BACKGROUND
Throughout the course of the COVID-19 public health emergency (PHE), telehealth and virtual care have emerged as potentially paradigm-shifting tools for both pain management and substance use disorder (SUD) care, impacting patient access, care delivery, and quality of care for the millions of Americans affected by these related, but disparate, health conditions. Yet, several challenges remain to fully integrate these services into the continuum of care for these patient populations—related to policy, regulations, payment and reimbursement, training, technology, digital literacy, and equity.

To better understand these challenges and identify potential solutions, the Pain Management Guidelines and Evidence Standards (PM) and Prevention, Treatment, and Recovery Services (PTR) Working Groups of the National Academy of Medicine’s Action Collaborative on Countering the U.S. Opioid Epidemic—a public-private partnership working to advance multisector, interprofessional solutions to reduce opioid misuse and improve outcomes for individuals, families, and communities affected by the opioid crisis—convened a four-part meeting series on telehealth and virtual care in the context of pain management and SUD care. The meeting series was planned by Action Collaborative members from both the PM and PTR Working Groups, including Helen Burstin (co-chair), Kelly J. Clark (co-chair), Rhonda Robinson Beale, Elizabeth D. Bentley, Anna Legreid Dopp, Lewis Levy, Shari Ling, Friedhelm Sandbrink, and Sarah Wattenberg.

The first meeting in the series and the subject of this Discussion Proceedings, Introduction to Improving Telehealth and Virtual Care for Pain Management and Opioid/Substance Use Disorder, was held virtually on December 17, 2021, and brought together more than 50 participants, including representatives across health professional groups, industry, federal agencies, advocacy groups, academia and research, health plan providers, and health systems. The primary objectives of the introductory meeting were to: (1) introduce the goals and themes for the meeting series, which focused on patient access, care delivery and innovation, and quality of care; and (2) learn from those with lived experience who are providing, accessing, and navigating telehealth-enabled pain management and SUD care to understand common barriers and challenges as well as opportunities for the improved integration of these services across care settings.

This meeting was composed of three sessions. The first session provided a federal-level overview of the current telehealth and virtual care environment and introduced key concepts, including a standard definition for telehealth and a list of related technologies, as well as some of the benefits of and barriers to advancing telehealth. The second and third sessions focused on telehealth in the context of pain management and SUD, respectively, and included presentations from pain and addiction specialists as well as guided panel discussions with persons with lived experience. Throughout the course of the meeting, participants were encouraged to add to the discussion via the chat function.

MEETING SUMMARY

Introduction to Telehealth and Virtual Care
CDR Heather Dimeris, director of the Office for the Advancement of Telehealth (OAT) within the U.S. Department of Health and Human Services’ Health Resources and Services Administration, opened the meeting by defining telehealth as “the use of electronic information and telecommunication technologies to support and promote long-distance health
care, patient and professional health-related education public health, and health administration.” However, as CDR Dimeris noted, the field of telehealth has been rapidly evolving, and there has been considerable variation in the use and meaning of different telehealth-related terminologies. Recognizing the need for “common definition[s] we’re all working from,” OAT is currently working with the University of Arkansas’s Center for Telehealth to develop a standardized list of telehealth terminology and definitions (available as of May 6, 2022) [Eswaran and Dawson, 2022].

Beyond terminology-related issues, CDR Dimeris noted that with the increased interest in, and uptake of, telehealth since 2020 (see Figure 1)—driven in part by regulatory flexibilities enacted during the COVID-19 PHE—several important benefits for providers, patients, and payers alike have emerged, including:

- For patients, increased access to care and a reduction in travel and wait times;
- For providers, the opportunity to improve workforce development and care delivery, serve more patients, and reduce no-show rates; and
- For payers, a reduction in the cost for transport as well as enhanced outcomes and lower costs due to receipt of more timely care.

However, beyond the COVID-19 PHE and associated flexibilities, CDR Dimeris shared that the future advancement of telehealth faces several barriers, including:

- A lack of adequate broadband access for both patients and clinics,
- Variation in billing and reimbursement rates,
- Inconsistent and limited interstate licensure of health care providers,
- Difficulties encountered by providers when prescribing controlled substances under the Ryan Haight Act, and
- Access to credentials for telehealth practitioners from distant site hospitals.

