

**Increasing Age and Medicare Insurance are Barriers to Telemedicine Access During the  
COVID-19 Pandemic – A Quality Improvement Project**

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## **ABSTRACT**

**Background:** Telehealth use has had widespread expansion and adoption during the ongoing coronavirus disease 2019 (COVID-19) pandemic. This study aims to evaluate access to telehealth essentials (TE) using a novel metric.

**Methods:** This single institute study surveyed outpatient surgical patients during the COVID-19 pandemic to determine their access to TE. Generalized linear mixed models were used to determine the relationship of demographic and county-level variables on access to four TE.

**Results:** 138 patients were surveyed. Sixty-six (47.8%) were from Appalachian Kentucky. In the survey cohort, 122 (88.4%) had smart phones, 109 (80.7%) had devices with video messaging capabilities, 106 (80.9%) had cellular reception, and 112 (82.4%) had access to WiFi. Increasing age and Medicare insurance were the most consistent predictors of lack of access to TE.

**Conclusion:** Rural Appalachian Kentucky has access to TE. Telehealth has the potential to decrease the healthcare inequity in rural populations, but may worsen it in the ageing population.