

**Submission Id:** 3548

**Title**

*Quantifying Disparities in Access to Primary Care and Telehealth During COVID-19*

**Priority 1 (Research Category)**

Health Care Disparities

**Presenters**

Zachary Morgan, MS, Mingliang Dai, PhD, Lars Peterson, MD, PhD, Robert Phillips, MD, MSPH, MSPH

**Abstract**

Context: Early evidence suggests that many patients chose to forgo or delay necessary medical care during the COVID-19 pandemic. Little is known about how existing and well-documented disparities in access to care exacerbated by the pandemic were experienced in primary care settings; in particular, whether additional barriers emerged amidst a rapid shift to telehealth for certain groups of patients.

Objectives: 1) Quantify changes across in-person and telehealth primary care visit volume during the COVID-19 pandemic. 2) Examine associations between these changes and patient characteristics including age, gender, race, ethnicity, Charlson Comorbidity Index (CCI), rurality, and county-level Social Deprivation Index (SDI).

Study design: Longitudinal.

Datasets: EHR data including patient visits, procedures, diagnoses, and demographics captured in the American Board of Family Medicine's PRIME Registry from 3/15/19-3/14/21.

Population studied: 1,982,625 patients seeing 1,323 primary care clinicians from 482 primary care practices.

Outcome measures: We calculated percent change in total and in-person visit volume during the pandemic (3/15/20-3/14/21) relative to the prior 12-months. We defined the Telehealth Conversion Ratio (TCR) as the number of telehealth encounters during the pandemic divided by the total visits from the prior year. Cluster bootstrapping was performed to construct 95% CIs. We also used 7-day moving averages to explore how the outcomes varied during the pandemic.

Results: During the pandemic we observed decreases of 9% and 20% in the average number of total and in-person visits, respectively, as well as an 11% TCR. Total visits reached a nadir in April 2020 with a 29% decrease from the same point in 2019. Telehealth visits peaked the next week with a TCR of 22%. The largest declines were observed in pediatric (-26% Visit Volume) and Asian patients (-12%), and for those

with a CCI score of 3 or higher (-13%). Telehealth usage was lowest among pediatric (7% TCR) and highest among Hispanic (17%), and urban patients (13%).

Conclusion: Declines in primary care in-person visits during the pandemic were partially offset by an increase in telehealth use. The magnitude of decline as well as telehealth usage were associated with patient characteristics, suggesting potential racial, geographic, and other disparities in access to care during the pandemic. These metrics and results are novel and foundational for ongoing & further study of this this topic.