CDR Dimeris highlighted that as policy makers consider extending some of the current telehealth flexibilities, it will be important to weigh both the aforementioned benefits and barriers, as well as to better understand “where telehealth can be the right fit, at the right time” and “where we need . . . more information to understand the [impact on] health outcomes.”

**Telehealth and Pain Management**

Building on many of the themes introduced by CDR Dimeris, David J. Tauben, founder and past director of the University of Washington’s (UW’s) TelePain program, spoke to the specific applications of and considerations for using telehealth in the context of pain management. By understanding that effective pain care necessitates a coordinated, collaborative, and interdisciplinary approach, Tauben noted that “telehealth offers [the] potential to transform clinical pain management . . . by removing barriers to multidisciplinary pain management,” including inadequate education and training on chronic pain for clinicians, too few multidisciplinary pain care providers, and logistical challenges for patients associated with attending appointments in person.

Drawing from his experience as a clinician-educator and holding up programs such as Project ECHO (https://hsc.unm.edu/echo/what-we-do/about-the-echo-model.html) and UW TelePain (https://depts.washington.edu/anesth/care/pain/telepain/mini-site/index.shtml) as helpful examples, Tauben reflected that telehealth is also “a powerful pre-licensure and continuing educational method to improve knowledge [and] competencies . . . while providing just-in-time support for a diverse, interprofessional workforce.” He shared that the advantages of telehealth for pain management have been particularly evident during the COVID-19 PHE—when in-person visits for nonurgent pain care were paused—enabling him and his colleagues to interview, observe, manage, and counsel patients virtually; assess and triage new patients; and facilitate remote follow-up care. However, Tauben also mentioned challenges that remain for the effective delivery of telehealth-enabled pain care, including how best to perform remote physical examinations and address privacy concerns.

The observations highlighted in Tauben’s presentation were affirmed by a panel of individuals with lived experience managing chronic pain, including Anne L. Burns, a chronic pain patient caretaker and the vice president of professional affairs at the American Pharmacists Association; Kate M. Nicholson, a chronic pain patient and the founder of the National Pain Advocacy Center; and Jaime M. Sanders, a chronic migraine patient, founder and author of the blog “The Migraine Diva,” and affiliate partner of the Coalition for Headache and Migraine Patients. Panelists shared that, from the patient perspective, one of the biggest advantages of virtual care for patients experiencing pain is avoiding many of the factors associated with in-person visits that can exacerbate chronic pain symptoms, including long car rides, bright lights, and noisy waiting rooms. Additionally, Sanders highlighted that given the limited number of specialty pain care providers, telehealth has helped increase access to care for many. Other benefits of note included a decreased burden on caregivers, fewer missed appointments, and the ability to quickly address small or unexpected issues that may arise between in-person appointments without having to make a trip to the emergency room or urgent care.
However, when asked to reflect on some of the challenges associated with telehealth-enabled pain care, panelists shared concerns regarding exacerbating existing disparities, including the digital divide. Nicholson noted that lack of broadband access has ramifications for policy, including coverage of audio-only telehealth. Further, due to interstate variations in licensure and coverage of providers, Burns noted that, in some cases, patients have had to drive across state lines to take their telehealth appointments in their parked car. Additionally, the panelists mentioned that given the multidisciplinary nature of pain care, it can be difficult for patients and caregivers to navigate the different systems and processes used across providers. Other challenges raised were instances of missed diagnoses and misdiagnoses, which panelists suggested may have stemmed from the inability for a proper physical examination, as well as privacy concerns, including the security around non-FDA-regulated devices, HIPAA security standards, and the need for patients to have access to a private, secure place to conduct their telehealth visits.

With both the benefits and challenges of telehealth in mind, panelists emphasized that the future of telehealth for pain management requires an integrated, hybrid approach—blending both in-person and virtual care—that can be adapted for the individual needs of a diverse patient population. Panelists noted that providers will need to work with their patients to determine how a hybrid model can best meet their needs, while payers and policy makers will need to ensure that patients experiencing pain can continue to access whatever type of care produces the best possible outcomes for them.

