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Partial Psychiatric Hospitalization Program Availability in Non-Metropolitan and Metropolitan Hospitals Nationally

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Overview of Key Findings

- Partial psychiatric hospitalization programs (PPHPs) are intended to reduce or avoid inpatient stays by allowing patients to reside at home while receiving intensive psychiatric services in outpatient settings.
- A significantly smaller proportion of non-metropolitan than metropolitan hospitals offer PPHPs.
  - 11.4% of non-metropolitan compared to 38.7% of metropolitan hospitals offer PPHPs.
  - Regardless of location, hospitals that offer PPHPs have higher patient volumes and more beds than hospitals that offer PPHPs through affiliated providers or do not offer PPHPs at all.

Background and Purpose

Partial psychiatric hospitalization programs (PPHPs) are intended to reduce or altogether avoid inpatient psychiatric stays by allowing persons to reside at home while receiving intensive and structured psychiatric services, routine psychiatric evaluation, medication management, and individual and group counseling in outpatient settings. PPHPs fill an important role in the continuum of care by acting as transitional care for patients moving from inpatient to outpatient treatment, or vice-versa. PPHPs are useful for people who are discharged from a hospital but continue to need more comprehensive and structured services than what are typically available in outpatient programs. Conversely, patients in outpatient treatment may be referred to a PPHP if they need more intensive services but do not need to be hospitalized. PPHPs cater to the unique needs of individual patients and are used to treat a range of behavioral health conditions, including mood disorders, personality disorders, substance use disorders, and eating disorders. Evidence suggests they are effective compared to other forms of psychiatric treatment.[1-7] PPHPs are sometimes available in community mental health centers, though they are most frequently offered by hospitals, and treatment is covered by Medicare and Medicaid in most cases.[8-10] Patients typically visit PPHPs several days per week for one to five weeks. The duration of a PPHP is primarily determined by the treatment objectives of the patient as well as other factors such as insurance coverage. For instance, Medicare requires beneficiaries to participate in treatment sessions for at least 20 hours per week.[11] Because patients appropriate for PPHPs tend to have complex comorbidities and severe symptoms, acute and long-term stabilization is a standard goal for patients in PPHPs.[12]

Intensive outpatient psychiatric programs are a distinct form of outpatient treatment and share some similarities with PPHPs, such as multiple weekly treatment sessions. However, patients in PPHPs require a wider range of psychiatric, counseling, and nursing services beyond what is ordinarily provided in a regular outpatient or

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intensive outpatient program.[10] Furthermore, treatment in a PPHP affords greater autonomy than inpatient hospitalization and at a lower cost. In summary, PPHPs are a vital piece in the continuum of mental health services. Although some evidence indicates that PPHP utilization has grown overall over the past two decades, very little information exists about the availability of PPHPs in non-metropolitan as compared to metropolitan hospitals.[10] The purpose of this brief is to:

1. Provide national estimates of PPHP availability among non-metropolitan and metropolitan hospitals; and
2. Describe hospital characteristics associated with the provision of PPHPs.

Methods

Data. We conducted analyses of the 2016 American Hospital Association (AHA) Annual Survey of Hospitals, which collects information yearly from all hospitals in the U.S. and its territories. We excluded from the analyses hospitals located outside the 50 states or Washington, D.C. Because we were interested in the availability of PPHPs in community hospitals, we also excluded psychiatric hospitals or substance abuse treatment facilities, children's hospitals, and rehabilitation hospitals. The final sample size was 4,011 hospitals.

Availability of PPHPs Variables. The primary dependent variable is whether a hospital offered PPHPs. If a hospital reported offering PPHPs, it was also asked to indicate whether the program was offered a) by the hospital itself or "in-house," b) by another provider within the hospital's larger health care system, or c) through a joint venture with another provider outside of the hospital's health care system.

