

# Veterans' Use of Telehealth for Veterans Health Administration Community Care Urgent Care During the Early COVID-19 Pandemic

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**Background:** Since the onset of the COVID-19 pandemic, telehealth has been an option for Veterans receiving urgent care through Veterans Health Administration Community Care (CC).

**Objective:** We assessed use, arrangements, Veteran decision-making, and experiences with CC urgent care delivered via telehealth.

**Design:** Convergent parallel mixed methods, combining multivariable regression analyses of claims data with semistructured Veteran interviews.

**Subjects:** Veterans residing in the Western United States and Hawaii, with CC urgent care claims March 1 to September 30, 2020.

**Key Results:** In comparison to having in-person only visits, having a telehealth-only visit was more likely for Veterans who were non-Hispanic Black, were urban-dwelling, lived further from the clinic used, had a COVID-related visit, and did not require an in-person procedure. Predictors of having both telehealth and in-person (compared with in-person only) visits were other (non-White, non-Black) non-Hispanic race/ethnicity, urban-dwelling status, living further from the clinic used, and having had a COVID-related visit. Care arrangements varied widely; telephone-only care was common. Veteran decisions about using telehealth were driven by limitations in in-person care availability and COVID-related concerns. Veterans receiving care via telehealth generally reported high satisfaction.

**Conclusions:** CC urgent care via telehealth played an important role in providing Veterans with care access early in the COVID-19 pandemic. Use of telehealth differed by Veteran characteristics; lack of in-person care availability was a driver. Future work should assess for changes in telehealth use with pandemic progression, geographic differences, and impact on care quality, care coordination, outcomes, and costs to ensure Veterans' optimal and equitable access to care.

**Key Words:** veterans, telehealth, urgent care, COVID-19

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is concern that the shift to telehealth care may widen these disparities.<sup>5</sup>

The Veterans Health Administration (VA) Community Care (CC) urgent care benefit allows Veterans who are enrolled and received care in the VA health care system within the prior 2 years to use selected non-VA urgent care and retail health clinics for nonemergent, but urgent, health concerns.<sup>6,7</sup> These CC urgent care clinics supplement urgent care services available through VA primary care providers (PCPs) and emergency departments. VA mirrored the CMS telehealth expansion for its CC urgent care benefit,<sup>8</sup> potentially further expanding Veteran urgent care access and choice. Although others have described the rapid expansion of telehealth availability and use by providers internal to VA,<sup>9,10</sup> information about Veterans' use of telehealth within the CC urgent care program is lacking. We assessed the extent to which Veterans used telehealth for CC urgent care, with or instead of in-person urgent care, as well as Veteran characteristics, care arrangements, decision-making, and experiences associated with CC urgent care telehealth use, during the initial phase of the COVID-19 pandemic.

### METHODS

We used a convergent parallel mixed methods approach to assess both the utilization of CC urgent care via telehealth by

different groups of Veterans, as well as to understand care arrangements and Veterans' decisions and experiences with this care.<sup>11</sup> We simultaneously performed quantitative analyses of CC urgent care claims, and VA clinical and administrative data, and conducted semistructured interviews with Veterans who used CC urgent care telehealth; we combined quantitative and qualitative insights to provide a multifaceted assessment. Our work was guided by Andersen's Behavioral Model of Health Services Use, examining Veterans' predisposing (ie, personal or clinical), enabling (ie, contextual), and need (ie, situational) characteristics that potentially influenced whether Veterans had telehealth visit(s), rather than, or in addition to, in-person visit(s).<sup>12</sup> The (VA Greater Los Angeles Healthcare System) Institutional Review Board approved this research.

