State Parity Laws and Access to Treatment for Substance Use Disorder in the United States
Implications for Federal Parity Legislation

Hefei Wen, BA; Janet R. Cummings, PhD; Jason M. Hockenberry, PhD; Laura M. Gaydos, PhD; Benjamin G. Druss, MD, MPH

IMPORTANCE The passage of the 2008 Mental Health Parity and Addiction Equity Act and the 2010 Affordable Care Act incorporated parity for substance use disorder (SUD) treatment into federal legislation. However, prior research provides us with scant evidence as to whether federal parity legislation will hold the potential for improving access to SUD treatment.

OBJECTIVE To examine the effect of state-level SUD parity laws on state-aggregate SUD treatment rates and to shed light on the impact of the recent federal SUD parity legislation.

DESIGN, SETTING, AND PARTICIPANTS We conducted a quasi-experimental study using a 2-way (state and year) fixed-effect method. We included all known specialty SUD treatment facilities in the United States and examined treatment rates from October 1, 2000, through March 31, 2008. Our main source of data was the National Survey of Substance Abuse Treatment Services, which provides facility-level information on specialty SUD treatment.

INTERVENTIONS State-level SUD parity laws during the study period.

MAIN OUTCOMES AND MEASURES State-aggregate SUD treatment rates in (1) all specialty SUD treatment facilities and (2) specialty SUD treatment facilities accepting private insurance.

RESULTS The implementation of any SUD parity law increased the treatment rate by 9% (P < .001) in all specialty SUD treatment facilities and by 15% (P = .02) in facilities accepting private insurance. Full parity and parity only if SUD coverage is offered increased the SUD treatment rate by 13% (P = .02) and 8% (P = .04), respectively, in all facilities and by 21% (P = .03) and 10% (P = .04), respectively, in facilities accepting private insurance.

CONCLUSIONS AND RELEVANCE We found a positive effect of the implementation of state SUD parity legislation on access to specialty SUD treatment. Furthermore, the positive association is more pronounced in states with more comprehensive parity laws. Our findings suggest that federal parity legislation holds the potential to improve access to SUD treatment.
An estimated 23 million Americans had a substance use disorder (SUD) in 2010, including abuse of or dependence on alcohol and/or illicit drugs. A growing body of literature has demonstrated the efficacy and cost-effectiveness of treatment for SUD. Specialty SUD treatment services such as outpatient psychosocial therapy and opioid maintenance therapy have proved to be effective in improving health, reducing crime, increasing employment, and producing a wide range of social benefits. Nonetheless, only 17% of those individuals who needed SUD treatment received any treatment for their condition, and only 11% received treatment in a specialty setting.

Financial barriers in general and limited insurance coverage for SUD in particular pose a major barrier to access to specialty SUD treatment among those individuals perceiving a need for treatment. Ever since the inception of third-party payment for SUD treatment, coverage for SUD treatment has been more restrictive than that for medical/surgical treatment in terms of cost sharing and treatment limitations. To address these discriminatory restrictions, more than one-half of the states in the United States have enacted SUD parity laws during the past 2 decades requiring employment-related group health plans to provide coverage for SUD treatment equal to that for comparable medical/surgical treatment.

More recently, the passage of the 2008 Mental Health Parity and Addiction Equity Act (MHPAEA) incorporated SUD parity into federal legislation for the first time. However, the MHPAEA mandates parity only for employment-related and self-funded group health plans and only for existing SUD coverage offered by those plans (ie, parity-if-offered). Subsequently, provisions of the 2010 Affordable Care Act (ACA) extended SUD parity to Medicaid-managed care plans, Medicaid benchmark and benchmark-equivalent plans, and state health insurance exchange plans. Furthermore, the ACA requires that coverage for SUD treatment, as an essential health benefit, must be offered and must be offered on par with that for comparable medical/surgical treatment (ie, full parity).

