recommendations for federal changes.

1. Clarify California telehealth law to define “appropriate examination” as including live video, with the patient in their home or the community, including remote prescribing.

Current California law implies that appropriate examinations and prescribing can take place by telehealth, since the terms “diagnosis, consultation, treatment” in the telehealth statutory definition are commonly understood to include examining the patient by live video and managing conditions through prescribing. However, other states have made it explicit that telehealth may be used in lieu of an in-person exam. California could provide greater clarity by amending the law to ensure that telehealth by live video constitutes an appropriate examination, and that prescribing is a core component of telehealth treatment.

California telehealth law was created when the predominant mode of telehealth involved a patient at an originating site with a provider communicating with a remote provider at a distant site. Newer telehealth models allow the patient to be in their home or the community, without a provider present. These newer models have greater promise to increase access to SUD treatment, especially for rural and vulnerable patients. California law should explicitly include, but not limit itself to, the home and community settings as eligible locations for patients to receive telehealth services.

2. Ensure consistent Medi-Cal policies across all programs, modernizing regulations to meet current telehealth models and access demands.

   A. Mandate access to telehealth services for all counties in the DMC-ODS, and ensure that a telehealth mandate is built into the next DMC waiver. While the current DMC-ODS pilot allows for the use of telehealth, counties can choose whether or not to offer telehealth services. Considering telehealth as a requirement would facilitate access in both rural and urban areas, and could increase engagement by enabling patients to access services in their home.

   B. Explicitly cover telehealth delivery of individual and group behavioral health treatment for SUD, as well as medication management (buprenorphine and naltrexone), in all Medi-Cal programs, through State Plan Amendments, building services into the new waiver or other legislative and regulatory mechanisms. The different Medi-Cal programs are inconsistent in their coverage of group counseling and MAT, with different rules for which types of providers are reimbursed for services (for example, FFS Medi-Cal doesn’t cover services from alcohol and drug counselors, nor does it cover telehealth in the home setting. DMC-ODS covers alcohol and drug counselors, and covers telehealth in the home, but not telehealth group visits). Telehealth provision of individual and group counseling in the home and community has been proven effective, decreases stigma, and increases access to services, especially for patients with transportation barriers. A robust MAT delivery system,
especially in remote areas, would eliminate these barriers and allow patients access to the full spectrum of treatment.

C. **Clarify the Medi-Cal policy manual to allow the originating site for telehealth to be the patient’s home or community, without a provider present, for all Medi-Cal programs, and specifically define “face-to-face” to include live video visits.** Clarifying the provider manual to allow home and community delivery of telehealth services would greatly accelerate adoption in the broader physical health field, not just for SUD services. Access to telehealth services in the community would allow patients to receive live video counseling and medication management in a variety of settings — homeless encampments, residential treatment centers, jails, or at home. Transportation barriers, stigma, or lack of sufficient prescribers in a community may mean that live video telehealth in the community is the only access point for a patient. In the midst of a public health crisis, Medi-Cal regulations should not be putting up unnecessary barriers to access.

D. **Streamline the certification and recertification process for telehealth MAT providers in all Medi-Cal programs, and do not require telehealth providers to have a brick-and-mortar presence in every California county.** Telehealth technology does not limit a provider to a single location. Requiring telehealth providers to be certified and get recertification for each county creates an unnecessary burden to new providers entering the market and is an unnecessary barrier to access. This requirement doesn’t exist in the mental health and medical system. In addition, requiring providers to submit separate (and quite different) applications to the FFS Medi-Cal system and to DMC increases the administrative burden without increasing quality. The applications should be streamlined, and reciprocity provided (so a provider in the FFS system should be considered approved in the DMC system and vice versa).

3. **Address geographic barriers by creating a statewide reciprocity solution.**

People with addiction frequently have unstable living solutions and often change counties of residence. Unfortunately, this can create gaps in treatment, since they are registered in Medi-Cal in one county, and to receive services in another, they need to enroll in the new Medi-Cal county plan. While telehealth can help patients bridge these gaps and provide services across different areas, not all counties contract with telehealth providers, and counties are reluctant to contract with out-of-county providers to meet the needs of patients who are traveling or relocating. DHCS should devise a statewide reciprocity solution to accommodate the needs of patients who are relocating, since housing instability is common in patients with SUD. Rather than requiring counties to solve this problem individually (where each county must create reciprocity agreements with multiple counties), the state should create a solution that can be adopted by all.