Non-Metropolitan vs. Metropolitan Location and Other Independent Variables. The AHA survey used the U.S. Census Bureau's core-based statistical area criteria to classify hospitals according to location in a metropolitan (N = 2,483), micropolitan (N = 663), or non-core non-metropolitan (N = 865) county. Micropolitan and non-core non-metropolitan hospitals were combined into a non-metropolitan category (N = 1,528). Other independent variables included each hospital's number of licensed beds, staffed beds, and psychiatric care beds; number of admissions during the fiscal year; and whether the hospital offered residential psychiatric services.

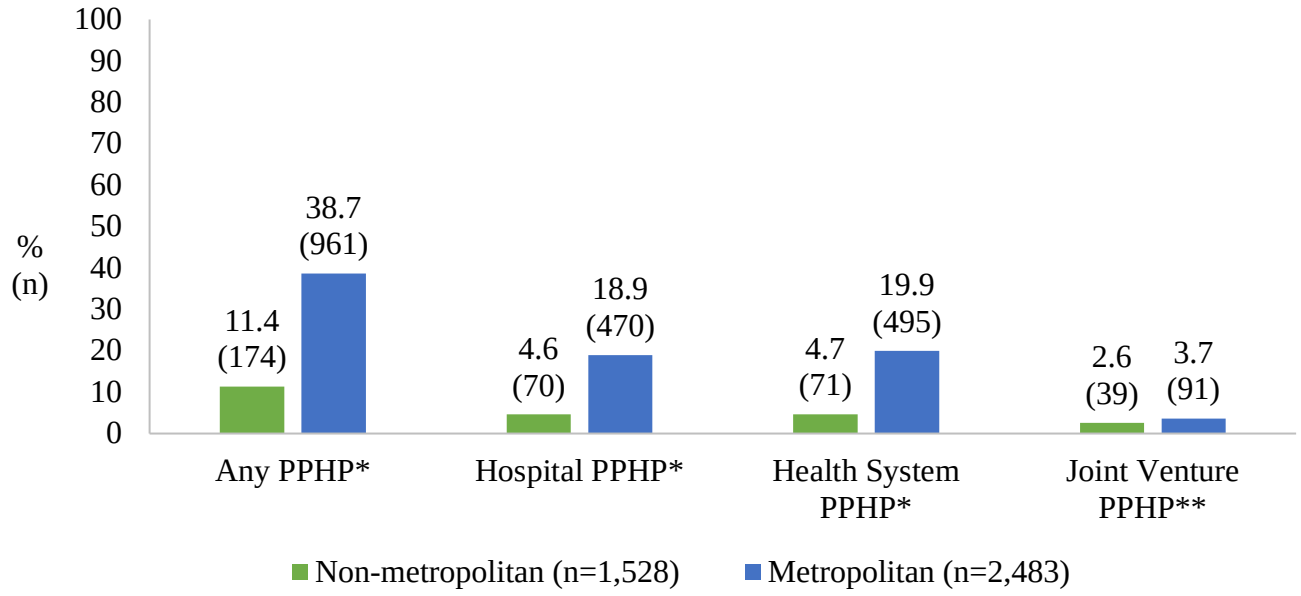
Analysis. We conducted descriptive analyses to compare the availability of PPHPs between non-metropolitan and metropolitan hospitals and whether they offered PPHPs in-house, through their larger health care system, or through a joint venture. We then stratified non-metropolitan and metropolitan hospitals with PPHPs according to whether they offered PPHPs in-house and compared hospital characteristics across hospitals offering in-house (i.e., a hospital-based PPHP) or out-of-house (i.e., a health system or joint venture PPHP) PPHPs.[§]

Findings

Figure 1 depicts the availability of PPHPs in non-metropolitan and metropolitan hospitals. More than one-third (38.7%) of all metropolitan hospitals offer any PPHP (i.e., a PPHP offered by the hospital, affiliated health care system, or joint venture between the hospital and another health care provider). In contrast, only 11.4% of non-metropolitan hospitals offer PPHPs, a statistically significant difference ($P < .0001$). There are similarly large and statistically significant ($P < .0001$) differences between the percentages of non-metropolitan and metropolitan hospitals offering PPHPs in the hospital (4.6% and 18.9%) or through another provider in their health care system (4.7% and 19.9%). We found no significant difference ($P = .0533$) in the proportion of non-metropolitan and metropolitan hospitals offering PPHPs through a joint venture.