### Telehealth and Opioid/Substance Use Disorder Care

Turning the discussion to the use of telehealth-enabled SUD care, Daniel P. Alford, director of the Clinical Addiction Research and Education (CARE) Unit at Boston University School of Medicine, remarked that many of the benefits and challenges experienced by those treating patients experiencing SUD overlap with those treating patients with pain. Yet, given the highly regulated environment for in-person opioid use disorder (OUD) treatment, there needs to be a large emphasis on policy and guideline changes when considering telehealth-enabled care for SUD and OUD. In response to the COVID-19 PHE, regulators enacted several temporary changes to ensure continuity of care, including allowing buprenorphine initiation without an initial in-person evaluation, dispensing larger supplies of medications for OUD (MOUD), requiring little to no counseling to access MOUD, and waiving urine drug testing requirements.

These changes, and other aspects of telehealth-enabled OUD/SUD care, have had a range of both positive and negative impacts. Referring to results from a recent series of qualitative studies of providers in both office-based OUD treatment settings and opioid treatment programs (OTPs)\(^1\), Alford described several positive impacts, including increased access to and convenience of care, reduced anxiety for patients, and an improved understanding of patients’ home environments, which can improve the therapeutic

\(^1\) Office-based opioid treatment (OBOT) refers to outpatient treatment offered by primary care or general health providers with a DATA-2000 waiver to prescribe MOUD, including buprenorphine and naloxone. Similarly, OTPs offer medication-based treatment for OUD; however, unlike OBOT programs, OTPs—which must be certified by SAMHSA’s Center for Substance Abuse Treatment—are the only treatment setting in the United States that can prescribe methadone for OUD.
relationship between clinician and patient. However, these surveys also found that the pivot to telehealth-enabled OUD care has resulted in less structure and accountability for the patient, less information to inform clinicians’ clinical decision making, difficulty in establishing a personal connection with patients, and technology-related challenges and limitations. Particularly in OTP settings, there has been a growing concern about patient risk and liability related to medication diversion and overdose and potential quality implications. To overcome these challenges and realize the full potential of telehealth-enabled OUD/SUD care, Alford urged policy makers, clinicians, and others to think critically about “what we had previously accepted as norms and ‘established’ practice patterns” for OUD/SUD care.

Br. Bill Bradley—a person in long-term recovery supported by MOUD, a veteran, and a Shatterproof ambassador2—and Zachary C. Talbott—a person in long-term, medication-assisted recovery; a licensed drug and alcohol abuse counselor; and the president of the National Alliance for Medication Assisted Recovery—highlighted perspectives of those with lived experience and reflected on several of the challenges that they have encountered personally and through their peer and stakeholder networks. These challenges included access to technology and digital literacy, concerns about confidentiality and privacy, a diminished human connection, and interstate licensing and coverage issues. Especially in rural settings, Bradley remarked that while telehealth can help to increase access to providers, limited internet bandwidth and access to technology have made it difficult to take advantage of these flexibilities. To help overcome some of these challenges, he shared that his community center in rural West Virginia has allowed residents to use the center’s computers and phones to attend virtual appointments.

In addition to improved access to care for some populations, Talbott shared that virtual care has also enabled greater access to adjunct support services, such as case management, peer recovery, and counseling, because patients can more easily fit appointments into their schedules. Additionally, telehealth has also been used to help ease some of the logistical burdens for OTP clients, including remote medication counts, which has the dual benefit of reducing the number of visits to the clinic as well as helping clients adhere to their program requirements.

In envisioning a “perfect state” for OUD/SUD care, Alford, Bradley, and Talbott shared similar sentiments to the pain management panelists: the need for an integrated, hybrid environment in which both telehealth and in-person care are options; where MOUD is readily available; and where patient preferences are considered alongside clinical judgment and decision making. The panelists noted that realizing this future requires a need to break down silos, remove unnecessary requirements, and develop best practices to inform both clinicians and patients on the best use of telehealth-enabled care for OUD/SUD.

AREAS OF FUTURE FOCUS AND PRIORITIES FOR ACTION

**Helen Burstin, Council of Medical Specialty Societies, and Kelly J. Clark, American Society for Addiction Medicine**

This meeting’s first session on telehealth for pain management and OUD/SUD treatment clearly demonstrated the benefits of telehealth for patients. It also highlighted key issues that must be addressed to drive toward a new integrated, hybrid model of care that incorporates virtual care when appropriate. While benefits of telehealth were highlighted, panelists emphasized that all pain management and SUD/OUD stakeholders need to collectively use the disruptive opportunity that the COVID-19 PHE has presented to redesign care for pain management and SUD and avoid simply replicating current practices in a virtual environment. Patients with lived experience in both pain management and SUD/OUD emphasized the importance of codesigning these new models of care with patients and respecting patient preferences. Many of the priority areas identified in this meeting, including access, payment and reimbursement, regulatory concerns, digital divide, and new models of care, will be addressed in upcoming sessions of this telehealth-focused meeting series.

