

Marcus A. Bachhuber, MD, MS
*Assistant Professor of Medicine, Division
of General Internal Medicine, Montefiore
Medical Center/Albert Einstein College of
Medicine*

Janet Weiner, PhD, MPH
*Associate Director for Health Policy,
Leonard Davis Institute of Health
Economics, University of Pennsylvania*

Julia Mitchell, MPA
*Health Policy Specialist, Leonard Davis
Institute of Health Economics, University
of Pennsylvania*

Jeffrey Samet, MD, MA, MPH
*Professor of Medicine, Boston University
School of Medicine and Medical Director
of Addictions Prevention, Treatment and
Recovery Support Services at the Boston
Public Health Commission*

Primary Care: On the Front Lines of the Opioid Epidemic

More than [27 million Americans](#) currently use illicit drugs (including non-medical use of prescription drugs), and seven million of them meet the criteria for a substance use disorder. Of those, 1.9 million people have disorders related to non-medical use of prescription pain relievers. The human and economic toll of illicit drug use is substantial and rising; in particular, rates of fatal overdoses involving opioids have [tripled](#) and fatal overdoses involving sedatives have [quintupled](#) since 1999. Despite increasingly effective treatments, only about 10%-20% receive any treatment, a shortfall that reflects patient, health system, financial, and regulatory barriers. But an overarching reason for the continuing failure to address this outside need is the longstanding separation between care for substance use disorders and the rest of the health care system.

Primary care physicians (PCPs) and other primary care providers are on the front lines of the health care system and of the opioid epidemic. They provide first-line therapies for chronic pain, and account for [50% of all prescription opioids dispensed](#). The Centers for Disease Control and Prevention (CDC) recently targeted new opioid [prescribing guidelines](#) to PCPs, recognizing their central role in managing chronic pain.

Despite a growing consensus about the need to address illicit drug use disorders in primary care, few PCPs do so today. This issue brief discusses the role of primary care teams in identifying illicit drug use disorders in their patients, the continuum of treatments that they can offer, and opportunities for successful collaboration and integration with specialists.

Screening for illicit drug use in a primary care setting

Use of illicit substances is common among primary care patients, ranging from 3% to 26% depending on the setting. Often this drug use is tied to pain. A recent [study](#) by Alford, German, Samet, et al. (2016) found that 87% of primary care patients who screened positive for illicit drug use reported chronic pain.

Unlike alcohol, there may be no “healthy” limits for some drugs, especially when considering the risks of escalating use, substance use disorder, legal consequences, or infectious diseases (e.g., from injection use). In a [study](#) by Bernstein, Cheng, Samet, et al. (2015) more than half of primary care patients who

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initially only used drugs on the weekends escalated to weekday drug use over a six-month period. These findings suggest the need for periodic re-assessment of drug use even among patients using “only on weekends.”

The Substance Abuse and Mental Health Services Administration (SAMHSA) offers several [resources](#) to help primary care providers screen at-risk patient populations. The [SBIRT model](#) helps PCPs take the next steps in addressing unhealthy alcohol and drug use among their patients. The key elements of the model are (1) Screening questionnaires to assess at-risk levels and substance-related problems, (2) Brief Intervention (short counseling sessions to motivate patients to change their risky behavior or accept more intensive treatment) and (3) Referral to Treatment (facilitating access to treatment, helping the patient navigate barriers to care, and following up). The body of [evidence](#) on the effectiveness of the SBIRT model in addressing risky alcohol use in primary care is strong, although the standard SBIRT model has not yet been shown to be effective for addressing drug use in the same setting.

Primary care providers can offer a continuum of treatment services

Although substance use disorders have long been the focus of specialty treatment centers, the demand for treatment far exceeds the capacity of these centers. Furthermore, patients may prefer treatment in primary care. In a recent [survey](#), 37.2% of respondents with substance use disorders said they would be willing to enter drug or alcohol treatment in a primary care setting, compared to 24.5% of respondents who said they would enter a specialized drug or alcohol treatment center.

Not all PCPs have the capacity or expertise to treat substance use disorders. A number of educational programs exist to help PCPs manage and treat pain and screen, counsel, and treat patients misusing opioids. One such program is the [Providers' Clinical Support System for Opioid Therapies \(PCSS-O\)](#), an online platform providing access to continuing medical education courses, seminars, and ongoing peer-to-peer support for PCPs.