### Setting and Population

VA facilities are administratively organized into Veterans Integrated Service Networks (VISNs), with each VISN having a designated geographic catchment area. We focused on Veterans residing in VISNs 21 and 22 who had CC urgent care encounters in these same VISNs, including California, Arizona, New Mexico, Nevada, Hawaii, and a few counties in southern Colorado. Although VISN 21 includes facilities in the Philippines, Guam, and American Samoa, we excluded Veterans residing in

**TABLE 1.** Specifications and Data Sources Used to Assess Predisposing, Enabling, and Need Characteristics

Characteristic	Specification(s)	Data Source
<b>Predisposing</b>		
Age	Years; continuous	VA Corporate Data Warehouse*
Sex	Male/female	VA Corporate Data Warehouse*
Race/ethnicity	White, Hispanic, non-Hispanic (NH) Black, NH other, unknown/missing/declined	VA Corporate Data Warehouse*
Charlson comorbidity index <sup>15</sup>	Used International Classification of Diseases, version 10 (ICD-10) codes applied to VA outpatient and inpatient visits over prior 2 years; continuous	VA Corporate Data Warehouse*
Veteran enrollment priority group	Priority group 1–5 (no copayment for first 3 Community Care (CC) UC visits annually, \$30 after that) vs. priority group 6–8 (\$30 per CC UC visit)	VA ADUSH enrollment file*
Social vulnerability index (SVI) of residence census tract <sup>16†</sup>	Percentile; continuous	Veteran residence census tracts—VA Planning Systems Support Group (PSSG) enrollee file* and VA Corporate Data Warehouse;* SVI—US Centers for Disease Control (CDC) and Prevention‡
<b>Enabling</b>		
Rurality	Rural vs. nonrural	VA PSSG enrollee file*
Distance from Veteran residence to UC clinic used	Ellipsoid geodetic distance between Veteran residence and clinic zip code centroid <sup>§</sup> ; categorized as <5 miles; 5 to <15 miles; ≥ 15 miles	Veteran residence—VA PSSG enrollee file*; Clinic zip code—VA Office of Community Care Urgent Care Claims; zip code centroid geocoordinates—2020 US Census Bureau <sup>  </sup>
<b>Need</b>		
Visit related to COVID	One or more visits with ICD-10 Code indicating potential COVID (Appendix 2, Supplemental Digital Content 2, <a href="http://links.lww.com/MLR/C525">http://links.lww.com/MLR/C525</a> )	VA Office of Community Care Urgent Care Claims
Procedure requiring in-person visit	One or more procedures as determined by 2-physician review (K.M.C. and J.J.H) of Current Procedural Terminology codes associated with visits (Appendix 3, Supplemental Digital Content 3, <a href="http://links.lww.com/MLR/C526">http://links.lww.com/MLR/C526</a> )	VA Office of Community Care Urgent Care Claims

\*Accessed through VA's Informatics and Computing Infrastructure platform, [https://www.hsrd.research.va.gov/for\\_researchers/vinci](https://www.hsrd.research.va.gov/for_researchers/vinci).

†For 896 Veterans without census tract data, we used the SVI of their county of residence.

‡CDC Agency for Toxic Substances and Disease Registry, <https://www.atsdr.cdc.gov/placeandhealth/svi/index.html>.

§US Census Bureau <https://www.census.gov/geographies/reference-files/time-series/geo/gazetteer-files.html>.

||Distance calculated using Stata package authored by Robert Picard, <http://fmwww.bc.edu/RePEc/bocode/g/geodist.html>, Accessed December 9, 2021.

ADUSH indicates Assistant Deputy Under Secretary for Health; UC, urgent care; VA, Veterans Health Administration.

or encounters made to these locations because of inconsistent availability of geographic data for these locations.

### Quantitative Analysis

To quantify and characterize telehealth use for VA CC urgent care visits, we obtained, from VA’s Office of Community Care, all VISN 21 and 22 CC urgent care claims received by June 8, 2021, for service provided from March 1 to September 30, 2020. We identified telehealth visits as those having claims with a place of service, revenue, modifier, or Current Procedural Terminology code indicating online or telephone care (Appendix 1, Supplemental Digital Content 1, <http://links.lww.com/MLR/C524>).<sup>13,14</sup> CC urgent care users were classified as having telehealth-only, in-person-only (no telehealth visits), or both in-person and telehealth visits during the study period.

