

## BRIEF REPORT

# Primary Care: A Critical Stopgap of Mental Health Services During the COVID-19 Pandemic

Jacqueline B. Britz, MD, MSPH, Alison N. Huffstetler, MD, Tracey L. Henry, MD, MPH, MS, Braveen Ragunathan, MD, MPH, FAAP, Erin Britton, PhD, MPH, Neeti Doshi, MD, MPH, FAAP, Kurt C. Stange, MD, PhD, and Rebecca S. Etz, PhD

**Background:** The COVID-19 pandemic resulted in a worsening mental health crisis, while also dramatically reducing access to in-person primary care services. Primary care, an essential provider of mental health services, rapidly adopted telemedicine to address behavioral health needs. Here we examine the provision of mental health services by primary care during the pandemic, including the essential use of telemedicine.

**Methods:** Data were collected via a series of national, cross-sectional surveys of primary care clinicians in November 2020 by the Larry A. Green Center. The survey was distributed through a network of partner organizations and subscribers. Descriptive and chi squared analysis were utilized.

**Results:** Among 1,472 respondents, 88% reported increased mental health needs and 37% reported higher rates of substance use among patients. Most (65%) clinicians became more involved in providing mental health support, and 64% reported using telemedicine to provide behavioral health services. Phone-based care was more common for care delivery among patients who were uninsured (60% vs 42%,  $P < .01$ ), Medicare beneficiaries (45% vs 36%,  $P < .05$ ), non-English speaking (67% vs 40%,  $P < .001$ ), and racial and ethnic minorities (58% vs 34%,  $P < .001$ ).

**Conclusions:** Primary care is a leading provider of mental health services and has played a critical role during the pandemic. Primary care clinicians have strong relationships with their patients as well as outreach within communities that may otherwise struggle to access mental health services. The use of telemedicine in primary care, and specifically phone-based services, has been an essential tool to providing equitable access to mental health services. (J Am Board Fam Med 2022;35:891–896.)

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## Background

Mental health disorders contribute a substantial burden of morbidity and mortality. Nearly 1 in 5 individuals in the United States live with a mental illness.<sup>1</sup> Suicide is one of the leading causes of death in the US, with 47,500 deaths by suicide in 2019.<sup>2,3</sup>

Mental illness significantly reduces quality of life and is the leading cause of disability.<sup>4</sup> During the pandemic, the mental health crisis drastically worsened.<sup>5</sup> Rates of depression tripled in the early months of the pandemic and have remained elevated.<sup>5</sup>

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From Department of Family Medicine and Population Health, Virginia Commonwealth University, Richmond, VA (JBB, ANH, RSE); Department of Medicine, General Medicine and Geriatrics, Emory University School of Medicine, Atlanta, GA (TLH); Delta Health Center, Mound Bayou, MS (BR); Department of Health Behavior and Policy, Virginia Commonwealth University, Richmond VA (EB); Department of Pediatrics, University of California, San Francisco (ND); Center for Community Health Integration, Case Western Reserve University, Cleveland, OH (KCS); The

Larry A. Green Center for the Advancement of Primary Health Care for the Public Good, Richmond, VA (RSE).

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**Corresponding author:** Jacqueline B. Britz, MD, MSPH, Virginia Commonwealth University, Suite 600, 830 East Main Street, Richmond, VA 23298 (E-mail: jacqueline.britz@vcuhealth.org).

The mental health care system is chronically underfunded and under-resourced. There are many challenges to accessing high quality mental health services, including stigma, clinician shortages, and fragmented care.<sup>6,7</sup> Only 43% of adults with a mental illness have received mental health services in the past year.<sup>8</sup> Approximately 2/3 of primary care physicians have difficulty connecting their patients with outside mental health services.<sup>9</sup>

Primary care clinicians have become essential providers of mental health services.<sup>10</sup> Primary care is often the entry point for diagnosis and treatment of mental illness.<sup>11</sup> Two-thirds of patients with depression get treatment for their symptoms in the general medical setting.<sup>12</sup> One-fifth of primary care visits address mental health concerns.<sup>13</sup> Primary care plays a critical role in the delivery of mental health services in difficult to reach settings, such as rural locations.<sup>10</sup>

When COVID-19 was declared a public health crisis on March 13, 2020, normal patterns of patient care abruptly halted. There was a drastic reduction of in-person services due to patient and provider safety concerns.<sup>14</sup> Primary care quickly established telemedicine as a practical and necessary platform. While telemedicine previously had been established as a successful way to deliver high-quality, cost-effective care in the realm of behavioral health,<sup>15,16</sup> it quickly became an essential tool to address behavioral health needs. Telemedicine is defined here as an interaction that permits 2-way, real-time interactive communication between the patient and clinician that uses audio and/or visual elements.<sup>17</sup>

The objective of this analysis was to review the provision of mental health services in primary care during the pandemic, including the use of telemedicine services for mental health.

