

## ORIGINAL RESEARCH

## Reasons Older Veterans Use the Veterans Health Administration and Non-VHA Care in an Urban Environment

Matthew R. Augustine, MD, Tanieka Mason, MPH, Abigail Baim-Lance, PhD, and Kenneth Boockvar, MD

**Background:** Older veterans in urban settings rely less on the Veterans Health Administration (VHA) health care, suggesting deficits of access and services for aging veterans. We aimed to identify reasons for VHA and non-VHA use across the health status of older, urban-dwelling veterans.

**Methods:** We examined open-ended responses from 177 veterans who were enrolled in primary care at the Bronx VA Medical Center, used non-VHA care in prior 2 years, and completed baseline interviews in a care coordination trial from March 2016 to August 2017. Using content analysis, we coded and categorized key terms and concepts into an established access framework. This framework included 5 categories: acceptability (relationship, second opinion), accessibility (distance, travel); affordability; availability (supply, specialty care); and accommodation (organization, wait-time). Self-reported health status was stratified by excellent/very good, good, and fair/poor.

**Results:** We were able to categorize the responses of 166 veterans, who were older ( $\geq 75$  years, 61%), minority race and ethnicity (77%), and low income ( $< \$25,000/\text{y}$ , 51%). Veterans mentioned acceptability (42%) and accessibility (37%) the most, followed by affordability (33%), availability (25%), and accommodation (11%). With worse self-reported health status, accessibility intensified (excellent/very good, 24%; fair/poor, 46%;  $P = .031$ ) particularly among minority veterans, while acceptability remained prominent (excellent/very good, 49%; fair/poor, 37%;  $P = .25$ ). Other categories were mentioned less with no significant difference across health status.

**Conclusions:** Even in an urban environment, proximity was a leading issue with worse health. Addressing urban accessibility and coordination for older, sicker veterans may enhance care for a growing vulnerable VHA population. (J Am Board Fam Med 2021;34:291–300.)

**Keywords:** Access to Health Care, Aging, Geriatrics, Health Status, Military Medicine, Qualitative Research, Urban Population, Primary Health Care, Veterans Health Administration

## Introduction

Older adults with declining health face increasing challenges in health system navigation and access.

The Veterans Health Administration (VHA) health care system is the largest integrated health system in the United States, caring for more than 7 million patients with nearly half over the age of 65 years. More than 90% of veterans enrolled in VA older than 65 are also covered by Medicare.<sup>1</sup> Prior evidence suggests that veterans shift care to non-VHA sources as they age, develop greater medical complexity, acquire a disability, must travel greater distances, and reside in urban environments with

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From the Geriatric Research Education and Clinical Center (GRECC), James J Peters VA Medical Center, Bronx, NY (MRA, TM, AB-L, KB); Icahn School of Medicine at Mount Sinai, Department of Medicine, New York, NY (MRA); Icahn School of Medicine at Mount Sinai, Department of Geriatrics and Palliative Medicine, New York, NY (AB-L, KB); Community Wellness Department, Reading Hospital, Reading, PA (TM); Research Institute on Aging, The New Jewish House, New York, NY (KB).

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**Corresponding author:** Matthew R. Augustine, MD, James J. Peters VA Medical Center, 130 W Kingsbridge Road, Bronx, NY 10468 (E-mail: [matthew.augustine2@va.gov](mailto:matthew.augustine2@va.gov)).

competing sources of care.<sup>2-4</sup> While this dual use of VHA and non-VHA health care may enhance access, the unintended consequences of fragmentation<sup>5</sup> and lack of continuity may lead to adverse events and outcomes.<sup>6-10</sup> Understanding why older veterans choose VHA or non-VHA care could inform ways to maintain and improve the quality of care for an aging and particularly vulnerable veteran population.