**CONCLUSION**

There is great promise in the use of telehealth to deliver MAT services to Medi-Cal program enrollees, especially as fentanyl hits California in force and treatment demands continue to exceed the provider supply, particularly in rural areas and for transient and homeless populations. Current Medi-Cal policies contain several barriers impeding the use of telehealth for the populations that need it the most. By streamlining and modernizing Medi-Cal regulations to facilitate broader telehealth adoption, these
services can be delivered to communities with the greatest need. While a new waiver in 2020 could provide an opportunity to resolve some of the challenges in the Medi-Cal SUD programs, we can’t wait. The opioid epidemic continues to accelerate in California, and we need urgent solutions.


17 Controlled Substance Act, 21 USC § 829(e) (1990).
23 Kim, Sunny Jung, Lisa A. Marsch, Honoria Guarino, Michelle C. Acosta, Yesenia Aponte-Melendez, “Predictors of Outcome from Computer-Based Treatment for Substance Use Disorders: Results from a Randomized Clinical Trial,” 2015, Drug and Alcohol Dependence, 157, 174–78.
28 Tater, et al.
33 Clemons-Cope, “California County Fact Sheets.”
CCHP employed several search parameters when selecting studies specifically related to treatment of opioid addiction. Studies focused on other kinds of substance abuse or addiction (alcohol, cigarettes, or other drugs) were not included. All studies selected under “Addiction Treatment” were US- or Canada-based, published post 2010, have a sample size of no less than 50 (for studies with control groups, there needed to be a minimum of at least 30 subjects per group), a study period of no less than six months, and a primary focus on the outcomes, quality, and/or costs of a selected telehealth modality. A section was included entitled “Other Noteworthy Studies.” These are studies that did not fit within the criteria described above, but were noteworthy nonetheless. CCHP also identified studies related to the prevention of opioid addiction, mainly focused on pain management. These studies are included at the end.

The search terms that were used were the following:

*Telehealth* or *telemedicine* and *opioid; addiction treatment; buprenorphine; medication assisted treatment*

### ADDICTION TREATMENT

<table>
<thead>
<tr>
<th>Study Length</th>
<th>Location</th>
<th>Sample Size</th>
<th>Telehealth Modality Type</th>
<th>Method</th>
<th>Outcomes</th>
<th>Quality</th>
<th>Cost</th>
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</thead>
<tbody>
<tr>
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<td>Videoconferencing</td>
<td>Nonrandomized cohort comparison</td>
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**Objective**

Opioid use disorder has been declared a public health crisis across North America, and opioid agonist therapy (OAT) is the standard of care for these patients. Despite the increasing adoption of telemedicine as a delivery method for OAT, its effectiveness has not yet been evaluated against traditional in-person treatment. This study compared treatment outcomes for in-person versus telemedicine-delivered OAT.

**Methods**

We conducted a nonrandomized cohort comparison study using an administrative database for patients who commenced OAT between 2011 and 2012 across 58 clinic sites in the province of Ontario, Canada. Patients were stratified by primary treatment modality as being: in-person (<25% appointments by telemedicine), mixed (25%–75% by telemedicine), or via telemedicine (>75% appointments by telemedicine). The primary outcome was continuous retention in treatment as defined by one year of...
uninterrupted therapy, based on pharmacy dosing records.

Results

A total of 3,733 OAT initiating patients were identified. Patients treated via telemedicine were more likely to be retained in therapy than patients treated in-person ($n = 1,590$; aOR = 1.27; 95% CI 1.14–1.41; $p < .001$). Telemedicine patients demonstrated a retention rate of 50% at one year whereas in-person patients were retained at a rate of 39%. The mixed group also had higher likelihood of retention than the in-person group ($n = 418$; aOR = 1.26; 95% CI 1.08–1.47; $p = .001$) and had a retention rate of 47% at one year.

Conclusion

Telemedicine may be an effective alternative to delivering in-person OAT, and it has the potential to expand access to care in rural, remote, and urban regions.


