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# Trends In The Use Of Treatment For Substance Use Disorders, 2010–19

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## Abstract

Rapidly rising drug overdose rates in the United States over the course of the last decade underscore the need to increase access to treatment among people with substance use disorders (SUDs). We analyzed trends in the use of treatment services among people with SUDs from 2010 to 2019, using the National Survey on Drug Use and Health. Compared with 2013, outpatient visits for general health in the prior year increased 3.6 percentage points by the 2017–19 period. Use of any SUD treatment in the prior year remained unchanged, but treatment use among people involved in the criminal legal system increased by about 6.2 percentage points by the end of the study period. Among those receiving SUD treatment, there was a 14.9-percentage-point increase in having treatment paid for by Medicaid between 2010–13 and 2017–19. Although access to general medical care and insurance coverage have improved for people with SUD, our study findings underscore the importance of renewed efforts to increase the use of SUD treatment.

More than 800,000 Americans died of drug overdose between 1999 and 2020,[1] and millions more have been affected by other adverse health and social consequences of substance use disorders (SUDs), including injury, infectious diseases, and incarceration.[2] The rise in overdose deaths has been especially precipitous during the last decade, climbing from 37,000 deaths in 2010 to more than 100,000 in 2020. Most overdose deaths involve an opioid. Commonly prescribed opioids led the first wave of overdose deaths, which peaked around 2011 and was followed by heroin-involved deaths, which started in 2010 and peaked around 2016. Most recently, starting in 2013, synthetic opioids (especially fentanyl) have led all overdose deaths, increasingly in combination with cocaine and methamphetamines.[3]

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Policies enacted during the last decade have sought to address factors that may prevent people from seeking SUD treatment, such as the low availability of treatment providers and a lack of insurance coverage to pay for treatment.[4] Although prior studies have found that only a small minority of people meeting screening criteria for an SUD received treatment in the prior year,[5] it is unclear whether the trend in treatment utilization has improved in recent years. Against the backdrop of the worsening overdose crisis, the last decade has also been a critical period for policies focused on increasing access to treatment, and these policies could potentially shift whether and how people receive treatment for an SUD.

For example, provisions of the Paul Wellstone and Pete Domenici Mental Health Parity and Addiction Equity Act of 2008 (MHPAEA) became effective in 2010. The act requires most insurance plans covering mental health and addiction care to do so in a manner equivalent to other medical care.[6] Also in 2010, the Affordable Care Act (ACA) implemented new consumer protections preventing insurance plans from discriminating against people on the basis of their health conditions and allowing young adults to remain on their parents' coverage through a dependent child mandate.[7]

Insurance market reforms were substantially augmented starting in 2014, when the ACA began providing funds for states to expand Medicaid to adults whose income was below 138 percent of the federal poverty line. ACA Medicaid expansion was initially adopted in twenty-six states (including Washington, D.C.), increasing to thirty-nine states by early 2022.[8] Also in 2014, the ACA created new insurance options for people above the poverty line to purchase subsidized coverage through the exchanges. During this period, the uninsured rate among people with SUD began to decrease.[9] Prior studies have found that ACA Medicaid expansion substantially increased insurance coverage of people with SUD,[10,11] and at least one study found that it led more people in expansion states to receive treatment.[12]

Recent years have provided mixed policy developments. For example, starting in 2017 with the Opioid State Targeted Response grants, Congress made substantial appropriations toward the overdose crisis.[13] These appropriations included new investments in treatment, including more programs for people in the criminal legal system, workforce development to expand buprenorphine prescribing, and initiatives to provide treatment in settings such as community health centers and hospitals. Furthermore, new regulations to increase office-based buprenorphine prescribing for opioid use disorder were also enacted during this period, including an increase in the waiver limit to 275 patients and greater scope of practice for advanced practice practitioners.[14] In contrast, the national uninsured rate began to rise starting in 2017,[15] and this trend may also have affected people with SUD.