Recent evidence suggests that older veterans are increasingly relying on the VHA than private-sector alternatives to fill their health care needs.<sup>11</sup> The VHA delivers high-quality care, meeting and exceeding the private sector<sup>12</sup> by using multidisciplinary care teams dedicated to providing comprehensive and coordinated primary<sup>13,14</sup> and geriatric care.<sup>15</sup> However, adequate access to and availability of VHA services remains a concern. Only 42% of veterans over the age of 65 years who are enrolled in VHA report that the VHA fulfills most or all their needs.<sup>1</sup> To address this issue, veterans who face wait times exceeding 20 days and 28 days or travel times exceeding 30 minutes and 60 minutes for primary care and specialty services, respectively, qualify to use non-VHA services without the need for Medicare or private sector insurance coverage.<sup>16</sup> Nearly 30% of all VHA care is provided by non-VHA providers through this benefit.<sup>17</sup> The MISSION Act<sup>16</sup> aims to further enhance access to non-VHA services for urgent and specialty care. For younger, less complex patients, enhanced access to care outside the VHA may result in timely treatment and outcomes;<sup>18</sup> however, for the socioeconomically disadvantaged and more complex veteran population who typically relies on VHA for all services,<sup>12,19</sup> the benefits of enhanced timeliness to care may be superseded by the unintended consequences of care fragmentation.<sup>5,8</sup>

This analysis examines survey responses of veterans over the age of 65 years who get primary care at the James J Peters VA Medical Center in the Bronx, NY (Bronx VAMC) and have previously used non-VHA services (dual system use). We examined the reasons for dual system use across levels of self-reported health. As the VHA aims to expand choice and access, the number of veterans obtaining care from non-VHA sources is likely to increase. This study aims to further elucidate reasons for dual non-VHA and VHA use for older veterans with poorer self-reported health.

## Methods

### *Study Design and Population*

Researchers analyzed responses to a baseline survey from an ongoing coach-delivered care transitions trial, which leverages Health Information Exchange to enhance care coordination and transitions.<sup>20</sup> The study population included veterans who were over 65 years of age, enrolled and assigned a primary care provider at the James J Peters VA Medical Center (Bronx VAMC) in the Bronx, NY, and have previously used non-VHA services in the Bronx in the prior 2 years. Non-VHA utilization was identified within the Bronx Region Health Information Organization, a health information exchange that contains health care information from the major health systems in the Bronx designed to facilitate care coordination and patient safety.<sup>21</sup> This study includes responses from the baseline survey of the first 177 patients enrolled from March of 2016 to August 2017. This study, along with informed consent documents, questionnaires, and data collection templates, were approved by the Institutional Review Board of the Bronx VAMC (Protocol BOO-15 to 035).

### *Data Source*

A single research assistant delivered the survey face-to-face or by phone at the time of enrollment to veterans who agreed to participate in the study. The survey included 7 sections and 50 questions: Patient and Residence characteristics (n = 15), care provider and access information (n = 7), insurance coverage and income information (n = 4), activities of daily living (n = 6), Instrumental activities of daily living (n = 7), and Short Portable Mental Status Questionnaire (SPMSQ) (n = 11). The duration of the survey took less than 1 hour to complete. All participants received \$25 in direct deposit to a bank account or in coupons to the hospital store.

In the survey's second section of care provider and access, the research assistant asked participants the opened-ended question: "What are the reasons for using both non-VHA and VHA care?" The same researcher recorded the answers verbatim. The question was repeated if the patient did not respond or understand; however, probing on depth and context was limited. The survey also asked participants to rate their health (excellent, very good, good, fair, poor) and other characteristics of patient's demographics, residence, access, and

**Table 1. Population Characteristics of Respondents to Survey From March 2016 to August 2017 Stratified by Self-Reported Health Status**

