

Assessing Behavioral Health Workforce Surge Needs during the COVID-19 Pandemic

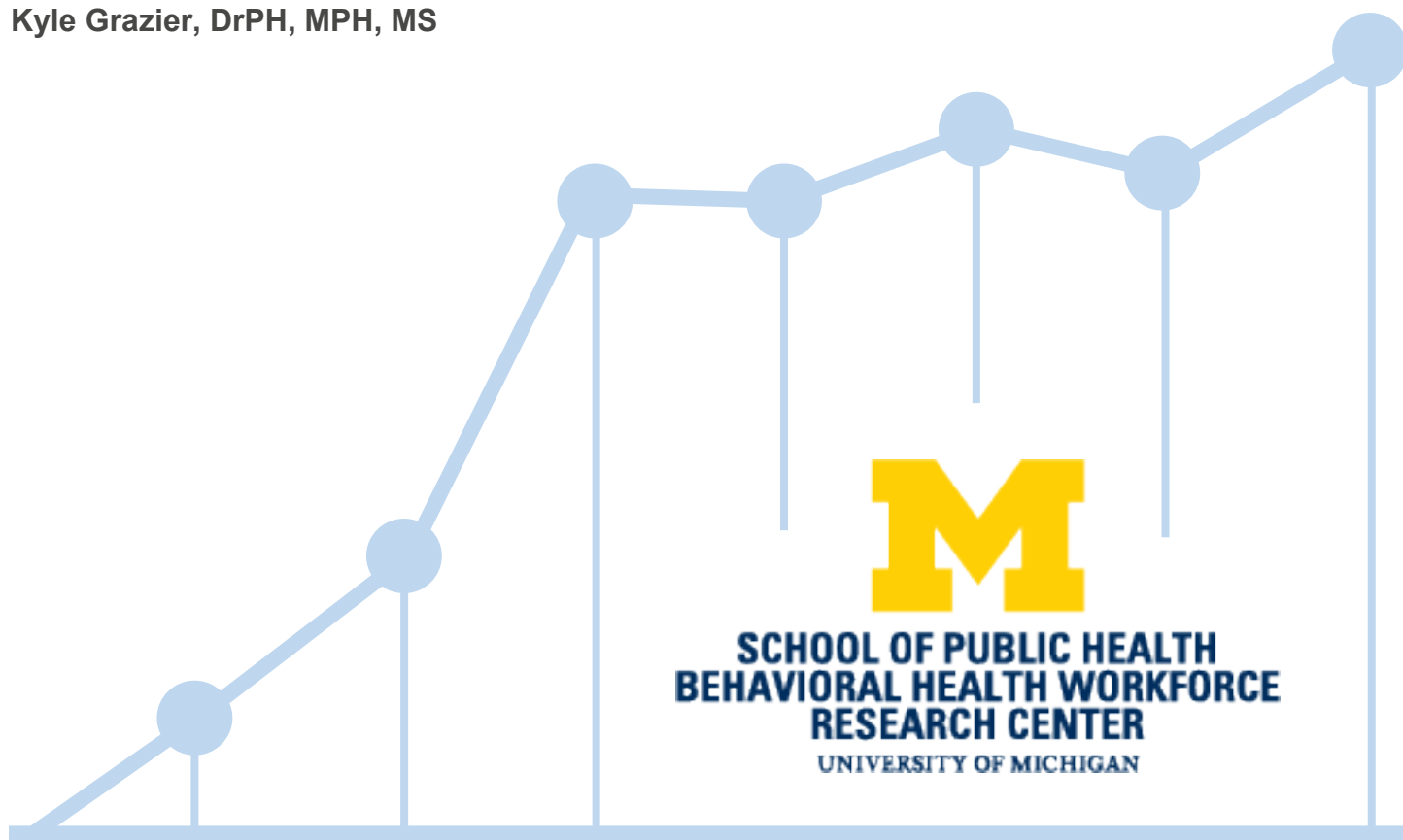
December 2021

Project Team

Victoria Schoebel, MPH

Amanda Mauri, MPH

Kyle Grazier, DrPH, MPH, MS



ACKNOWLEDGEMENTS

The authors gratefully acknowledge John Syrjamaki, MPH, of the Michigan Value Collaborative Coordinating Center and for his extensive personal assistance in accessing and interpreting the data. Additionally, the authors acknowledge Jessica Buche, MPH, MA, managing director for the Behavioral Health Workforce Research Center.