[§] Tests of significance were performed but results are not presented here. We used chi-square tests and Welch-Satterthwaite t-tests for between-group comparisons of proportions and means, respectively. Statistical significance was determined using $\alpha = 0.05$ for all statistical tests.

Figure 1. Percentages of Non-Metropolitan and Metropolitan Hospitals Offering PPHPs



*P < .0001; **P = .0533

We next compared characteristics of hospitals offering hospital-based PPHPs against hospitals offering PPHPs at another site through an affiliated health care system or joint venture as well as against hospitals that did not offer PPHPs at all (see Table 1). Regardless of non-metropolitan or metropolitan location, hospitals offering hospital-based PPHPs on average have more licensed and psychiatric beds as well as higher inpatient admission volumes than those offering PPHPs elsewhere in their health care system, through a joint venture, or not at all (P < .0001). Lastly, significantly lower proportions of metropolitan and non-metropolitan hospitals with a residential psychiatric unit offered hospital-based PPHPs than affiliated PPHPs (P < .0001).

Table 1. Characteristics of Non-Metropolitan and Metropolitan Hospitals Offering PPHPs

	Non-Metropolitan Hospitals			Metropolitan Hospitals		
	Hospital PPHP (n=70)	**Affiliated PPHP (n=104)**	**No PPHP (n=1,354)**	**Hospital PPHP (n=470)**	**Affiliated PPHP (n=491)**	**No PPHP (n=1,522)**
Licensed beds, Mean (SD)	186.4 (141.7)	74.6 (85.0)	68.3 (70.3)	482.1 (348.0)	269.9 (227.9)	208.5 (225.9)
Psychiatric beds, Mean (SD)	13.3 (11.0)	0.6 (2.8)	2.4 (7.2)	41.3 (39.2)	6.5 (18.0)	7.8 (17.4)
Admissions, Mean (SD)	5,447.5 (5,056.3)	1,659.9 (2,030.4)	1,531.7 (2,110.2)	19,067.3 (14,297.4)	11,321.5 (10,475.8)	7,971.8 (10,018.3)
Residential psychiatric services, %	24.3	49.0	2.3	30.6	46.8	4.1

Table 2 shows the availability of PPHPs in non-metropolitan and metropolitan hospitals by hospital bed size. In general, the availability of hospital-based PPHPs increased with bed size among non-metropolitan and metropolitan hospitals. Similarly, the availability of affiliated PPHPs tended to increase with bed size among non-metropolitan and metropolitan hospitals. In other words, Table 2 provides additional evidence that larger hospitals in both non-metropolitan and metropolitan areas more frequently offer PPHPs than smaller hospitals.

Table 2. Percentages of Non-Metropolitan and Metropolitan Hospitals Offering PPHPs by Bed Size

	Non-Metropolitan Hospitals				Metropolitan Hospitals			
	Hospital PPHP (n=70)	Affiliated PPHP (n=104)	No PPHP (n=1,354)	Number of Hospitals	Hospital PPHP (n=470)	Affiliated PPHP (n=491)	No PPHP (n=1,522)	Number of Hospitals
Licensed beds	%	%	%	#	%	%	%	#
≤ 25	0.5	6.5	93.0	626	1.3	12.5	86.2	239
26 to 50	5.1	7.2	87.7	236	1.0	14.5	84.5	206
51 to 100	3.3	7.2	89.5	335	4.9	18.5	76.6	325
101 to 250	9.3	6.7	84.0	269	15.4	23.8	60.8	702
251 to 500	29.1	3.6	67.3	55	25.7	21.2	53.1	638
> 500	42.8	28.6	28.6	7	47.5	18.5	34.0	373

