

## Treatment of Opioid Use Disorder in the U.S. Commercially Insured Population

Eric Barrette, Medtronic  
Leemore Dafny, Harvard and NBER  
Karen Shen, Harvard

The opioid epidemic has spurred various initiatives and regulations to curb opioid prescriptions, but comparatively little attention has been paid to the subject of how best to treat patients with opioid use disorder (OUD). Legislation to date has focused on how to expand coverage of OUD and to ensure that this coverage is on par with coverage of other medical conditions. Using claims data for one-quarter of the commercially-insured, nonelderly U.S. population from 2008-2016, we explore what happens to patients who have private group insurance coverage and are diagnosed with OUD. We begin by documenting key facts about the prevalence of OUD, the propensity for commercially-insured patients to receive treatment for this disorder, and the outcomes associated with various treatment types. We explore the causal effect of two specific treatment types (medication-assisted treatment – primarily using buprenorphine - and residential care) on adverse clinical events and costs of care. To identify the effect of MAT, we exploit cross-sectional and time-series variation in the share of county-level physicians eligible to prescribe buprenorphine. Controlling for state-year fixed effects, we find that the propensity to receive buprenorphine increases in the share of physicians eligible to prescribe it, and is associated with significant reductions in non-treatment spending that more than offset the cost of treatment. To identify the effect of residential care, we estimate a difference-in-differences specification comparing large and small-group patients before and after the Affordable Care Act, which extended substance abuse parity to small group plans beginning in 2014. We find suggestive evidence that residential treatment – while more costly – is also associated with reductions in medical costs that may offset the treatment costs even over a short period of time (6 months). For both of these policies, we also evaluate the effect on clinical outcomes (e.g. overdose incidence). Collectively, the results suggest both forms of treatment may be cost-saving, and the use of MAT may result in fewer adverse health events.