Even with education and support, PCPs will differ in their capacity to respond to patients with a substance use disorder. Time, resources, and patients' willingness to be treated will all affect the continuum of services offered to a particular patient in a primary care setting. These services range from counseling and referral to specialists, harm reduction interventions, medication-assisted treatment, collaboration with specialists, to full practice integration.

Harm reduction interventions

The main tenet of harm reduction is to meet patients where they are. Patients not seeking treatment, or who are resistant to treatment, can still benefit from interventions to reduce the health consequences of drug use. While some express concerns that harm reduction interventions can increase drug use, research to date has found no evidence supporting that contention.

BARRIERS TO INCORPORATING MAT INTO ROUTINE PRACTICE INCLUDE A LACK OF SUPPORT STAFF, INADEQUATE EXPERTISE, AND TIME AND REIMBURSEMENT CONCERNS.

Primary care teams can intervene to reduce harm from illicit drug use in two ways: by educating patients and families about opioid overdose and the use of naloxone, and by facilitating access to sterile needles for those who inject drugs.

- Naloxone is a life-saving drug that can rapidly reverse an opioid overdose. A member of the primary care team can educate patients and their families and friends about ways to prevent fatal overdoses, and prescribe or dispense take-home naloxone kits in the office. [Evaluations](#) of overdose education and naloxone distribution programs have found that people can accurately identify and respond to an overdose, and that such programs are associated with community-level decreases in fatal opioid overdoses. A recent observational [study](#) found that patients taking opioids for chronic pain who received education on how to prevent an overdose and prescription for naloxone had 63% fewer opioid-related emergency department visits in one year than did patients not receiving education and naloxone.
- Access to sterile syringes can help prevent [HIV and HCV transmission among people who inject drugs](#). In addition to the 204 community syringe exchange programs across the U.S, many states and municipalities have policies to allow people who inject drugs to purchase sterile syringes at community pharmacies, with or without a prescription. Primary care providers can refer patients to these sites or prescribe sterile syringes, as appropriate.

Medication-Assisted Treatment (MAT)

While behavioral therapies play a major role addressing substance use disorders, the use of medications are the mainstay of treatment for opioid use disorder. Medication-assisted treatment (MAT) combines medication with counseling, and is the most [effective approach](#). Three medications have proven safe and effective for treating opioid use disorders: methadone, buprenorphine, and naltrexone. Since 2002, primary care physicians have been able to prescribe buprenorphine, which minimizes the symptoms of withdrawal and cravings, for the treatment of opioid use disorders in office-based settings. More recently, other agents like extended-release naltrexone, which block opioid brain receptors have become available for use. A new option, [probuphine](#) (a 6-month buprenorphine implant), for treating opioid use disorders has very recently been approved by the Food and Drug Administration. The drug has been [shown](#) to be non-inferior to traditional buprenorphine for maintenance treatment; however, [more research](#) on its effects is needed.

While these options are available, uptake among PCPs has been slow. [Barriers](#) to incorporating MAT into routine practice include a lack of support staff, inadequate expertise, and time and reimbursement concerns. Furthermore, to prescribe buprenorphine, physicians must complete a training course (eight hours minimum) and obtain a waiver from SAMHSA. Waivered physicians are currently capped at 30 patients the first year and can apply to increase the limit to 100 patients after that. According to SAMHSA, nearly [10,500 physicians](#) are certified to prescribe at the higher level, while the remainder, about 22,000 are limited to 30 patients. New federal regulations will likely expand access to buprenorphine in two ways: first, they increase the limit to 275 patients for physicians who have prescribed buprenorphine to 100 patients for at least one year, and second, they allow

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physician assistants (PAs) and nurse practitioners (NPs) to prescribe buprenorphine. PAs and NPs will need to undergo 24 hours of training and education to become waived.

Collaboration with substance use disorder specialists

To address primary care providers' concerns about inadequate experience, several models of collaboration with specialists have been developed.

Vermont's [Care Alliance for Opioid Addiction](#) utilizes a "hub-and-spoke" model where eight regional specialty treatment centers (hubs) provide intensive counseling and stabilization for patients, and primary care providers (spokes) provide MAT and ongoing care in consultation with the hub specialists. "Spoke" staff (nurses and licensed counselors) are deployed to a network of primary care practices. Each patient has a medical home with a physician who prescribes MAT, a pharmacy home, and access to home and community-based services. Implemented in 2013 and 2014, the program employs 40 FTE staff deployed to more than 60 primary care practices. An early [evaluation](#) of the program found that more than 4,800 people received MAT in Vermont in 2015, a 40% increase since early 2013, and that nearly three-quarters of new patients remained in care at least 90 days.