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<tr>
<th>Study Length</th>
<th>Location</th>
<th>Sample Size</th>
<th>Telehealth Modality Type</th>
<th>Method</th>
<th>Outcomes</th>
<th>Quality</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 months</td>
<td>Northeastern US</td>
<td>160</td>
<td>Technology-based therapy (interactive learning modules)</td>
<td>RCT</td>
<td>X</td>
<td>X</td>
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</tbody>
</table>

Objectives

To assess the acceptability and quality of web-based videoconferencing.

A growing line of research has shown positive treatment outcomes from technology-based therapy for substance use disorders (SUDs). However, little is known about the effectiveness of technology-based SUD interventions for persons who already had numerous prior SUD treatments. We conducted a secondary analysis on a 12-month trial with patients ($N = 160$) entering methadone maintenance treatment (MMT). Patients were randomly assigned to either standard MMT treatment or a model in which half of standard counseling sessions were replaced with a computer-based intervention called Therapeutic Education System (standard + TES). Four treatment history factors at baseline, the number of lifetime SUD treatment episodes, detoxification episodes, and inpatient/outpatient treatment
episodes were categorized into three levels based on their tertile points, and analyzed as moderators. Dependent variables were urine toxicology results for opioid and cocaine abstinence for 52 weeks. The standard + TES condition produced significantly better opioid abstinence than standard treatment for participants with (1) a moderate or high frequency of lifetime SUD treatment episodes, and (2) those with all three levels (low, moderate, and high) of detoxification and inpatient/outpatient treatment episodes, \( p < .01 \). The standard + TES condition enhanced cocaine abstinence compared to standard treatment among people with (1) a moderate or high frequency of lifetime SUD treatment episodes, (2) a high level of detoxification episodes, and (3) a moderate or high level of inpatient treatment history, \( p < .01 \). We found that including technology-based behavioral therapy as part of treatment can be more effective than MMT alone, even among patients with a history of multiple addiction treatment episodes.


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<tr>
<th>Study Length</th>
<th>Location</th>
<th>Sample Size</th>
<th>Telehealth Modality Type</th>
<th>Method</th>
<th>Outcomes</th>
<th>Quality</th>
<th>Cost</th>
</tr>
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<tbody>
<tr>
<td>12 months</td>
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<td>160</td>
<td>Computer-based Therapeutic Education System (TES)</td>
<td>RCT</td>
<td>X</td>
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Background

Although empirical evidence for the effectiveness of technology-mediated interventions for substance use disorders is rapidly growing, the role of baseline characteristics of patients in predicting treatment outcomes of a technology-based therapy is largely unknown.

Method

Participants were randomly assigned to either standard methadone maintenance treatment or reduced standard treatment combined with the computer-based Therapeutic Education System (TES). An array of demographic and behavioral characteristics of participants \( (N = 160) \) were measured at baseline. Opioid abstinence and treatment retention were measured weekly for a 52-week intervention period. Generalized linear model and Cox-regression were used to estimate the predictive roles of baseline characteristics in predicting treatment outcomes.

Results

We found significant predictors of opioid abstinence and treatment retention within and across
conditions. Among 21 baseline characteristics of participants, employment status, anxiety, and ambivalent attitudes toward substance use predicted better opioid abstinence in the reduced-standard-plus-TES condition compared to standard treatment. Participants who had used cocaine/crack in the past 30 days at baseline showed lower dropout rates in standard treatment, whereas those who had not used exhibited lower dropout rates in the reduced-standard-plus-TES condition.

Conclusions
This study is the first randomized controlled trial, evaluating over a 12-month period, how various aspects of participant characteristics impact outcomes for treatments that do or do not include technology-based therapy. Compared to stand-alone treatment, including TES as part of the care was preferable for patients who were employed, highly anxious, and ambivalent about substance use and did not produce worse outcomes for any subgroups of participants.