	Total	Self-Reported Health			<i>P</i> value
		Excellent or Very Good	Good	Fair or Poor	
N	166	41	71	54	
%		24.7	42.8	32.5	
<b>Age categories (%)</b>					
65 to 74 years	38.6	41.5	33.8	42.6	.094
75 to 84 years	39.2	48.8	42.3	27.8	
85 years and older	22.3	9.8	23.9	29.6	
<b>Race/ethnicity (%)</b>					
NH white	32.5	26.8	45.1	20.4	.008
NH black	34.9	34.1	36.6	33.3	
Hispanic	27.1	31.7	12.7	42.6	
NH Other	5.4	7.3	5.6	3.7	
<b>Language at home (%)</b>					
English only	78.2	75.0	90.1	64.8	.003
<b>Education (%)</b>					
<High School	16.3	19.5	18.3	11.1	.825
High school graduate/GED	36.7	31.7	35.2	42.6	
Some college	33.1	31.7	32.4	35.2	
4-year degree or more	13.9	17.1	14.1	11.1	
<b>Health literacy, inadequate</b>	34.3	26.8	29.6	46.3	.076
<b>Income (%)</b>					
<\$25,000	51.2	51.2	54.9	46.3	.594
\$25,001 to 50,000	22.9	26.8	15.5	29.6	
>\$50,000	18.1	14.6	19.7	18.5	
Income, unknown	7.8	7.3	9.9	5.6	
<b>Married (%)</b>	41.0	48.8	33.8	44.4	.245
<b>Household size, mean <math>\pm</math> SD</b>	1.9 (0.9)	1.8 (0.7)	1.9 (0.9)	2.0 (1.1)	.494
<b>Cognitive status</b>					
Any impairment (%)	4.9	2.4	4.2	7.6	.494
<b>Functional impairment (%)</b>					
ADL impairment	23.5	14.6	21.1	33.3	.085
IADL impairment	40.4	24.4	36.6	57.4	.004
<b>Assistance device use (%)</b>					
Independent, inside	71.1	78.0	69.0	68.5	.525
Independent, outside	45.8	63.4	39.4	40.7	.033
<b>Insurance (%)</b>					
Medicare	88.0	87.8	91.5	83.3	.376
Medicaid	19.3	26.8	19.7	13.0	.235
Other insurance	54.2	48.8	59.2	51.9	.520
<b>Source(s) of care (%)</b>					
Non-VHA provider	62.0	65.9	63.4	57.4	.670
Most of care					
VHA	78.3	85.4	73.2	79.6	.207
Non-VHA	21.1	12.2	26.8	20.4	
Unknown	0.6	2.4	0.0	0.0	
<b>Travel to clinic</b>					
Drive (%)	53.0	51.2	52.1	55.6	.898
Travel time, minutes $\pm$ SD	33.3 $\pm$ 21.3	37.4 $\pm$ 15.0	33.9 $\pm$ 24.3	29.5 $\pm$ 17.4	.328

ALD, Activities of Daily Living; GED, general education degree; IADL, Independent Activities of Daily Living; NH, Non-Hispanic; SD, standard deviation; VHA, Veterans Health Administration.

\**P* < .05.

health (Table 1). If patients were unable to answer ( $n = 6$ , 3.4%), we included responses provided by the caretaker as access and health care use encompasses perceptions of the patient or caretaker.<sup>22</sup>

### **Analysis**

We used qualitative content analysis to “provide knowledge and understanding of the phenomenon under study.”<sup>23</sup> A core team of 3 researchers and a trained research assistant, who delivered and recorded the surveys, analyzed responses in a multi-step process. First, using an inductive, conventional approach,<sup>23,24</sup> the research assistant reviewed all 177 participant responses and, with open coding,<sup>25</sup> identified key terms and concepts of reasons for using both VHA and non-VHA care. The larger study team reviewed the initial findings and discerned that the terms and concepts aligned with Penchansky and Thomas’s framework of access, consisting of 5 relevant categories.<sup>26</sup> To validate the categorization of the previously identified terms and concepts and increase the trustworthiness of the analysis,<sup>27</sup> all responses were independently reviewed again by the research assistant and physician-researcher. Consistent with deductive, directed content analysis,<sup>23,24</sup> all responses were classified into none, 1, or more of the 5 categories of the framework.<sup>26</sup> Coders were blinded to other participant information during this process. Inter-rater reliability between coders was 91%. Researchers met independently and with the larger study team to resolve discrepancies of categorization by consensus.