In Baltimore, Johns Hopkins has created a [collaborative opioid prescribing \(CoOP\) model](#) that links 22 primary care practices with its addiction treatment program. Similar to Vermont's model, an opioid treatment program provides initial assessment, medication induction and stabilization, and ongoing counseling, while the PCPs provide ongoing MAT and care. An adaptive stepped-care model adjusts counseling and medication prescribing/dispensing based on indicators of treatment response, and medication dispensing can be shifted between the PCP and specialty program as needed. One [evaluation](#) of the CoOP model concluded it could be effective in increasing availability and efficacy of MAT maintenance for opioid use disorder.

Primary Care Integration Models

A handful of programs have sought to fully integrate substance use disorder treatments into a primary care setting. Results from evaluations of these treatment programs provide insight on opportunities to treat these patients effectively and the challenges PCPs face in doing so.

Massachusetts Collaborative Care Model of Office-Based Opioid Treatment (OBOT)
The Massachusetts Collaborative Care Model of Office-Based Opioid Treatment (OBOT) originated more than a decade ago in an academic medical center, and has since been expanded statewide into 14 community health centers (CHCs). It utilizes a multidisciplinary team, with a trained Nurse Care Manager acting as the initial contact for patients seeking access to buprenorphine treatment in a primary care setting. The model has three components: (1) nurse care manager and physician assessment for OBOT, (2) supervised nurse care manager buprenorphine induction and stabilization, and (3) maintenance – either buprenorphine monitoring or program discharge. An [evaluation](#) found that the Massachusetts

INTEGRATING HIV CARE AND BUPRENORPHINE TREATMENT REQUIRES ADDITIONAL RESOURCES AT THE CLINIC LEVEL, INCLUDING FUNDING FOR NONPHYSICIANS AND OTHER PROVIDERS WHOSE COSTS ARE USUALLY NOT REIMBURSED BY INSURERS.

Model substantially increased access to buprenorphine treatment in an academic center. In the [community health center expansion](#), LaBelle and colleagues (2016) found that the number of physicians with waivers to prescribe buprenorphine increased from 24 to 114 within three years. Annual admissions into treatment increased from 178 to 1,210 in five years, and by the final year of the study, two-thirds of patients remained in treatment for more than 12 months.

This model relies on trained nurse care managers, who provide timely and time consuming care management that primary care physicians are not often able to provide. As such, funding for the nurses is critical. The funding structure of the CHCs, as Federally Qualified Health Centers, allows for nurse visits to be billed at comparable rates as other providers.

Chronic Care Management for Substance Dependence

Substance use disorders are now recognized as chronic conditions, and the application of the Chronic Care Management (CCM) model in primary care to its treatment holds intuitive appeal. CCM is a patient-centered, coordinated approach that includes patient education and self-care, specialty expertise, evidence-based guidelines, nurse case management, and clinical information systems. CCM has been shown to improve outcomes in chronic illnesses such as diabetes, congestive heart failure, and depression. Despite its appeal, a [randomized clinical trial](#) of CCM in primary care patients with substance use disorders found no effect on abstinence outcomes from opioids, stimulants, or heavy drinking at 12 months. The findings indicate that even when system- and clinician-level barriers to high-quality care are addressed, obstacles to effective care remain high. These may include patient-level factors such as willingness to be treated, and comorbid mental and physical health conditions that complicate care.

Integrated HIV/Substance Use Disorder Treatment

Facilitated Access to Substance Abuse Treatment with Prevention and Treatment for HIV Program (FAST PATH)

To increase access to substance use disorder treatment for people at-risk and living with HIV, an urban medical center created the FAST PATH program, which offered coordinated and integrated primary care, counseling, pharmacotherapy, and referrals. The program had two multidisciplinary teams, one based in an HIV clinic and the other in a general internal medicine clinic. Both teams included physicians, nurse care managers, and addiction counselors. A [study](#) by Walley et al (2015) found that within six months, 60% of 215 patients had been treated with buprenorphine, and about half no longer met the criteria for a substance use disorder. The authors note that depression was associated with poorer outcomes, while treatment with buprenorphine was a major driver of continuing engagement with treatment.