We assessed for associations between telehealth use and Veterans’ predisposing [age, sex, race and ethnicity, Charlson comorbidity index,<sup>15</sup> Veteran enrollment priority group, census tract social vulnerability index (SVI)],<sup>16</sup> enabling (urbanicity, distance from Veteran residence to urgent care clinic used), and need (visit potentially related to COVID, having procedure requiring in-person visit) characteristics (Table 1 shows specifications and data sources). For each predisposing, enabling, and need characteristic, we conducted unadjusted bivariate analyses, followed by multinomial logit modeling, using all characteristics. In multinomial logit models, we examined the characteristics of Veterans that predicted having a telehealth only visit(s) or both in-person and telehealth visits compared with in-person-only visit(s). Relative risks (RRs) for each characteristic are reported. We conducted sensitivity analyses with models removing observations with missing values, and those for which we used county SVI where the SVI for the census tract was unavailable. All quantitative analyses were conducted using STATA version 17.<sup>17</sup>

### Qualitative Analysis

To further understand care arrangements, as well as Veterans’ decision-making and experiences with VA CC urgent care via telehealth, we conducted semistructured telephone

interviews with Veterans who had 1 or more CC urgent care telehealth visits May 28 to September 30, 2020. To elicit care arrangements and experiences across a range of conditions, we instituted a selection quota so that no more than one third of our interviews were conducted with Veterans with COVID-related claims (excluding recruitment of those with COVID-related claims after having interviewed 9 Veterans with such claims). Potential interviewees were mailed a letter describing the study, followed by a phone call inviting them to participate. All interviewees were mailed a \$10 Veterans Canteen Services Gift Certificate.

Veterans were asked to describe the telehealth modality used (eg, telephone and video) and arrangements, their decision-making surrounding use of telehealth, and their care experiences. All interviews were recorded, professionally transcribed, and summarized in a template based on the interview guide. Summaries were used to create matrices grouping data by relevant domains across participants. In a team-based analytic process, team members reviewed and discussed matrices to identify and build consensus around findings.<sup>18</sup>

Consistent with the convergent mixed-methods approach, 2 members of the research team (K.M.C. and J.E.R.) participated in both quantitative and qualitative analytic teams, resulting in initial qualitative findings informing the selection of covariates for the quantitative analysis and initial quantitative findings informing identification of qualitative themes. In addition, the entire research team (including quantitative and qualitative research experts; emergency and internal medicine physicians) met via videoconference, with follow-up email communications, to iteratively compare and jointly consider implications for both sets of findings.

## RESULTS

### Quantitative Analysis

#### Community Care Urgent Care Telehealth Use

We assessed overall telehealth use within the CC urgent care program. During the study period, there were 16,815 VA CC urgent care visits, made by 13,469 Veterans. Of these, 193 (1.1%) visits, made by 182 (1.2%) Veterans, had a telehealth indicator. VISN 22 had markedly higher numbers of

**TABLE 2.** Number and Proportion of CC Urgent Care Visits With Telehealth Indicators, by State and Veterans Integrated Service Network (VISN) (N = 20,356)

VISN	State	No. CC Urgent Care Telehealth Visits	No. Total CC Urgent Care Visits	Proportion of Total Urgent Care Visits (%)
VISN 21*†	Northern California	11	920	1.2
	Hawaii	21	638	3.2
	Nevada	0	783	0
	All VISN 21	32	2341	1.4‡
VISN 22†	Southern California	135	5918	2.2%
	Arizona	20	7196	0.3
	New Mexico	6	1165	0.5
	Colorado	0	2	0
	All VISN 22	161	14,281	1.1‡
Total		193	20,356	1.1

\*Excluding Guam, American Samoa, and Philippines.

†Statistically significant difference between states within VISNs 21 and 22 ( $P < 0.001$  for both).

‡No significant difference between VISNs 21 and 22.

CC indicates Community Care; VISN, Veterans Integrated Service Network.