Nonetheless, prior research provides us with scant evidence about the likely effect of federal parity legislation on access to SUD treatment. Two studies examined SUD parity laws in the private insurance market of a particular state (ie, Vermont and Oregon) and a third study evaluated SUD parity implementation in the Federal Employees Health Benefits program; none of these studies found a significant improvement in access to SUD treatment attributable to the implementation of SUD parity. However, findings from these studies may have limited generalizability to the anticipated effect of the recent federal SUD parity legislation. First, the study examining Vermont’s 1998 parity law did not include a comparison group to control for the downward secular trend in access to SUD treatment nationwide. In addition, the study examining Oregon’s 2007 parity law captured only a policy change from partial parity (implemented in 2000) to full parity, which might be confounded by Oregon’s simultaneous reform of methamphetamine regulation effective in July 2006 that dramatically curbed the underlying prevalence rate. Finally, the study evaluating parity of the Federal Employees Health Benefits focused on a study population with a unique risk profile (eg, less likely to use and abuse or to depend on substance) and financial capacity (eg, less likely to have financial barriers to treatment) that may limit the generalizability of the results to broader populations with private insurance.

The present study advances the existing literature by analyzing all state-level SUD parity laws in the private insurance market implemented from October 1, 2000, through March 31, 2008, and applying a rigorous quasi-experimental design to the variations among those state parity laws in the timing of the implementation and the comprehensiveness of the mandate. We hypothesized that (1) the implementation of SUD parity legislation increased the SUD treatment rate at the state level; (2) the increase in the treatment rate was more pronounced in states with more comprehensive SUD parity laws; and (3) the increase in the SUD treatment rate associated with the implementation of SUD parity laws was concentrated in facilities accepting private insurance.

Methods

Data Sources
The main source of our data is the National Survey of Substance Abuse Treatment Services (N-SSATS), which provides facility-level information on specialty SUD treatment from 2000 through 2008. (In 2002, the reference date for the annual survey was changed from September to March to enhance the response rate, leaving a gap period from September 2000 to March 2001 with no data collected.) The N-SSATS facility data cover all known specialty SUD treatment facilities, allowing for a nearly complete enumeration of specialty SUD treatment services in the United States. A specialty SUD treatment facility, according to N-SSATS, is defined as a hospital, a residential SUD facility, an outpatient SUD treatment facility, a mental health facility with an SUD treatment program, or other facility with an SUD treatment program providing the following treatment services: (1) outpatient, inpatient, or residential/rehabilitation SUD treatment; (2) detoxification treatment; (3) opioid treatment programs such as maintenance therapy with methadone and levo-α-acetylmethadol; and (4) halfway-house services that include SUD treatment. Throughout the study period, response rates ranged from 92% to 95%. We merged the N-SSATS data with select state-level measures from nationally representative data sets to provide supplementary information on important state socioeconomic characteristics and policy environment (discussed below). The Emory University Institutional Review Board determined that this study did not require institutional review board oversight because all data were collected from publically available sources and de-identified, and the authors did not have access to any protected health information.

Analytic Sample
We combined the N-SSATS data sets from 2000 to 2008 and converted the facility-level data to the state level to create an analytic panel of 392 state-year observations across the 49...
states and 8 years. Virginia was excluded from the analysis because it was the only state that moved away from parity when full parity was repealed and regressed to partial parity in 2004.

Measurement of Variables

Dependent Variable

All surveyed facilities were requested to report the total SUD treatment counts in the most recent 12 months before the survey. The N-SSAATS method specified that the treatment count should only include the initial entry of a client into treatment; subsequent visits to the same service or transfer to a different service within a single continuous course of treatment were excluded. The missing-item rate for treatment count was approximately 7% during the study period.