Conclusions and Potential Policy Implications

The findings presented here indicate that the availability of PPHPs is significantly lower in non-metropolitan than metropolitan community hospitals. PPHPs fill a gap between ambulatory and inpatient psychiatric services and often serve as a form of transitional care for patients who are moving from one of these modalities to the other. PPHPs can also be used as a substitute for costly inpatient hospitalizations, and evidence suggests that they are effective compared to other forms of psychiatric treatment.[6,7]

However, the wide range of services involved in PPHPs means providers offering these programs must commit substantial resources to them which they may not have available, particularly related to specialized staffing (i.e., psychiatrists, etc.). This could be particularly true in non-metropolitan areas where low revenues and staff shortages are more typical.[13] Indeed, fewer than 5% of non-metropolitan hospitals included in this study offer these programs in-house and more than half of these particular facilities have more than 100 licensed beds. Furthermore, this study found that both non-metropolitan and metropolitan hospitals that provide PPHPs in-house had significantly higher patient volumes and capacities than those that did not directly offer the programs in the hospital. Among the 1,528 non-metropolitan hospitals included in this study, 626 (41.0%) had 25 or fewer licensed beds (Table 2). The vast majority (582, 93.0%) of the small hospitals represented in the AHA survey do not offer PPHPs at all and nearly all of these facilities (595, 95.1%) have been designated as Critical Access Hospitals (CAHs) by the Centers for Medicare & Medicaid Services. The CAH designation was created to improve the ability of rural hospitals to provide high-quality care to area residents by making it more financially viable to do so.[14] Taken together, all of this suggests that persons who do not live near larger hospitals have limited access to PPHPs.

Although lower percentages of non-metropolitan than metropolitan hospitals offer PPHPs, how this influences non-metropolitan residents' receipt of intensive outpatient mental health services remains unclear. Federally Qualified Health Centers (FQHCs) are required to directly provide or offer referrals for outpatient behavioral health services, but it is unlikely that FQHCs possess the necessary infrastructure to provide intensive outpatient mental health services comparable to hospital-based PPHPs.

The scarcity of PPHPs in non-metropolitan hospitals may have implications for the treatment of substance use disorder. As previously reported by our research center, 2.9% of U.S. adults ages 18 to 64 years of age who resided in a non-metropolitan county satisfied criteria for a past year drug use disorder, but only 13.7% of those persons received any formal treatment.[15,16] Financial or other policies that encourage CAHs and other rural hospitals to expand PPHPs could increase access to substance use disorder treatment.

The scarcity of PPHPs in non-metropolitan hospitals may also have implications for the treatment of individuals contemplating suicide, which is of critical public health concern because suicide rates in non-metropolitan counties have exceeded rates in metropolitan counties for several decades.[17-19] Related research conducted by our research center found that prevalence rates for suicidal thoughts, plans, and attempts are higher among adults 18 years of age and older residing in non-metropolitan than large metropolitan counties.[20] Because PPHPs serve as an important treatment source for individuals considering suicide, policies that encourage CAHs and other rural hospitals to provide substance use treatment as part of PPHPs could help to reduce the incidence of suicide.

Because Medicare and most Medicaid programs cover PPHP services, our findings have potential implications for Federal and state health policies aimed at improving access to mental health services. Residents of non-metropolitan counties are disproportionately older than those in metropolitan counties, meaning a larger share are currently eligible for Medicare.[21] PPHP services are covered by Medicare Part B, and Medicare reimbursement rates for PPHPs are generally lower than those for inpatient hospitalizations.[22]

In summary, significantly lower proportions of non-metropolitan hospitals provide PPHPs than metropolitan hospitals. The relative scarcity of PPHPs in non-metropolitan hospitals suggests that additional programs or policies are warranted to ensure non-metropolitan residents' access to psychiatric services.

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