

# A 'BOULDER' APPROACH TO OPIOID ADDICTION TREATMENT

## Portland addiction treatment startup ready to go national with Blue Cross partnership

Erica, an administrative assistant from southern Oregon, takes buprenorphine daily to suppress her craving for heroin and avoid withdrawal.

She picks up the prescription medication from her local pharmacy and places the tablet under her tongue until it dissolves. Once a month, she checks in with her doctor using a secure video visit from the privacy of her home.

“We have a really great relationship,” said Erica, who asked that her last name not be used. “If I ever have a problem or feel like I’m in trouble, I can reach out to him whenever I want.”

Erica is one of 100 patients — so far — using an app-based addiction treatment program created by a Portland startup. Boulder Care is trying to make medication-assisted treatment accessible to more people, especially those in rural areas, with the hope of scaling its telemedicine-based buprenorphine program to hundreds of thousands, if not millions, of Americans in the next couple of years.

Boulder Care raised \$10.4 million from venture capital investors in December, for upwards of \$14 million since its founding in 2017. Two weeks ago, Boulder Care founder and CEO Stephanie Papes inked a partnership with **Premera Blue Cross** to make the service available to its members in Alaska, with a national rollout planned down the road, potentially touching tens of thousands of patients. Papes hopes to sign on more insurers and Medicaid programs. The company has grown from three employees to 33 in the past year.

With 40 percent of U.S. counties without any buprenorphine prescribers and another 24 percent with a “low patient capacity,” according to a recent federal government study, the need for expanded treatment options is tremendous.

“You look at the numbers — 6 million people who need care — and the largest providers are brick and mortar and are barely chipping away at the access gap,” said Papes. “Technology is the only chance of changing the trajectory.”

Papes isn't the only entrepreneur to take note. Other telemedicine startups are moving into the space, notably Bright Heart Health, based in the San Francisco Bay Area. Telehealth in general is growing faster than any other place of care, according to a study of alternative settings for care last year by the American Medical Association. But marrying telehealth and addiction treatment is still virgin territory.

“When it comes down to solving these very large problems, I believe entrepreneurship paired with venture capital is the most powerful way to effect change quickly in some of these large industries like health care,” said Jordan Nof, management partner and head of investments at Tusk Venture Partners in New York, which led Boulder Care's recent funding round.

## **Treatment deserts**

An estimated 2.1 million people in the U.S. have an opioid use disorder related to prescription pain killers or heroin, according to the Substance Abuse and Mental Health Services Administration, or SAMHSA. An estimated 1 percent of Oregonians 12 or older, or 36,000 people, reported having an opioid use disorder in the 2017 National Survey on Drug Use and Health.

But, according to SAMHSA, only 19 percent of people who need substance abuse treatment actually receive it — the access problem Boulder Care aims to address. For a variety of reasons, many people have a hard time finding a provider who can prescribe buprenorphine. When combined with the overdose reversal drug naloxone (and often sold under the brand name Suboxone), buprenorphine is considered the gold standard for treating opioid addiction. The therapy decreased all-cause mortality by 60 percent over a year in a 2017 study published in the medical journal BMJ.

Buprenorphine is a “partial opioid agonist,” meaning it targets the brain in the same way as heroin or oxycodone and can produce the same effects, euphoria and respiratory depression, but in a much weaker form. Suboxone, which Erica takes, prevents someone a high and diminishing the potential for abuse.

Unlike methadone, which has been used for decades and is administered in highly structured and regulated clinics, buprenorphine can be prescribed and dispensed by doctors in the office setting and taken at home.

“What it does is give them their life back and a little bit of space to worry less about withdrawal and focus on things that are important to them and for recovery, like their family and job and housing,” Dr. Brandon Lynch, medical director for Boulder Care.

Yet the drug remains somewhat controversial, viewed by some as a crutch, rather than as simply a treatment for a chronic condition, just like insulin for diabetes or statins for high cholesterol. The bias has historically been toward abstinence-based therapy.