**TABLE 3.** Predisposing, Enabling, and Need Characteristics for Veterans Health Administration VISNs\* 21 and 22 Veterans Using CC Urgent Care and Those Who Had In-person–Only Visit(s), Both In-person and Telehealth Visits, and Telehealth-Only Visit(s), March 1 Through September 30, 2020 (N=13,469)

	All Veterans (N = 13,469)	Telehealth-Only Visits (n = 81)	Both Telehealth and In-person–Visits (n = 101)	In-person–Only Visits (n = 13,287)	P†
<b>Predisposing</b>					
Age, mean (SD)	55.1 (17.3)	46.3 (15.4)	51.3 (17.5)	55.2 (17.3)	<0.001
Sex, %	—	—	—	—	0.912
Male	85	86	84	85	—
Female	15	14%	16	15	—
Race/ethnicity, %	—	—	—	—	0.003
White, non-Hispanic	60	44	53	61	—
Black, non-Hispanic	9	19	12	9	—
Hispanic	18	27	18	18	—
Other, non-Hispanic	7	4	13	7	—
Missing, declined	6	6	4	6	—
Charlson comorbidity index, mean (SD)	0.98 (1.57)	0.47 (1.16)	0.79 (1.23)	0.98 (1.58)	0.007
Veteran enrollment priority group, %	—	—	—	—	0.474
1–5‡	86	90	84	86	—
6–8§	14	10	16	14	—
Social vulnerability index, mean (SD)	56.2 (26.8)	59.6 (26.3)	54.0 (28.0)	56.2 (26.8)	0.367
<b>Enabling</b>					
Urbanicity, %	—	—	—	—	<0.001
Urban	78	88	93	78	—
Rural	22	12	7	22	—
Distance Veteran residence to UC clinic, %	—	—	—	—	<0.001
< 5 miles	45	19	33	45	—
5– < 15 miles	32	43	28	32	—
15 or more miles	24	38	40	23	—
<b>Need</b>					
Visit related to COVID, %	18	46	43	18	<0.001
Visit without required in- person procedure, %	58	98	70	58	<0.001

\*Veterans Integrated Service Networks.

†Calculated by analysis of variance for continuous variables, and  $\chi^2$  for categorical variables.

‡No copayment for first 3 Community Care Urgent Care visits annually, \$30 after that.

§\$30 copayment per Community Care Urgent Care visit.

UC indicates urgent care.

both in-person and telehealth visits compared with VISN 21 (Table 2). Proportions of visits with a telehealth indicator were similar between VISNs but differed by state within VISNs, with Hawaii and Southern California having the highest proportions of telehealth use. Nearly half (47.6%) of the telehealth visits had diagnostic codes indicating the visit was related to COVID-19 care (Appendix 2, Supplemental Digital Content 2, <http://links.lww.com/MLR/C525>).

### Veteran Characteristics Associated With Community Care Urgent Care Telehealth Use

There were 81 (0.6%) Veterans with telehealth-only visit (s), 101 (0.8%) with both in-person and telehealth visits, and 13,287 (98.7%), with in-person–only visit(s). In bivariate associations (Table 3), several predisposing, enabling, and need factors differed by visit modality. For predisposing factors, those who had telehealth-only visits were, on average, significantly younger than those who had in-person–only visits (mean age=46.3 vs. 55.2 y), were more likely to be Black non-Hispanic (19% vs. 9%) or Hispanic (27% vs. 18%) and had

lower Charlson comorbidity scores (0.47 vs. 0.98). For enabling factors, individuals were more likely to be located in an urban environment (88% vs. 78%), though less likely to live within 5 miles of an urgent care clinic (19% vs. 45%). Need factors indicated that telehealth-only visits were more likely to be related to COVID (46% vs. 18%) and were more likely to not require an in-person procedure (98% vs. 58%) compared with in-person–only visits. Those with both in-person and telehealth visits showed similar patterns when compared with those with in-person–only visits; though the differences were generally smaller than those observed in Veterans with telehealth only.