To better understand recent trends in the use of SUD treatment, we examine the National Survey on Drug Use and Health from 2010 to 2019. We divide the data into three periods (2010–13, 2014–16, and 2017–19) that roughly correspond to the policy eras described above and correspond with the evolving overdose epidemic. We consider settings where treatment was received and primary sources of payment. We relate these trends to changes in insurance coverage and use of general medical care for people with SUD. General medical care represents a setting in which SUD can be diagnosed, and often treated, and

comorbid conditions can be managed. We also consider differences among subgroups that have historically experienced poor access or quality of treatment,[2] such as people involved in the criminal legal system, people below the poverty line, racial and ethnic minority groups, and people with drug (versus alcohol) use disorders.

## Study Data And Methods

### Data

The National Survey on Drug Use and Health is a cross-sectional survey of approximately 70,000 noninstitutionalized adolescents and adults per year. It uses screening questions for SUD based on the *Diagnostic and Statistical Manual of Mental Disorders*, Fourth Edition, to estimate past-year dependence or abuse of multiple substances including alcohol, cannabis, cocaine, heroin, inhalants, methamphetamines, and prescription medications (for example, opioids, benzodiazepines, stimulants, and tranquilizers). In 2015 the National Survey on Drug Use and Health underwent a redesign that changed the measurement of some forms of substance use. We describe these changes in the online appendix, demonstrating that the redesign did not result in a noticeable break in the underlying trend.[16]

We restricted our sample to adults with a positive screen for any SUD in each year. We calculated percentages using any treatment for SUD in the prior twelve months. Among those receiving treatment, we further examined the settings of care in which they received treatment (self-help groups, outpatient SUD programs, inpatient hospital or emergency department SUD programs, mental health centers, doctors' offices, and jail or prison) and the sources of payment used for their most recent care (private insurance, public assistance [such as programs paid for by the state], Medicaid, Medicare, court, employer or military, or self-payment). People were able to report multiple settings and multiple sources of payment. We also examined general health care—visits for any reason to a doctor's office or clinic. This question was added to the National Survey on Drug Use and Health in 2013, and our analysis on this question was thus based on 2013–19 National Survey on Drug Use and Health data.

### Analysis

We provided changes overall and selected estimates for subgroups that either experience worse access to care or may be more disconnected from health care: members of racial or ethnic minority populations, people with incomes below 100 percent of the federal poverty level, people with recent contact with the criminal legal system (those either arrested in the past year or currently on probation or parole), and people with drug use disorders (as compared with alcohol). To account for secular changes in the characteristics of the population with SUD, we present regression-adjusted means (that is, predicted margins) that account for age, sex, educational attainment, general health status, employment status, and types of substances used in the prior year. We also adjusted for race and ethnicity and income in analyses that do not stratify by these characteristics. We applied survey weights to the data to account for the survey sampling design and nonresponse. We calculated *t*-tests for differences between 2010–13 and 2014–16 (or 2017–19).

### Limitations

The study has some limitations. Although the National Survey on Drug Use and Health is the largest nationally representative survey on SUD among noninstitutionalized people and achieves high response rates (64.9–74.4 percent during the study period), it does not capture key groups including currently incarcerated and unsheltered people experiencing homelessness. The exclusion of these groups may undercount important trends—opioid use disorder treatment has been increasing rapidly in correctional facilities, and people experiencing homelessness are an increasing segment of all admissions to treatment programs.[17,18] Self-reported measures of substance use behaviors and SUD treatment are subject to recall and social desirability bias, although the National Survey on Drug Use and Health attempts to overcome these biases using audio computer-assisted technology. For most years of the study, the National Survey on Drug Use and Health did not collect information on use of medications to treat SUDs, and in 2019 there was insufficient sample to conduct a detailed analysis. More generally, the National Survey on Drug Use and Health does not attempt to measure the quality or comprehensiveness of treatments received. The public use file did not include state identifiers, and we therefore could not specifically examine differences between Medicaid expansion and nonexpansion states.

