State-level Influences on Buprenorphine Utilization: Variations in Opioid Addiction Treatment

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1. Background

- Buprenorphine is a prescription medication used to treat opioid addiction.
- Opioids include heroin and/or prescription painkillers (OxyContin, Vicodin, Percocet, etc.)
- Abuse of prescription pain medication was the second-most common type of illicit drug use in the United States in 2008 (after marijuana)
- 400% increase over 10 years in the proportion of Americans treated for prescription painkiller abuse
- 9.8% of hospital admissions for substance abuse in 2008 Involved painkillers

- Buprenorphine is a partial opioid agonist, which in the US is generally combined with naloxone to reduce potential for abuse (trade name: Suboxone)
- Can be dispensed in office settings, unlike methadone — this can improve patients’ ability to hold a job and may prevent relapse
- Patient acceptance is higher — avoids stigma associated with methadone clinics/treatment

- Doctors must receive special Drug Enforcement Agency (DEA) certification to prescribe buprenorphine
- There are large differences by state in amount of buprenorphine prescribed

- Research question: what accounts for the variations in buprenorphine use at the state level?

2. Methods

- We developed a state-level database using data for buprenorphine prescribing and factors hypothesized to influence variations in prescribing
- Sources: DEA, Substance Abuse and Mental Health Services Administration (SAMHSA), National Conference of State Legislatures (NCSL), Columbia University Center on Addiction and Substance Abuse (CASA)
- All data were from 2005-2008

- Factors:
  - Demand: prevalence of past-year use of heroin and/or prescription analgesics
  - Supply: number of licensed prescribers per 10,000 users; number of opioid treatment programs (OTPs) per 109,000 users; Medicaid coverage of buprenorphine; state spending on substance abuse treatment
  - Linear regression models were constructed with the log of the cumulative grams of buprenorphine distributed in each state in 2008 per 10,000 users as the dependent variable

3. Results

- Prevalence of Past-Year Opioid Use, 2005-2008
- Grams of Buprenorphine per 1000 Opioid Users, 2008

4. Conclusions

- At the state level, the supply of physicians predicts the population-adjusted volume of buprenorphine prescribed
- State substance abuse treatment spending and Medicaid coverage of buprenorphine do not appear to affect the volume of buprenorphine prescribed
- States that encourage physician certification may improve access to effective opioid treatment
- This assumes that access is currently inadequate, based on existence of waiting lists in many areas
- Future studies should examine factors associated with physicians deciding to become DATA certified, including state policies that encourage certification