

Synchronous telehealth utilization trends before and during the coronavirus pandemic 2019 (COVID-19) pandemic

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Background

The coronavirus disease 2019 (COVID-19) pandemic has accelerated health systems' transition into remote care to reduce in-person visits during shelter-in-place to minimize the risk of transmission of the virus¹. Questions on the pattern of telehealth adoption by providers, including pharmacists, from varying health system types prior to and during the COVID-19 pandemic have been prominent.

Objective

Characterize provider, particularly pharmacist-related, visit trends in video visits before and during the COVID-19 pandemic to guide institutions in identifying potential settings in which pharmacists and other providers may make the most impact using telehealth.

Methods

Sample

Patients 18+ years with at least one video or in person visit at a UCSF Health site between September 1, 2017 and May 31, 2020

Data Collection

Time Frame Definitions

- Pre-COVID-19 pandemic defined as September 1, 2017 and February 29, 2020
- During the COVID-19 pandemic defined as March 1, 2020 to May 31, 2020

Trend Variables

- Trends stratified by encounter date, appointment time, provider type, department groups, and appointment completion status
- Departments were grouped into categories: "Primary Care," "Surgery," "Other Specialty," "Geriatric Care," "Cancer Services," "Osher Center for Integrative Medicine," "Psychiatry," and "Pain Management."

Results

Overall, the percentage of video visits out of total visits per month increased from 1.83% pre-pandemic (average 1,227.13 \pm 574.13 per month) to 53.01% (average 23,416.00 \pm 5,310.13 per month) during the pandemic ($P < 0.001$). Patients seen via video increased from an average of 1,103.77 \pm 519.40 per month over 30 months before to 19,007.33 \pm 3,666.45 per month during the first 3 months of the pandemic.

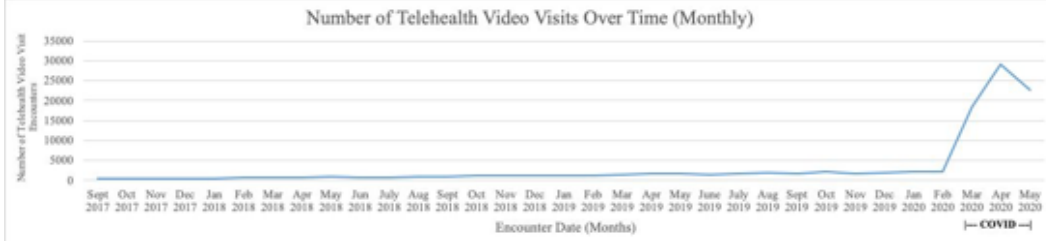


Figure 1. Telehealth Video Visit Frequency Over Time. Percentage of video visits out of total visits per month increased from 1.83% pre-pandemic (average 1,227.13 \pm 574.13) to 53.01% (average 23,416.00 \pm 5,310.13) during the pandemic ($P < 0.001$).

Health Care Provider Trends

- Providers conducting the most video visits per month throughout the study period included physicians (954.83 to 17360.00 visits; $P < 0.0001$), nurse practitioners (142.33 to 2547.00 visits; $P < 0.001$), and residents (42.18 to 1206.00 visits; $P < 0.001$).
- Pharmacist-conducted video visits rose from 0.003% (1 encounter) before to 0.077% (54 encounters) during the pandemic.
- 46 of the 54 encounters with pharmacists via video during the pandemic were billed as "No Charge Visits."

Department Trends

- Pre-pandemic, departments with the highest percentage of video visits included Cancer Services (8.69%), Psychiatry (5.25%), and Pain Management (5.01%); Integrative Medicine replaced Pain Management in the top three during the pandemic.
- During the pandemic, several departments experienced significant increases in telehealth use, with Geriatric Care (12,143% increase) and Psychiatry (1,807 increase) experiencing two of the largest percentage increases in number of video visits.
- Pre-pandemic, only Medicine (1 encounter) had a pharmacist-conducted video visit.
- During the pandemic, pharmacist(s) conducted video visits in the following departments: Medicine (20 encounters), Women's Health (15 encounters), and Anticoagulation Services (19 encounters).

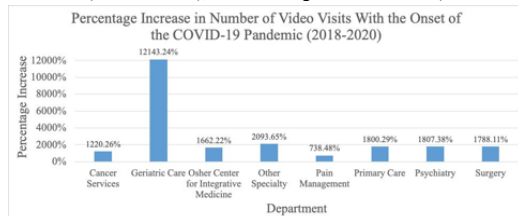


Figure 2. Percentage Increase of Video Visits With the Onset of the COVID-19 Pandemic. Comparing percentage increase in number of video visits per department from 2018 to 2020.

Discussion

This study highlighted the rapid integration of video visits over a short time period, demonstrating the feasibility of providing remote care in various contexts. Pharmacists are well-positioned to provide virtual patient care, and the observed increase in pharmacist-conducted video visits was likely influenced by Medicaid's efforts in lifting telehealth restrictions during the COVID-19 pandemic². However, even with that increase, only a small percentage (0.077%) of pharmacist visits were via video. Enabling the expansion of pharmacists' services through long term reimbursement and achieving provider status could enhance patient care coordination and increase opportunity for pharmacists to be providers of care^{3,4}, enabling pharmacist integration into remote care. Further research is needed to explore opportune areas for pharmacists to engage in remote care. These may include departments like Medicine, Women's Health, and Anticoagulation Services, which utilized their services during the pandemic. The utilization of telehealth during this pandemic will likely impact the landscape of healthcare delivery beyond the COVID-19 pandemic.

Conclusion

- Video visits are a feasible care delivery option as demonstrated by their swift implementation during the COVID-19 pandemic
- Establishing long term reimbursement for pharmacist services could increase opportunity and accessibility for both patients and pharmacists, enabling pharmacist integration into remote care

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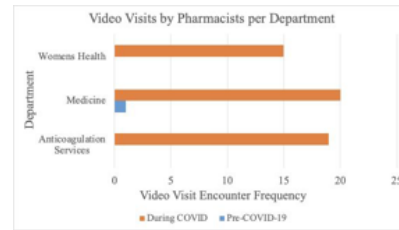


Figure 3. Pharmacist Conducted Video Visits per Department. Out of 19 UCSF departments, all of which had documented telehealth video visits, only 3 divisions had video visits conducted by pharmacists