Racial and Ethnic Disparities in Medication-Assisted Treatment: Evidence from Louisiana Medicaid During the COVID-19 Pandemic

KEY WORDS: substance use disorder; alcohol use disorder; MAT; disparities; Medicaid; COVID-19.

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INTRODUCTION

Drug overdose death rates rose from 2018 through May 2020 during the COVID-19 pandemic, with larger increases for Black and Hispanic Americans compared to their White counterparts. \(^1\) Racial and ethnic disparities in substance use disorder (SUD) treatment access and quality have been identified across age, sex, and care settings. Medicaid beneficiaries in rural areas and areas with higher concentrations of Black and Hispanic patients are less likely to have access to medication-assisted treatment (MAT). \(^2\) Black and Hispanic patients are also less likely to complete treatment for SUD compared to White patients. \(^3\) Black patients are half as likely to obtain follow-up appointments for non-fatal overdoses \(^4\) and racial residential segregation predicts differences in access to methadone and buprenorphine. \(^5\) However, it is unknown how the pandemic impacted existing disparities in treatment. Louisiana Medicaid covers a third of the state’s population, has expanded coverage through the Affordable Care Act, and has a relatively high proportion of Black and Hispanic beneficiaries—making it an ideal state for examining access to care disparities.

METHODS

We used Louisiana Medicaid claims data for MAT between January 2018 and December 2020 among beneficiaries aged 13 to 64 with a diagnosis of SUD. Health Evaluation and Data Information Set measures were used to identify SUD patients and MAT care. We plotted changes in monthly MAT per 1000 Medicaid beneficiaries with an SUD by race and ethnicity (i.e., Black non-Hispanic, White non-Hispanic, and Hispanic) and geography (i.e., rural vs. urban as defined by the National Center for Health Statistics). We then assessed changes in MAT rates using interrupted time series (ITS) models that included estimates for a linear monthly pre-COVID-19 trend, discontinuous changes in rates at the April and July 2020 peaks in COVID-19 infections in Louisiana, and changes in monthly trends associated with these peaks. Our study followed the STROBE reporting guidelines and was classified as exempt research by the Tulane Institutional Review Board.

RESULTS

MAT rates were higher for White beneficiaries compared to Black or Hispanic beneficiaries in the pre-COVID period (Fig. 1). Using ITS regression models, we found large racial disparities in MAT rates before the pandemic and differences by geography (Table 1). White rural (478.4, 95% CI: 464.02, 492.81) and urban (469.6, 95% CI: 454.5, 484.5) beneficiaries received MAT at nearly four times the rate of Black rural (100.05, 95% CI: 90.6, 110.4) and urban (134.9, 95% CI: 120.5, 149.3) beneficiaries between Jan 2018 and March 2020. Hispanic rural and urban beneficiaries had lower but more comparable rates of MAT compared to White beneficiaries. Disparities narrowed during the COVID-19 period, with MAT rates increasing twofold among Black beneficiaries (88.4% increase in rural and 106.4% increase in urban areas), by half among Hispanic beneficiaries (45.15% increase in rural and 47.81% increase in urban areas), and by a third among White beneficiaries (34% increase in rural and 31.4% increase in urban areas).

DISCUSSION

Our study is the first to assess racial and ethnic disparities in Medicaid MAT rates during the pandemic. A recent paper examining treatment for opioid use disorder among Medicaid beneficiaries across 11 states (2014–2018) found that Black beneficiaries had significantly lower treatment rates compared to White beneficiaries (adjusted relative ratio of 0.72). \(^6\) We found large disparities in MAT rates, especially between Black and White Louisiana Medicaid beneficiaries, before and during the COVID-19 pandemic.

Notably, disparities narrowed compared to the pre-pandemic period. During the pandemic, the Louisiana Medicaid program—like many other Medicaid programs across the
country—lifted restrictions on in-person-only MAT and eliminated the requirement for prior authorization for telermicine delivery of MAT. Additionally, in 2019, the Louisiana State Legislature approved a bill ensuring methadone would be covered by Louisiana’s Medicaid program. Maintaining COVID-19 emergency policies that expanded access to care may reduce racial and ethnic disparities in the long term. While our analysis is limited to a single state and does not capture differences in treatment needs or preferences, it demonstrates significant differences in prescribing medications needed to reduce overdose deaths and promote recovery. Future research should explore the predictors of racial and ethnic disparities in MAT and the impact of new policies on access to care.

Table 1 ITS Estimates of Changes in Medication Assisted Treatment Before and During the COVID-19 Pandemic

|                | (1) Baseline average (1/2018–2/2020) | (2) Apr. 2020 to Jun. 2020 trend | (3) Jul. 2020 to Dec. 2020 trend | (4) Dec. 2020% change from baseline |
|----------------|-------------------------------------|----------------------------------|----------------------------------|-----------------------------------|
| **Black enrollees** |                                     |                                  |                                  |                                   |
| Urban (n=157,933) | 134.9 [120.5, 149.3]                | −12.5 [−16.9, −8.2]             | 12.82 [9.67, 15.9]              | 106.4                             |
| Rural (n=46,076)  | 100.5 [90.6, 110.4]                 | −3.9 [−5.3, −2.2]              | 8.5 [5.7, 11.3]                 | 88.4                              |
| **Hispanic enrollees** |                                   |                                  |                                  |                                   |
| Urban (n=28,845)  | 359.9 [243.5, 376.3]                | −22.5 [−25.3, −19.8]           | 19.7 [10.9, 28.6]               | 47.81                             |
| Rural (n=12,071)  | 379.53 [265.81, 393.24]             | 25.60 [19.0, 32.2]             | 27.21 [12.92, 41.5]             | 45.18                             |
| **White enrollees** |                                   |                                  |                                  |                                   |
| Urban (n=340,136) | 469.6 [454.45, 484.5]               | −18.1 [−23.0, −13.1]           | 16.48 [9.32, 23.64]             | 31.5                              |
| Rural (n=150,348) | 478.4 [464.02, 492.81]              | −11.5 [−15.3, −7.6]            | 20.27 [12.9, 27.6]              | 34.0                              |

The tables include Louisiana Medicaid Enrollees with a diagnosis of substance abuse disorder. Sample sizes represent the average number of beneficiaries with an SUD diagnosis between 2018 and 2020. Regression estimates are from an interrupted time series specification that includes a monthly time trend, an indicator for April 2020, an indicator for July 2020, and interactions between the trend term and April and July 2020 indicators. Estimates on the indicators are omitted for brevity but are available upon request. Column (1) reports mean monthly use rates per 1,000 beneficiaries from January 2018 through February 2020. Column (2) reports the sum of the monthly time trend and the coefficient estimate of the interaction between the trend term and the April 2020 indicator. Column (3) reports the sum of the monthly time trend and the coefficient estimate of the interaction between the trend term and the July 2020 indicator. Column (4) reports the percentage change between the baseline mean and a linear estimate of the December 2020 service use rate. Data for each regression model are comprised of 36-month-year level observations. Cumby-Huizinga tests for autocorrelation led to the inclusion of a maximum lag of order 2.
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