The treatment counts in all specialty facilities were aggregated to each state s in each year t to determine the state-aggregate annual number of SUD treatment entries. We also aggregated the treatment counts only for facilities that accept private insurance. Both measures of the state-aggregate annual treatment entries were then weighted by the state population size to generate the 2 dependent variables assessing the following: (1) the treatment rate among all facilities (treatment rate, s) as the number of SUD treatment entries into all specialty SUD treatment facilities per 100 state residents in each state s for each year t; and (2) the treatment rate for facilities accepting private insurance (treatment rate-PI, s) as the number of SUD treatment entries into specialty SUD treatment facilities that accept private insurance per 100 state residents in each state s for each year t.

Primary Independent Variables

In a broad sense, SUD parity refers to a policy mandating insurance coverage for SUD treatment to be “no more restrictive” than coverage for comparable medical/surgical treatment, with respect to cost sharing (eg, deductibles, copayments, coinsurance, and out-of-pocket expenses), treatment limitations (eg, annual or lifetime limits on number of visits or hospital days), or both.29,30 The first independent variable of interest is a dichotomous indicator for the implementation of any parity law in a given state s during a given year t (parity, s). The implementation indicator was assigned a value of 1 for each full year subsequent to the time when a state first implemented its SUD parity law and a value of 0 for the preimplementation periods and for states without any SUD parity law.

We also created a categorical measure to distinguish among the following different levels of comprehensiveness in the implementation of parity:

1. Full parity requires SUD coverage to be offered and offered on par with the comparable medical/surgical coverage in all aspects of cost sharing and treatment limitations;
2. Partial parity, though requiring that SUD coverage be offered, allows for discrepancies between SUD coverage and comparable medical/surgical coverage in some aspects of cost sharing and treatment limitation;
3. Parity-if-offered does not require SUD coverage to be offered, but if offered, it should be on par with the comparable medical/surgical coverage in all aspects of cost sharing and treatment limitations.

<table>
<thead>
<tr>
<th>Parity Status*</th>
<th>State (Effective Year of Parity)</th>
</tr>
</thead>
<tbody>
<tr>
<td>None to partial parity</td>
<td>Delaware (2001), West Virginia (2004)</td>
</tr>
<tr>
<td>None to full parity</td>
<td>Rhode Island (2002), Maine (2003), Oregon (2007)</td>
</tr>
<tr>
<td>Partial to full parity</td>
<td>Arkansas, Louisiana, Minnesota, Missouri, Tennessee</td>
</tr>
<tr>
<td>States with parity laws existing before 2000 with no further changes (no change)</td>
<td>Arkansas, Hawaii, Kansas, Nevada, North Dakota, Pennsylvania, Texas, Washington</td>
</tr>
<tr>
<td>Full parity</td>
<td>Connecticut, Maryland, Vermont</td>
</tr>
<tr>
<td>States with no mandate or weak laws, no parity</td>
<td>Indiana, Massachusetts</td>
</tr>
<tr>
<td>Paritylike mandate*</td>
<td>Florida, Georgia, North Carolina, New York, South Carolina, Utah</td>
</tr>
<tr>
<td>Weak mandate*</td>
<td>Alaska, California, Colorado, Illinois, Mississippi, Nebraska, New Mexico, South Dakota</td>
</tr>
<tr>
<td>Weak mandate* and alcohol only</td>
<td>Arizona, Idaho, Iowa, New Jersey, Ohio, Oklahoma, Wyoming</td>
</tr>
</tbody>
</table>

Abbreviation: SUD, substance use disorder.

* Terms are described in the Measurement of Variables subsection of the Methods section.
* Includes full parity for SUD treatment only if co-occurring with a mental illness (Massachusetts, 2001) and parity-if-offered for SUD treatment only if required in the treatment of a mental illness (Indiana, 2003).
* Includes partial parity-if-offered, does not require SUD coverage to be offered, and only requires the offered coverage to be on a par with the comparable medical/surgical coverage in limited aspects of cost sharing or treatment limitations, which is not considered to be parity.
* Includes parity only for state employee plans (Ohio, 1990-1995; North Carolina, 1997; New Jersey, 2000; South Carolina, 2002).