## Methods

### *Survey Development*

The Larry A. Green Center, in partnership with the Primary Care Collaborative, conducted a series of national, cross-sectional surveys of primary care clinicians and patients beginning in March 2020 to track the impact of the pandemic on primary care in the US. Questions were developed in conversation with a 10-member National Advisory Board and informed by the current state of the pandemic, previous findings, as well as concerns expressed by previous survey respondents. Clinician demographics were collected

for each iteration of the survey including specialty, characteristics of practice setting, ownership, and population served.

Over 50 Larry A. Green Center surveys have been fielded since the start of the pandemic resulting in a total of over 50,000 survey responses collected across the US and its territories. This article focuses on data from Clinician Series 23, which was chosen due to its focus on mental health in the primary care setting and use of telemedicine.

### *Survey Distribution*

The survey was posted on SurveyMonkey, and survey invitations were distributed through a network of over 100 national, state, and local organizations, social media, and a mailing list of respondents who had opted-in to receiving future versions of this survey through subscription. Survey responses were anonymous.

### *Data Collection and Analysis*

Data collection occurred November 13 to 17, 2020. Identifiable data, including respondent IP addresses, were removed immediately when results were downloaded from SurveyMonkey<sup>TM</sup>. Quantitative data were analyzed at the national and regional levels. Characteristics of respondents, practice settings, and patient populations were summarized using descriptive statistics. The outcomes of interest were indicators of clinicians' perceptions of worsened patient mental health during the pandemic, use of telemedicine for mental health visits, and utilization of video or phone-based telemedicine. Associations between practice setting, patient characteristics, and each of the outcomes were tested using chi squared tests with an  $\alpha$  level of 0.05 to determine significant associations. This study was approved by Virginia Commonwealth University's Institutional Review Board (HM20016728).

## Results

Characteristics of the 1,472 primary care respondents, including clinicians from 49 states and Guam, are shown in Table 1.

Respondents reported higher levels of mental health concerns (88%), substance use (37%), and food insecurity (33%) among their patients during the pandemic. Of clinicians, 65% increased provision of mental health support and 22% increased

**Table 1. Characteristics of Primary Care Clinicians, Including Specialty, Degree, Practice Setting, and Population Served**

Variable	Clinician Characteristics % (n)
Specialty	Family medicine 68.6% (1010) Internal medicine 12.6% (186) Pediatrics 8.8% (129) Geriatrics 2.8% (41) Other 7.2% (106)
Degree	MD 70.4% (1037) DO 5.4% (80) NP/PA 14.9% (220) Other 9.1% (135)
Practice setting	Rural 20.8% (306) Non-rural 79.1% (1116)
Population served (>50% of total patients)	Medicaid 21.0% (255) Medicare 14.8% (188) Uninsured 6.8% (79) Low-income 34.0% (469) Non-English speaking 8.4% (96) Racial and ethnic minorities 21.0% (286) Chronic comorbidities 58.8% (859)

Abbreviations: MD, Medical doctors; DO, Doctors of osteopathic medicine; NP, Nurse practitioners; PA, Physician assistants.  
Notes: n = 1472.

treatment of substance use. Many clinicians increased support of social needs including housing (16%) and food (20%) insecurity.

Most (64%) primary care clinicians used telemedicine for mental health services, including clinicians in urban and rural areas, and with varying payer mix and patient population. Telemedicine for mental health services was more commonly used in urban settings. Differences in telemedicine use, for all medical services, is shown by clinician setting, payer type, and patient population in Table 2.