Insurers don't always cover buprenorphine, or they require patients to fail other treatments first. A study published a year ago by Oregon Health & Science University found that doctors must increasingly jump through insurance hoops to prescribe it.

Furthermore, SAMHSA limits the number of patients a provider can treat with buprenorphine at any one time. To help bridge the gap between supply and demand, the agency raised the cap four years ago to 275 patients at a time, up from 100, and allowed nurse practitioners and physician assistants to also prescribe it.

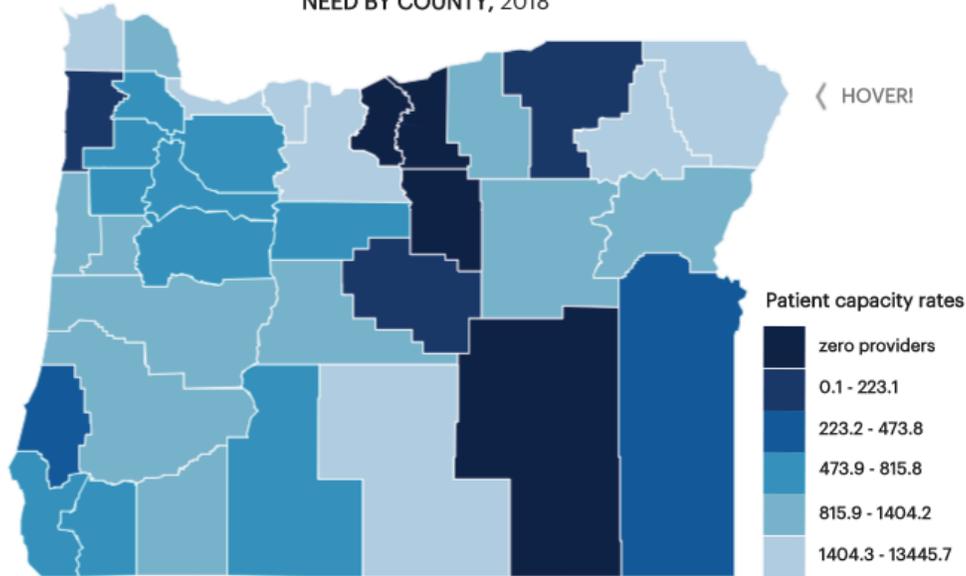
The number of Oregon buprenorphine prescribers more than doubled between 2017 and 2019, from 545 to more than 1,300, according to the Oregon Health Authority. But the number is a little deceiving. Few prescribers are treating up to the maximum allowed by SAMHSA, which requires at least eight hours of addiction training to receive a waiver to prescribe. Typically, they start with 30 patients in the first year, then can apply to go to 100 patients, then 275.

In 2018, only 4 percent of Oregon providers with waivers could treat up to 275 patients, while 80 percent were limited to just 30 patients each, according to data from the U.S. Department of Health and Human Services Office of Inspector General.

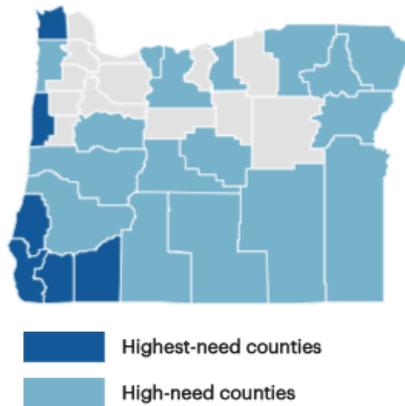
# TREATMENT DESERTS

The map below shows the availability of buprenorphine according to the need in Oregon. Many counties have insufficient prescribers to meet the demand and several have none at all. Even providers who have obtained a federal waiver to prescribe may not be taking as many patients as they could.

