Mapping Medication-Assisted Treatment Shortage Areas: A Colorado Case Study

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INTRODUCTION

Nationally, only about 20-40% of people with an opioid use disorder (OUD) receive treatment.

Among options for MAT, buprenorphine is less likely to have interactions with other medications or lead to overdose than methadone; naltrexone is more likely to be discontinued by patients than buprenorphine or methadone. Buprenorphine and naltrexone can be prescribed in primary care. Previous studies that have focused on locations of waivered providers assume maximum prescribing rates; however, many waivered providers are not prescribing buprenorphine and most do not prescribe at their maximum capacity.

METHODS

- Treatment provision was defined as unique patients per county prescribed buprenorphine formulations approved for treatment of OUD (Prescription Drug Monitoring Program, 2018)
- Treatment need was defined as population with OUD in a county, calculated by multiplying county population ages 12 and older by an estimated county-level rate of OUD – County-level rates of OUD were estimated by developing a logistic regression model based on demographic variables associated with OUD from the National Survey on Drug Use and Health (NSDUH) – Demographic data was obtained from the American Community Survey (2013-2017) – County population data obtained from the Colorado State Demography Office
- Treatment gap numbers were calculated at half of typical prescribing rates as well as more providers obtaining a waiver

RESULTS

- Figure 1. Proportion of individuals with OUD receiving treatment with buprenorphine by county in Colorado, 2018.
- Figure 2. Median miles traveled by patients to obtain MAT by county in Colorado, 2018. Distances to provider locations are calculated based on the center of a patient zip code to the center of a provider zip code.

CONCLUSION

- Current availability of buprenorphine treatment for OUD is insufficient across Colorado, with significant variation across counties and regions; rural Eastern counties in particular have greater needs for prescribers
- Mapping provision of treatment and focusing on actively prescribing providers rather than locations of all waivered providers creates a more accurate geographic representation of areas of need
- Focusing on different variables (patients treated by county, distance traveled to obtain treatment) highlights different aspects of need; determination of appropriate resource allocation may need to consider multiple factors
- Closing the treatment gap will likely require a combination of current prescribers increasing prescribing rates as well as more providers obtaining a waiver

LIMITATIONS

- This analysis focuses on MAT with buprenorphine; county level prescribing rates for methadone or naltrexone are not available. Increasing treatment with methadone and naltrexone would decrease the estimates of needed prescribers to close the treatment gap.
- The treatment gap calculations assume a treatment target of 100% of individuals with OUD; however, some individuals may choose not to pursue pharmacologic treatment
- Smaller counties with lower estimates of populations with OUD are more subject to error

REFERENCES


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