## Study Results

Insurance coverage and access to general medical care increased for people with SUD during the study period. Across the study period the uninsured rate decreased by almost 10 percentage points and the Medicaid coverage rate increased by about 9 percentage points. Other forms of coverage did not change as substantially (results shown in appendix exhibit 2).[16]

The percentage of people with SUD who had a general health visit to a doctor’s office or clinic increased from 71.9 percent in 2013 to 75.5 percent in 2014–16, staying at 75.5 percent in 2017–19 (only the change of 3.6 percentage points from 2013 to 2017–19 was significant) (exhibit 1). The change was particularly marked among people with prior-year involvement in the criminal legal system, increasing from 63.4 percent in 2013 to 68.9 percent in 2017–19, for a 5.5-percentage-point increase.

Use of any SUD treatment did not change significantly during the study period, staying around one-tenth of all adults with SUD across all periods: 9.4 percent in 2010–13, 10.4 percent in 2014–16, and 10.2 percent in 2017–19 (exhibit 2). Likewise, there were no significant changes in use of treatment over time within important subgroups, including people with alcohol use disorder, those with drug use disorder, race and ethnicity subgroups, and those with income at or above, versus below, poverty. However, use of treatment among people with criminal legal involvement significantly increased from 27.6 percent in 2010–13 to 33.7 percent in 2017–19, for a 6.2-percentage-point increase.

Among those using treatment, there were relatively few significant changes in settings of care (exhibit 3). Across all years the most commonly used setting was self-help groups, followed by outpatient SUD programs. Use of self-help treatment very modestly, but significantly, decreased from 54.3 percent in 2010–13 to 53.6 percent in 2014–16, for a

0.7-percentage-point decrease. There was also a significant 1.4-percentage-point decrease in the use of treatment in jails or prisons, going from 11.3 percent in 2010–13 to 9.8 percent in 2017–19.

We identified significant shifts in sources of payment for most recent care (people could select multiple sources, some of which might not be their health insurance) (exhibit 4). In 2010–13, 32.9 percent of all people in treatment used private insurance as one of their sources of payment, but this increased to 41.1 percent in 2014–16 and 43.9 percent in 2017–19 (only the 8.2-percentage-point increase in 2014–16 was significant). Payment by Medicaid was 17.1 percent in 2010–13 and 26.5 percent in 2014–16 (difference not significant), but increased significantly to 32.1 percent in 2017–19, for a 14.9-percentage-point difference from 2010–13. There was a 9.6-percentage-point increase in Medicare payment, going from 16.8 percent in 2010–13 to 26.4 percent in 2017–19. Between 2010–13 and 2014–16, use of self-payment decreased 5.2 percentage points, going from 56.0 percent to 50.8 percent, but the 2017–19 rate of 53.8 percent was not significantly different for the rate in 2010–13. There were also small, but statistically significant, decreases in payment from courts between 2010–13 and 2014–16.

## Discussion

The period from 2010 to 2019 encompassed major changes in federal and state policy related to SUD treatment. Our study suggests that although insurance expansions contributed to increased general medical care utilization among people with SUD, no major change in SUD treatment use occurred. The persistently low utilization of SUD treatment, despite major policy initiatives, is a critical challenge. Increasing health insurance coverage may be insufficient, on its own, to boost SUD treatment utilization. Although there is some evidence that the ACA Medicaid expansion gradually increased use of SUD treatment,[12] other studies have not found any significant changes from ACA provisions.[10,19,20]

We largely did not detect changes when considering specific subgroups, including people below the poverty level and people who are Black and Latinx. One exception was a significant increase in SUD treatment for people with prior-year involvement in the criminal legal system. Income eligibility for Medicaid expansion has been high in this group, creating a potential opportunity for more community treatment.[21] Our findings show an evolving effect of insurance expansions on the previously noted gaps in coverage and access to care for people with criminal legal involvement.[22] We noted a reduction in jail or prison care as one of the settings of treatment, and it is likely that the insurance coverage expansions could have helped shift the locus of care to more medical settings for people involved with the criminal legal system.[23] Further, during the study period, rates of incarceration were decreasing and efforts to expand Medicaid enrollment to people leaving jails and prisons were underway in many states as more states suspended (rather than terminated) Medicaid during incarceration.[24]

