

Policies to Support a Better Treatment for Heroin and Prescription Opioid Abuse

Unlike Methadone, Buprenorphine Can Be Taken at Home, but Greater Access Is Key

Abuse of heroin and prescription opiates (such as oxycodone and hydrocodone) has spiked in the past decade, with an estimated 2 million people having used in the past year. Although methadone clinics offer effective treatment, only a fraction of those trying to quit opiates enter a clinic's doors. Unlike methadone, the prescription drug buprenorphine can be taken outside a methadone clinic, which greatly increases treatment options for people unable or unwilling to receive a daily dose of methadone at a clinic.

However, access to buprenorphine is somewhat limited; the only physicians who can prescribe it are those who complete an approved course or have board certifications in addiction medicine or addiction psychiatry and receive a special U.S. Drug Enforcement Administration number indicating that they are waived from the special registration requirements in the Controlled Substances Act. In addition, the number of patients they can treat is restricted because of concerns that buprenorphine would be diverted to illicit use. Policymakers are examining ways to improve access, including increasing the number of patients a waived physician can treat and allowing nonphysicians who receive waivers to prescribe it as well.

Background

Approved for use in 2002, buprenorphine is considered by many to be safer than methadone and less likely to be abused. Initially, physicians could receive a waiver to prescribe the drug for up to 30 patients at a time; in 2006, physicians who were already administering buprenorphine could apply for 100-patient waivers.

Buprenorphine could be particularly impactful in rural areas, given that methadone clinics are scarce in those regions and that establishing a new clinic is more difficult than expanding local physicians' practices to include buprenorphine treatment.

What has happened in the years since buprenorphine's approval? RAND has conducted significant research into the evolution and impact of buprenorphine treatment.

Key findings:

- Access to buprenorphine increased dramatically in 2006, when physicians who were permitted (waived) to prescribe the drug were allowed to prescribe it for 100 patients at a time rather than 30.
- Waivered physicians are more plentiful in states where Medicaid or another state-provided benefit covers buprenorphine treatment and in states with specific guidance on both the use of buprenorphine and the distribution of clinical guidelines for buprenorphine treatment.
- While some policies opened the door to greater access, others may limit utilization once patients have started treatment. For example, requiring patients to attend drug counseling, charging copayments, and requiring prior authorization for a prescription may have the effect of decreasing or limiting use of buprenorphine.

How Have State Policies Evolved?

Summary: State policies have gradually grown more supportive of increasing access to buprenorphine and methadone treatment (also known as opioid agonist therapy), but, at the same time, many of those same states are implementing policies that restrict aspects of its use, as seen in "Policies Related to Opioid Agonist Therapy for Opioid Use Disorders: The Evolution of State Policies from 2004 to 2013" (Burns et al., 2015).

Findings: RAND researchers contacted state Medicaid officials and substance abuse treatment officials from all states and the District of Columbia, surveying 44 about a range of coverage policies and how they have changed from 2004 to 2013. Medicaid is the largest funder of substance abuse treatment services, and substantial numbers of individuals with opioid use disorders are Medicaid eligible.

By 2013, most state Medicaid programs covered methadone and/or buprenorphine (though some states still do

not cover both for all Medicaid enrollees, more than a decade after buprenorphine's approval), and most listed buprenorphine on their preferred drug list. But other policy changes—related to prior authorization, copayments, and counseling requirements—could potentially prevent physicians' and patients' use of buprenorphine. States may limit buprenorphine use for a range of reasons involving cost, accidental ingestion by children, diversion, and illicit use, but further research is needed on how these policies affect the actual patterns of treatment and outcomes.

It is noteworthy that more states began adopting supportive Medicaid policies after 2007, when physicians could obtain permission to treat up to 100 patients with buprenorphine rather than the previous limit of 30.

Has Buprenorphine's Approval Increased Patients' Access to Treatment?

Summary: Since buprenorphine was introduced, potential access has increased, particularly because of the introduction of more waived physicians in rural areas, according to "Growth in Buprenorphine Waivers for Physicians Increased Potential Access to Opioid Agonist Treatment, 2002–11," (Dick et al., 2015).

