

Medical News & Perspectives

Using Telemedicine to Treat Opioid Use Disorder in Rural Areas

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Opioid use disorder (OUD) used to be mainly an urban problem involving heroin.

But in the past 3 decades, a deluge of prescription pain medications in rural counties has helped spread the phenomenon far beyond major metropolitan centers. The overdose death rate—driven mainly by prescription opioids, and, more recently, heroin and illicit fentanyl—has been trending higher in rural areas than in urban since 2004, the CDC reported in 2017.

However, the treatment of OUD, which involves medication as well as counseling and behavioral therapies, has not kept pace. Rural counties are far less likely than urban counties to have health care professionals who can treat OUD, despite the growing need.

An analysis of data from 3142 US counties found that overall, 46.4% of them lacked a publicly available health care professional who could prescribe any of the 3 medications used to treat OUD (buprenorphine, methadone, and naltrexone) in 2017. But that proportion was far higher in rural counties—71.2% lacked an OUD medication prescriber, the recent *JAMA Network Open* study found. And nearly a third—or 29.8%—of rural residents live in a county without a buprenorphine prescriber, compared with only 2.2% of those in urban counties, another recent study found.

One reason for the nationwide shortage of buprenorphine prescribers is that they must complete special training—8 hours for physicians and at least 24 hours for nurse practitioners and physician assistants—and apply for a waiver from the Drug Enforcement Administration (DEA). And although federal law has allowed nurse practitioners and physician assistants to get waived to prescribe buprenorphine for OUD since 2016, about half the states require that nurse practitioners collaborate with a physician who also has a waiver.

To help fill the gap, some academic medical centers, federal agencies, and for-



profit companies have begun to treat OUD via telemedicine. In most cases, patients connect with physicians or other waived health care professionals on computers at clinics or OUD treatment centers, although at least 1 company has developed a platform that clients can access from their smartphones. Still, regulatory and reimbursement issues have hindered wider use of telemedicine for treating OUD.

The Promise of Telemedicine

Despite limited access to in-person treatments, a recent analysis of 2010-2017 claims data from a large commercial insurer found relatively low rates of telemedicine visits to treat substance use disorders (SUDs) such as OUD, which the authors called a "missed opportunity." When telemedicine was used, the authors found, it was mainly to complement in-person care, not to expand SUD treatment to patients in underserved areas.

Meanwhile, a recent review article concluded that although promising, research into the effectiveness of telemedicine for treating SUDs was limited. It called for additional randomized controlled trials compar-

ing telemedicine with in-person treatments and studies to assess the acceptability of telemedicine SUD treatment by patients and health care professionals.

Evidence from observational studies suggests that telemedicine is an effective tool for treating OUD, at least until more rural physicians, nurse practitioners, or physician assistants seek and receive waivers from the DEA to prescribe buprenorphine for OUD.

A 2-year retrospective study by West Virginia University (WVU) researchers, published in 2017, found no difference in outcomes between patients receiving OUD treatment through telemedicine or from face-to-face encounters. A study by University of Maryland (UMD) and University of Kentucky researchers, published last December, echoed that finding.

However, "due to regulatory issues, there are probably more people doing it than are talking about it," psychiatrist Eric Weintraub, MD, a coauthor of the more recent article, said of using telemedicine to treat OUD. Weintraub helped develop UMD's program, which in 2015 began providing buprenorphine treatment via

telemedicine to patients at a drug treatment center in western Maryland and has since expanded to the state's Eastern Shore as well.

Regulatory Issues

The regulatory issue to which Weintraub referred has to do with a federal law called the [Ryan Haight Act of 2008](#). By emphasizing that patients must be examined in person before receiving prescriptions for controlled substances, the law aimed to shut down online pill mills. But it also seemed to put the kibosh on prescribing buprenorphine for OUD via telemedicine, except in certain cases, such as if patients were being treated at a facility run by a federal agency.

