

Telehealth Delivery of Mental Health Services: An Analysis of Private Insurance Claims Data in the United States

Fernando A. Wilson, Ph.D., Sankeerth Rampa, Ph.D., Kate E. Trout, Ph.D., Jim P. Stimpson, Ph.D.

Objective: This study characterizes telehealth claims for mental health and substance abuse (MH/SA) services by using national private claims data.

Methods: Telehealth-related mental health service claims were identified with private claims data from 2009 to 2013. These data—provided by the Health Care Cost Institute—included claims from Aetna, Humana, and UnitedHealth for more than 50 million individuals per year.

Results: In 2009–2013, there were 13,480 MH/SA telehealth provider claims out of 3,986,159 claims, with the majority of telehealth claims submitted by psychiatrists. For

telehealth services, there was a decreasing trend for average reimbursements (\$54.61 in 2009 to \$43.28 in 2013). Average reimbursements for telehealth claims were half those for nontelehealth claims. Reimbursements for nine of the top 10 telehealth services were lower in 2015 dollars than for the same services provided during face-to-face treatment.

Conclusions: Widespread adoption and use of costly telehealth technologies for mental health services may be limited by low reimbursements for telehealth services.

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In recent years, an increasing number of states have eased restrictions or clarified policies on reimbursements for telehealth-enabled clinical services, such as permitting private and Medicaid payers to reimburse for live video delivery, store and forward services, or remote patient monitoring, and setting standards regarding online prescribing, cross-state licensing, and other policies (1). Telehealth services offer a promising avenue for expanding service delivery for providers and decreasing economic barriers to accessing care, particularly for patients who find travel difficult, institutionalized patients, and patients who live in medically underserved areas. Telehealth delivery may also reduce stigma and other barriers to care associated with mental health services (2).

Even as state policies and Medicaid programs work to improve the policy environment for telehealth delivery, it is uncertain whether most mental health providers are responding to policy developments in telehealth access by increasing use of telehealth methods. Although telehealth may be efficacious in improving patient outcomes, the economic cost of installing and operating telehealth systems, along with training workers and patients, may create a significant barrier to widespread adoption. To address this knowledge gap, we analyze the largest private claims database in the United States to determine recent trends in telehealth-related billing by mental health provider type and location.

METHODS

The Health Care Cost Institute database consists of claims from Aetna, Humana, and UnitedHealthcare for 50 million or more individuals per year enrolled in commercial insurance or Medicare Advantage (3). Data were used for 2009–2013 from inpatient, outpatient, provider, and pharmacy claim fields. All claims submitted by providers for telehealth services were selected for analysis if they used the appropriate Current Procedural Terminology (CPT) code for mental health and substance abuse (MH/SA) services along with the telehealth modifier “GT” (denoting service delivered “via interactive audio and video telecommunications systems”) (4,5). This research was exempt from human subjects review by the University of Nebraska Medical Center Institutional Review Board (174–15-EX). Characteristics of all MH/SA services provided via telehealth and nontelehealth—including patient characteristics (age group and sex), provider specialty, and state—were examined. Average reimbursements and charges for diagnoses (*ICD-9-CM* codes) and procedures (CPT codes) for telehealth and nontelehealth claims were examined. Reimbursements include the actual amount paid to the provider for the services performed after all deductions (total net paid). Charges include those for claims submitted for telehealth services with a CPT code for MH/SA services.

TABLE 1. Average reimbursements and charges per claim in 2015 dollars for telehealth and nontelehealth mental health and substance abuse services, by year^a

Year	Telehealth		Nontelehealth	
	Reimbursement	Charges	Reimbursement	Charges
2009	54.61	123.31	89.26	139.09
2010	40.90	141.44	90.67	280.50
2011	37.53	114.68	101.96	294.73
2012	37.36	123.22	94.30	279.02
2013	43.28	130.67	91.66	285.63
Total	42.04	126.94	94.01	256.86

^a Source: Health Care Cost Institute

Reimbursements and charges were adjusted for inflation to 2015 dollars by using the Consumer Price Index. Any individual cell counts less than or equal to 10 were removed in order to maintain confidentiality.