In the final step, researchers examined the prevalence of each response category for salience<sup>28</sup> and meaning, independently and across self-reported health status: “excellent/very good,” “good,” and “fair/poor.” Self-reported health status serves as a proximal and relevant factor in health care use.<sup>29</sup> Researchers assessed how the prevalence of each category mapped onto self-reported health to better understand if and how health status may explain reasons for VHA and non-VHA use.

Given the evidence that veterans of minority race and ethnicity face unique access barriers<sup>30,31</sup> and prevalence among our study population, we performed a post hoc analysis of participants who identified as Hispanic or of a non-white race to evaluate if the concepts and categories for VHA and non-VHA use differed among this subpopulation.

## **Results**

### **Population Characteristics**

A total of 177 patients who used services at the Bronx VAMC and were identified as using non-VHA health care within the Bronx took the survey. One participant did not answer the question and 10 responses were unable to be categorized due to limited context and depth.

Of the 166 respondents, the majority were 75 years or older (75 to 84 years: 39.2%; 85 or older: 22.3%) with nearly half with functional mobility deficits: 23.5% reported at least 1 impairment of activities of daily living (ADL), 40.4% reported at least 1 impairment with instrumental activities of daily living (IADL), and 54.2% reporting using an assistive device outside the home. Only 4.9% were identified to have any cognitive impairment: 5 respondents with mild, 2 with moderate, and 1 with severe cognitive impairment. Nearly half (47%) did not drive to the clinic. The average reported travel time to the Bronx VAMC was 33.4 (standard deviation, 21.3; median, 30; interquartile range, 20 to 45) minutes. Racial and ethnic (NH white, 32.5%; NH black, 34.9%; Hispanic, 27.1%) and socioeconomic diversity was consistent with the Bronx VAMC population. Twenty-two percent spoke an additional language to English at home. Half reported an income less than \$25 000. More than 1 in 3 of the respondents (34.3%) screened positive for inadequate health literacy. Although 88.4% reported having Medicare, 78.7% reported getting most of their care at the VHA (Table).

### **Self-Reported Health**

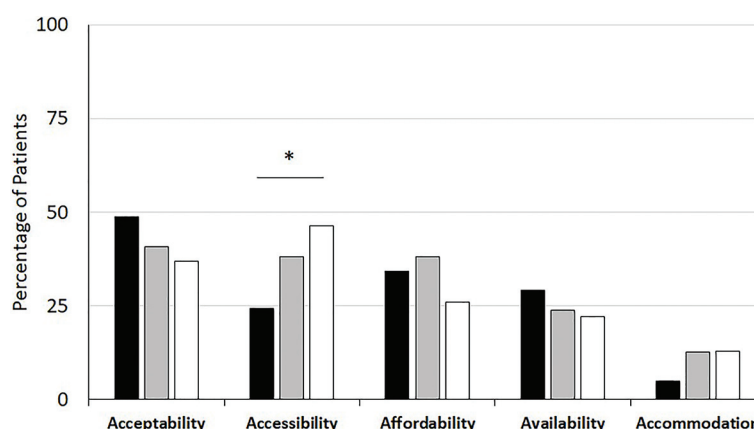
When asked about health status, 24.7% reported their health as excellent or very good; 42.8%, good; and 32.5%, fair or poor. Across groups, patients reporting their health as fair or poor were more likely to be Hispanic, speak a non-English language at home, more likely to have IADL impairment, and use an assistive device outside their home (Table).

### **Reasons for VHA and non-VHA Health Care**

#### **Utilization**

We synthesized survey responses into common terms and concepts and identified alignment with Penchansky and Thomas’ 5 categories of access: acceptability, accessibility, affordability, availability, and accommodation.<sup>26</sup>

**Figure 1. Percentage of patients mentioning the categories of Acceptability, Accessibility, Affordability, Availability and Accommodation as reasons for using Veterans Affairs and non-Veterans Affairs services across self-reported health status. Self-reported health status categorized as excellent/very good (black bars), good (gray bars), and fair/poor (white bars). \* $P < .05$**



Acceptability, defined as the patient's perceptions about the personal and practice characteristics of the provider and providing system, was the most mentioned category by 44% of respondents and encompassed concepts of satisfaction, quality, continuity of care, and seeking second opinions. Respondents described the importance of relationships and maintaining care with the provider they know or who cared for them within or outside the VHA, notably if the relationship was established during a time of crisis. This is captured in 1 response: "The ambulance took me to [non-VHA hospital] because I had a heart attack and [I] stayed with that doctor who took care of me there. She is very efficient and took me out of that situation. I stayed with her care. She kept me under control." Others listed the duration of the relationship with providers, captured by a participant who said: "I've had non-VHA [primary care provider] for at least 20 years and I like him." A few participants also cited the desire for a second opinion for treatment.

