

# Availability of Outpatient Telemental Health Services in the United States at the Outset of the COVID-19 Pandemic

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**Background:** Since coronavirus disease 2019 (COVID-19) has caused dramatic changes in everyday life, a major concern is whether patients have adequate access to mental health care despite shelter-in-place ordinances, school closures, and social distancing practices.

**Objectives:** The aim was to examine the availability of telehealth services at outpatient mental health treatment facilities in the United States at the outset of the COVID-19 pandemic, and to identify facility-level characteristics and state-level policies associated with the availability.

**Research Design:** Observational cross-sectional study.

**Subjects:** All outpatient mental health treatment facilities (N = 8860) listed in the Behavioral Health Treatment Services Locator of the Substance Abuse and Mental Health Services Administration on April 16, 2020.

**Measures:** Primary outcome is whether an outpatient mental health treatment facility reported offering telehealth services.

**Results:** Approximately 43% of outpatient mental health facilities in the United States reported telehealth availability at the outset of the pandemic. Facilities located in the United States South and non-metropolitan counties were more likely to offer services, as were facilities with public sector ownership, those providing care for both children and adults, and those accepting Medicaid as a form of payment. Outpatient mental health treatment facilities located in states with state-wide shelter-in-place laws were less likely to offer telehealth, as well as facilities in counties with more COVID-19 cases per 10,000 population.

**Conclusions:** At the onset of the COVID-19 pandemic, fewer than half of outpatient mental health treatment facilities were providing

telehealth services. Our results suggest that additional policies to promote telehealth may be warranted to increase availability over the course of the COVID-19 pandemic.

**Key Words:** telehealth, COVID-19, mental health

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Since the outset of coronavirus disease 2019 (COVID-19) in the United States, access to outpatient mental health services has undergone a dramatic transformation. Mental health systems have been constrained by federal guidance and state ordinances requesting that health facilities limit in-person consultations,<sup>1</sup> at a time when social isolation resulting from social distancing practices, as well as psychological distress concerning possible COVID-19 exposure,<sup>2</sup> have placed further strain on mental health care services.<sup>3–6</sup>

To limit in-person contact in situations where services can be provided at home, outpatient providers are rapidly pivoting to telehealth—both in audio-based and video-based clinical visits. This transition has been supported by new Centers for Medicaid and Medicare Services' (CMS) reimbursement codes for telehealth services, which includes mental health counseling, preventive health screenings, and services provided by clinical psychologists and licensed clinical social workers.<sup>7</sup> CMS is also temporarily allowing practitioners licensed out-of-state who meet certain requirements to provide services in states in which they are unlicensed.<sup>8</sup> In addition, the Department of Health and Human Services' has broadened telehealth enforcement discretion, allowing health care providers to have audio or video communications that are not in compliance with Health Insurance Portability and Accountability Act rules as long as they are acting in good faith.<sup>9</sup>

The extent to which outpatient mental health care facilities are equipped for this transition to provide telehealth services likely varies as a function of both existing telehealth infrastructure and facility characteristics. For instance, the number of telehealth visits increased rapidly for rural Medicare advantage beneficiaries between 2004 and 2014.<sup>10</sup> Over the past several years, Federally Qualified Health Centers that offer mental health services have also received subsidies to increase telehealth capacity through mechanisms such as Health Resources and Services Administration grants.<sup>11</sup>

To date, there has been little examination of the telehealth infrastructure at the outset of the COVID-19 pandemic. For example, one recent study focused on availability of telehealth

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services in hospital settings in 2018.<sup>12</sup> Our study provides an important and timely snapshot of national telehealth availability at outpatient mental health treatment facilities at the outset of the COVID-19 pandemic in 2020, which was declared a national emergency on March 13, 2020.<sup>13</sup> We also assess facility and state characteristics associated with the telehealth availability.

## METHODS

### Data and Sample

We obtained data on outpatient mental health treatment facilities (n = 8860) from the Behavioral Health Treatment Services Locator of the Substance Abuse and Mental Health Services Administration (SAMHSA) on April 16, 2020.<sup>14</sup> The data are based on the National Mental Health Services Survey (N-MHSS) of 2019 (response rate = 91%). In the N-MHSS the facility was asked: "If eligible, does this facility want to be listed in SAMHSA's online Behavioral Health Treatment Services Locator and Mental Health Directory?" Facilities that answered yes were listed in the locator data. In addition, SAMHSA claims that new facilities are validated and included monthly, and that updates on facility information are made weekly for facilities informing SAMHSA of changes.<sup>14</sup> The types of facilities that are surveyed by SAMHSA for the N-MHSS include psychiatric hospitals, general hospitals with a separate inpatient psychiatric unit, Veteran Administration (VA) medical centers, partial hospitalization/day treatment mental health facilities, outpatient mental health facilities, residential treatment center for children, residential treatment centers for adults, multisetting mental health facilities, community mental health centers, and other types of residential treatment facilities.