Our study finds large, but imprecisely estimated, increases in Medicaid and private insurance as sources of payment for SUD treatment. For example, there was a shift toward more use of private insurance as a source of payment, which may show that people with insurance were

better able to use their coverage to pay for treatment. The ACA required most insurance plans and Medicaid programs to cover SUD services among the ten essential health benefits, and also extended provisions of the Paul Wellstone and Pete Domenici Mental Health Parity and Addiction Equity Act to additional types of plans. As a result, patients may have been better able to use their coverage to pay for treatment, rather than paying out of pocket or relying on the safety net. Other research shows that payment for SUD treatment in Medicaid expansion states was primarily shifted from state and local government funding to Medicaid programs.[12]

## Conclusion

Study findings demonstrate progress achieved during the last decade in expanding the role of health insurance in the coverage and financing of SUD treatment, but also point to major remaining challenges. Foremost, the use of treatment among people with SUD has remained largely unchanged, with the exception of improved utilization among people involved with the criminal legal system. Expanding the reach of SUD treatment will require both efforts across all sectors and that patients have insurance coverage for the full continuum of SUD care. Also important is that general medical care provides great potential to screen patients for SUD and begin treatment, especially as more patients with SUD are visiting doctor's offices and clinics and are specifically receiving medications for opioid use disorder in these settings.[25] With overdose rates climbing to historic highs during the COVID-19 pandemic, identifying patients with SUD and starting care in the least restrictive manner is a public health imperative.

## Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

## Acknowledgment

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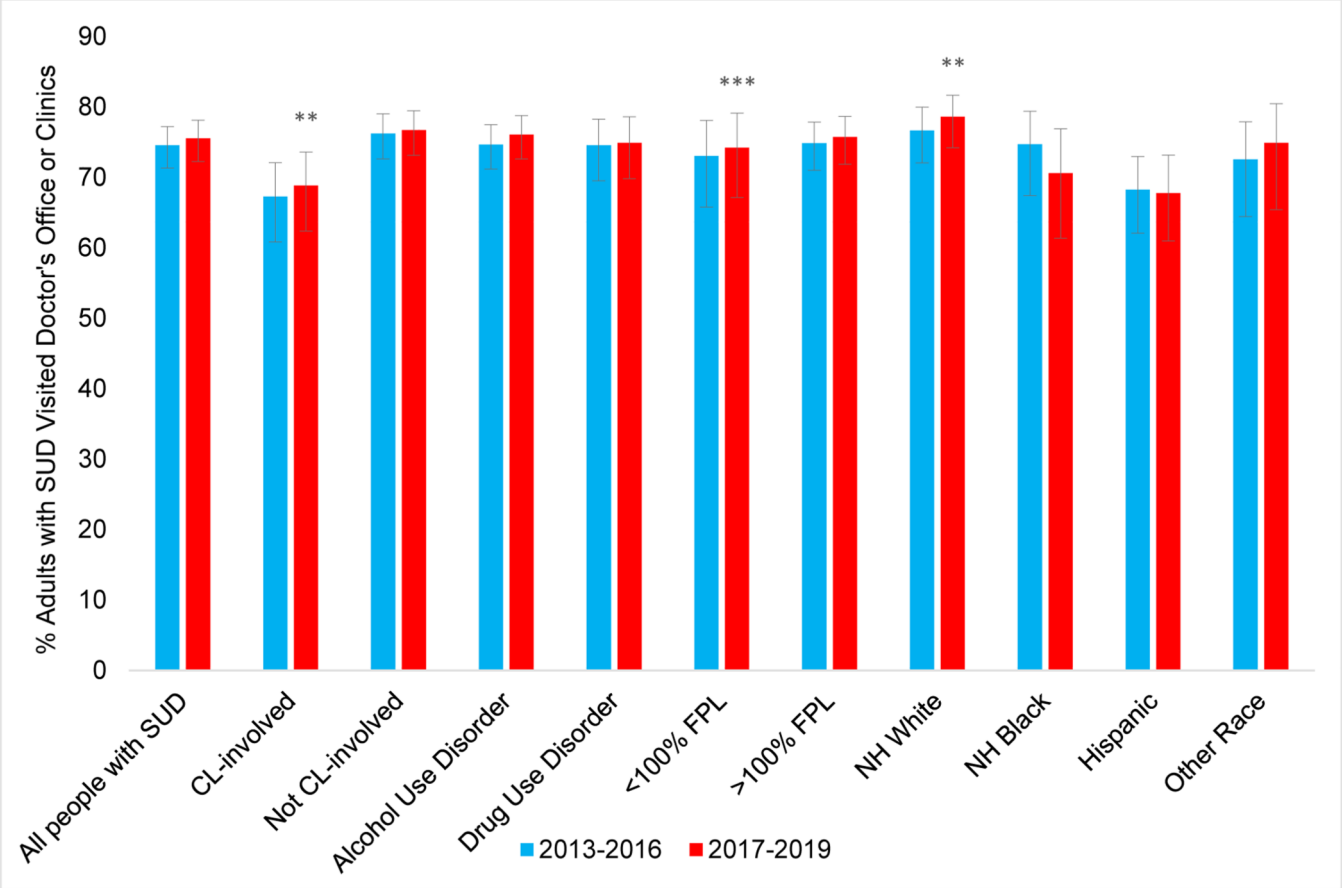


