



Tele-mental Health Utilization Trend with Rural-Urban Differences in Mississippi 2020 – 2022



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INTRODUCTION

Tele-mental health (TMH) services have played a crucial role in meeting mental health needs, transcending geographical boundaries and socioeconomic barriers to reach patients residing in isolated rural communities. In response to the COVID-19 Public Health Emergency, the Centers for Medicare and Medicaid Services (CMS) and private payers expanded coverage policies for TMH services. This policy adaptation, coupled with the necessity for physical distancing, dramatically accelerated TMH adoption across the U.S. healthcare sector.

AIM

This study explores the **TMH utilization trend** at the University of Mississippi Medical Center from 2020 to 2022, investigating patient **sociodemographic characteristics** associated with TMH usage. The findings contribute to understanding the impact of the pandemic and **policy changes** and can inform future policymaking.

METHODS

Study design: Observational study

Participants: Patients sought healthcare from the academic department, Department of Psychiatry and Human Behavior at the University of Mississippi Medical Center (UMMC) from January 2020 to June 2022.

Data source: The investigation encompassed all outpatient encounters completed at UMMC during the study period. Encounters were classified based on the use of TMH service, identified through the documented visit type. The first completed TMH encounter for each patient within these intervals was extracted.

Context: Mississippi is predominantly rural and economically disadvantaged. With 65 of its 82 Mississippi counties being rural, it presents a valuable context to delve into healthcare disparities, particularly in mental health services. The University of Mississippi Medical Center (UMMC), the state's only academic medical center, has been at the forefront of mental health care, demonstrated by its ability to shift most mental health services to TMH within a week following the PHE declaration.

KEY FINDINGS

- The surge in TMH during the pandemic affirms its potential as a **flexible and accessible** modality, especially beneficial for vulnerable populations. However, the return to in-person services dominance by 2022 raises concerns about the **long-term sustainability** of TMH post-pandemic. This trend was especially pronounced among pediatrics, possibly due to unique barriers, such as parental involvement requirements and hands-on clinical assessment, that could complicate TMH implementation.
- A **more drastic shift was displayed among urban populations between TMH and in-person care compared to their rural counterparts**. This pronounced magnitude of the disparity underscores the advanced access of urban patients to both forms of mental healthcare services while highlighting the **continual disadvantage faced by rural patients** in accessing mental health services.
- During the Mississippi PHE, from March 1, 2020, to November 20, 2021, **Mississippi Medicaid covered audio-only telehealth services**, facilitating many TMH encounters when video options were unavailable. Unfortunately, this coverage **ended** with the conclusion of the Mississippi PHE, potentially contributing to the **reduced Medicaid coverage among pediatric** TMH users in the mid-COVID-19 phase. Vulnerable groups, including those with Medicaid coverage residing in rural areas, are more likely to opt for audio-only visits (Chen et al., 2022), standing to be most affected by this policy change.

Figure 2. Patient characteristics in early (Q1 – Q2 2020) and mid (Q1 – Q2 2022) COVID-19 phases by residency areas.