To assess the implementation and the comprehensiveness of the state SUD parity laws, we reviewed the relevant information provided by the Substance Abuse and Mental Health Services Administration,31 the National Conference of State Legislatures, and other advocacy organizations. We also referred to the original state statutes to detect the subtlety in statutory language and to reconcile the inconsistencies among various sources. Table 1 presents detailed information on state SUD parity laws during the study period.

Covariates

To account for the state-year heterogeneity, we included key time-varying sociodemographic characteristics and policy environment factors that have been extensively documented to influence access to SUD treatment.32-34 Our covariates constituted the percentage of state population who are (1) black or African American, (2) Hispanic or Latino, (3) living in poverty (≤100% at or below the federal poverty line), (4) classified with SUD (ie, meets the DSM-IV diagnostic criteria for alcohol abuse/dependence and/or illicit drug abuse/
of the state heterogeneity and the national secular trend, we estimated the SUD treatment rate in all specialty SUD treatment facilities as a function of the dichotomous indicator of SUD parity implementation (parity$_{st}$), the state fixed effect (u$_t$), the year fixed effect (τ$_t$), and the state sociodemographic and policy covariates (covariate$_{vec}$_{$st$}), and an idiosyncratic error term (ε$_{st}$). Model 2 replaced the dichotomous indicator of any SUD parity implementation (parity$_{st}$) with the categorical variable of the comprehensiveness in parity mandate (full parity$_{st}$, partial parity$_{st}$, and parity-if-offered$_{st}$). The dependent variable of both models, the SUD treatment rate among all specialty SUD treatment facilities (treatment rate$_{st}$), was measured based on the entire population instead of those targeted by state parity. The estimated effect of parity legislation, in this sense, would be diluted over a mixture of target (ie, those groups with private insurance plans affected by parity) and nontarget groups (ie, those groups with no insurance, with public insurance, or with private insurance plans not affected by parity). To refine our crude estimates, we also limited the treatment rate measure to facilities accepting private insurance (treatment rate-PI$_{st}$) and reestimated the 2 models described above.

All estimated standard errors were clustered at the state level to correct for the serial correlation that otherwise leads to false rejections of the null hypothesis. Analysis was performed using commercially available statistical software (STATA, version 12.0; StataCorp).

Results

The Figure shows an upward trend in the SUD treatment rate in parallel with the implementation of SUD parity legislation. Among the 10 states that first implemented SUD parity or extended their parity laws to a higher level of comprehensiveness from 2000 through 2008, the mean SUD treatment rate rose from 1.38 percentage points (per 100 population) during the year immediately before the parity implementation to 1.53 percentage points in the year immediately after implementation. The preparity and postparity change in the SUD treatment rate was equivalent to an 11% increase ([1.53 − 1.38] ÷ [1.53 + 1.38] × 2). Among states that did not change their SUD parity status, the mean SUD treatment rate fell from 1.44 to 1.38 percentage points during the same period, which corresponds to an decrease of 4% ([1.38 − 1.44] ÷ [1.38 + 1.44] × 2). This observational trend comparison demonstrated a positive association between SUD parity and treatment rate.

Table 2 summarizes the descriptive statistics for the following 3 groups of states: (1) the 10 parity states that first implemented parity laws or extended their laws from 2000 through 2008; (2) the 23 states that do not have SUD parity; and (3) the other 16 states that first implemented parity laws before 2000 and did not change their laws during the study period. We combined groups 2 and 3 as the control group representing the states without changes in parity laws during the study period. The 2-sample t tests of mean differences between the 10 parity states with changes in their parity laws and the remaining states without changes indicated that the parity states had a significantly higher rate of SUD treatment in all specialty SUD treatment facilities ($P = .03$) and in facilities accepting private insurance ($P < .001$).