**Exhibit 1.**

Visits to a doctor's office or clinic for any reason among people with substance use disorder (SUD) in the prior year, 2013–19

**Source/Notes:** SOURCE Authors' analysis of data from the 2013–19 National Survey on Drug Use and Health. NOTES Predicted margins are displayed that adjust for sex, age, education, employment status, general health status, and type of drug use. Estimates are weighted to be nationally representative. The sample is restricted to adults meeting screening criteria for a substance use disorder. "2013" is the reference group (measure was not collected in 2010–12). CL is criminal legal system. FPL is federal poverty level. NH is non-Hispanic. $^{**}p < 0.05$ $^{***}p < 0.01$

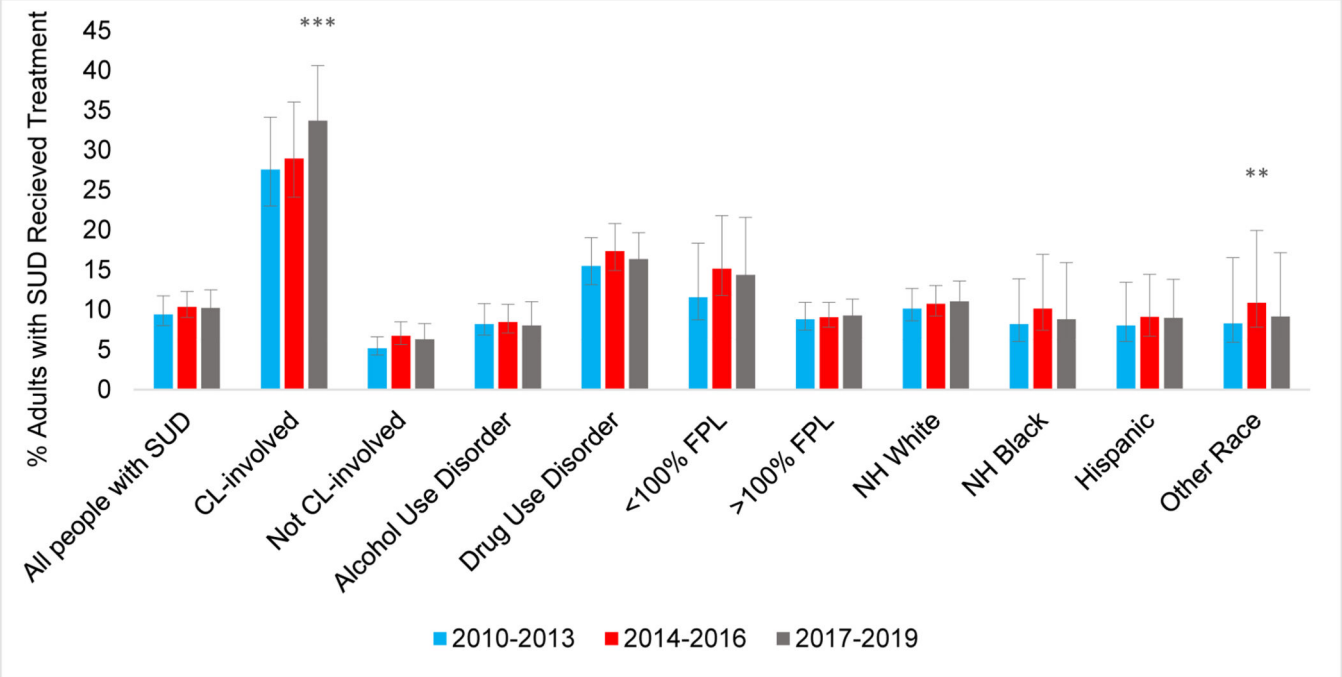


**Exhibit 2.**

Use of any substance use disorder (SUD) treatment in the prior year, 2010–19

**Source/Notes:** SOURCE Authors' analysis of data from the 2010–19 National Survey on Drug Use and Health. NOTES Predicted margins are displayed that adjust for sex, age, education, employment status, general