

Contrasting Care Delivery Modalities Used by Primary Care and Mental Health Specialties in VA's Telehealth Contingency Staffing Program During the COVID-19 Pandemic



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INTRODUCTION

Telehealth can effectively connect patients to providers virtually across both distance and time.¹ The Veterans Health Administration (VA) has championed using telehealth to address staffing shortages in primary care, mental health, and other specialties, especially among rural clinics. Beginning October 2019, VA's Clinical Resource Hub (CRH) program was implemented in 18 regional networks across all 50 states.² Understaffed spoke clinic sites within each VA regional network could request CRH providers from the hub clinic site to deliver contingency services via telehealth, and as needed in person. While the COVID-19 pandemic expanded telehealth

delivery throughout the VA, CRH primary care and mental health specialties had similar telehealth infrastructure at baseline, which offered a unique perspective during this national disaster. This study examined the use of various telehealth modalities by CRH providers, comparing primary care versus mental health services before and after pandemic onset (before versus after March 2020).

METHODS

In this retrospective cohort study, we included all VA patients with at least one CRH visit between October 1, 2019, and June 30, 2021 ($n = 558,384$ visits). CRH visits are identified using CRH-specific codes that correspond to CRH provider roles and are linked to VA visit data. Using established methods,³ we counted CRH in-person, telephone, and video (with a patient at home or at spoke clinic) visits by specialty. We conducted a balanced comparison of primary care

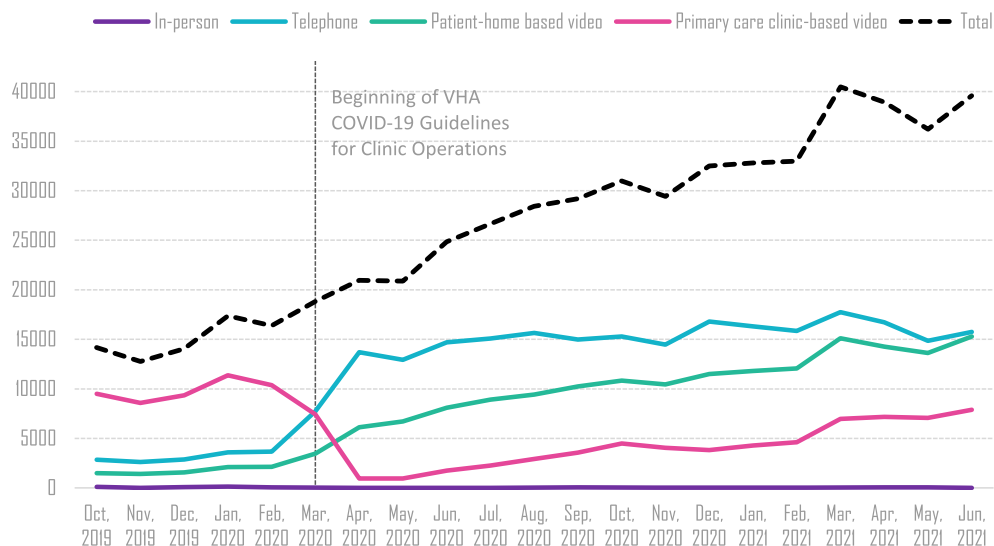


Figure 1 Clinical resource hub visits by type, October 1, 2019, and June 30, 2021. After COVID-19's onset (April 2020 and later), primary care clinic-based video visits, on average, decreased 40% (monthly mean 3925 [SD = 2095] versus 9835 [SD = 1071]; t test = 8.02; $p < .0001$) compared to the months prior (February 2020 and earlier). In contrast, telephone (monthly mean 3119 [SD = 474] versus 15,364 [SD = 1274]; t test = -30.53; $p < .0001$) and patient home-based video visits (monthly mean 1744 [SD = 354] versus 10,655 [SD = 2675]; t test = -12.17; $p < .0001$) increased by over five- and sixfold, respectively.