Our analysis focused on outpatient mental health treatment facilities as they are reportedly converting many of their in-person visits to telehealth visits to decrease the risk of transmitting the virus to patients or health care workers.<sup>15</sup>

### Analytic Strategy

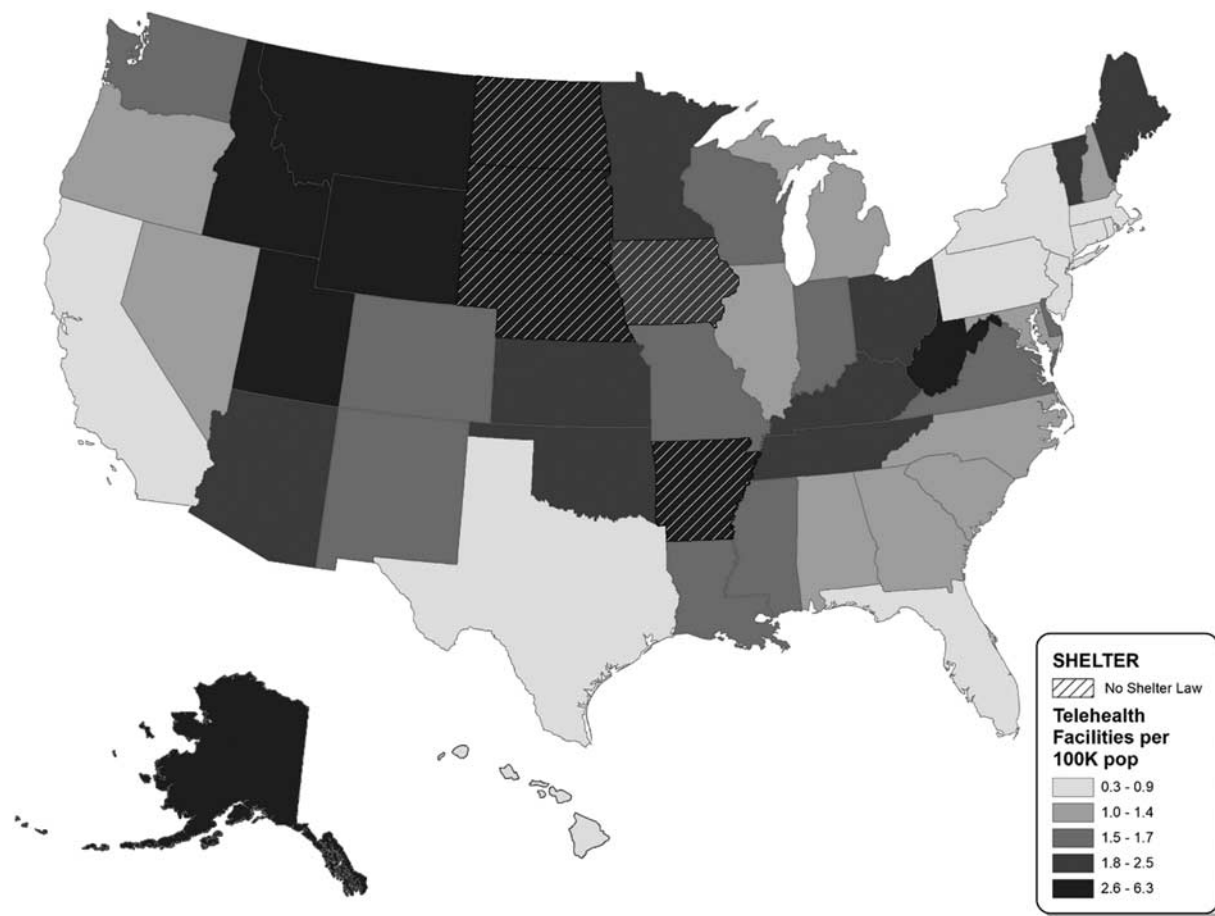
Both descriptive analyses and a multivariable logistic regression were run to assess the relationships between telehealth service availability and facility characteristics likely to influence telehealth capacity—including region, county metropolitan status, acceptance of Medicaid as payment, facility ownership, and populations served (children and adults vs. adults only). Standard errors in the logistic regression were clustered at the state-level.

