

Telehealth Utilization and Two-year Outcomes among People with HIV at a Midwestern Clinic

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Background

- Telehealth platforms such as video and telephone visits serve as mechanisms for HIV care delivery during the COVID-19 pandemic.
- Evidence of telehealth benefits among patients and providers have been reported in the literature. For instance, telehealth has shown to reduce transport-related barriers, improve schedule flexibility, and minimize stigma associated with HIV clinic visits among patients.
- In addition, telehealth adoption has empowered patients and providers to develop and apply new skills to healthcare.
- While telehealth may be a valuable tool in HIV care, its utilization, sustainability, and impact on patients' outcomes remain an area for further research.

Purpose

Since the onset of the pandemic, the University of Nebraska Medical Center Specialty Care Center (UNMC SCC)- Nebraska's largest HIV clinic in Omaha has adopted telehealth to avoid interruption in HIV care delivery for People with HIV (PWH). Hence, we aimed to compare PWH utilizing telehealth services to those receiving in-person clinic services at UNMC SCC, and report on HIV outcomes, telehealth utilization rates and factors associated with telehealth use.

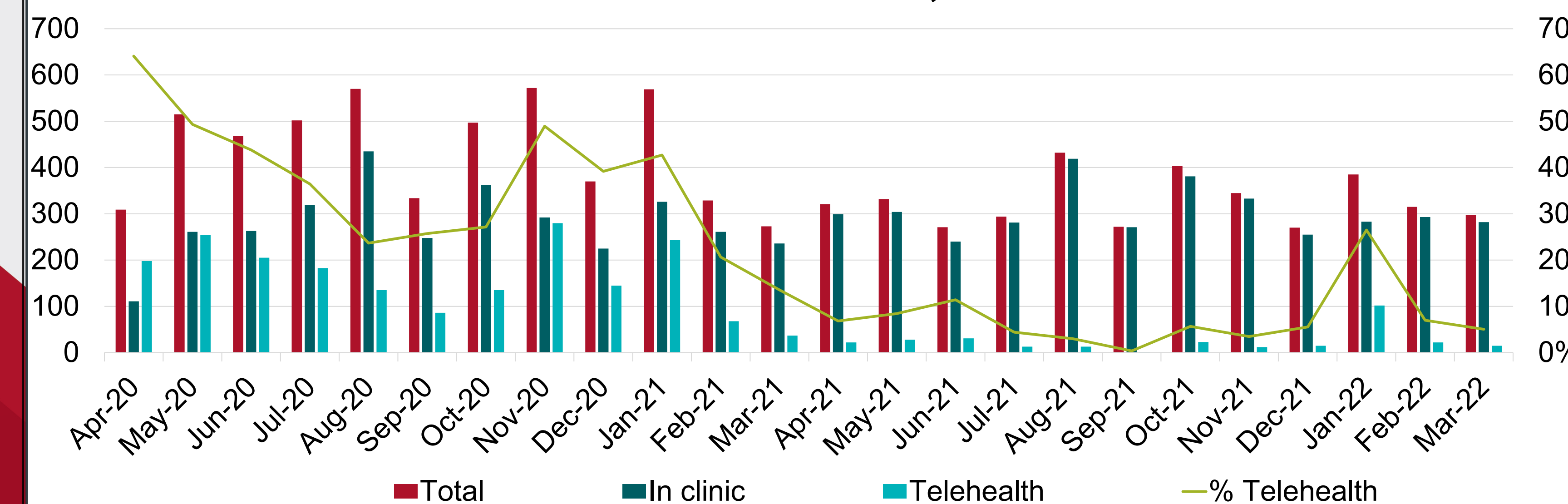
Methods

- In March of 2020, UNMC SCC created a telehealth protocol for telehealth adoption. In addition to this protocol, algorithms of telehealth eligibility are updated regularly and are based on patients' most recent viral loads (VL) and last clinic visits.
- For data analyses, HIV care visits were classified as telehealth and in-person visits
 - Telehealth users were defined as PWH who have utilized telephone or video visits at least once between April 2020 to March 2022.
 - Viral suppression (VS) was defined as HIV RNA <200 copies/mL
 - All telehealth visits not related to HIV care were excluded
- Clinical and demographic comparisons were made
 - Bivariate analyses and descriptive statistics were conducted for associations and proportions of visit type, VL, and completed visits.

Demographics of Telehealth Users Versus In-Person

Characteristics	Telehealth Users N = 172 n (%)	In-clinic visits N= 1136 n (%)
Race		
White	116 (67.4)	718 (63.2)
Black	49 (28.5)	328 (28.9)
Other	7 (4.1)	90 (7.9)
Ethnicity		
Hispanic	26 (15.1)	191 (16.8)
Non-Hispanic or Latino	146 (84.9)	943 (83.2)
Gender		
Male	134 (77.9)	861 (75.8)
Female	38 (22.1)	257 (22.6)
Transgender woman	-	18(1.6)
Age		
≤ 30 years	15 (8.7)	125 (11.0)
31-40 years	31 (18.0)	226 (19.9)
41-50 years	49 (28.5)	282 (24.8)
51-60 years	48 (27.9)	327 (28.8)
> 60 years	29 (16.9)	176 (15.5)
Federal Poverty Level		
≤ 200%	82 (47.7)	599 (52.7)
201%-300%	18 (10.5)	189 (16.6)
301%-400%	17 (9.9)	93 (8.2)
≥ 401%	10(5.8)	56 (4.9)
Unknown	45 (26.2)	199 (17.5)
Viral Loads (<20 copies/mL)		
Undetectable	130 (75.6)	756 (66.5)
Detectable	42 (24.4)	380 (33.5)

Telehealth Versus In-person Clinic Visit Trends from April 1, 2020 to March 31, 2022



Results

- During the study period (April 1, 2020, through March 2022), a total of 4,473 HIV care-related visits were completed among 1,308 unique patients (telehealth users, n= 172; in-person, n= 1136).
- Among telehealth users, VS rates (< 200 copies/mL) dropped from 95.6% pre-pandemic to 95.1% during the pandemic. For patients who used did not use telehealth, VS rates increased from 84.9% before the pandemic to 86.0% during the pandemic.
- Telehealth utilization was significantly higher among patients from cities other than Omaha (p< 0.001) and those with income levels above the Federal Poverty Line (FPL) (p= 0.001).
- Telehealth users made up 73.3% of missed appointments and 50% of canceled visits during the study period.
- Telehealth users were significantly more likely to have undetectable VL than in-person visit users (p=0.018).
- Among all patients, those age ≥ 45 years were significantly more likely to have undetectable VL than patients younger than 45 years (p< 0.001).
- No association between gender, race, or year of HIV diagnosis & visit type
- No transgender person utilized telehealth during the study period.
- Overall, telehealth dropped from 64% of total visits in April 2020 to 5% in March 2022

Conclusion

- Overall, telehealth utilization declined from the onset of the pandemic.
- Our data suggest that PWH may consider telehealth a safer alternative to in-person visits - telehealth utilization increased during the peak periods of the pandemic.
- Income levels above the FPL and proximity to the clinic were factors associated with telehealth utilization.
- VL changes were similar regardless of visit type, but slightly better among in-person
- Telehealth users may be more likely to miss or cancel appointments. Future studies should investigate factors associated with and reasons for missed appointments. In addition, the role of incomplete telehealth visits on VL is needed.
- No Transgender person used telehealth. Future studies on telehealth utilization and HIV outcomes among transgender persons are needed.



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