OTHER NOTEWORTHY STUDIES


<table>
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<tr>
<th>Study Length</th>
<th>Location</th>
<th>Sample Size</th>
<th>Telehealth Modality Type</th>
<th>Method</th>
<th>Outcomes</th>
<th>Quality</th>
<th>Cost</th>
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<tbody>
<tr>
<td>12 weeks</td>
<td>AR</td>
<td>170</td>
<td>Internet-delivered behavior therapy</td>
<td>Block-randomized, unblended parallel trial</td>
<td>X</td>
<td>X</td>
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</table>

Objective
To examine the benefit of adding an internet-delivered behavior therapy to a buprenorphine medication program and voucher-based motivational incentives.

Method
A block-randomized, unblinded, parallel, 12-week treatment trial was conducted with 170 opioid-dependent adult patients (mean age 34.3 years; 54.1% male; 95.3% white). Participants received an internet-based community reinforcement approach intervention plus contingency management (CRA+) and buprenorphine, or contingency management alone (CM-alone) plus buprenorphine. The primary outcomes, measured over the course of treatment, were longest continuous abstinence, total abstinence, and days retained in treatment.
Results

Compared to those receiving CM-alone, CRA+ recipients exhibited on average 9.7 total days more of abstinence, 95% CI: (2.3, 17.2), and had a reduced hazard of dropping out of treatment, Hazard Ratio (HR) = 0.47; 95% CI: (0.26, 0.85). Prior treatment for opioid dependence significantly moderated the additional improvement of CRA+ for longest continuous days of abstinence.

Conclusions

These results provide further evidence that an internet-based CRA+ treatment is efficacious and adds clinical benefits to a contingency management / medication-based program for opioid dependence.


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<tr>
<th>Study Length</th>
<th>Location</th>
<th>Sample Size</th>
<th>Telehealth Modality Type</th>
<th>Method</th>
<th>Outcomes</th>
<th>Quality</th>
<th>Cost</th>
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</thead>
<tbody>
<tr>
<td>3 months</td>
<td>NY</td>
<td>25</td>
<td>mHealth App</td>
<td>Pilot study within a larger RCT</td>
<td>X</td>
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</table>

Despite the recent explosion of behavioral health interventions delivered on mobile devices, little is known about factors that make such applications practical, engaging, and useful to their target audience. This study reports on the feasibility, acceptability, and preliminary efficacy of a prototype of a novel, interactive mobile psychosocial intervention to reduce problematic drug use among clients in methadone maintenance treatment (MMT). A mixed-methods pilot study with new MMT clients (n = 25) indicated that the mobile intervention approach was feasible, and that participants found the intervention highly acceptable and useful. On 100-point visual analog scale items, participants reported high levels of liking the program (M = 75.6), and endorsed it as useful (M = 77.5), easy to use (M = 80.7), and containing a significant amount of new information (M = 74.8). When compared with 25 study participants who received standard MMT alone, pilot participants rated their treatment significantly higher in interestingness and usefulness, and were significantly more satisfied with their treatment. In qualitative interviews, participants reported using the mobile intervention in a range of settings, including during times of heightened risk for substance use, and finding it helpful in managing drug cravings. Additionally, pilot participants showed evidence of increased treatment retention and abstinence from illicit opioids (in terms of effect size) over a 3-month period relative to those in standard MMT, suggesting the application’s potential to enhance treatment outcomes. These
promising findings suggest that an evidence-based mobile therapeutic tool addressing substance use may appeal to drug treatment clients and have clinical utility as an adjunct to formal treatment.


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<tr>
<th>Study Length</th>
<th>Location</th>
<th>Sample Size</th>
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<th>Method</th>
<th>Outcomes</th>
<th>Quality</th>
<th>Cost</th>
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<tbody>
<tr>
<td>12 weeks</td>
<td>MD</td>
<td>59 (24 = web-based group, 35 = in-person group)</td>
<td>Videoconferencing</td>
<td>RCT</td>
<td>X</td>
<td>X</td>
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Web-based videoconferencing can improve access to substance abuse treatment by allowing patients to receive counseling services in their homes. This randomized clinical trial evaluates the feasibility and acceptability of web-based videoconferencing in community opioid treatment program participants. Participants that reported computer and Internet access \( n = 85 \) were randomly assigned to receive 12 weeks of weekly individual counseling in person or via eGetgoing, a web-based videoconferencing platform. Fifty-nine of these participants completed the study (eGetgoing = 24, in-person = 35), with most study withdrawal occurring among eGetgoing participants. Participants exposed to the study conditions had similar rates of counseling attendance and drug-positive urinalysis results, and reported similar and strong ratings of treatment satisfaction and therapeutic alliance. These results support the feasibility and acceptability of web-based counseling as a good method to extend access to individual substance abuse counseling when compared to in-person counseling for patients that are able to maintain a computer and Internet connection for reliable communication.