Table 3 reports the regression results for the estimated effect of SUD parity implementation on the SUD treatment rate. The implementation of any SUD parity law significantly increased the treatment rate in all specialty SUD treatment facilities (model 1.1, marginal effect [ME] = 0.13 percentage points [95% CI, 0.04-0.23]) and in facilities accepting private insurance (model 2.1, 0.16 [0.03-0.30]). To place the magnitude of effect into context, we translate the estimated ME (ie, change in percentage points per 100 state residents) into the percentage of change in the SUD treatment rate. Given that the mean SUD treatment rate was 1.40 percentage points in all specialty SUD treatment facilities and 1.10 percentage points in fac-
facilities accepting private insurance, changes of 0.13 and 0.16 percentage points, respectively, can be translated into a 9% increase in the overall SUD treatment rate (ie, \(9\% = 0.13 \div 1.40\)), and a 15% increase in the SUD treatment rate for facilities accepting private insurance (ie, \(15\% = 0.16 \div 1.10\)).

When considering the comprehensiveness of the parity legislation (Table 3), full parity and parity-if-offered increased the SUD treatment rate by 13% (model 1.2, ME = 0.18 percentage points [95% CI, 0.03-0.33]) and 8% (model 1.2, 0.12 [0.00-0.23]), respectively, in all facilities and by 21% (model 2.2, 0.23 [0.03-0.43]) and 10% (model 2.2, 0.11 [0.00-0.22]), respectively, in those accepting private insurance. The influence of partial parity on the treatment rate was not statistically significant across models.

**Discussion**

Our findings indicate that the implementation of state SUD parity legislation results in a significant improvement in access to specialty SUD treatment. The implementation of any SUD parity law increased the treatment rate by 9% in all specialty SUD treatment facilities and by 15% in facilities accepting private insurance. Our study contributes to the existing literature by using state-level panel data on a nearly complete enumeration of all treatment counts in specialty SUD treatment facilities, harnessing all legislative changes in state-level SUD parity laws during the study period, and tailoring a rigorous quasi-experimental design to this series of state experiments.
Our study also advances the literature by documenting the extent to which the comprehensiveness of SUD parity matters. The implementation of full parity laws led to the largest increases in SUD treatment rate (a 15% increase), followed by parity-if-offered laws (an 8% increase). The effect of partial parity, on the other hand, was not statistically significant ($P = .12$).

When considering the implications of our findings for the anticipated impact of recent federal SUD parity legislation, the MHPAEA (i.e., parity-if-offered) can be expected to have a modest effect on access to SUD treatment. The MHPAEA not only regulates quantitative limits (e.g., annual or lifetime limits on the number of visits or hospital days) addressed by previous state-level parity laws but also mandates parity for a wider range of nonquantitative restrictions such as medical necessity, prior authorization, or utilization review.\textsuperscript{25-39} Given the dominance of these managed care mechanisms in the SUD service arrangements of private health plans, the inclusion of the nonquantitative managed care restrictions into the MHPAEA may enable this legislation to yield larger effects on the SUD treatment rate than we estimated for the state-level parity-if-offered laws.

Under the ACA, the full-parity provision, coupled with insurance expansion, is likely to further improve the access to SUD treatment beyond the impact of state-level full-parity laws. The ACA will expand health insurance to approximately 50 million uninsured persons; SUD coverage gained by the newly insured persons through Medicaid benchmark or benchmark-equivalent plans or state health insurance exchange plans will be subject to full parity.\textsuperscript{31} In our analysis of the state parity regulations in the employment-related group insurance market, the increases associated with full SUD parity were confined to facilities accepting private insurance. By expanding the scope of parity to public insurance programs, the ACA will reach a much larger population and may lead to an unparalleled growth of the SUD treatment rate in the public and private sectors.