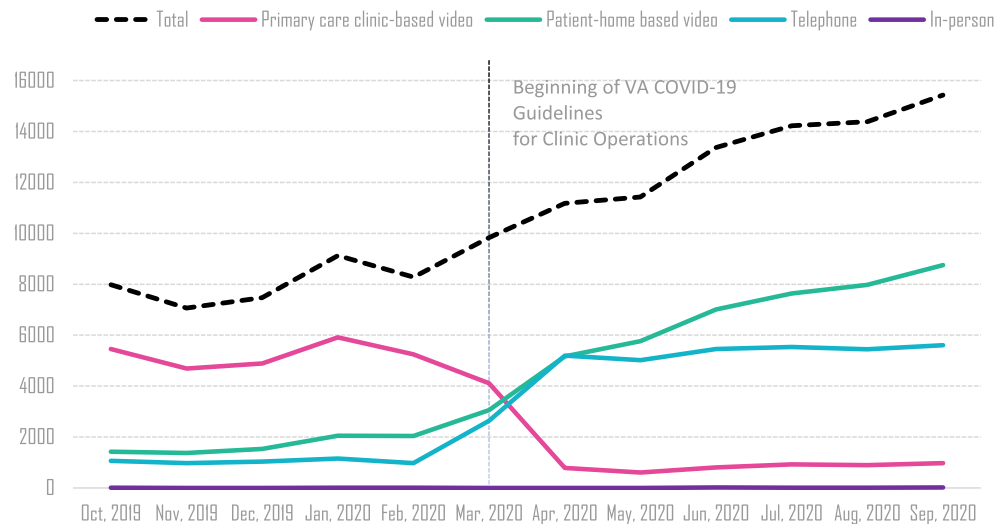
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and mental health visit patterns 6 months before and after COVID-19 onset, focusing on the pandemic's early course. We used χ^2 and t tests to determine significance using a two-tailed α of 0.05, with SAS version 9.4. This study was part of a VA Office of Primary Care quality improvement project and exempt from institutional review board review.

RESULTS

Over 21 months, 180,068 patients (mean age 60.1 [SD = 16.14] years, range = 19–103, 3.5% were 85+; 160,142 [89%] men; 127,628 [71%] White; 87,860 [49%] rural) received CRH services. Only 895 (0.2%) visits were conducted in person. A total of 282,041 (51%) visits were rural. After COVID-19's onset, we observed a consistent, almost threefold