Accessibility, defined as the proximity and ease of travel to care, was mentioned by 37% of participants, particularly in the context of urgent or emergency care. As 1 patient stated, and echoed by several others, "It is convenient for me to go to non-VHA for emergencies; it is closer."

Affordability, defined as the relationship between the price of care and the ability of patients to pay in the context of insurance and

other benefits, as mentioned by 33% of respondents. Participants cited out-of-pocket costs for medications, copayments for visits, and benefits within the VHA related to their service-connected disability, and choosing location based on costs and coverage. A participant stated, "There are no payments here [...] on the outside it costs me. My medications are free here." Others commented on condition- and cost-specific choices based on conditions being service-connected and the degree of outside insurance coverage. One respondent said, "Anything connected to that disability gets covered here but my insurance has more coverage at non-VHA."

The least frequently mentioned dimensions were availability (25%) and accommodation (11%). When availability was mentioned, defined as the number and type of services available to address the needs of the patients, respondents described seeking out specialty and subspecialty care outside the VHA, such as cardiology and pulmonology services and cancer treatment. Accommodation is defined as the way services are organized and delivered to accommodate patient preferences, such as telephone availability, hours of operation, and wait-times for care, and encompassed concepts of timeliness and service alignment. Respondents mentioned the timeliness of same-day access to outside services and longer wait-times for procedures or tests within the VHA. Other respondents mentioned the preference of the "1 stop shop" of the VHA.



### **Differences in Categories of Access across Self-Reported Health Status**

Within each of the 5 categories, content and tone of quotes did not consistently differ across self-reported health status (Appendix Table 1). However, the prevalence of the 5 categories of access differed across and between levels of self-reported health status (Figure 1).

Accessibility was mentioned more among respondents with poor self-reported health status. Although themes of accessibility were mentioned by only 24% of respondents with excellent or very good health, 46% of patients with fair or poor health mentioned accessibility ( $P=.031$ ), making it the most prevalent category among this group (Figure). One respondent, who reported poor health, cited the burden of travel, saying “Traveling is the main reason, I cannot handle it anymore.” Notably, more participants with poor health status mentioned the theme of proximity regarding emergency services. Acceptability remained prominent and did not differ by self-reported health status (excellent/very good, 49%; good, 41%; fair/poor, 44%;  $P=.45$ ). Respondents consistently cited the importance of relationships and continuity of care after treatment across levels of health status (Appendix Table 1). Affordability, availability, and accommodation did not differ statistically or qualitatively across self-reported health status (Figure, Appendix Table 1).

### **Respondents of Minority Race and Ethnicity**

Participants of minority race and ethnicity were younger (mean, 77.0 vs NH white 80.3 years,  $P=.018$ ), more likely to speak a language other than English at home (29.7 vs 5.6,  $P<.001$ ), less likely to have a non-VHA provider (55.4 vs 75.9,  $P=.011$ ), and more likely to rely on the VHA for most of their care (84.8 vs 64.8,  $P=.011$ ). Further, respondents of minority race and ethnicity were more likely to be covered with Medicaid (24.1 vs 9.3,  $P=.23$ ) and less likely to report Medicare coverage (83.9 vs 96.3,  $P=.022$ ) (Appendix Tables 2-3).