Findings: This article examined the extent to which the geographic distribution of waived physicians has enhanced potential access, particularly in nonmetropolitan areas. The findings were based on an approach developed by RAND researchers to identify counties with shortages of waived physicians, opioid treatment programs, and overall opioid agonist treatment, building on the Health Resources and Services Administration methodology for identifying health professional shortage areas.

The research team found that growth in waived physicians substantially increased potential access to opioid treatment, especially in rural areas, where methadone clinics are few. Buprenorphine shortage areas fell from 99 percent of counties in 2002 (the year the drug was approved) to 51 percent in 2011. This lowered the percentage of U.S. residents residing in opioid treatment shortage counties from 49 percent to approximately 10 percent. Meanwhile, the 90 percent of counties classified as methadone clinic shortage areas remained constant. Despite this dramatic improvement in potential access, shortages remain more problematic in less populated counties than in metropolitan counties, particularly in the Midwest, where Medicaid policies facilitating access to opioid agonist therapy have historically been less generous and slow to change.

Have 100-Patient Waivers Been Effective?

Summary: Yes, physicians with 100-patient waivers are largely responsible for increased buprenorphine utilization, according to "Where Is Buprenorphine Dispensed to Treat Opioid

Use Disorders? The Role of Private Offices, Opioid Treatment Programs, and Substance Abuse Treatment Facilities in Urban and Rural Counties" (Stein et al., 2015b).

Findings: This project sought to examine the impact on buprenorphine utilization of increasing the number of patients a waived physician could treat from 30 to 100. The findings were based on a regression model using 2004–2011 state-level data of buprenorphine dispensed and county-level data of the number of waived physicians and substance abuse treatment facilities using buprenorphine.

The researchers found that the amount of buprenorphine dispensed and the number of buprenorphine providers of all types increased substantially from 2004 to 2011, but the greatest impact came from physicians with 100-patient waivers. The most conservative estimates suggest that, in urban areas, 24 (in 2007) to 45 (in 2011) additional patients received buprenorphine treatment per 100-patient-waivered physician and that, in rural areas, 57 additional patients received buprenorphine treatment per 100-patient-waivered physician. In fact, consistent with other studies, the research team found that many of the physicians waived for 30 patients may be treating few or no patients with buprenorphine.

These estimates suggest that policies focused on increasing the number of patients that a single waived physician could safely and effectively treat could be more effective in increasing buprenorphine use than such alternatives as opening new substance abuse treatment facilities or increasing the overall number of waived physicians.

What Policies May Support Growth in Waivered Physicians?

Summary: Several policies are associated with a robust supply of waived physicians, according to "Supply of Buprenorphine Waivered Physicians: The Influence of State Policies" (Stein et al., 2015a).

Findings: The research team found that approximately 57 percent of counties in the United States had at least one waived physician by 2011—and 43 percent had none. Given the shortage of methadone clinics in rural areas and the complications of opening new clinics, targeting physicians in communities with a dearth of waived practitioners may have benefits.

To determine where to target these efforts, the researchers examined the associations between the number of physicians waived to prescribe buprenorphine and (1) states' policies and efforts to support the dissemination of buprenorphine and (2) county characteristics. Using census data and the Buprenorphine Waiver Notification System, they calculated both the number of waived physicians overall and the number of 100-patient-waivered physicians per 100,000 county residents for all U.S. counties from 2008 to 2011.

While the researchers could not establish a causal effect between the supply of waived physicians and various policies and county characteristics, they did find some positive correlations:

- *Public-sector reimbursement.* The greatest numbers of physicians were in counties in which the state provided both Medicaid and non-Medicaid funding, such as block grants, for office-based buprenorphine treatment. (A substantial proportion of individuals receiving treatment in substance abuse treatment settings are uninsured, and non-Medicaid public sector funding supports much of this care.)
- *Specific state guidance on proper use of buprenorphine.* States that distributed clinical guidelines for buprenorphine treatment and the use of buprenorphine had more waived physicians.
- *Demand for heroin and other opioids.* Counties and states with higher rates of misuse, as determined by proxies that included the number of opioid-related overdose deaths per capita, the purity-adjusted price of heroin, and the use of illicit painkillers per capita, had more waived physicians.
- *Existence of methadone clinics.* Counties with clinics had significantly more waived physicians, which may suggest that demand for treatment is high or that waived physicians are more comfortable prescribing buprenorphine in counties with methadone clinics, given the availability of guideline-recommended counseling services.
- *Median income and adult insurance rates.* Low median income was weakly associated with having more waived physicians per 100,000 residents, but when the presence of a methadone clinic in a county was excluded, the percentage of residents in poverty had a positive and statistically significant association with the number of waived physicians.