Support for the Michigan Value Collaborative is provided by the Blue Cross Blue Shield of Michigan Value Partnerships program. However, the opinions, beliefs, and viewpoints expressed by the authors do not necessarily reflect those of Blue Cross Blue Shield of Michigan or any of its employees. This study was supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) as part of an award totaling \$900,000. The contents are those of the authors and do not necessarily represent the official views of, nor an endorsement by, the Michigan Value Collaborative, Blue Cross Blue Shield of Michigan, HRSA, HHS, or the U.S. Government. For more information, please visit [HRSA.gov](https://www.hrsa.gov). The funding agency did not have any role in the study design; collection, analysis, and interpretation of data; writing the report; or submission of the report for publication.

AM, KG, and VHS conceptualized the study design. VHS conducted the analysis and wrote the first draft. All authors interpreted the results and reviewed this article before submitting it for publication. The authors report no other conflicts of interest or financial disclosures.

SUGGESTED CITATION

University of Michigan Behavioral Health Workforce Research Center. Assessing Behavioral Health Workforce Surge Needs during the COVID-19 Pandemic. Ann Arbor, MI: UMSPH; 2021.

Table of Contents

| | |
|----------------------------|---|
| Abstract | 4 |
| Introduction | 4 |
| Methods | 5 |
| Study Sample | 5 |
| Measures | 5 |
| Statistical Analysis | 5 |
| Results | 5 |
| Discussion | 6 |
| Limitations | 6 |
| Conclusions | 6 |
| References | 7 |

Abstract

Introduction

In March 2020, the coronavirus disease (COVID-19) pandemic drastically disrupted day-to-day life. Early research suggests the pandemic has led to an increase in behavioral health needs. This study aims to assess the impacts of the COVID-19 pandemic on mental health (MH) by analyzing MH service use among members of a private insurance provider in Michigan.

Methods

Blue Cross Blue Shield of Michigan (BCBSM) health maintenance organization (HMO), preferred provider organization (PPO), and Medicare Advantage (MA) claims data were collected on a monthly basis from January 2019 to December 2020. Negative binomial regression was used to assess counts of monthly MH procedures and diagnoses before and during the COVID-19 pandemic. The analysis was conducted from May to October 2021.

Results

During the pandemic, the rate of MH procedures among BCBSM PPO and MA members increased by 28% (RR=1.28, 95% CI=1.18, 1.39) and 25% (RR=1.25, 95% CI=1.08, 1.43), respectively. Additionally, the rate of MH diagnoses among BCBSM PPO and HMO members both increased by 16% during the pandemic (RR=1.16, 95% CI=1.10, 1.21 and RR=1.16, 95% CI=1.07, 1.25, respectively).

Conclusions

MH service use, especially telemental health service use, increased among many BCBSM members during the pandemic. Policies enacted during the pandemic to support and improve telehealth services should be sustained to promote access to care. Future research should continue to explore the impact of the pandemic on the workforce needed to provide access to MH services.

Introduction

The United States (U.S.) is dealing with the physical consequences of the coronavirus disease (COVID-19) pandemic, with over 43 million COVID-19 cases reported since the start of the pandemic on March 13th 2020, and a dual crisis of increasing behavioral health needs.¹ Day-to-day life drastically changed as stay at home and social distancing orders were implemented and fear of contracting the virus ran rampant.^{2,3} Initial research links this disruption of daily life to an increase in anxiety, depression, trauma, suicidal thoughts, distress, and substance use.⁴⁻⁶ It is crucial to assess behavioral health needs during a national disaster to improve the public health response and workforce capacity.

To address increasing behavioral health needs, laws were implemented to allocate funding for behavioral health services and expand coverage of telehealth services.^{7,8} Additional policies were enacted to make telehealth more accessible by loosening security requirements, implementing service parity, and allowing more provider types to bill for telehealth services.⁹ These changes made telehealth more accessible and are reflected in the increase in the use of telebehavioral health services during the pandemic.¹⁰⁻¹²

This study contributes to the current literature by describing the prevalence of mental health (MH) service use before and during the COVID-19 pandemic using Blue Cross Blue Shield of Michigan (BCBSM) preferred provider organization (PPO), health maintenance organization (hereinafter referred to as Blue Care Network (BCN)), and Medicare Advantage (MA) claims data. Further, this study explored the rates of telemental health use during the pandemic and the impact on the workforce.

Methods

Study Sample

The University of Michigan IRB determined this study as not regulated for review. Permission was granted by the Michigan Value Collaborative (MVC) for their BCBSM PPO, BCN, and MA claims data. BCBSM is a nonprofit insurance company and is the largest health insurer in Michigan with over 3.5 million PPO, 840,000 BCN, and 300,000 MA members.¹³

Due to data availability, only monthly-level claims from January 2019 to December 2020 were included. Claims-level medical data were matched to enrollment information by a unique identifier and brought to the member-level. Only members with a continuous year of coverage (i.e., January 1, 2019 to December 31, 2019) were included and those without a listed coverage date were dropped.