Table 4 shows adjusted RRs examining how predisposing, enabling, and need characteristics predicted having telehealth-only visits, or having both in-person and telehealth visits compared with those with in-person–only visits. Having a telehealth-only visit was more likely for those who were non-Hispanic Black compared with non-Hispanic Whites (RR: 2.22,  $P=0.012$ ), were urban-dwelling (RR: 2.00,  $P=0.049$ ), lived further from the clinic used (RR: 3.18 for 5–10 miles,  $P<0.001$ ; RR: 3.69

**TABLE 4.** Adjusted Relative Risks of Predisposing, Enabling, and Need Characteristics Among Veterans in VA VISNs\* 21 and 22, Who Had Community Care Urgent Care Telehealth-Only Visit(s), and Both In-person and Telehealth Visits Compared With In-person-Only Visits, March 1 Through September 30, 2020 (N = 13,469)

Characteristic	Telehealth-Only Visits <sup>†</sup> RR (95% CI)	P	Both In-person and Telehealth <sup>†</sup> RR (95% CI)	P
<b>Predisposing</b>				
Age, per 1 year	0.99 (0.97, 1.00)	0.070	1.00 (0.98, 1.01)	0.766
Sex				
Male	Ref	—	Ref	—
Female	0.74 (0.38–1.41)	0.354	0.98 (0.56, 1.70)	0.946
Race/ethnicity				
White, non-Hispanic	Ref	—	Ref	—
Black, non-Hispanic	2.22 (1.19, 4.13)	0.012	1.28 (0.68, 2.43)	0.443
Hispanic	1.39 (0.80, 2.41)	0.141	0.99 (0.57, 1.71)	0.957
Other, non-Hispanic	0.55 (0.17, 1.80)	0.321	1.87 (1.00, 3.47)	0.049
Missing, declined	1.30 (0.50, 3.37)	0.585	0.79 (0.28, 2.19)	0.648
Charlson comorbidity index, per 1 point	0.84 (0.66, 1.07)	0.166	0.98 (0.84, 1.15)	0.827
Veteran enrollment priority group				
1–5 <sup>‡</sup>	Ref	—	Ref	—
6–8 <sup>§</sup>	0.74 (0.35, 1.56)	0.433	1.25 (0.72, 2.16)	0.429
Social vulnerability index, per decile	1.00 (1.00, 1.01)	0.258	1.00 (0.99, 1.01)	0.739
<b>Enabling</b>				
Urbanicity				
Rural	Ref	—	Ref	—
Urban	2.00 (1.00, 4.00)	0.049	4.49 (2.04, 9.89)	<0.001
Distance Veteran residence to UC clinic				
< 5 miles	Ref	—	Ref	—
5– < 15 miles	3.18 (1.72, 5.87)	<0.001	1.26 (0.76, 2.10)	0.370
15 or more miles	3.69 (1.95, 6.99)	<0.001	2.70 (1.67, 4.36)	<0.001
<b>Need</b>				
Visit related to COVID	2.50 (1.58, 3.93)	<0.001	2.90 (1.93, 4.37)	<0.001
Visit without required in-person procedure	24.24 (5.9, 98.9)	<0.001	1.46 (0.94, 2.25)	0.091

\*Veterans Integrated Service Networks.

<sup>†</sup>N is the same as shown in Table 3.

<sup>‡</sup>No copayment for first three annual CC UC visits, \$30 after that.

<sup>§</sup>\$30 copayment per Community Care UC visit.

CI indicates confidence interval; RR, relative risk; Ref, reference; UC, urgent care; VA, Veterans Health Administration.

for 15+ miles,  $P < 0.001$ ; reference <5 miles), had a COVID-related visit (RR: 2.50,  $P < 0.001$ ), and a visit that did not require an in-person procedure (RR: 24.24,  $P < 0.001$ ). Predictors of both telehealth and in-person visits compared with in-person-only visits were other (non-White, non-Black) non-Hispanic race/ethnicity (RR: 1.87;  $P = 0.049$ ) compared with non-Hispanic Whites, urban-dwelling (RR: 4.49,  $P < 0.001$ ), living further from the clinic used (RR: 2.70 for 15+ miles;  $P < 0.001$ ; reference <5 miles), and having a COVID-related visit (RR: 2.90;  $P < 0.001$ ). Sensitivity analyses did not reveal meaningful differences between models including or excluding Veterans with missing values or using county-level SVI.

### Qualitative Analysis

We interviewed 27 Veterans an average of 73 (range: 48–99) days after the visits. Table 5 details interviewee characteristics, which were not meaningfully different from our quantitative sample shown in Table 3.