To better understand the implementation context, we included three state-level characteristics: telemedicine parity laws, American Telemedicine Association state telemedicine performance grade, and existence of COVID-19 stay-at-home or shelter-in-place ordinance as of April 8, 2020.<sup>16</sup> Finally, to understand the availability of telehealth services in relation to pandemic exposure we included data on the number of COVID-19 cases per 10,000 residents at the county-level as of April 16, 2020.<sup>17</sup> We also estimated a separate model by excluding the VA medical centers, which operate differently from other mental health facilities. All analyses were conducted in April 2020, using Stata version 15.0.<sup>18</sup> Our study was approved by the lead author's Institutional Review Board.

**TABLE 1.** Distribution of Outpatient Mental Health Treatment Facilities Offering Telehealth Services

Characteristic	Mental Health Facilities	n (%)	P	Telehealth Services Available (Unadjusted)	Telehealth Services Available (Adjusted)
				%	P
The entire United States	8860	3848 (43.4)	NA	NA	NA
US Region					
Northeast	1889	397 (21.0)	Reference	26.8	Reference
Midwest	2326	998 (42.9)	<0.001	40.6	<0.001
South	2602	1447 (55.6)	<0.001	53.7	<0.001
West	2043	2043 (49.2)	<0.001	47.8	<0.001
Metropolitan location					
Metropolitan	6745	2517 (37.3)	Reference	40.3	Reference
Not metropolitan	2115	1331 (62.9)	<0.001	53.2	<0.001
Form of payment					
Does not accept Medicaid	936	500 (53.4)	Reference	54.0	Reference
Accepts Medicaid	7924	3348 (42.3)	<0.001	42.1	<0.001
Patient population					
Serves children (no age limit or 10+)	6617	2971 (44.9)	Reference	45.2	Reference
Serves adults only (17+)	2243	877 (39.1)	<0.001	38.2	<0.001
Facility ownership					
Public sector	1648	1028 (62.4)	Reference	59.4	Reference
Private for profit organization	1790	655 (36.6)	<0.001	36.2	<0.001
Private nonprofit organization	5422	2165 (39.9)	<0.001	41.0	<0.001
Community Mental Health Center					
No	6452	2499 (38.7)	Reference	41.2	Reference
Yes	2408	1349 (56.0)	<0.001	49.3	<0.001
Shelter-in-place law					
No state or local law	426	257 (60.3)	Reference	51.7	Reference
Full state law	8105	3409 (42.1)	<0.001	42.8	0.024
Local not state law	329	182 (55.3)	0.167	48.3	0.575
American Telemedicine Association Grade for State (2016)					
Grade A	1044	535 (51.2)	Reference	40.0	Reference
Grade B	6289	2694 (42.8)	<0.001	44.6	0.266
Grade C	1527	619 (40.5)	<0.001	40.9	0.845
Telemedicine Parity Law (2016)					
No	3623	1451 (40.0)	Reference	42.9	Reference
Yes	5237	2397 (45.8)	<0.001	43.8	0.698
COVID-19 cases					
First quartile (lowest)	728	472 (64.8)	Reference	52.2	Reference
Second quartile	1352	772 (57.1)	<0.001	49.8	0.296
Third quartile	2407	1120 (46.5)	<0.001	44.6	0.015
Fourth quartile (highest)	4373	1484 (33.9)	<0.001	39.1	<0.001

The American Telemedicine Association grades are from the organization's categorization of state telehealth policies based on 13 indicators that are related to coverage and reimbursement for telehealth services. More details on how the measures are created can be found here: <https://mtelehealth.com/state-telemedicine-gaps-analysis-coverage-reimbursement/>. The number of COVID-19 cases adjusted for population size comes from the USAFacts. After estimating the logistic regression, predictive margins were used to generate adjusted probabilities. Standard errors in the multivariable regression were clustered at the state level.



**FIGURE 1.** Map shows the number of outpatient mental health treatment facilities at the state-level that provide telehealth services per 100,000 population. State shelter-in-place laws come from *New York Times*, April 16th, 2020.