PREVENTIONS — MANAGING PAIN


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<tr>
<th>Study Length</th>
<th>Location</th>
<th>Sample Size</th>
<th>Telehealth Modality Type</th>
<th>Method</th>
<th>Outcomes</th>
<th>Quality</th>
<th>Cost</th>
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<tbody>
<tr>
<td>3 years</td>
<td>CT</td>
<td>25 providers, 4,385 patients</td>
<td>ECHO</td>
<td>Stata data &amp; statistical analysis &amp; provider</td>
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<td>X</td>
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PURPOSE

Treating pain in primary care is challenging. Primary care providers (PCPs) receive limited training in pain care and express low confidence in their knowledge and ability to manage pain effectively. Models to improve pain outcomes have been developed, but not formally implemented in safety-net practices where pain is particularly common. This study evaluated the impact of implementing the Stepped Care Model for Pain Management (SCM-PM) at a large, multisite Federally Qualified Health Center.

METHODS

The Promoting Action on Research Implementation in Health Services framework guided the implementation of the SCM-PM. The multicomponent intervention included education on pain care, new protocols for pain assessment and management, implementation of an opioid management dashboard, telehealth consultations, and enhanced on-site specialty resources. Participants included 25 PCPs and their patients with chronic pain (3,357 preintervention and 4,385 postintervention) cared for at Community Health Center. Data were collected from the electronic health record and supplemented by chart reviews. Surveys were administered to PCPs to assess knowledge, attitudes, and confidence.

RESULTS

Providers' pain knowledge scores increased to an average of 11% from baseline; self-rated confidence in ability to manage pain also increased. Use of opioid treatment agreements and urine drug screens increased significantly by 27.3% and 22.6%, respectively. Significant improvements were also noted in documentation of pain, pain treatment, and pain follow-up. Referrals to behavioral health providers for patients with pain increased by 5.96% (p = .009). There was no significant change in opioid prescribing.

CONCLUSION

Implementation of the SCM-PM resulted in clinically significant improvements in several quality-of-pain-care outcomes. These findings, if sustained, may translate into improved patient outcomes.

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<tr>
<th>Study Length</th>
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<th>Outcomes</th>
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</thead>
<tbody>
<tr>
<td>2.5 years</td>
<td>Multistate (VHA)</td>
<td>159 providers, 22,454 patients</td>
<td>ECHO</td>
<td>Longitudinal observational evaluation</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
</tbody>
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OBJECTIVE

Half of all veterans experience chronic pain, yet many face geographic barriers to specialty pain care. In 2011, the Veterans Health Administration (VHA) launched the Specialty Care Access Network-ECHO (SCAN-ECHO), which uses telehealth technology to provide primary care providers with case-based specialist consultation and pain management education. Our objective was to evaluate the pilot SCAN-ECHO pain management program (SCAN-ECHO-PM).

DESIGN AND SETTING

This was a longitudinal observational evaluation of SCAN-ECHO-PM in seven regional VHA health care networks.

METHODS

We identified the patient panels of primary care providers who submitted a consultation to one or more SCAN-ECHO-PM sessions. We constructed multivariable Cox proportional hazards models to assess the association between provider SCAN-ECHO-PM consultation and (1) delivery of outpatient care (physical medicine, mental health, substance use disorder, and pain medicine) and (2) medication initiation (antidepressants, anticonvulsants, and opioid analgesics).