There were variations in primary care use of video versus phone-based telemedicine. 46% of clinicians used video-based care for more than 20% of their total visits and 37% of clinicians used phone-based care for more than 20% of their visits. Phone-based care was widely used in rural and urban settings. Phone-based care was more common for clinicians caring for a largely uninsured population (60% vs 42%,  $P < .01$ ), low-income population (54% vs 31%,  $P < .01$ ), Medicare population (45% vs 36%,  $P < .05$ ), non-English speaking patients (67% vs 40%,  $P < .001$ ), and racial and ethnic minority patients (58% vs 34%,  $P < .001$ ).

## Discussion

Primary care served as a steadfast provider for mental health well before the onset of the pandemic. Primary care provided essential services to address the mental health crisis exacerbated by the pandemic. Telemedicine was an essential tool for doing so.

Equitable access to mental health care is foundational to ensuring wellness and recovery from the COVID-19 pandemic. Underserved communities have been disproportionately impacted by the pandemic,<sup>18</sup> with a greater need for mental health services likely a major contributing factor.<sup>19</sup> Prepandemic studies have demonstrated decreased access to mental health services for patients living below the poverty line,<sup>20</sup> non-English speakers,<sup>21</sup> and patients living in rural areas.<sup>22</sup> Our survey indicates that primary care filled a portion of this gap by providing mental health services, largely via telehealth, to these communities (Medicaid recipients as a marker for individuals living below the poverty line). Our findings show that phone-based care, as compared with video-based care, may improve access to care for historically disadvantaged groups. Prior literature has demonstrated benefits of phone-based services, overcoming concerns about computer literacy, access to video services, language barriers, and privacy.<sup>15</sup>

Importantly, telemedicine acted as a foundational delivery mechanism of mental health care when social distancing and stay-at-home orders discouraged mobility. While there is substantial evidence for the efficacy of telemedicine interventions for mental health conditions,<sup>23</sup> its use in primary care was more limited before the pandemic.<sup>24</sup> Telemedicine is well suited to address mental health needs. Previously many practices have endured challenges in access and high no-show rates for in-person behavioral health follow-up.<sup>25</sup> Telemedicine allows for more reliable follow-up and to get most essential subjective and objective data from patients through history and provider observation via video conferencing. When starting medications for common diagnoses such as ADHD, anxiety, or depression, providers can easily titrate medications and monitor side-effects given the ease of telehealth follow-up. Prior literature has shown telemedicine addresses many barriers to accessing mental health needs, including taking time from work, childcare needs, transportation, and overcoming

**Table 2. Differences in Telemedicine Use by Clinician Setting, Payer Type, and Patient Population**

Variable	Overall n (%)	Patients' MH worse amid pandemic n (%)	Video-based care for >20% of visits n (%)	Phone-based care for >20% of visits n (%)	Telemedicine for MH/BH visits n (%)
Full sample	1,472 (100)	1,291(87.7)	683 (46.4)	545 (37.0)	935 (63.5)
Urbanicity					
Urban	1,166 (79.2)	1,019 (87.4)	<b>578 (49.6)</b>	<b>447 (38.3)</b>	<b>774 (66.4)</b>
Rural	306 (20.8)	272 (88.9)	<b>105 (34.3)</b>	<b>98 (32.0)</b>	<b>161 (52.6)</b>
Payer mix proportion					
Medicare					
10 to 49%	941 (63.9)	832 (88.4)	432 (45.9)	<b>337 (35.8)</b>	<b>623 (66.2)</b>
>50%	188 (12.8)	167 (88.8)	92 (48.9)	<b>85 (45.2)</b>	<b>92 (48.9)</b>
Unsure	343 (23.3)				
Medicaid					
10 to 49%	803 (54.6)	710 (88.4)	<b>383 (47.7)</b>	<b>267 (33.3)</b>	519 (64.6)
>50%	255 (17.3)	229 (89.8)	<b>99 (38.8)</b>	<b>135 (52.9)</b>	172 (67.5)
Unsure	414 (28.1)				
Uninsured					
10 to 49%	705 (47.9)	618 (87.7)	312 (44.3)	<b>298 (42.3)</b>	453 (64.3)
>50%	79 (5.4)	66 (83.5)	28 (35.4)	<b>47 (59.5)</b>	43 (54.4)
Unsure	688 (46.7)				
Population					
Low income					
10 to 49%	668 (45.4)	590 (88.3)	<b>330 (49.4)</b>	<b>206 (30.8)</b>	412 (61.7)
>50%	469 (31.9)	421 (89.8)	<b>185 (39.5)</b>	<b>252 (53.7)</b>	305 (65.0)
Unsure	335 (22.8)				
Non-English speaking					
10 to 49%	822 (55.8)	734 (89.3)	401 (48.8)	<b>326 (39.7)</b>	536 (65.2)
>50%	96 (6.5)	82 (85.4)	42 (43.8)	<b>64 (66.7)</b>	69 (71.9)
Unsure	554 (37.6)				
Racial and ethnic minority			*		
10 to 49%	902 (61.3)	801 (88.8)	<b>441 (48.9)</b>	<b>303 (33.6)</b>	572 (63.4)
>50%	286 (19.4)	248 (86.7)	<b>120 (42.0)</b>	<b>166 (58.0)</b>	187 (65.4)
Unsure	284 (19.3)				