Measures

MH service use was identified using MH procedure codes, MH diagnosis codes, and telemental health procedure codes. CPT, HCPCS, and ICD procedure codes were used to identify MH procedures (Appendix Table 1); ICD-10 diagnosis codes were used to identify MH diagnoses (Appendix Table 2). Two separate binary variables were created to indicate if a member received at least one MH diagnosis/procedure or did not receive any MH diagnoses/procedures per month. The sum of each binary variable created the aggregate counts of monthly MH procedures and diagnoses.

Telemental health procedures codes (Appendix Table 1) and CPT modifiers (02, GQ, and 95) were collected to identify telehealth use. A binary variable was created to indicate if services were provided via telehealth or in-person and was summed to create the aggregate counts of monthly telemental health procedures.

The effect of the COVID-19 pandemic (i.e., the independent variable) was captured using a binary variable indicating if services occurred before the start of the pandemic (i.e., February 2020 or prior) or during the pandemic (i.e., March 2020 or after).

Statistical Analysis

Figures are presented to describe MH service use in 2019 and 2020. Due to overdispersion in the data, negative binomial regression was used to assess monthly counts of MH procedures and diagnoses. An offset was included as the natural log of the total of all health procedures/diagnoses. Models produced estimates of the log rate ratio. Data were analyzed from May to October 2021 using SAS 9.4 software to generate counts and STATA 16.1 software to create figures and run analyses.

Results

At the start of the COVID-19 pandemic, a large spike was observed in the percentage of MH procedures and diagnoses over the total number of procedures/diagnoses recorded among BCBSM (66.7% and 31.6% increase from April 2019 to April 2020, respectively) and BCN members (61.6% and 47.3% increase, respectively; Figures 1 and 2; Appendix Tables 3-5). The percentage of telemental health procedures increased drastically at the start of the pandemic for BCBSM and MA members and remained high with nearly 50% or more of all MH procedures conducted via telehealth during the pandemic (Figure 3).

The rate of MH procedures among BCBSM and MA members increased during the pandemic by 28% (RR=1.28, 95% CI=1.18, 1.39) and 25% (RR=1.25, 95% CI=1.08, 1.43), respectively (Table 1). Additionally, the rate of MH diagnoses among BCBSM and BCN members both increased by 16% during the pandemic (RR=1.16, 95% CI=1.10, 1.21 and RR=1.16, 95% CI=1.07, 1.25, respectively).

Discussion

This preliminary analysis of BCBSM claims revealed a general increase in MH service use during the COVID-19 pandemic. Results align with current literature suggesting the pandemic has contributed to an increase in MH needs.¹⁴⁻¹⁶ Although there was an initial surge in MH service use, it declined over time; these changes may be reflective of the initial dramatic change of lifestyles at the start of the pandemic and a gradual return to pre-pandemic lifestyles that began in June 2020.¹⁷ This suggests the public health response to a national disaster should include a behavioral health workforce component to prepare for an initial surge in need for behavioral health care.

Results indicate a majority of MH procedures were conducted via telehealth during the pandemic. These findings are consistent with existing literature reporting increased usage of telebehavioral health services during the pandemic.^{12,14,16} Both providers and clients have expressed satisfaction with telebehavioral health services and its improved access to care.¹⁸⁻²⁰ Sustaining these telehealth practices can improve the capacity of the behavioral health workforce to meet behavioral health needs and overcome barriers to care.^{16,20}

Limitations

This study was subject to constraints of claims data, such as a large number of observations being dropped due to missing coverage date information when restricting to those continuously enrolled for each year. Further, additional covariates were not added to the model due to data and time restrictions. Future research should examine MH service use during the COVID-19 pandemic by subgroups that are disproportionately affected by the pandemic.⁵

Caution should be taken when interpreting the data due to claims having a lag time between when a service occurs and when it is reported. This subsample of BCBSM members also limits this study's generalizability. Lastly, this study lacked 2021 data, but did analyze claims patterns prior to the pandemic and continuously through 2020.

Conclusion

As the COVID-19 pandemic continues, it is essential to understand its influence on MH needs to address workforce capacity to meet these needs. This study found the rate of MH service use and telemental health use increased during the pandemic for many BCBSM members. Policies that support telemental health use should be sustained after the pandemic to continue improving access to MH care.