RESULTS

Primary care providers (N = 159) who presented one or more SCAN-ECHO-PM sessions had patient panels of 22,454 patients with chronic noncancer pain (CNCP). Provider consultation to SCAN-ECHO-PM was associated with utilization of physical medicine (hazard ratio [HR] 1.10, 95% confidence interval [CI] 1.05–1.14) but not mental health (HR 0.99, 95% CI 0.93–1.05), substance use disorder (HR 0.93, 95% CI 0.84–1.03) or specialty pain clinics (HR 1.01, 95% CI 0.94–1.08). SCAN-ECHO-PM consultation was associated with initiation of an antidepressant (HR 1.09, 95% CI 1.02–1.15) or anticonvulsant medication (HR 1.13, 95% CI 1.06–1.19) but not an opioid analgesic (HR 1.05, 95% CI 0.99–1.10).

CONCLUSIONS

SCAN-ECHO-PM was associated with increased utilization of physical medicine services and initiation of nonopioid medications among patients with CNCP. SCAN-ECHO-PM may provide a novel means of building pain management competency among primary care providers.
APPENDIX B — TELEHEALTH PROVISION IN THE RYAN HAIGHT ACT

21 USC § 829(E) — CONTROLLED SUBSTANCES DISPENSED BY MEANS OF THE INTERNET

(1) No controlled substance that is a prescription drug as determined under the Federal Food, Drug, and Cosmetic Act [21 U.S.C. 301 et seq.] may be delivered, distributed, or dispensed by means of the Internet without a valid prescription.

(2) As used in this subsection:

(A) The term "valid prescription" means a prescription that is issued for a legitimate medical purpose in the usual course of professional practice by—

(i) a practitioner who has conducted at least 1 in-person medical evaluation of the patient; or

(ii) a covering practitioner.

(B)(i) The term "in-person medical evaluation" means a medical evaluation that is conducted with the patient in the physical presence of the practitioner, without regard to whether portions of the evaluation are conducted by other health professionals.

(ii) Nothing in clause (i) shall be construed to imply that 1 in-person medical evaluation demonstrates that a prescription has been issued for a legitimate medical purpose within the usual course of professional practice.

(C) The term "covering practitioner" means, with respect to a patient, a practitioner who conducts a medical evaluation (other than an in-person medical evaluation) at the request of a practitioner who—

(i) has conducted at least 1 in-person medical evaluation of the patient or an evaluation of the patient through the practice of telemedicine, within the previous 24 months; and

(ii) is temporarily unavailable to conduct the evaluation of the patient.

(3) Nothing in this subsection shall apply to—

(A) the delivery, distribution, or dispensing of a controlled substance by a practitioner engaged in the practice of telemedicine; or

(B) the dispensing or selling of a controlled substance pursuant to practices as determined by the Attorney General by regulation, which shall be consistent with effective controls against diversion.

21 USC § 802(54) — DEFINITIONS

(54) The term "practice of telemedicine" means, for purposes of this subchapter, the practice of medicine in accordance with applicable Federal and State laws by a practitioner (other than a pharmacist) who is at a location remote from the patient and is communicating with the patient, or health care professional who is treating the patient, using a telecommunications system referred to in section 1395m(m) of title 42, which practice—

(A) is being conducted—
(i) while the patient is being treated by, and physically located in, a hospital or clinic registered under section 823(f) of this title; and

(ii) by a practitioner—
   (I) acting in the usual course of professional practice;
   (II) acting in accordance with applicable State law; and
   (III) registered under section 823(f) of this title in the State in which the patient is located, unless the practitioner—
      (aa) is exempted from such registration in all States under section 822(d) of this title; or
      (bb) is—
         (AA) an employee or contractor of the Department of Veterans Affairs who is acting in the scope of such employment or contract; and
         (BB) registered under section 823(f) of this title in any State or is utilizing the registration of a hospital or clinic operated by the Department of Veterans Affairs registered under section 823(f) of this title;

(B) is being conducted while the patient is being treated by, and in the physical presence of, a practitioner—
   (i) acting in the usual course of professional practice;
   (ii) acting in accordance with applicable State law; and
   (iii) registered under section 823(f) of this title in the State in which the patient is located, unless the practitioner—
      (I) is exempted from such registration in all States under section 822(d) of this title; or
      (II) is—
         (aa) an employee or contractor of the Department of Veterans Affairs who is acting in the scope of such employment or contract; and
         (bb) registered under section 823(f) of this title in any State or is using the registration of a hospital or clinic operated by the Department of Veterans Affairs registered under section 823(f) of this title;