Under the exception for federal agencies, the Indian Health Service (IHS) recently [announced](#) a new policy designed to expand access to OUD treatment for American Indians and Alaska Natives living in rural or remote areas. Health care practitioners from the IHS, tribes, and urban Indian organizations can now apply to the IHS to be designated as eligible to prescribe controlled substances for OUD through telemedicine.

And in the past year, the Veterans Administration (VA) New England Telemental Health Hub, based in West Haven, Connecticut, launched a pilot program that so far has provided buprenorphine and counseling via telemedicine to about 20 veterans with OUD. The veterans and health care professionals connect via dedicated video terminals; most of the patients receiving OUD treatment log on at 1 of 3 VA clinics in northern Maine, approximately 500 miles away from West Haven.

"These are active primary care clinics that happen to be in rural areas," said Yale University psychiatrist David Moore, MD, PhD, director of the telemental health hub. "What we do is really not different than if there was a buprenorphine provider in that clinic."

However, Moore said, he can't use telemedicine to treat OUD in New Hampshire patients because that state requires that all patients seeking treatment first have an in-person evaluation with prescribers.

On October 24, 2018, President Donald Trump signed a bipartisan law [requiring the DEA](#) to promulgate a rule that would, under special circumstances, eliminate the need for an in-person medical evaluation before the prescribing of controlled sub-

stances. As of mid-August, though, the DEA, which has an October 24, 2019, deadline by which to issue the rule, had not yet done so.

Meanwhile, the DEA this year issued a [statement](#) noting that while patients do need an in-person medical evaluation before getting a buprenorphine prescription for OUD, it does not necessarily have to be performed by the prescriber. That's the case as long as patients are being treated by and physically located in or in the presence of a DEA-registered hospital, clinic, or practitioner, the DEA said.

Because of the Ryan Haight Act, [Workit Health](#), one of several for-profits offering OUD treatment with telemedicine, requires that all patients first visit one of the company's clinics, chief medical officer Melody Glenn, MD, said. For now, Workit Health serves clients with 1 clinic in Michigan and 2 in California, the founders' home states, with plans to expand into other states, Glenn noted.

At the Workit Health clinics, patients seeking OUD treatment are examined by physician assistants or nurse practitioners waived to prescribe buprenorphine. Patients also meet with a "recovery coach" and social worker, often the same person, to learn how to use the company's telemedicine platform, which they can access on their smartphone. "It's a lot like FaceTime," Glenn explained.

While some employers and insurance plans offer it as a benefit, most of the approximately 600 patients in Workit Health's OUD treatment program pay up to \$75 per week out-of-pocket, Glenn said. (As with many state Medicaid programs, California law lacks clarity about who and what Medi-Cal covers as far as telehealth services for OUD, according to a recent [report](#).)

Workit Health's OUD treatment includes a 15-minute counseling session with the same nurse practitioner or physician assistant, weekly at first, then every other week, then less frequently. Clients also can join group sessions on the Workit Health platform a few times a week.

Individual counseling and group sessions, while recommended, are optional, and only about 15% of clients participate in the groups, Glenn said.

The Behavioral Piece

Behavioral therapy is just as important as buprenorphine in treating OUD, says WVU psy-

chiatrist Wanhong Zheng, MD. "The medicine is only part of it," Zheng said. "What's really important is the structure, the accountability, the support."

At WVU, treating OUD via telemedicine seemed like a logical outgrowth of a long-standing telepsychiatry program, Zheng said. In 2017, West Virginia had the country's highest drug overdose death rate, driven mainly by opioids, according to the most recent CDC [data](#).

The WVU [Comprehensive Opioid Addiction Treatment \(COAT\) program](#), based in Morgantown, has about a dozen people on staff who can prescribe buprenorphine. Program patients are required to participate in counseling, therapy, and a 12-step program.