RESULTS

During the study period, a total of 26,167 claims were submitted for professional services via telehealth. There was a total of 3,986,159 MH/SA claims, of which 13,480 claims were submitted exclusively for telehealth-related services. [A table showing the number of telehealth claims for mental health and substance abuse services by provider specialty is available as an online supplement to this report.] There were 9,868 claims submitted by psychiatry, followed by clinical psychology (N=1,950), mental health professionals (N=1,416), and social workers (N=246). There was an increasing trend in telehealth claims for most states after 2009. [A table summarizing number of claims for telehealth MH/SA services stratified by state for the years 2009 and 2013 is available in the online supplement.] A higher proportion of claims submitted for telehealth were for treatment of female patients and for patients ages 45 to 64 years [see online supplement].

Average reimbursements and charges for telehealth and nontelehealth mental health services are presented in Table 1. For telehealth services, there was a decreasing trend for average reimbursements (\$54.61 in 2009 to \$42.04 in 2013) and a slight increase in charges (\$123.31 in 2009 to \$126.94 in 2013). In contrast, both average reimbursement (\$89.26 in 2009 to \$94.01 in 2013) and charges (\$139.09 in 2009 to \$256.86 in 2013) for nontelehealth claims increased from 2009 to 2013. The average reimbursement and charges for nontelehealth services were also higher than those for telehealth over the study period.

Average reimbursements and charges were higher for nontelehealth claims than for telehealth claims for nine out of the top 10 most common telehealth procedures [see online supplement]. Monitoring and prescribing of psychopharmacologic agents was the most common telehealth procedure (CPT 90862), with 429 providers submitting a total of 4,485 claims in 2009–2013, averaging 11 telehealth claims per provider. The highest number of telehealth claims per provider was submitted for individual psychotherapy, 30- and 45-minute

sessions (CPT 90832 and 90834, respectively). [The online supplement includes a table listing the number of claims submitted by each CPT code; a complete description of each CPT code; a table listing the number of providers, the number of claims, and the average number of claims submitted by providers stratified by CPT code; and a complete list of the number of telehealth-related claims by CPT code.]

Average reimbursements and charges were higher for nontelehealth than for telehealth services for the diagnosis codes associated most frequently with telehealth claims [see online supplement]. A large proportion of telehealth claims involved major depressive affective disorders, followed by schizoaffective and bipolar disorders. [The online supplement includes a table with the number of providers submitting claims, the number of claims and the average number of claims submitted by providers for telehealth services stratified by ICD-9-CM code; a complete description of ICD-9-CM codes; and a table with the distribution of claims across the most frequently reported diagnosis codes (ICD-9-CM) for MH/SA services provided via telehealth and nontelehealth.]

DISCUSSION

In recent years, most states have implemented telehealth policies that facilitate reimbursement or establish guidelines for telehealth-related services and reimbursements (1). Most states require private payers to reimburse for live video (1). Several states specify that payers must cover telehealth-provided services if the same nontelehealth service is covered (1). Important motivating factors for these policies are a large evidence base demonstrating efficacy of telehealth services and their promise to increase access to care, particularly in rural and underserved communities (6,7). For example, telehealth technologies have been used for anger management therapy for patients with posttraumatic stress disorder (PTSD) living in rural areas (8). The use of videoconferencing is also becoming more accepted as an alternative to in-person delivery of psychiatric care (7).

Despite this widespread interest, telehealth policies vary widely between states and contain diverse restrictions regarding different types of services, types of providers, location of patients, and acceptable technologies (1). Given this variation and change in the telehealth policy environment, we speculate that there is a time lag in the translation of these policies into behaviors. In fact, although our data suggest that the percentage of growth in telehealth claims has been substantial across states, the number of mental health providers submitting these claims is negligible in relation to the aggregate number of mental health–related claims being submitted to third-party payers. The Medicare program has demonstrated similar results, with telehealth-related expenditures comprising less than a penny per member per month, although these expenditures are largely for mental health services (9).

We did not have information on whether providers are adopting telehealth but are not billing for these services. However, our data show that telehealth-related services

were reimbursed at lower rates on average than were non-telehealth services. The reasons for the lower reimbursements and trend in these reimbursements are unclear. Our stratifications by visit type and diagnosis suggest that these findings were confounded by differences in service mix. It is possible that the reimbursements reflect improved clinical efficiencies in the provision of care. In fact, an implication of our findings is that mental health providers may be unlikely to adopt telehealth technologies requiring significant investment that do not result in cost savings, even if a technology is shown to have a favorable cost-to-benefit tradeoff in improving patient outcomes. As of January 2016, only seven states (Arkansas, Delaware, Hawaii, Minnesota, Mississippi, Tennessee, Virginia) required private payers to reimburse telehealth services at the same rate as nontelehealth services (1). The effectiveness of these laws is unclear and merit further research. Unfortunately, we were unable to evaluate the impact of these laws with our data because only two states had implemented these laws in our study period and cell sizes for the states' postimplementation were insufficient.