Abbreviations: MH, mental health; BH, behavioral health.

Notes: Pearson's  $\chi^2$  tests used to test for independence. Values in **bold** are statistically significant at a level of  $P < .05$ .

stigma.<sup>26,27</sup> Telemedicine was shown by other researchers to improve mental health during the pandemic.<sup>27</sup> The reported use of telehealth by primary care providers suggests that mental health may have improved as a direct result of telehealth availability.<sup>27</sup>

Primary care providers are a critical lifeline for their patients during times of stress. Strong relationships exist between primary care clinicians and their patients.<sup>28-30</sup> We submit that our findings of increased uptake of mental health services in primary care are founded on the roots of these relationships. Seeking help for mental health is often stigmatized; however, if patient has a strong foundational relationship with their primary care

clinician, these sensitive topics may become easier to identify and address.

The survey and analysis conducted here has limitations. The results are clinician reported and not based on coding or direct data of telemedicine. Rurality is self-designated. The patient perspective is also excluded from this analysis. This analysis reviewed the use of telemedicine but did not evaluate the quality of telemedicine services or patient outcomes.

All patients with mental health needs should have access to timely, affordable, and professional care. In the US, we are far from achieving equitable access. However, it is clear that during the COVID-19 pandemic, when mental health needs increased, primary care rose to provide



much needed care in formats that met the needs of underserved patients. Telemedicine, in particular phone-based services, played a critical role in providing mental health services for historically disadvantaged populations. Moving forward, the health care system should prepare for evolving mental health needs of patients and prepare primary care, and all mental health clinicians, to ensure access for all populations.