But Morgantown isn't exactly centrally located in West Virginia. So in 2011, WVU psychiatrist Patrick Marshalek, MD, and Ashley Six-Workman, RN, clinical nurse coordinator for WVU's telepsychiatry program, established the first remote COAT clinic to prescribe buprenorphine for OUD in Clay County—roughly a 4-hour roundtrip drive from Morgantown. Eventually, COAT telemedicine clinics, using dedicated computers at state-funded, DEA-registered comprehensive behavioral health centers, were also established in Mercer and McDowell counties in southernmost West Virginia. At the time, no one locally was waived to prescribe buprenorphine for OUD. Although they had to video chat with buprenorphine prescribers in Morgantown, patients in the remote COAT clinics received in-person counseling at the behavioral health centers.

Recently, however, WVU's telemedicine treatment of OUD shifted its focus away from prescribing buprenorphine, because the counties served now have local prescribers. The telepsychiatry program in 2018 received a 3-year Health Resources & Services Administration grant to provide an addiction-intensive outpatient program (IOP) at the Southern Highlands Comprehensive Behavioral Health Center, with locations in Mercer, McDowell, and Wyoming counties.

The IOP targets patients with SUDs—many of whom are addicted to other substances as well as opioids—who need more than what programs like COAT offer but aren't candidates for residential treatment. Patient groups and family groups meet weekly, all linked by telemedicine. "It's kind of like [Hollywood Squares](#) when we log on," Marshalek said.

Hitting the Road

Like many parts of West Virginia, Maryland's Eastern Shore "is just really bereft of any kind of treatment providers," Weintraub said. Plus, for people who don't have a car and live in an area without public transportation, 5 or 10 miles from a buprenorphine prescriber might as well be 50 or 100 miles, he added.

Weintraub and his colleagues began using telemedicine in the treatment of OUD in 2015, after [Wells House](#), a nonprofit SUD treatment center in Hagerstown, told them it needed a buprenorphine prescriber.

"It was just too far for us to drive," Weintraub explained. The UMD medical school, in downtown Baltimore, is about 75 miles from Hagerstown in western Maryland. After Wells House acquired another western Maryland treatment center in Frederick, approximately 50 miles from the medical school, the UMD psychiatrists also began using telemedicine to prescribe buprenorphine to patients there.

Still, some people with OUD find it difficult to travel to a treatment center or local health department to connect with buprenorphine prescribers via telemedicine. So in April, Weintraub and his colleagues took OUD treatment, including encrypted video chats with Baltimore-based addiction specialists, on the road, and, for the first time, to the Eastern Shore.

The 36-foot-long purple and white [Eastern Shore Mobile Collaborative Care](#) van is based at the Caroline County Health Department in Denton. In June, it also began traveling regularly to a [Federalsburg parking lot](#), 20 miles away. The plan is to eventually expand coverage to neighboring Talbot and Queen Anne counties, Weintraub said.

"We have a really great peer recovery specialist who works on the van," he said. "He's also the driver." A nurse accompanies him, and she takes patients' medical history, assesses their vital signs, and performs urine tests to check for the use of drugs other than buprenorphine.

As in West Virginia, "we also do a lot of [outreach](#)" to train and support health care professionals with the goal of encouraging more Marylanders to obtain a buprenorphine waiver, Weintraub said.

By mid-August, only about [71 000 people nationwide](#) had been waived to prescribe buprenorphine for OUD, and three-quarters of them were limited to treating a maximum of only [30 patients at a time](#), according to the Substance Abuse and Mental Health Services Administration (SAMHSA).

To put that in perspective, in the United States there are approximately 1 million professionally active physicians, [according to the Kaiser Family Foundation](#), and 1.1 million people 12 years and older with OUD, according to [2017 SAMHSA data](#).

"There is this focus on rural health, but the need is so incredible everywhere," Moore said. "There is a shortage of treatment providers across the map." ■

Note: Source references are available through embedded hyperlinks in the article text online.