No association was found between the proportion of waived physicians and requiring or encouraging staff at methadone programs to advise patients of buprenorphine availability.

Next Steps

Clearly, waived physicians are an excellent resource, and using them to dispense buprenorphine has increased access to treatment, especially in rural areas. Physicians waived to treat 100 patients are primarily driving this increased access. State policies are having an impact on increasing the ranks of these physicians, but many states are also implementing policies that restrict buprenorphine's utilization and create

unintended consequences for utilization and quality that need to be better understood. What are the next steps for policymakers and the researchers whose work supports good policymaking?

A Path for Policymakers

The RAND researchers' findings suggest that increasing the number of waived physicians and supporting their ability to effectively and safely treat more patients may be the fastest approach to enhancing capacity for opioid agonist treatment, particularly in less populated counties.

To increase the number of buprenorphine-waived physicians, federal agencies and professional organizations are increasing the availability of training to certify physicians and increasing mentorship and support for physicians who are already waived.

States can implement policies that appear to increase the number of waived physicians, including providing public-sector reimbursement and giving specific guidance regarding the use of buprenorphine and clinical guidelines for buprenorphine treatment.

A Road for Researchers

A number of unanswered questions exist around issues that could affect patients' health:

- What has the impact been on patients? Have these changes increased access to opioid agonist treatment, and, if so, who exactly has benefited?
- How has buprenorphine treatment affected the quality of care and clinical outcomes, and how do they vary across the different treatment settings?
- Are waived physicians practicing close to capacity? If not, what policies can help them do so, given that increasing buprenorphine distribution through existing waived physicians may be easier than recruiting new ones?

For both policymakers and researchers, it remains to be seen how the expansion of Medicaid and other changes stemming from the Affordable Care Act will influence the future availability of opioid agonist therapy for Medicaid enrollees. The potential for higher demand is great, given the increased number of Medicaid enrollees in many states and their generally higher rates of heroin use. Parity of behavioral health services under the Affordable Care Act may also affect the availability of buprenorphine and methadone treatment, given that prior parity legislation was associated with an increase in treatment facilities' use of buprenorphine but not broader substance use disorder treatment.

This research highlight summarizes RAND Health research reported in the following publications:

Burns RM, Pacula RL, Bauhoff S, Gordon AJ, Hendrikson H, Leslie DL, and Stein BD, "Policies Related to Opioid Agonist Therapy for Opioid Use Disorders: The Evolution of State Policies from 2004 to 2013," *Substance Abuse*, published online November 13, 2015 (EP-50960, www.rand.org/t/EP50960).

Dick AW, Pacula RL, Gordon AJ, Sorbero M, Burns RM, Leslie D, and Stein BD, "Growth in Buprenorphine Waivers for Physicians Increased Potential Access to Opioid Agonist Treatment, 2002–11," *Health Affairs*, Vol. 34, No. 6, June 2015, pp. 1028–1034 (EP-50718, www.rand.org/t/EP50718).

Stein BD, Gordon AJ, Dick AW, Burns RM, Pacula RL, Farmer CM, Leslie DL, and Sorbero M, "Supply of Buprenorphine Waivered Physicians: The Influence of State Policies," *Journal of Substance Abuse Treatment*, Vol. 48, No. 1, January 2015a, pp. 104–111 (EP-66172, www.rand.org/t/EP66172).

Stein BD, Pacula RL, Gordon AJ, Burns RM, Leslie DL, Sorbero M, Bauhoff S, Mandell T, and Dick AW, "Where Is Buprenorphine Dispensed to Treat Opioid Use Disorders? The Role of Private Offices, Opioid Treatment Programs, and Substance Abuse Treatment Facilities in Urban and Rural Counties," *Milbank Quarterly*, Vol. 93, No. 3, September 2015b, pp. 561–583 (EP-50865, www.rand.org/t/EP50865).

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