health status, and type of drug use. Estimates are weighted to be nationally representative. The sample is restricted to adults meeting screening criteria for a substance use disorder. "2010–13" is the reference group. CL is criminal legal system. FPL is federal poverty level. NH is non-Hispanic. $^{**}p < 0.05$ $^{***}p < 0.01$

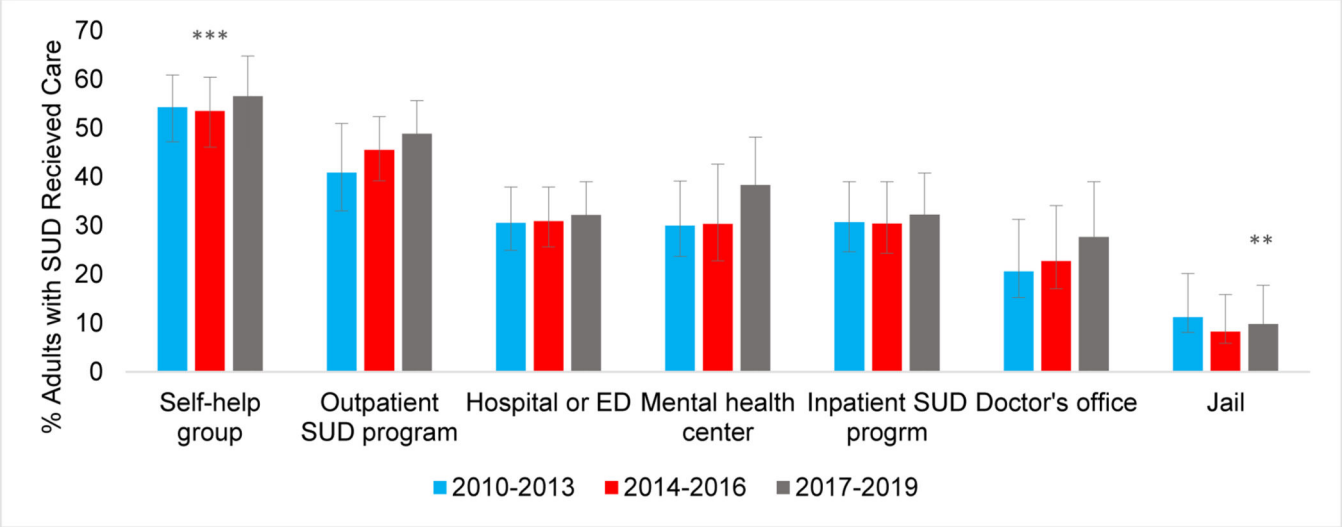


**Exhibit 3.**

Setting for substance use disorder (SUD) treatment received in the prior year, 2010–19

**Source/Notes:** SOURCE Authors' analysis of data from the 2010–19 National Survey on Drug Use and Health. NOTES Predicted margins are displayed that adjust for sex, race and ethnicity, age, education, employment status, general health status, income, and type of drug use. Estimates are weighted to be nationally representative. The sample is restricted to adults meeting screening criteria for a substance use disorder. "2010–13" is the reference group. People could report receiving treatment in more than one setting. ED is emergency department. $^{**}p < 0.05$ $^{***}p < 0.01$