When examining the categories of reasons for VHA and non-VHA use, respondents of minority race and ethnicity were less likely to mention acceptability (34.8% vs NH white, 55.6%,  $P=.011$ ), particularly among patients with poor or fair health (28% vs NH white, 73%;  $P=.006$ ). There was also a trend of increased mention of accessibility across health status by respondents of minority race and ethnicity

(excellent or very good health 13% vs fair or poor health 49%,  $P=.005$ ); a trend that did not occur in NH white respondents (Appendix Tables 4).

### **Discussion**

We analyzed open-ended responses from veterans over 65 years from the Bronx VAMC who have used both VHA and non-VHA health care services to understand the reasons for dual system utilization among older, urban-dwelling veterans across levels of self-reported health status. Among 5 categories of access, acceptability remained prominent with no difference across health status, signifying the persistent importance of patient-provider relationships, continuity, and trust. Accessibility increased and became the most prominent category among participants with lower self-reported health status, which was driven by respondents of minority race and ethnicity. This highlights the burden of distance and travel to care as health declines, a potential contributor ongoing in health inequities. These findings build on prior research of dual system use by veterans and offer insight into how the VHA may reduce the consequences of care fragmentation and enhance care coordination for older vulnerable veteran populations.

In discrete choice experiments testing the preferences of timeliness, flexible appointments, continuity, and costs, older adults valued informational and relational continuity of care, especially for new and worrisome conditions, over other options.<sup>32-34</sup> Through the implementation of the Patient-Aligned Care Team (PACT) and geriatric-specific care (Geri-PACT), the VHA has enhanced provider and team continuity.<sup>14,15,35</sup> In addition, the VHA delivers effective home-based primary care with the continuity of multidisciplinary care teams for qualified older adults.<sup>36,37</sup> These efforts and their benefits may add to reasons why more veterans are relying on the VHA for primary and specialty care services.<sup>11-13,38</sup> Veterans, who experience higher provider continuity, also experience improved outcomes, lower ED visits, and hospitalizations.<sup>7,39</sup> Similarly, greater continuity of the core primary care team of physicians, nurses, and medical assistants has been associated with improved performance, lower ED visits, particularly with medically complex patients.<sup>35</sup>

Distance has been a known factor influencing veteran reliance on VHA care.<sup>4,18</sup> VHA policy has

focused on distance with the CHOICE Act<sup>18</sup> and recently adopted drive time (MISSION Act)<sup>40</sup> on whether non-VHA services could be covered by the VHA. This focus is aimed to enhance access for rural veterans who may have closer non-VHA compared with VHA options. While disparities in access to care among rural veterans have been well documented,<sup>41</sup> our findings highlight that distances in urban settings, though much shorter than rural settings, bears a significant burden, particularly as health status declines. Nearly 50% of our respondents did not drive, relying on other modalities to get care, including taxi and public transportation. Despite the extensive public transportation options within New York City and the Bronx, like other metropolitan cities, these transportation systems are geared toward travel in and out of economic hubs, which do not always align with health facilities' locations.<sup>42–44</sup> The VHA provides benefits through the Veterans Transportation Services (VTS) for door-to-door transportation via hired taxi or para-transport services for qualifying Veterans; however, the availability, capacity, and responsiveness of these local programs may not overcome the barriers to accessing care among patients with declining health.

We observed the prominence of accessibility not only among a vulnerable population of older adults with worse self-reported health but also during vulnerable times of emergent care. As a result, the use of closer non-VHA care in settings of emergency may precipitate care fragmentation, disrupting the continuity that patients desire and may provide greater benefit.<sup>7,8</sup> In addition, as we observed, the use of closer non-VHA care in times of emergency for new illnesses may encourage older veterans who value continuity to make and then maintain their specialty care with non-VHA providers. While the VHA has implemented enhanced coordination and continuity within the VHA system, the enhancement of VHA and non-VHA care coordination and communication needs improvement<sup>45,46</sup> and may help facilitate better care or return to the VHA.<sup>14</sup>

The less frequently mentioned domains of availability, affordability, and accommodation are consistent with higher prioritization of continuity and thoroughness of care.<sup>32,33</sup> Further, the increased reliance on VHA for specialty care,<sup>11</sup> low out-of-pocket costs due to copayment exemption or a service-connected disability,<sup>4,19</sup> and improved VHA wait-times<sup>47</sup> signify a closing gap between VHA and the private sector,<sup>11,12</sup>

and decreasing significance when choosing care.