### Community Care Urgent Care Telehealth Modalities and Arrangements

Interviewees reported utilizing a broad range of care modalities and arrangements. There was roughly equal distribution

in interviewees recalling care by video, telephone-only (with no video component), and in-person with nonprovider clinic staff for the sole purpose of obtaining COVID testing. Among those recalling video or telephone-only visits, about half reported that the telehealth visit was in conjunction with an in-person provider visit. It was commonly reported that the telehealth visit was for follow-up from an in-person visit to provide the Veteran with test results or for reassessing symptoms. A few interviewees reported having a telehealth visit first, followed by an in-person visit at the

**TABLE 5.** Characteristics of Interviewed Veterans (n = 27)

Age, mean y (SD)	55 (16)
Sex, n (%)	
Male	23 (85)
Female	4 (15)
Race/ethnicity, n (%)	
White, non-Hispanic	15 (56)
Hispanic	6 (22)
Black, non-Hispanic	3 (11)
Other, non-Hispanic	1 (4)
Missing, declined	2 (7)
Rurality, %	
Urban	24 (89)
Rural	3 (11)

CC urgent care clinic when the provider needed to do a physical examination or the Veteran's condition did not improve with initial treatment. In some cases, there were in-person and telehealth components within the same visit. For example, 1 interviewee reported that the clinic staff came to his car to take his or her vital signs and then he had a video visit with the provider. The Veteran recalled:

*"I sat in the parking lot while they sat inside the building. They came out and took my temperature [and] my oxygen saturation levels, and then I talked to a doctor over the telephone."*

In 2 instances, clinic staff came to the Veteran's home, took vital signs, and used a clinic-furnished device for a video visit with a provider. One Veteran described:

*"The urgent care showed up at my house with their portable units. And then they got the monitor out and they took my temperature and there was the whole nine yards right there... When I seen that doctor, it was by video. They set up the monitor and everything and plugged it in and got her on the thing and then I showed her what my problem was... They did all the vitals and they had all the equipment to do everything with."*

In a third permutation, 1 Veteran described being seen in-person at a clinic, but the provider was by video at another location.

### **Veteran Decision-making Regarding Telehealth Versus In-person Care**

Veteran decision-making was often driven by care availability. For example, the clinic was not seeing patients in-person, only via telehealth. Sometimes, the patient had driven to the clinic, intending to have an in-person visit, but the clinic was closed. One Veteran recalled:

*"I drove down that morning to the urgent care and I saw the place was locked and they requested a phone visit."*

When Veterans reported having a choice between telehealth versus in-person care, they commonly mentioned deciding to use telehealth because of COVID-related concerns. This included both concerns about being exposed to COVID or potentially exposing others. For example, a Veteran reported:

*"My biggest fear was going in [to an urgent care clinic] ... with other people who might be infected with COVID. [The visit] being a teleconference just made it very, very easy."*

After COVID-related concerns, Veterans cited factors related to convenience and logistics. For patients with limited or no transportation, telehealth provided access to care that they may not otherwise have been able to receive. For others, having telehealth as an option provided them with care that was faster and less disruptive to their schedules. As 1 Veteran explained:

*"I didn't have to make a drive over to the urgent care, sit and wait... I was able to sit at the comfort of my house, and see the provider face to face via phone."*

A third factor mentioned was Veterans' self-assessments of the severity of their conditions and fit with telehealth. For example, some Veterans mentioned that they chose to use telehealth after self-assessing that their condition

was minor and unlikely to need a physical examination. One interviewee explained:

*"If it had needed to go any more in-depth or involved than that it would have been an issue but so long as that person is just asking questions or... just looking at something I think [telehealth] is okay."*

### **Veteran Experiences With Community Care Urgent Care Telehealth and Technology**

Most Veteran interviewees expressed high levels of satisfaction with the care they received, and they had few to no unmet needs after receiving care. One Veteran shared:

*"I liked the convenience and it's just pretty much like when I've gone in except ... if I would have gone in, they would have probably checked my temperature, checked my [blood pressure] and all this stuff. But all the same, I just loved it. It really worked—it worked really well for me."*

However, a few Veterans did express some dissatisfaction with telehealth and/or noted that its use resulted in a second visit. For example, 1 Veteran reported:

*"I feel like because of the lack of actually a doctor being able to see me, I didn't get the proper care and I had to schedule a second visit with the urgent care, because they did nothing for me."*

Most interviewees reported having minimal or no technological difficulties. Among those who did have technological problems, for most, these problems were resolved with troubleshooting at the start of the visit, although in some cases visits intended for video were switched to telephone or audio only when video was not working.