The estimated growth in SUD treatment rate will only be possible if the capacity of the SUD treatment system suffices to absorb new entrants into the system. At present, most SUD treatment is provided in the specialty treatment sector, and researchers have already raised concerns that SUD specialty treatment programs may face challenges in meeting potential needs.\textsuperscript{31} The Prevention and Public Health Fund created under the ACA offers grant support to develop more comprehensive SUD screening, brief intervention, referral, and treatment programs, which will enhance the capacity of primary care sites to provide SUD care. Enhanced funding for federally qualified health care centers and Medicaid health home initiatives may also help to fill the capacity gap. Nonetheless, as the MHPAEA and ACA un-

### Table 2. Descriptive Statistics for States Implementing or Extending SUD Parity Laws From 2000 to 2008 vs No Change in SUD Parity Status

<table>
<thead>
<tr>
<th>Statistic(^a)</th>
<th>Any Change in Parity (n = 80)</th>
<th>Always Parity (n = 128)</th>
<th>No Change in Parity (n = 184)</th>
<th>Total (n = 312)</th>
<th>Mean Difference,(^b) P Value</th>
<th>Data Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of state-year observations</td>
<td>80 = 10 \times 8</td>
<td>128 = 16 \times 8</td>
<td>184 = 23 \times 8</td>
<td>312 = 39 \times 8</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>Dependent variable, %</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SUD treatment rate in all facilities</td>
<td>1.5 (0.4)</td>
<td>1.3 (0.5)</td>
<td>1.4 (0.5)</td>
<td>1.4 (0.5)</td>
<td>.03</td>
<td>N-SSATS</td>
</tr>
<tr>
<td>SUD treatment rate in facilities accepting private insurance</td>
<td>1.3 (0.4)</td>
<td>1.0 (0.5)</td>
<td>1.1 (0.5)</td>
<td>1.1 (0.5)</td>
<td>&lt;.001</td>
<td>N-SSATS</td>
</tr>
<tr>
<td>Facilities accepting private insurance</td>
<td>80.3 (9.5)</td>
<td>70.8 (7.7)</td>
<td>64.2 (6.8)</td>
<td>66.2 (7.2)</td>
<td>&lt;.001</td>
<td>N-SSATS</td>
</tr>
<tr>
<td>Covariate, %</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>African American or black</td>
<td>6.1 (6.2)</td>
<td>10.4 (9.2)</td>
<td>11.7 (10.6)</td>
<td>11.2 (10.0)</td>
<td>&lt;.001</td>
<td>CPS</td>
</tr>
<tr>
<td>Hispanic or Latino</td>
<td>4.1 (3.2)</td>
<td>9.1 (9.8)</td>
<td>10.5 (10.3)</td>
<td>9.9 (10.1)</td>
<td>&lt;.001</td>
<td>CPS</td>
</tr>
<tr>
<td>Living in poverty</td>
<td>11.9 (3.0)</td>
<td>11.9 (3.2)</td>
<td>12.4 (2.9)</td>
<td>12.2 (3.0)</td>
<td>.43</td>
<td>CPS-ASEC</td>
</tr>
<tr>
<td>HDU prevalence</td>
<td>9.6 (1.2)</td>
<td>9.4 (0.9)</td>
<td>9.3 (1.1)</td>
<td>9.3 (1.0)</td>
<td>.03</td>
<td>NSDUH</td>
</tr>
<tr>
<td>Medicaid eligible</td>
<td>13.4 (3.7)</td>
<td>12.6 (3.5)</td>
<td>12.9 (3.4)</td>
<td>12.8 (3.4)</td>
<td>.12</td>
<td>CPS-ASEC</td>
</tr>
<tr>
<td>SAPTBG funding, $ per person</td>
<td>5.6 (1.1)</td>
<td>5.5 (1.1)</td>
<td>5.4 (0.8)</td>
<td>5.4 (0.9)</td>
<td>.24</td>
<td>TIE</td>
</tr>
<tr>
<td>Employer-sponsored private insurance</td>
<td>62.2 (6.0)</td>
<td>60.7 (6.2)</td>
<td>59.8 (5.6)</td>
<td>60.1 (5.8)</td>
<td>.005</td>
<td>CPS-ASEC</td>
</tr>
<tr>
<td>Individually purchased private insurance</td>
<td>9.5 (2.8)</td>
<td>10.1 (2.9)</td>
<td>9.8 (2.9)</td>
<td>9.9 (2.9)</td>
<td>.25</td>
<td>CPS-ASEC</td>
</tr>
<tr>
<td>Workforce &gt;500 employees</td>
<td>44.6 (6.4)</td>
<td>48.0 (5.5)</td>
<td>47.8 (5.5)</td>
<td>47.9 (5.5)</td>
<td>&lt;.001</td>
<td>SUSB</td>
</tr>
<tr>
<td>Workforce &gt;200 employees</td>
<td>21.2 (4.3)</td>
<td>18.7 (2.8)</td>
<td>19.8 (3.4)</td>
<td>19.3 (3.2)</td>
<td>&lt;.001</td>
<td>SUSB</td>
</tr>
<tr>
<td>Population &gt;1 000 000</td>
<td>3.0 (2.8)</td>
<td>5.4 (2.8)</td>
<td>7.2 (7.8)</td>
<td>6.5 (6.9)</td>
<td>&lt;.001</td>
<td>PEP</td>
</tr>
</tbody>
</table>