The authors of this section have identified the following priorities for further discussion and action:

- **Build new hybrid, integrated models for chronic pain management and OUD/SUD care.** As a first step, clinicians treating pain and OUD/SUD need to collaborate with patients to collectively identify when in-person or virtual visits are appropriate and preferred. This hybrid model of care should ensure that patients receive the right care at the right time in the best format to meet their clinical needs. Clinicians need to build on what has worked well for virtual care for pain management and OUD/SUD during the COVID-19 PHE while using in-person care when most appropriate. As this new hybrid model is built, clinicians need to hear from innovators and those with lived experience to avoid simply moving current practices to a digital environment, ensuring that new hybrid models best meet patients’ needs. To take advantage of this time of disruption, clinicians should meaningfully transform care for these conditions in partnership with patients, fellow care providers, and innovators.

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2 Shatterproof (www.shatterproof.org) is a national nonprofit organization dedicated to transforming addiction treatment, ending stigma, and supporting communities. Shatterproof’s Ambassador Program is a national network of peer leaders who educate others about Shatterproof’s mission to reverse the addiction crisis.
• **Address clinical challenges to virtual care for pain management and OUD/SUD and share best practices.** While there are challenges to effective delivery of telehealth-enabled pain management and OUD/SUD care, including remote physical examinations, privacy and security concerns, and limitations on testing and prescribing, there are innovations in these areas that should be shared and researched as promising practices with patients and clinicians. We look forward to future sessions when these challenges will be addressed.

• **Identify solutions to regulatory and payment challenges that limit consistent access to virtual care for patients with pain and OUD/SUD.** Panelists consistently identified the myriad issues that limit access to virtual care for patients with chronic pain and OUD/SUD, including interstate licensure, patchwork of coverage and reimbursement, and uncertainty about the duration of temporary changes enacted during the COVID-19 PHE. Some of these regulatory issues are shared across pain management and OUD/SUD care (e.g., interstate licensure), and some specifically relate to virtual care for chronic pain and OUD/SUD, including allowing buprenorphine initiation without an initial in-person evaluation, dispensing larger supplies of medications, and waiving drug testing requirements. Given the highly active policy environment for telehealth, the authors recognize the need for timely and specific recommendations to ensure continuity and access for patients, as well as the need for certainty that will allow clinicians, health systems, and payers to effectively build these approaches into models of care for the future.

• **Recognize the urgent risk of worsening inequity unless the digital divide can be effectively addressed.** The authors consistently heard pleas from panelists that the potential for increased inequities due to the inability to access telehealth be addressed. This includes continued coverage for audio-only telehealth to ensure access for patients and safety-net clinicians that cannot reliably access broadband.

• **Listen to those with lived experiences and build it into priorities for action.** As the authors heard in this meeting, patients and caretakers can identify challenging areas in current care models that clinicians are not aware of. In the context of telehealth for chronic pain management and OUD/SUD care, patients are offered benefits that would not likely be considered without their voice. Patients shared the pain and discomfort associated with getting to in-person visits, reduced anxiety with virtual visits, and access to highly specialized national experts that may not have been previously accessible.

The authors recognize the inherent value of telehealth and virtual care for health care and can see the remarkable potential of embedding virtual care into new care models for patients who experience chronic pain and OUD/SUD. To move forward, we call on all stakeholders reading this paper to break down silos, listen to the voices of those with lived experience, and identify and remove unnecessary barriers and regulations that limit highly effective care for these vulnerable populations.

**Reference**


**DISCLAIMER:** This Discussion Proceedings was prepared by Noah Duff and Emma Freiling as a factual summary of what occurred at the meeting and areas of future focus and priorities for action. The statements made are those of the rapporteurs or individual meeting participants and do not necessarily represent the views of all meeting participants; the planning committee; members of the associated program; the National Academy of Medicine; or the National Academies of Sciences, Engineering, and Medicine.

**REVIEWERS:** To ensure that it meets institutional standards for quality and objectivity, this Discussion Proceedings was reviewed by Mark Smith, MD, MBA, University of California, San Francisco; and Anna Legreid Dopp, PharmD, American Society of Health-System Pharmacists.


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