## **DISCUSSION**

Among Veterans using CC urgent care during the early phase of the COVID-19 pandemic, telehealth-only users were more likely than those with in-person-only visits to have the predisposing characteristic of being non-Hispanic Black; enabling characteristics of being urban dwelling and living further from the clinic used, and the need characteristics of having COVID-related visits. Veterans with both telehealth and in-person CC urgent care visits were more likely to be other (non-White, non-Black) non-Hispanic race/ethnicity, as well as urban dwelling, live further from the clinic used, and have COVID-related visits. Although there were wide variations in telehealth CC urgent care arrangements, and Veteran decision-making about using telehealth was often driven by limits in clinic availability, Veterans receiving CC urgent care via telehealth, with few exceptions, indicated that their needs had been met and had high satisfaction with the care received.

The use of telehealth among CC urgent care users was lower than expected. In some non-VA settings, nearly half of visits for conditions typically cared for in urgent care clinics were via telehealth.<sup>5</sup> However, the low use of telehealth among CC urgent care users is likely explained by VA's rapid mobilization of its internal telehealth services to meet Veterans'

urgent care needs early in the COVID-19 pandemic. Veterans with assigned PCPs had the option of receiving urgent care via telehealth from their PCPs.<sup>9</sup> In addition, VISN 21 implemented after-hours tele-urgent care accessed through a nurse advice line.<sup>19,20</sup> Therefore, Veterans' urgent care needs amenable to telehealth may have been, in most cases, addressed by VA care providers, obviating Veterans' need for CC urgent care via telehealth, with CC urgent care supplementing VA care for urgent needs requiring in-person care and/or COVID testing.

Our findings that telehealth-only CC urgent care users were more likely to be non-Hispanic Black, and those with both telehealth and in-person visits more likely to be of other non-White non-Hispanic race/ethnicity, adds to the emerging evidence that the patterns of racial and ethnic variations in telehealth use among Veterans may have shifted with the COVID-19 pandemic. Although Black and Hispanic Veterans had lower telehealth use for internal VA appointments compared with White Veterans before the pandemic, with the pandemic, the use of telehealth among these groups has increased and potentially surpassed that of White Veterans.<sup>21,22</sup> We found that this trend applies to Veterans' use of telehealth for CC urgent care as well. These findings also mirror those in the general population of Californians, in which use of telehealth in the early pandemic was observed as being markedly higher among patients of color compared with Whites.<sup>23</sup> Explanations for this phenomenon are likely multifaceted. However, the early COVID-19 pandemic disproportionately affected Black communities,<sup>24</sup> and our interviews illustrated that Veterans' decisions to use telehealth were heavily influenced by COVID-related concerns. Furthermore, interviews revealed that Veterans' decisions were often driven by clinics only having telehealth services available; this restriction in access to in-person care may have been more common in Black communities. Ng and Park<sup>25</sup> found that non-Hispanic Black Medicare beneficiaries were more likely than others to report having their providers offer telehealth in place of regularly scheduled in-person care during the pandemic.

We also observed that, in general, longer distance between Veteran residence and the CC urgent care clinic used was associated with higher likelihood of having telehealth visits. This is consistent with our interview findings that convenience, travel, and other logistical issues were factors in Veterans' telehealth decisions. These findings reinforce that availability of telehealth may overcome transportation barriers to care, which have been exacerbated with COVID-19,<sup>26</sup> and are especially salient for rural Veterans.<sup>27</sup> Importantly, however, Veterans using telehealth for CC urgent care were more likely to live in urban, rather than rural, communities. This finding mirrors previous work in a commercially insured population showing less telehealth use during COVID-19 in counties with lower population densities.<sup>28</sup> The opposing direction of the associations between telehealth with distance and with rurality, and the persistence of these associations in the adjusted models, suggest that unmeasured factors may be influencing less telehealth use in rural areas. In addition to rural Veterans having less access to broadband,<sup>29</sup> this pattern may be in-part because of rural clinics retaining more in-person care. In the early pandemic, rural providers generally had less

telehealth availability and delivered proportionately less telehealth visits compared with their urban counterparts.<sup>25,30</sup>