(C) is being conducted by a practitioner—
   (i) who is an employee or contractor of the Indian Health Service, or is working for an Indian tribe or tribal organization under its contract or compact with the Indian Health Service under the Indian Self-Determination and Education Assistance Act [25 U.S.C. 450 et seq.];
   (ii) acting within the scope of the employment, contract, or compact described in clause (i); and
   (iii) who is designated as an Internet Eligible Controlled Substances Provider by the Secretary under section 831(g)(2) of this title;

(D)(i) is being conducted during a public health emergency declared by the Secretary under section 247d of title 42; and
   (ii) involves patients located in such areas, and such controlled substances, as the Secretary, with the concurrence of the Attorney General, designates, provided that such designation shall not be subject to the procedures prescribed by subchapter II of chapter 5 of title 5;

(E) is being conducted by a practitioner who has obtained from the Attorney General a special registration under section 831(h) of this title;

(F) is being conducted—
(i) in a medical emergency situation—
(I) that prevents the patient from being in the physical presence of a practitioner registered under section 823(f) of this title who is an employee or contractor of the Veterans Health Administration acting in the usual course of business and employment and within the scope of the official duties or contract of that employee or contractor;
(II) that prevents the patient from being physically present at a hospital or clinic operated by the Department of Veterans Affairs registered under section 823(f) of this title;
(III) during which the primary care practitioner of the patient or a practitioner otherwise practicing telemedicine within the meaning of this paragraph is unable to provide care or consultation; and
(IV) that requires immediate intervention by a health care practitioner using controlled substances to prevent what the practitioner reasonably believes in good faith will be imminent and serious clinical consequences, such as further injury or death; and
(ii) by a practitioner that—
(I) is an employee or contractor of the Veterans Health Administration acting within the scope of that employment or contract;
(II) is registered under section 823(f) of this title in any State or is utilizing the registration of a hospital or clinic operated by the Department of Veterans Affairs registered under section 823(f) of this title; and
(III) issues a controlled substance prescription in this emergency context that is limited to a maximum of a 5-day supply which may not be extended or refilled; or

(G) is being conducted under any other circumstances that the Attorney General and the Secretary have jointly, by regulation, determined to be consistent with effective controls against diversion and otherwise consistent with the public health and safety.
APPENDIX C — STATES ALLOWING TELEHEALTH PRESCRIBING

States that explicitly allow for establishment of physician-patient relationship through telehealth/telemedicine that would allow prescriptions to be written without an in-person encounter:

- Arizona
- Arkansas
- Colorado
- DC
- Delaware
- Florida
- Hawaii
- Idaho
- Iowa
- Kentucky
- Louisiana
- Maryland
- Mississippi
- Missouri
- Nevada
- New Hampshire
- New Jersey
- North Carolina
- Ohio
- Oklahoma
- Rhode Island
- South Carolina
- Tennessee
- Texas
- Vermont
- Virginia
- Washington
- West Virginia
- Wisconsin

States that explicitly allow prescribing through telehealth/telemedicine:

- Alaska
- Delaware
- Idaho
- Indiana
- Michigan
- Mississippi
- North Carolina
- North Dakota
- New Hampshire
- New Jersey
- New Mexico
- Tennessee
- Texas
- Virginia
- Vermont
### APPENDIX D — CALIFORNIA HUB AND SPOKE PILOT PARTICIPANTS

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<thead>
<tr>
<th>ORGANIZATION</th>
<th>AMOUNT</th>
<th>COUNTIES COVERED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aegis Treatment Centers</td>
<td>$5,118,487</td>
<td>El Dorado, Nevada, Placer</td>
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<td>Aegis Treatment Centers</td>
<td>$5,082,910</td>
<td>Lake, Mendocino, Nevada, Yuba</td>
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<td>Aegis Treatment Centers</td>
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<td>Humboldt</td>
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<td>Aegis Treatment Centers</td>
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<td>San Joaquin, Stanislaus</td>
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<td>BAART Programs</td>
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<td>Bright Heart Health</td>
<td>$4,319,882</td>
<td>Regional — Colusa, Lake, Napa, Sonoma, Yolo</td>
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