Taken together, our findings should be interpreted in the context of our patient population and the VHA policies aiming to enhance access and care. This urban, minority population cited distance (accessibility) and relationships (acceptability) as primarily shaping where they choose to receive care. Nationally, more than 3 million people who are older, lower socioeconomic status, and from an ethnic minority group experience transportation barriers to care.<sup>48</sup> The veterans relying on the VHA are more likely to be socioeconomically disadvantaged and more medically complex with worse self-reported health.<sup>12</sup> Implementation of PACT and other VHA efforts to enhance continuity may improve the care for this socioeconomically and medically complex population. However, as patients' health diminishes and medical events occur, patients prefer to use more proximal (potentially non-VHA) facilities, particularly for urgent, emergency, specialty, and surgical care.<sup>11,49</sup> VHA policies enacted as a result of CHOICE and MISSION Act legislation adopted objective measures of drive times and wait-times, which may not account for the burden of travel experienced by veterans in urban environments, especially as their health declines and needs increase.

The call to transition from measures of travel time and distance to individual clinical needs and preferences with greater integration and coordination with non-VHA providers merits consideration.<sup>50</sup> Real-time health information exchange and care coordination between VHA and non-VHA health systems may facilitate greater continuity and reduction in adverse events.<sup>17,51,52</sup>

The recent expansion of telehealth may reduce the need and burden of travel for an in-person evaluation.<sup>53</sup> Alternatively, the VHA may improve transportation options to maintain VHA continuity. These options include improved logistic collaboration with municipal-sponsored or private transportation options<sup>48,54</sup> and enhanced access to Veteran Transportation Services<sup>55</sup> for older patients with declining health. These options are available and feasible in urban settings and are variably implemented across VHA Medical Centers. Evaluation and sharing of best practices are needed. Expansion of these services should be weighed against care fragmentation, outcomes, and costs of the VHA covering closer non-VHA services.

## Limitations

First, these responses come from a single institution and geographic region which may limit generalizability. Second, the researcher recording the survey responses was VHA-based; despite an emphasis on anonymity and neutrality, respondents may have been apprehensive to make negative comments toward the VHA, limiting our ability to understand some dimensions of their care-seeking decisions. Third, responses were manually rather than audio-recorded, which may have reduced accuracy; however, the same researcher recorded all the responses so there was consistency across the sample. Fourth, there was limited probing which may have elucidated further reasoning and confirmed the reference (VHA or non-VHA) of responses; however, the researcher recorded the responses in real-time and captured the full response with the terms used by the respondents.

## Conclusion

By examining the reasons why older, veterans in an urban environment choose VHA and non-VHA care, we identified that acceptability, embodied in the patient-provider relationship which may be forged during urgent or emergent care, remains constant, while accessibility intensifies as self-reported health declines. Reducing transportation barriers for older veterans to get to the providers that they trust within or outside the VHA and enhancing integration and coordination, may serve to improve outcomes and satisfaction and reduce inequities for a growing vulnerable population within the VHA.

To see this article online, please go to: <http://jabfm.org/content/34/2/291.full>.

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**Appendix Table 1: Exemplar Responses From Veterans for Using Veterans Affairs and Non-Veterans Affairs Care Across 5 Dimensions of Access Stratified by Self-Reported Health Status**