Buprenorphine HIV Evaluation and Support (BHIVES) Demonstration Project

BHIVES was a ten-site demonstration project funded by the Health Resources and Services Administration from 2004-2009. It tested individual models of integrating addiction treatment into HIV primary care clinics. All programs included training for HIV clinicians, and a nurse, pharmacist, or drug counselor to provide counseling and follow-up. Evaluation of the model found that it was feasible to integrate buprenorphine treatment into HIV primary care, with similar retention and

substance use outcomes, as specialty referrals. [Schackman and colleagues](#) note that integrating HIV care and buprenorphine treatment requires additional resources at the clinic level, including funding for nonphysicians and other providers whose costs are usually not reimbursed by insurers.

Next steps

As health system leaders and policymakers grapple with the opioid use disorder epidemic, delivering effective treatment to affected individuals is a public health imperative and a clinical challenge. As health systems move toward organizational models that stress primary care-based coordination (such as patient-centered medical homes and accountable care organizations), primary care physicians, nurses, and other providers can, and should, play an important role in the treatment of substance use disorders like opioid use disorder. These patients, many of whom were prescribed opioids by a physician or dentist, are already seen in primary care settings and are willing to be treated there.

And yet, obstacles to primary care involvement remain. Many PCPs feel that they lack the training to identify these patients, feel unfamiliar with medication-assisted treatment, and have time and reimbursement concerns. Many patients are unwilling to be treated, and comorbid mental health conditions may complicate treatment. These considerations cannot be minimized.

- At minimum, PCPs should explore clinical suggestions of illicit drug use in their patients. Although a number of screening questionnaires exist, a recent [study](#) found that one question performed as well as longer screening instruments. That question is, “How many times in the past year have you used an illegal drug or used a prescription medication for nonmedical reasons?”
- Many patients identified by a positive response to this question and subsequent assessment will need referrals to specialty treatment. PCPs can locate nearby resources on the SAMHSA Web site (www.samhsa.gov/treatment/index.aspx), which includes a Substance Abuse Treatment Facility Locator, a Buprenorphine Physician & Treatment Program Locator, and an Opioid Treatment Program Directory.
- The regulatory barriers to prescribing buprenorphine are easing and should be accompanied by appropriate training for physicians, NPs, and PAs. The limit on the caseload for physicians who obtain a waiver to prescribe has been increased to 275, a move to expand treatment that will need to be balanced with efforts to maintain high quality of buprenorphine delivery. Little data exist on the optimal regulatory approach; the new regulations provide an opportunity to evaluate regulations’ impact on access to effective medication-assisted treatment.
- Models of primary care-specialist collaboration and integration show promise, but results have been mixed. Funding and scalability remain in question. In a very recent [development](#), Pennsylvania will use the hub-and-spoke model to fund 20 centers of excellence for opioid use disorder, expanding treatment to an estimated 4,500 people with medicaid. Economic evaluations of this model, and others, are needed to ascertain which models offer the greatest benefit at acceptable costs.

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About LDI: Since 1967, the Leonard Davis Institute of Health Economics (LDI) has been the leading university institute dedicated to data-driven, policy-focused research that improves our nation's health and health care. Originally founded to bridge the gap between scholars in business (Wharton) and medicine at the University of Pennsylvania, LDI now connects all of Penn's schools and the Children's Hospital of Philadelphia through its more than 200 Senior Fellows. For additional information on this Issue Brief or LDI, contact Janet Weiner (email: weinerja@mail.med.upenn.edu; 215-573-9374).
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About CHERISH: The Center for Health Economics of Treatment Interventions for Substance Use Disorders, HCV, and HIV (CHERISH) is a multi-institutional Center of Excellence, funded by the National Institute on Drug Abuse. The Center's mission is to develop and disseminate health economic research on healthcare utilization, health outcomes, and health-related behaviors that informs substance use disorder treatment policy and HCV and HIV care of substance users. The Center is a collaboration among Weill Cornell Medicine, Boston Medical Center, the University of Pennsylvania, and the University of Miami Miller School of Medicine. For additional information on this Issue Brief or CHERISH, contact Julia Mitchell (email: julia.mitchell@cherishresearch.org; 215-573-4599).
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