**RESULTS**

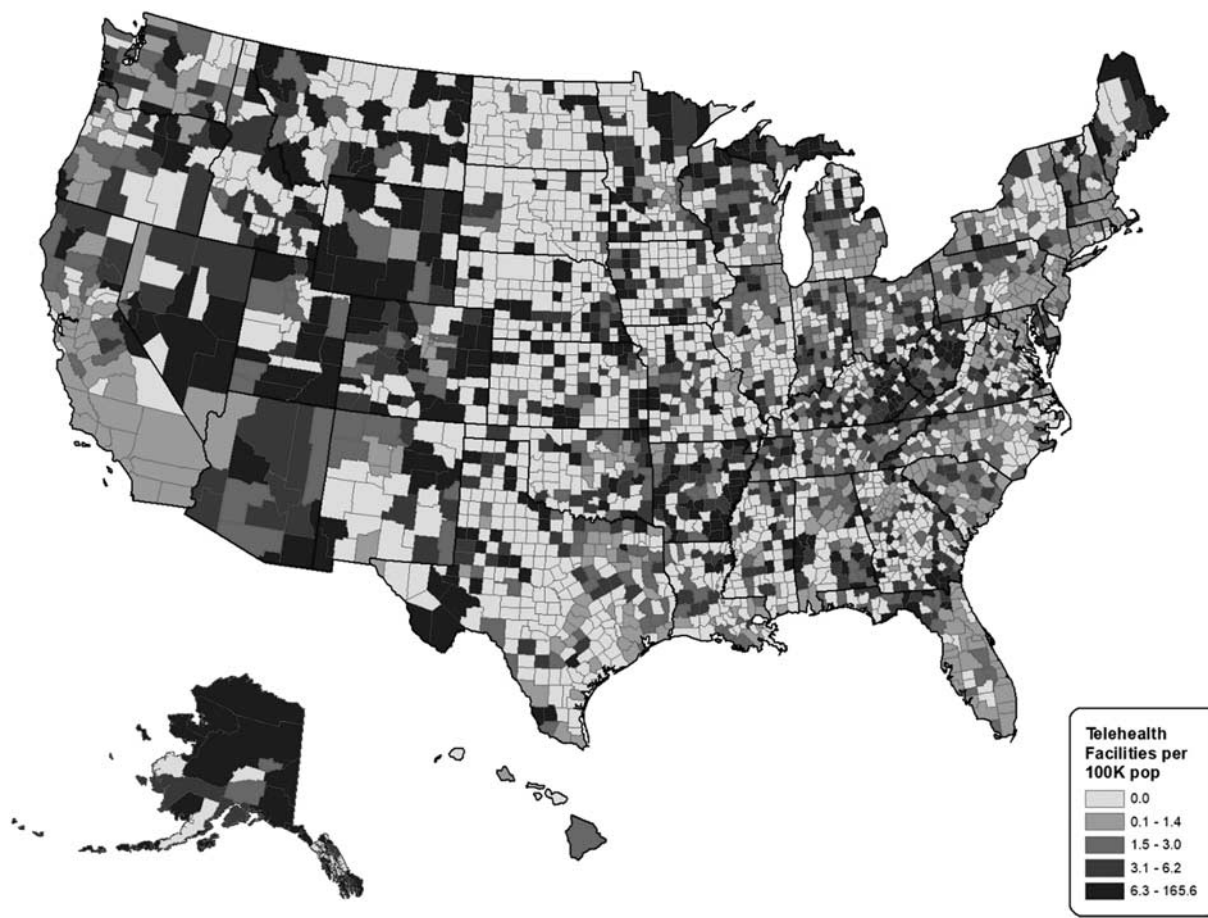
Among the 8860 outpatient mental health treatment facilities, 3848 (43.4%) offered telehealth services (Table 1). Controlling for other factors, regression adjusted means indicate that telehealth services were more prevalent in the South (53.7%), West (47.8%), and Midwest (40.6%) compared with Northeast (26.8%,  $P < 0.001$ ), and in nonmetropolitan (53.2%) compared with metropolitan counties (40.3%,  $P < 0.001$ ). Facilities with public sector ownership (59.4%) versus not-profit (41.0%) or for-profit (36.2%) private facilities, facilities providing care to children and adults (45.2%) versus adults only (38.2%,  $P < 0.001$ ), and facilities not accepting Medicaid (54.0%) were also more likely to provide telehealth services ( $P < 0.001$ ). As the county-level number of COVID-19 cases per 10,000 population increased from the lowest quartile to the highest quartile, the share of facilities offering telehealth fell from 52.2% to 39.1% ( $P < 0.001$ ). The difference between the lowest and the third quartile of COVID-19 cases per 10,000 was also statistically significant (52.2% vs. 44.6%,  $P = 0.015$ ).

Availability of telehealth did not differ according to state telemedicine parity laws or telemedicine performance scores, adjusted for other factors. However, as shown in Figure 1, facilities within states that had COVID-19

shelter-in-place or stay-at-home ordinance for the entire state had fewer outpatient treatment facilities that offer telehealth services per capita than states without these ordinances ( $P = 0.024$ ).