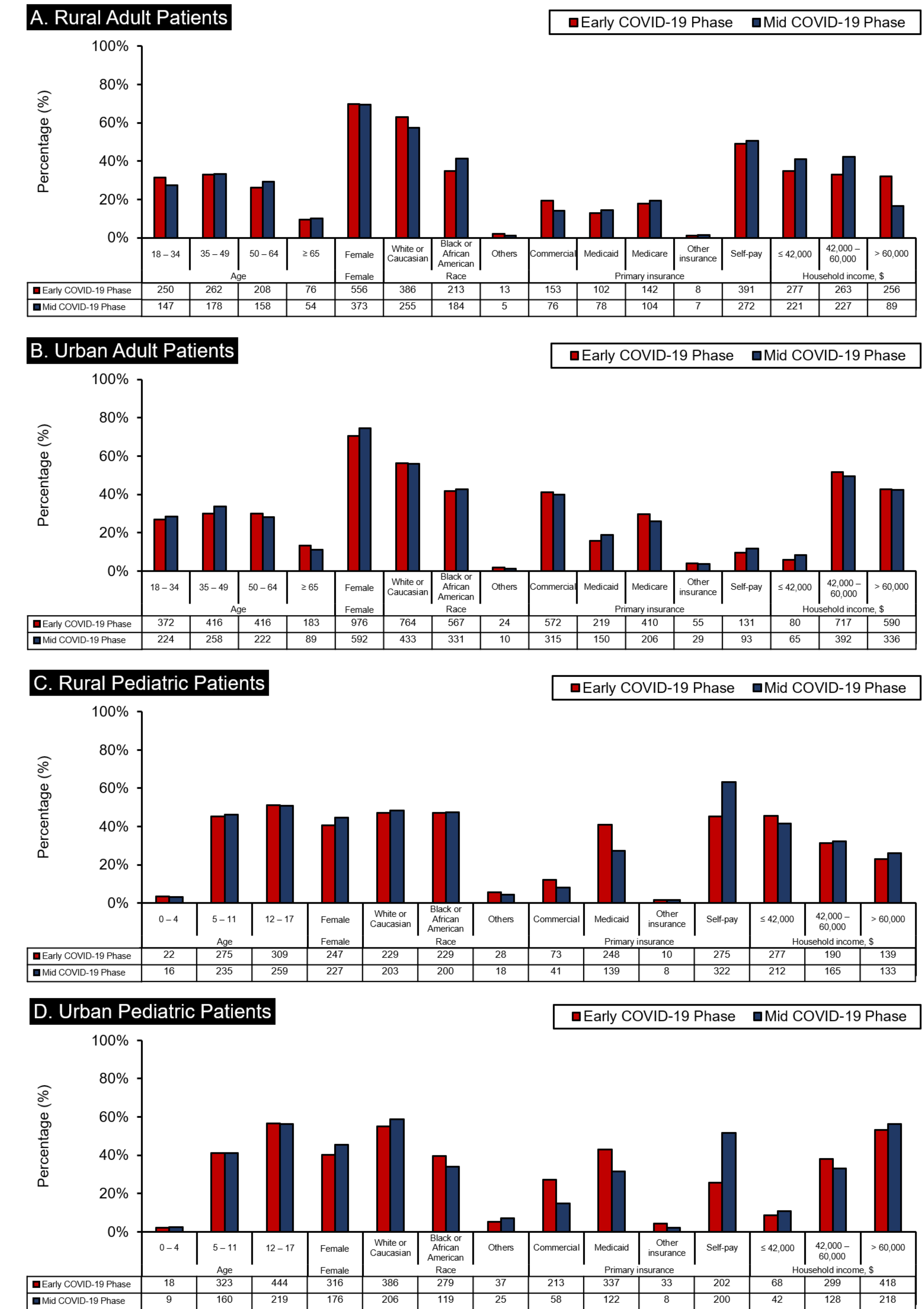
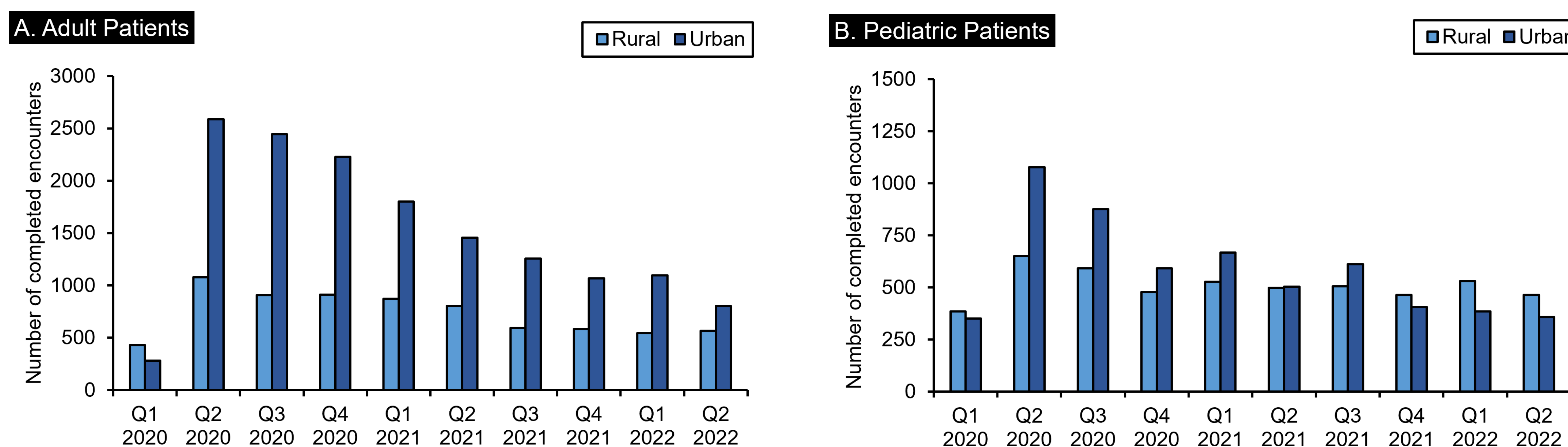


Figure 1. Trends of completed TMH encounters in rural and urban areas for adult and pediatric patients, Q1 2020 – Q2 2022.



REFERENCES

Chen, J., Li, K. Y., Andino, J., Hill, C. E., Ng, S., Steppe, E., & Ellimoottil, C. (2022). Predictors of Audio-Only Versus Video Telehealth Visits During the COVID-19 Pandemic. *J Gen Intern Med*, 37(5), 1138-1144. <https://doi.org/10.1007/s11606-021-07172-y>