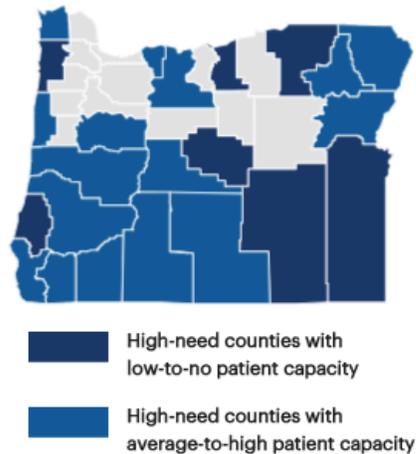
RATES OF PATIENT CAPACITY AND OPIOID TREATMENT NEED BY COUNTY, 2018



COUNTIES WITH HIGH NEED FOR TREATMENT SERVICES, 2018



HIGH-NEED COUNTIES AND THEIR PATIENT CAPACITY, 2018



Treatment deserts can be found throughout the state: Seven of Oregon’s 36 counties are “high need,” meaning they have high rates of opioid misuse and

low capacity to provide buprenorphine, according to the Office of Inspector General report. Four rural counties have zero providers.

“Oregon is an interesting example of the broader concerns highlighted in our report,” said Heather Barton, deputy regional inspector general at HHS.

Boulder Care isn’t alone in trying to increase access. OHSU, which opened a walk-in clinic for buprenorphine treatment in October, collaborated on a National Institute on Drug Abuse grant to train primary care providers in buprenorphine therapy and to study the effect on overdose rates.

“It is getting much better,” Dr. Todd Korthuis, an associate professor of medicine at OHSU.

### **Young entrepreneur**



Boulder Care founder and CEO Stephanie Papes feels a sense of urgency about getting buprenorphine to more people who need it.

CATHY CHENEY | ©PORTLAND BUSINESS JOURNAL

Papes, who is 30 years old, grew up in Charlotte and studied public policy at Duke University. After graduation, Papes went to work in New York for Apple Tree Partners, a life sciences fund with \$1.5 billion under management at the time. She spearheaded the firm’s health care services and technology strategy.

The firm invested in an addiction treatment clinic in Massachusetts that had a 500-person waiting list the first day it opened.

“I saw the transformational change,” she said. “I met clients. They talked about regaining custody of their children. The opioid crisis was escalating and becoming front page news all the time. Any coverage of medication (assisted therapy) was pretty pejorative and didn’t reflect the science and promise of what it can do for people.”

It also struck her that despite the clinic’s aggressive plans to expand to dozens of sites, it would still reach just a fraction of those who need treatment.

“There’s political and other resistance thwarting specialized facilities from being built in neighborhoods that need care most. So much of that is rooted in stigma and misconceptions, and I was feeling a sense of injustice and urgency that we needed to do something that couldn’t happen in brick and mortar,” Papes said.

Established clinic chains didn’t want to cannibalize its own revenue with telemedicine. Papes tried to find another provider to invest in that was doing telemedicine for medicated assisted treatment. She came up short.

“Very few people were doing it at all,” Papes said. “We knew we had to do it on our own. I had never intended to start a company. It seemed Herculean.”

She incorporated Boulder Care in 2017, and a year after the found, Papes raised a \$3.7 million seed round, led by First Round Capital, a VC firm based in Philadelphia. She also applied for and scored a \$1.5 million National Institutes of Health small business innovation grant

“It was a leap for a VC,” Papes said. “Health care investing is around the edges. There’s reimbursement risk and regulatory health care exposure. At the time, it was tough to tell the story, and I was heartened we could get it to more of a traditional VC raise.”

Papes, who was named one of Forbes 30 under 30 in health care for 2019, moved herself and the headquarters from Brooklyn to Portland last June. Boulder now occupies a light, open-office space in an old downtown office building.

The company logo depicts “a stack of boulders on a trail to guide the way from someone who was there before,” Papes said. “We like our boulder puns — emboldening patients and providers.”

Papes built her team through connections she made from the Massachusetts clinics, including Dr. Andy Mendenhall, senior medical director for Substance Use Disorder Services at Portland's Central City Concern. Mendenhall, who is now advising medical director at Boulder Care, brought Papes to Oregon, and they toured the state, speaking with Medicaid contractors and hospitals.