Abbreviations: ASEC, Annual Social and Economic Supplement; CPS, Current Population Survey, Census Bureau; NSDUH, National Survey of Drug Use and Health, Substance Abuse and Mental Health Services Administration (SAMHSA); N-SSATS, National Survey of Substance Abuse Treatment Services, SAMHSA; PEP, Population Estimates Program, Census Bureau; SAPTBG, Substance Abuse Prevention and Treatment Block Grant; SUSB, Statistics of United States Businesses, Census Bureau; TIE, Treatment Improvement Exchange, SAMHSA.

\(^a\) Unless otherwise indicated, data are expressed as mean (SD).

\(^b\) Calculated based on a 2-sample t test between the 10 states with change in parity and the 39 with no change.
The conclusion of this study should be interpreted in light of the following limitations. First, we cannot identify individuals' insurance coverage and their employment status in the facility-level NS-ATS data or find more detailed facility-level information on the percentage of treatment entries/clients who were covered by the health insurance plans subject to parity. Thus, the dependent variable, the state-aggregate SUD treatment rate, was measured based on the entire population instead of the population targeted by state parity laws. We refined our analysis by restricting the measurement of the treatment rate to facilities accepting private insurance, which yielded a larger point estimate of the parity effect. We also conducted sensitivity analyses for facilities not accepting private insurance (Supplement [eTables 1-6]) and found no difference in SUD treatment rates attributable to parity. Considered together, these additional analyses suggest that the effect of SUD parity on the treatment rate is primarily driven by the increased treatment rate among the target population.

Second, N-SSATS did not ask facilities to report treatment counts for alcohol and illicit drug use separately; thus, we were only able to assess the effect of parity on combined SUD treatment rates, despite their distinct legal status, patterns of treatment, and consequently individuals' policy sensitivity and price elasticity. Third, as with any observational study, we cannot definitively establish causality between the implementation of SUD parity laws and access to SUD treatment. However, the rigorous methods and robust results strongly suggest that parity improved access.

Despite these limitations, our study provides useful insight into the potential effect of the implementation and the comprehensiveness of SUD parity on access to SUD treatment and, in broad terms, the potential of financial incentives and policy leverage to influence treatment-seeking behavior. We found that the implementation of state SUD parity laws significantly increased the SUD treatment rate and that the increase was more pronounced in states implementing more comprehensive laws. These findings suggest that the MHPAEA of 2008 and the ACA of 2010 hold the potential to improve access to SUD treatment.
Research Original Investigation

Conflict of Interest Disclosures: None reported.

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