Another possibility for low numbers of telehealth services that were billed by providers is confusion over which billing code to use for telehealth or lack of coding (10). The proportion of telehealth providers who routinely bill correctly for telehealth services is unclear. A study of teleconferencing use in a university hospital found that nearly one third of teleconferences were not logged and thus not billed (11). A survey of healthcare administrators and clinicians conducted by Antonioti and colleagues suggests that there have been numerous barriers to submitting telehealth claims, including coding issues for telehealth, higher denial rates for telehealth services, and lack of reimbursement from payers (12). Further research is needed to explore this issue in telehealth billing.

The mix of services provided via telehealth may be different from those provided face to face. A recent study showed that interactive video was used more often for treatment of PTSD, depression, and anxiety than for alcohol and drug use or psychosis (13). This finding may reflect the relative availability of evidence regarding the efficacy of teleconferencing or Internet-based telehealth solutions in treating these conditions in comparison with face-to-face treatment. For example, a large number of Internet-based interventions have been used to treat depression and anxiety disorders (14,15).

Our findings should be interpreted in the context of certain limitations. We had data on only three private insurers, and thus our findings may not generalize to other payers. We also did not have data on adoption and use of telehealth technologies among mental health providers who do not specifically bill for telehealth services. Thus, our data may significantly understate actual rates of telehealth use for mental health patients. Our study highlights the need for further research on providers to fully characterize their actual likelihood of utilizing and billing for telehealth services and the barriers that they may face in providing telehealth services to their patients. Finally, we were unable to evaluate

outcomes or recommend specific telehealth treatment regimens in comparison with traditional in-person alternatives.

CONCLUSIONS

Prior literature has demonstrated the efficacy of telehealth in treating many mental health conditions, and most states now allow reimbursement for telehealth delivery of services. Despite this evidence base and favorable policy environment, telehealth claims for mental health are a small proportion of total claims, and average reimbursements for these claims are substantially lower than are those for comparable non-telehealth services. Our results imply that providers have less incentive to adopt telehealth technologies that do not significantly lower provider costs even if they improve patient outcomes. More effective implementation strategies may be needed to translate telehealth policy into practice regarding telehealth services provided by mental health and substance abuse providers.

AUTHOR AND ARTICLE INFORMATION

Dr. Wilson and Dr. Rampa are with the College of Public Health, University of Nebraska Medical Center, Omaha; Dr. Trout is with Peru State College, Peru, Nebraska; and Dr. Stimpson is with the Graduate School of Public Health and Health Policy, City University of New York, New York. Send correspondence to Dr. Wilson (e-mail: fernando.wilson@unmc.edu).

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Submissions Invited for Column on Integrated Care

The integration of primary care and behavioral health care is a growing research and policy focus. Many people with mental and substance use disorders die decades earlier than other Americans, mostly from preventable chronic medical illnesses. In addition, primary care settings are now the gateway to treatment for behavioral disorders, and primary care providers need to provide screening, treatment, and referral for patients with general medical and behavioral health needs.

To stimulate research and discussion in this critical area, *Psychiatric Services* has launched a column on integrated care. The column focuses on services delivery and policy issues encountered on the general medical–psychiatric interface. Submissions are welcomed on topics related to the identification and treatment of (a) common mental disorders in primary care settings in the public and private sectors and (b) general medical problems in public mental health settings. Reviews of policy issues related to the care of comorbid general medical and psychiatric conditions are also welcomed, as are descriptions of current integration efforts at the local, state, or federal level. Submissions that address care integration in settings outside the United States are also encouraged.

Benjamin G. Druss, M.D., M.P.H., and Gail Daumit, M.D., M.H.S., are the editors of the Integrated Care column. Prospective authors should contact Dr. Druss to discuss possible submissions (bdruss@emory.edu; gdaumit@jhmi.edu). Column submissions, including a 100-word abstract and references, should be no more than 2,400 words.