References

1. Centers for Disease Control and Prevention. COVID data tracker. Centers for Disease Control and Prevention. Updated October 17, 2021. Accessed October 18, 2021. <https://covid.cdc.gov/covid-data-tracker/#datatracker-home>
2. Nicola M, Alsafi Z, Sohrabi C, et al. The socio-economic implications of the coronavirus pandemic (COVID-19): a review. *Int J Surg.* 2020;78:185-193. doi:10.1016/j.ijisu.2020.04.018.
3. Boden M, Zimmerman L, Azevedo KJ, et al. Addressing the mental health impact of COVID-19 through population health. *Clin Psychol Rev.* 2021;85:102006. doi:10.1016/j.cpr.2021.102006.
4. Sherman AC, Williams ML, Amick BC, Hudson TJ, Messias EL. Mental health outcomes associated with the COVID-19 pandemic: prevalence and risk factors in a southern US state. *Psychiatry Res.* 2020;293:113476. doi:10.1016/j.psychres.2020.113476.
5. Panchal N, Kamal R, Garfield R. The implications of COVID-19 for mental health and substance use. Kaiser Family Foundation. Published February, 10 2021. Accessed October 18, 2021. <https://www.kff.org/coronavirus-covid-19/issue-brief/the-implications-of-covid-19-for-mental-health-and-substance-use/>
6. Wu T, Jia X, Shi H, et al. Prevalence of mental health problems during the COVID-19 pandemic: a systematic review and meta-analysis. *J Affect Dis.* 2021;281:91-98. doi:10.1016/j.jad.2020.11.117.
7. CARES Act, H.R. 748, 116th Congress. (2020).
8. Consolidated Appropriations Act, H.R. 133, 116th Congress. (2021).
9. Haque SN. Telehealth beyond COVID-19. *Psychiatr Serv.* 2020;72:100-103. doi:10.1176/appi.ps.202000368.
10. Perrin PB, Rybarczyk BD, Pierce BS, et al. Rapid telepsychology deployment during the COVID-19 pandemic: a special issue commentary and lessons from primary care psychology training. *J Clin Psychol.* 2020;76(6):1173-1185. doi:10.1002/jclp.22969.
11. Canter J, McBain RK, Kofner A, et al. Telehealth adoption by mental health and substance use disorder treatment facilities in the COVID-19 pandemic. *Psychiatr Serv.* 2021;00:1-7. doi:10.1176/appi.ps.202100191.
12. Yu J, Casalino L, Pincus HA. Telehealth use for mental health conditions among enrollees in commercial insurance. *Psychiatr Serv.* 2021;00:1-2. doi:10.1176/appi.ps.202000778.
13. Blue Cross Blue Shield Blue Care Network of Michigan. Fast facts. Blue Cross Blue Shield Blue Care Network of Michigan. Updated 2015. Accessed October 18, 2021. <https://www.bcbsm.com/index/about-us/our-company/fast-facts.html>
14. Mchugh A. 2021. Blue Cross Blue Shield of Massachusetts releases new data on mental health & substance use disorder claims during COVID-19 pandemic: use of outpatient mental health services up nearly 20%, anxiety and depression top list of telehealth diagnoses. Accessed October 26, 2021. <https://www.proquest.com/docview/2522342048?pq-origsite=primo&accountid=14667>
15. Xiong J, Lipsitz O, Nasri F, et al. Impact of COVID-19 pandemic on mental health in the general population: a systematic review. *J Affect Dis.* 2020;277:55-64. doi:10.1016/j.jad.2020.08.001.
16. Federal Emergency Management Agency. Telebehavioral health: accessing behavioral healthcare before, during, and after the COVID-19 pandemic. COVID-19 impact analysis of FEMA region 8 states. Published March 2021. Accessed October 25, 2021. https://www.fema.gov/sites/default/files/documents/fema_telebehavioral-health-access-covid19.pdf

17. Michigan.gov. 2020. Governor Whitmer rescinds Safer at Home Order, moves Michigan to phase four of the MI Safe Start Plan. Accessed October 25, 2021. https://www.michigan.gov/whitmer/0,9309,7-387-90499_90640-530627--,00.html
18. Guinart D, Marcy P, Hauser M, Dwyer M, Kane JM. Patient attitudes toward telepsychiatry during the COVID-19 pandemic: a nationwide, multisite survey. *JMIR Ment Health*. 2020;7(12):e24761. doi:10.2196/24761.
19. Wright J, Dewan S, Hilty D, Dewan NA. Health care providers' perceptions of quality, acceptance, and satisfaction with telebehavioral health services during the COVID-19 pandemic: survey-based study. *JMIR Ment Health*. 2020;7(12):e23245. doi:10.2196/23245.
20. Schoebel V, Wayment C, Gaiser M, et al. Telebehavioral health during the COVID-19 pandemic: a qualitative analysis of provider experiences and perspectives. *Telemed J E Health*. 2021;27(8). doi:10.1089/tmj.2021.0121.