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## References

1. Merikangas KR, He JP, Burstein M, et al. Lifetime prevalence of mental disorders in U.S. adolescents: results from the National Comorbidity Survey replication—adolescent supplement (NCS-A). *J Am Acad Child Adolesc Psychiatry* 2010;49:980–9.
2. Mental health information: Suicide [Internet]. National Institute of Mental Health; 2022 [Accessed 25 April 2022]. Available from: <https://www.nimh.nih.gov/health/statistics/suicide>.
3. WISQARSTM—Web-based injury statistics query and reporting system [Internet]. CDC; 2021 [Accessed 25 April 2022]. Available from: <https://www.cdc.gov/injury/wisqars/index.html>.
4. Murray CJL, Atkinson C, Bhalla K, et al. The state of US health, 1990–2010: burden of diseases, injuries, and risk factors. *JAMA* 2013;310:591–608.
5. Ettman CK, Cohen GH, Abdalla SM, et al. Persistent depressive symptoms during COVID-19: a national, population-representative, longitudinal study of U.S. adults. *Lancet Reg Health Am* 2022;5:100091.
6. Corrigan PW, Druss BG, Perlick DA. The impact of mental illness stigma on seeking and participating in mental health care. *Psychol Sci Public Interest J Interest* 2014;15:37–70.
7. Maxwell J, Bourgoin A, Lindendorf Z. Battling the mental health crisis among the underserved through state Medicaid reforms. *Health Aff Forefr* 2020;10:346125. Available from: <https://www.healthaffairs.org/doi/10.1377/forefront.20200205.346125/full/>.
8. Findings from NSDUH reveal that only a subset of individuals receives services for substance use and mental health issues. SAMHSA; 2017 [Accessed 25 April 2022]. Available from: <https://www.samhsa.gov/newsroom/press-announcements/20170921>.
9. Cunningham PJ. Beyond parity: primary care physicians' perspectives on access to mental health care. *Health Aff* 2009;28:490–501.
10. Xierali IM, Tong ST, Petterson SM, et al. Family physicians are essential for mental health care delivery. *J Am Board Fam Med J Am Board Fam Med* 2013;26:114–5.
11. Wittchen HU, Mühlig S, Beesdo K. Mental disorders in primary care. *Dialogues Clin Neurosci* 2003;5:115–28.
12. Oxman TE, Dietrich AJ, Williams JW, Kroenke K. A three-component model for reengineering systems for the treatment of depression in primary care. *Psychosomatics* 2002;43:441–50.
13. QuickStats: percentage of mental health-related primary care office visits by age group—National Ambulatory Medical Care Survey, United States, 2010 [Internet]. CDC; 2014 [Accessed 25 April 2022]. Available from: <https://www.cdc.gov/mmwr/preview/mmwrhtml/mm6347a6.htm>.
14. Mehrotra A, Chernew M, Linetsky D, et al. The impact of COVID-19 on outpatient visits in 2020: visits remained stable, despite a late surge in cases. *Common Wealth Fund*; 2021 [Accessed 25 April 2022]. Available from: <https://www.commonwealthfund.org/publications/2021/feb/impact-covid-19-outpatient-visits-2020-visits-stable-despite-late-surge>.
15. Totten AM, Womack DM, Eden KB, et al. Telehealth: mapping the evidence for patient outcomes from systematic reviews. Agency for Healthcare Research and Quality; 2016 [Accessed 25 April 2022]. Available from: <http://www.ncbi.nlm.nih.gov/books/NBK379320/>.
16. Roth DE, Ramtekkar U, Zeković-Roth S. Telepsychiatry: a new treatment venue for pediatric depression. *Child Adolesc Psychiatr Clin N Am* 2019;28:377–95.
17. Medicare telemedicine health care provider fact sheet. CMS.gov; 2020 [Accessed 25 April 2022]. Available from: <https://www.cms.gov/newsroom/fact-sheets/medicare-telemedicine-health-care-provider-fact-sheet>.
18. Tai DBG, Shah A, Doubeni CA, et al. The disproportionate impact of COVID-19 on racial and ethnic minorities in the United States. *Clin Infect Dis Off Dis* 2021;72:703–6.
19. Gloster AT, Lamnisos D, Lubenko J, et al. Impact of COVID-19 pandemic on mental health: An international study. *PloS One* 2020;15:e0244809.
20. Lee H, Singh GK. Monthly trends in access to care and mental health services by household income level during the COVID-19 pandemic, United States, April–December 2020. *Health Equity* 2021;5:770–9.
21. Sentell T, Shumway M, Snowden L. Access to mental health treatment by English language

- proficiency and race/ethnicity. *J Gen Intern Med* 2007;22:289–93.
22. McConnell KJ, Charlesworth CJ, Zhu JM, et al. Access to primary, mental health, and specialty care: a comparison of Medicaid and commercially insured populations in Oregon. *J Gen Intern Med* 2020;35:247–54.
  23. Bashshur RL, Shannon GW, Bashshur N, Yellowlees PM. The empirical evidence for telemedicine interventions in mental disorders. *Telemed J E Health* 2016;22:87–113.
  24. Mehrotra A, Huskamp HA, Souza J, et al. Rapid growth in mental health telemedicine use among rural Medicare beneficiaries, wide variation across states. *Health Aff* 2017;36:909–17.
  25. Bunik M, Talmi A, Stafford B, et al. Integrating mental health services in primary care continuity clinics: a national CORNET study. *Acad Pediatr* 2013;13:551–7.
  26. Egede LE, Ruggiero KJ, Frueh BC. Ensuring mental health access for vulnerable populations in COVID era. *J Psychiatr Res* 2020;129:147–8.
  27. Arafat MY, Zaman S, Hawlader MDH. Telemedicine improves mental health in COVID-19 pandemic. *J Glob Health* 2021;11:03004:03004.
  28. Cocksedge S, Greenfield R, Nugent GK, Chew-Graham C. Holding relationships in primary care: a qualitative exploration of doctors' and patients' perceptions. *Br J Gen Pract* 2011;61:e484–e491.
  29. Sawin G, O'Connor N. Primary care transformation. *Prim Care* 2019;46:549–60.
  30. Ellner AL, Phillips RS. The coming primary care revolution. *J Gen Intern Med* 2017;32:380–6.