Mental Health



Primary Care

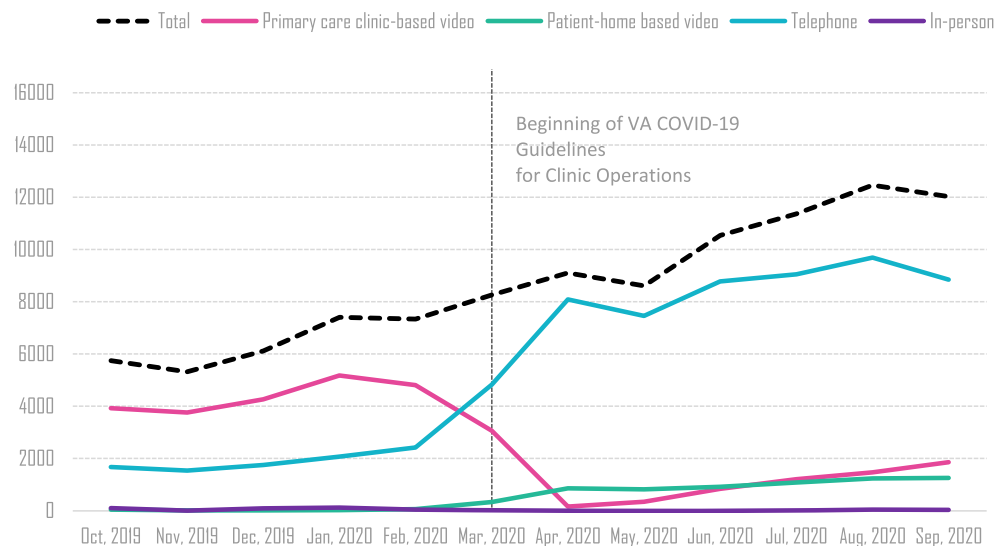


Figure 2 Clinical resource hub mental health versus primary care visits, October 1, 2019, and September 30, 2020. Mental health: Patient home-based video visits represented 53% of CRH mental health visits (monthly mean 7050 [SD = 1364]/13,338 [SD = 1708]) after (April 2020 and later) versus 21% (monthly mean 1682 [SD = 333]/7985 [SD = 792]) before COVID (February 2020 and earlier) (t test = -9.31 ; $p < 0.0001$), while clinic-based video represented 6% of CRH mental health visits (monthly mean 832 [SD = 130]/13,338 [SD = 1708]) after versus 66% (monthly mean 5239 [SD = 483]/7985 [SD = 792]) before COVID (t test = 19.8 ; $p < 0.0001$). Telephone visits represented 40% of CRH mental health visits (monthly mean 5376 [SD = 224]/13,338 [SD = 1708]) after versus 13% (monthly mean 1037 [SD = 75]/7985 [SD = 792]) before COVID (t test = -44.54 ; $p < 0.0001$). **Primary care:** Patient home-based video visits represented 10% of CRH primary care visits (monthly mean 1028 [SD = 190]/10,682 [SD = 1562]) after versus 0.5% (monthly mean 32 [SD = 19]/6385 [SD = 942]) before COVID (t test = -9.31 ; $p < 0.0001$), while primary care clinic-based video represented 10% of CRH primary care visits (monthly mean 980 [SD = 660]/10,682 [SD = 1562]) after versus 68% (monthly mean 4388 [SD = 596]/6385 [SD = 942]) before COVID (t test = 9.0 ; $p < 0.0001$). Telephone visits represented 81% of CRH primary care visits (monthly mean 8650 [SD = 781]/10,682 [SD = 1562]) after versus 30% (monthly mean 1891 [SD = 359]/6385 [SD = 942]) before COVID (t test = -18.94 ; $p < 0.0001$).

increase in services. This was driven near-equally by telephone (254,177) and video (296,092) visits, the latter of which shifted largely from clinic based to home based. Telephone and home-based video visits increased over five- and sixfold, respectively (Fig. 1). Primary care (231,131) and mental health specialty (288,596) services made up the large majority of CRH visits.

Observing 6 months before and after COVID-19 onset, 66,184 (64%) of CRH primary care visits were by telephone and 37,543 (36%) by video, of which 30,879 (30%) were clinic based and 6664 (6%) were home based. Home-based video visits increased to 10% of CRH primary care visits after COVID-19, versus 0.5% before. Clinic-based video decreased to 10% of CRH primary care visits after COVID-19, versus 68% before. In contrast, CRH mental health increasingly relied on home-based video visits (53,763 [41%]), mostly replacing clinic-based video visits (30,879 [30%]) while maintaining a steady, but lower, rate of telephone contacts (40,081 [31%]). Home-based video visits increased to 53% of CRH mental health visits after COVID-19, versus 21% before. Clinic-based video decreased to 6% of CRH mental health visits after COVID-19, versus 66% before (Fig. 2).

DISCUSSION

Early implementation findings suggest that unlike elsewhere,⁴ VA's CRH continued robust and increasing delivery of primary care and mental health care throughout COVID-19. While our analyses do not account for variable CRH implementation and all possible patient and provider factors, they still support growing telehealth capacity as a public health tool for national disasters. CRH providers completed half of the visits with rural patients, for whom disparities in telehealth use have been well documented.^{2,5} Geriatric patients, traditionally stereotyped against telehealth services,⁶ used CRH video visits as well.

CRH telehealth infrastructure is similar for VA primary and mental health care, yet observed differences in telehealth use patterns between specialties may reflect differences in care needs between patients and providers. For example, telephone visits may meet primary care needs for patient requests ranging from urgent problems (e.g., symptom triage) to brief chronic-condition care (e.g., medication refills). Video visits done from a primary care clinic may enable key elements of physical examination. Mental health visits, in contrast, may benefit from video-enabled visual cues and from patient comfort when communicating from home. Rather than focusing on baseline telehealth infrastructure as the main reason for differential telehealth utilization patterns,³ our data suggest the importance of considering intrinsic practice style differences and patient preferences when planning for telehealth expansion.

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Declarations:

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