The use of telehealth for follow-up care after in-person CC urgent care visits is also notable. Some studies have suggested that commercial on-demand urgent care via telehealth increases follow-up care use, increasing costs of care.<sup>31</sup> Interviews suggested this may sometimes be occurring with CC urgent care via telehealth. It is also unknown if, in some cases, this follow-up care may have been more effectively and efficiently provided by Veterans' VA PCPs. One precondition to VA performing this follow-up care, however, would be rapid and reliable communication between CC urgent care clinics and VA. Although VA has made substantial investments in care coordination for other aspects of CC,<sup>32</sup> the communication and coordination of care with CC urgent care providers is yet to become a focus for attention.

Importantly, while our claims-based data was unable to distinguish between video and telephone visits, interviews suggested that telephone-only care was not uncommon among those using telehealth. In another cohort of patients at a large academic health system, Black, Latinx, older, poorer, and female patients who used telehealth during the early COVID-19 pandemic had less video use.<sup>33</sup> Further investigation is needed to assess for potential racial, ethnic, and community differences in video versus telephone-only telehealth, and how these care modalities may affect care quality.

Our study has additional limitations. Because of logistic constraints, we focused on Veterans residing in the Western United States. However, there were likely regional variations in Veterans' decision-making; studies have shown regional and state-level differences in telehealth use in the general population.<sup>28</sup> Our results similarly show state-level differences in use. We also limited this analysis to visits in the initial 7 months of the COVID-19 pandemic. There have likely been changes in use, care arrangements, decision-making, and potentially experiences, with evolution of the COVID-19 pandemic. In addition, VA has continued to develop and expand VA Clinical Contact Centers, which provide nurse advice, triage, and telehealth visits with VA providers,<sup>6</sup> widening the choices Veterans have for telehealth urgent care. Understanding potential regional and temporal differences in Veterans' use, arrangements, decision-making, and experiences with CC urgent care telehealth, and its role within the rapid expansion in VA-based telehealth services, will be important information for guiding further development of VA services. Separately, because of delays in data availability, qualitative interviews were completed 48 to 99 days after telehealth visits, which may have added to potential recall bias among interviewees. Finally, our work was not designed to assess for potential disparities in use of CC urgent care overall. In an analysis of VA CC urgent care use in the year before the pandemic, Vashi et al<sup>6</sup> demonstrated that CC urgent care users were less likely to be non-White, in comparison to both Veterans who were nonusers of this benefit, as well as Veterans who used VA-based emergency departments and urgent care clinics. However, differences by race were smaller in magnitude than factors related to geographic access, similar to our findings with regard to use of telehealth versus in-person visits during the pandemic.

Given the potential clustering of communities of color in certain geographic areas, our current work is insufficiently detailed to establish cause-effect relationships that might drive disparities in CC urgent care use overall as a function of demographic characteristics. This is an important area for future work.

In conclusion, although the utilization of telehealth care for CC urgent care was uncommon in the early pandemic, it played an important role in providing access to care, especially COVID-related care and testing. Our use of both quantitative and qualitative data provides rich and complementary insights into how Veterans' predisposing, enabling and need factors resulted in differences in telehealth use by Veterans with differing characteristics, and can help to inform VA's efforts to optimize access, quality, and continuity of care. Although the telehealth expansion is currently temporary, legislation has been introduced in response to the COVID-19 pandemic to make some aspects permanent.<sup>34</sup> Future work should assess for changes in telehealth use with progression of the pandemic; potential geographic differences; and impact on care quality, follow-up care coordination, outcomes, and costs compared with in-person care to ensure Veterans' optimal and equitable access to care.

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