We found that almost all the VA medical centers offered telehealth (94%). Most of the regression results remained similar once we excluded the VA medical centers from our model, although the difference by whether the facility accepts Medicaid became statistically insignificant (Table, Supplemental Digital Content 1, <http://links.lww.com/MLR/C173>).

Figure 2 provides a detailed county-level map of outpatient mental health treatment facilities that provide telehealth throughout the United States. We use this map to illustrate the existing telehealth infrastructure at the onset of the COVID-19 pandemic. It shows that 20.3 million (6.5%) individuals in 415 (18.9%) counties did not have an outpatient mental health treatment facility that offered telehealth as of April 2020. The heat map indicates that, while fewer than half of outpatient mental health treatment facilities offer telehealth, those facilities are concentrated in the most populous counties. The share of counties with an outpatient mental health treatment facility that offers telehealth increases monotonically by the quartile of population density that the county belongs to. Only 35.3%



**FIGURE 2.** Map shows the number of outpatient mental health treatment facilities at the county-level that provide telehealth services per 100,000 population.

of the least population dense counties (lowest quartile) had an outpatient treatment facility that offers telehealth services. In contrast, 83.8% of the most population dense counties (highest quartile) had an outpatient treatment facility that offers telehealth services. For comparison we reported the density of outpatient facilities offering telehealth services (Figure, Supplemental Digital Content 2, <http://links.lww.com/MLR/C173>).

## DISCUSSION

This is the first study to assess telehealth service availability among outpatient mental health treatment facilities in the United States at the outset of the COVID-19 pandemic. This snapshot reveals limited telehealth infrastructure at outpatient mental health treatment facilities early in the pandemic, with only 43% of outpatient mental health treatment facilities reporting offering telehealth services. Telehealth availability varies from over 50% of facilities in the South and the West, to 21% in the Northeast. Together, the nation's limited telehealth capacity and geographic variation may complicate efforts to meet the expected increase in demand for mental health care during the pandemic.

It is also concerning that fewer outpatient mental health facilities provide telehealth services in states with shelter-in-place or stay-at-home ordinances compared with states without these ordinances, as these ordinances may further limit access to in-person mental health care. States with shelter-in-place or stay-at-home ordinances are less rural and less likely to need telehealth services before the pandemic. Since the states with the ordinances were hit hard at the early stage of the COVID-19 pandemic, it will be interesting for future studies to examine whether telehealth services become more available in the states as the pandemic evolves. Similarly, we found that counties with a higher COVID-19 case rate as of April 16, 2020 were less likely to have an outpatient mental health facility that offers telehealth services. Policymakers and funders should consider efforts to rapidly support the implementation of telehealth services in those locations. By contrast, we also find that facilities that provide care to children—that is, those that are not restricted to adults—are more likely to offer telehealth services. This finding is somewhat promising, as children deprived of school-based mental health supports in the wake of school closures represent a particularly vulnerable population.<sup>4</sup> However, even among facilities providing

mental health care for children, only 45% reported offering telehealth services.

This study is not without limitations. First, not all outpatient mental health treatment facilities are in SAMHSA's behavioral locator data. Data are limited to mental health treatment facilities that chose to be listed. Currently, there are no estimates for the share of mental health treatment facilities that chose not to be listed in the behavioral locator data. Approximately 9.3% of eligible facilities did not respond to the 2019 N-MHSS.<sup>19</sup> It is not known how these facilities differ from those that took the survey. Second, the behavioral locator data do not contain information on treatment capacity or quality, so we do not know how many patients that facilities with telehealth capacity can treat virtually, nor the quality of care. Third, the data did not reflect changes in telehealth services after the national emergency declared on March 13, 2020. Future research can use our study findings as a benchmark to examine how telehealth services among mental health treatment facilities have increase after the national emergency. Fourth, the behavioral locator data did differentiate between telephone care and video-conference care. We believe that this is an important area of future research given that policy changes were made during the COVID-19 pandemic for equal reimbursement of video and audio telehealth services.<sup>20</sup>

In summary, our study found that, at the onset of the COVID-19 pandemic, fewer than half of outpatient mental health treatment facilities were providing telehealth services. There are substantial geographic disparities in the provision of telehealth. States with shelter-in-place or stay-at-home laws had fewer outpatient mental health treatment facilities that provided telehealth, and these locations may be less equipped to provide behavioral health care services. Our results suggest that additional policies to promote telehealth may be warranted to increase availability.

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