Lesson Learned about Telehealth Services in Primary Care at the Veterans Health Administration during COVID-19

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BACKGROUND

Despite the recent expansion of telehealth services during the past two years, since the onset of the COVID-19 pandemic, little is known about how telehealth use impacts patient outcomes in primary care.

OBJECTIVE

Examined the association between use of telehealth services and hospitalizations at the site level during the last three years (2019-2022) at the Veterans Health Administration (VA).

METHODS

- Negative binominal regression, site-level analyses for 117 VA urban sites nationwide, examining the effect of telehealth use on hospitalizations
- Main outcome: Total number of hospitalizations for 12 quarters (4/1/2019 - 3/31/2022)
- Main predictor: Total number of telehealth visits for 12 quarters (4/1/2019 - 3/31/2022)
- Other site-level characteristics: % male, % 65+ years of age, % Hispanic, % Black, % with multiple chronic conditions, % with high service-connected disability, geographic region, and total patient count per site

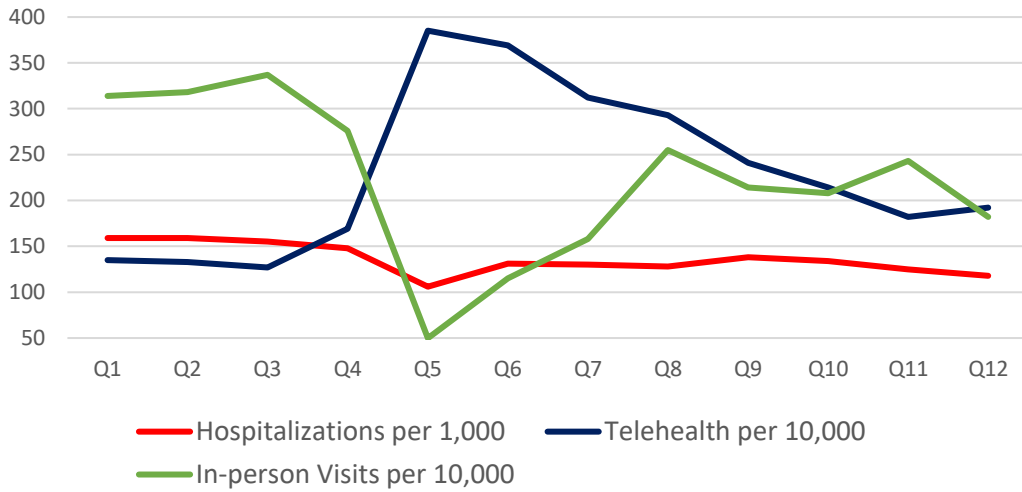
RESULTS

Adjusted IRR for associations between hospitalizations and telehealth at VA urban sites

Variable	Incidental Risk Ratio (IRR)	95% Confidence Limits (CL)
Use of telehealth	0.96	0.87 - 1.07
Office visits	0.90	0.81 - 1.00
Facility mean CCI	1.56*	1.34 - 1.83
Telehealth X Visit	0.96*	0.92 - 0.98
Telehealth X CCI	0.94*	0.89 - 0.99

* Statistically significant at $p < 0.05$

Quarterly trends in hospitalizations per 1,000 patients, telehealth and in-person office visits per 10,000 patients, at VA urban sites (April 2019 - March 2022)



CONCLUSIONS

These exploratory findings from site-level analyses of VA primary care clinics in urban areas suggest the possibility that telehealth visits compared to traditional office visits have similar impacts on patient outcomes. This illustrates the potential positive effects of virtual care on patient outcome (e.g., hospitalization). This is an important step to help inform how to create hybrid care models to better meet the healthcare needs of all types of patients. More research is needed to better understand the direct impact of telehealth use on health outcomes at the patient level.

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