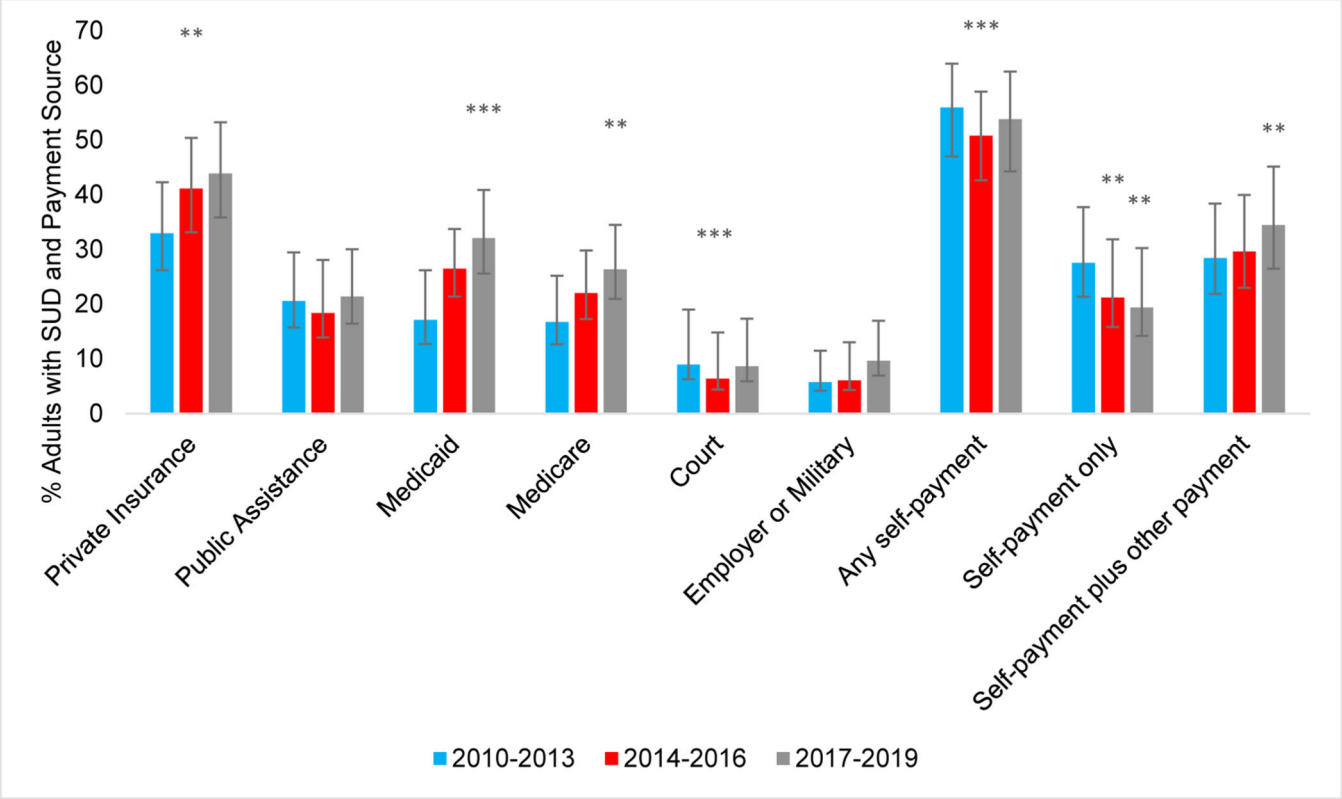


**Exhibit 4.**

Source of payment for substance use disorder (SUD) treatment received in the prior year, 2010–19

**Source/Notes:** SOURCE Authors' analysis of data from the 2010–19 National Survey on Drug Use and Health. NOTES Predicted margins are displayed that adjust for sex, race and ethnicity, age, education, employment status, general health status, income, and type of drug use. Estimates are weighted to be nationally representative. The sample is restricted to adults meeting screening criteria for a substance use disorder. "2010–13" is the reference group. Sources of payment reflect any payers that were provided for the most recent treatment episode (multiple sources could be listed). $^{**}p < 0.05$ $^{***}p < 0.01$