At Asante in Medford, she met Lynch, who had developed a systemwide program for medication-assisted treatment encompassing the hospital and Emergency Department, a bridge clinic and outpatient primary care. He was one of the only doctors prescribing buprenorphine in the region.

Lynch joined Boulder Care and brought 100 patients with him as an initial cohort for a pilot project, to prove out the concept. Since August, he's worked full time at Boulder Care, based out of his attic office at home.

He schedules appointments with patients when and where they're available, sometimes after they put their kids to bed at night. Two homeless patients do video visits from their car, parked at a McDonald's parking lot, and their tent.

"The reason I was so interested in telemedicine in the first place is it's capable of reducing barriers for people, like transportation and geography," Lynch said. "It's also removed the stigma of coming to treatment. It's much more comfortable and convenient to get treatment in the home."

In the first eight months, there were no mortalities and the retention rate was 80 percent, double the industry standard, Papes said. Only one patient has been hospitalized for an opioid-related problem.

"There are so many barriers Boulder Care breaks down," Tusk Venture Partners' Nof said. "That's a major reason we invested with Stephanie. She's not somebody who's trying to capitalize on the misfortune of other people. It's mission driven, to provide a solution."

OHSU's Korthuis said the jury is still out on whether telemedicine is as effective as in-patient care for addiction treatment. A large scale study in rural communities will soon be launched to find out, he said.

"Telehealth has a lot of potential for expanding access, however, it's an untested health care delivery strategy when it comes to substance use disorders currently," Korthuis said. "It's the wild west out there and the

technology hasn't been fully vetted yet and everyone is scrambling for market share."

## **Boulder box**

Boulder Care is about to extend its reach with a recently inked value-based contract with Premera, which is based outside Seattle. The service will launch in April in Alaska, expand to Washington state later this year and then to clients in 50 states, said Rick Abbott, vice president of product and market solutions at Premera.

Alaska poses substantial barriers to access buprenorphine and health care services in general, due to lack of facilities, climate and terrain. The company estimates almost 3,000 members in Alaska may suffer from opioid use disorder.

"It's a market that needed a different type of access," Abbott said.

Boulder will be paid a per-member-per-month fee based on the number of patients treated, not the volume of care. Boulder and Premera will have a shared set of metrics that predict success, such as retention and patient satisfaction.

"Traditional fee-for-service models don't reward the provider for producing a positive outcome, for successfully moving them into treatment and maintaining care that allows them to stay sober," Abbott said. "The agreement with Boulder allows them to continue their care and flourish over time."

Patients need to start with an in-person visit, such as primary care or an Emergency Department, before they can download the Boulder app. It includes a task list summarizing the patient's care plan and sends prompts to take the medication and reminders about appointments and lab tests to make sure patients are taking the right dose. Each patient is sent a "Boulder Box" with saliva test kits and they can take a video of themselves doing the test before mailing it in.

"It's a lower friction experience for them," Papes said. "We never use the results in a way that's punitive or that would discharge them from the program."

Boulder's peer recovery coaches also do video visits and talk patients through a variety of issues. For example, one patient wanted to take up swimming again but was self-conscious about the track marks on her arms and legs.

"For a patient who is more stable, they don't need to get on it every single day," Papes said.

For Erica, Boulder Care has helped her move on from an addiction that started at age 18 to cocaine, then oxycodone. She once tried to quit but got violently sick from the withdrawal.

"I felt terrible and wanted to die," Erica said. "It feels like your bones are ripping out of your skin."

She switched to heroin.

"I wasn't in a good place in my life," she said. "I didn't have a great job and I isolated myself from my family, so I didn't care."

She checked into inpatient treatment after her family gave her an ultimatum, then a friend referred her to Lynch, and she started Suboxone therapy.

"They weren't there to judge you or be harsh on you to stay clean or get out of the program," she said. "They're willing to do whatever it takes to get you on a good track."

Since switching to tele-visits through Boulder Care, Erica said she misses the in-person group visits. But she does like the convenience.

"I was really nervous about switching from seeing him in person to phone, but I'm reassured by being able to reach out directly," she said. "He's literally just a message away."