Category	Self-Reported Health Status		
	Excellent or Very Good	Good	Fair or Poor
Acceptability	<ul style="list-style-type: none"> <li>• (Satisfaction) “Only because cardiologist, non-VHA put in my pacemaker. He knows me well; he saved my life. I feel comfortable with his care.”</li> <li>• (Relationship) “I’ve been in the VHA for 40 years.”</li> </ul>	<ul style="list-style-type: none"> <li>• (Satisfaction) “I had a MI, brought to the Hospital, kept the Cardiologist since then because he more or less saved my life.”</li> <li>• (Relationship) “I’ve had non-VHA PCP for at least 20 years, and I like him.”</li> </ul>	<ul style="list-style-type: none"> <li>• (Satisfaction) “[I] went to [outside hospital]. EMS took me there. I had a heart attack [. . .] She is very efficient [. . .]. I stayed with her care. She kept me under control.”</li> <li>• (Relationship) “My non-VHA PCP has been my doctor for 40 years [. . .]”</li> </ul>
Accessibility	<ul style="list-style-type: none"> <li>• (Proximity) “If I can’t make it to the VHA, the non-VHA is closer. Go to non-VHA for minor things”</li> <li>• (Travel burden) “Convenience, location. Aging, I drive but maybe my car isn’t safe, and I don’t intend to replace it, so transportation will be in question.”</li> </ul>	<ul style="list-style-type: none"> <li>• (Proximity) “Having assurance of having someone close if something happens. . .”</li> <li>• (Proximity for emergent care) “If something is wrong, I will come here but EMS would have to bring me to the nearest hospital”</li> </ul>	<ul style="list-style-type: none"> <li>• (Proximity) “The non-VHA doctor and hospital is 3 blocks from my house. It’s very close. He is a good doctor.”</li> <li>• (Travel burden) “Traveling is main reason. I can’t handle it anymore.”</li> </ul>
Affordability	<ul style="list-style-type: none"> <li>• (VHA Benefits) “Because I served, the VHA is more convenient. I have no insurance except Medicare.”</li> <li>• (Out-pocket costs) “Starting to come here [VHA] now because of the payments.”</li> </ul>	<ul style="list-style-type: none"> <li>• (Costs, out-of-pocket) “There are no payments here [VHA]. On the outside, it costs me. My medications are free here [. . .].”</li> <li>• (Costs) “Prefer VHA now especially because cost increasing outside as I get older.”</li> </ul>	<ul style="list-style-type: none"> <li>• (Costs, Medications) “Medications cost too much so I will start coming here to the VHA”</li> <li>• (Costs, Medications) “Now the specialists and the medicine are free at the VHA.”</li> </ul>
Availability	<ul style="list-style-type: none"> <li>• (Specialty services) “Chiropractor is non-VHA because can’t get one here at the VHA and can’t get a referral for the chiropractor here. Also, Dental is non-VHA because can’t get one here.”</li> </ul>	<ul style="list-style-type: none"> <li>• (Choice of services) “I have a vast array of choices for providers and services at non-VHA”</li> </ul>	<ul style="list-style-type: none"> <li>• (Specific services) “I use the VHA for specific reasons like optometry and service-related benefits.”</li> </ul>
Accommodation	<ul style="list-style-type: none"> <li>• (Wait-time) “Because I have the insurance I use outside doctor, I know it gets busy in here. I let the other guys use the VHA.”</li> </ul>	<ul style="list-style-type: none"> <li>• (Wait-time) “I can get an immediate appointment with my non-VHA primary.”</li> <li>• (Wait-time) “After finding out I had cancer, VHA would make me wait 2 weeks for MRI so contacted my pulmonologist and went to [non-VHA hospital].”</li> </ul>	<ul style="list-style-type: none"> <li>• (One stop shop) “Everything is cohesive as far as the specialty doctors being all here”</li> <li>• (Wait-time) “Non-VHA for quicker treatment and emergencies”</li> </ul>

VHA, Veterans Health Administration; MRI, magnetic resonance imaging; PCP, primary care physician; EMS, emergency medical services.

**Appendix Table 2: Characteristics of Participants of Minority Race and Ethnicity Across Self-Reported Health Status**

	Total	Self-Reported Health			<i>P</i> value
		Excellent or Very Good	Good	Fair or Poor	
N	112	30	39	43	
%		26.8	34.8	38.4	
Age categories (%)					
65 to 74 years	43.8	46.7	43.6	41.9	.276
75 to 84 years	35.7	43.3	38.5	27.9	
85 years and older	20.5	10.0	17.9	30.2	
Race/ethnicity (%)					
NH black	51.8	46.7	66.7	41.9	.077
Hispanic	40.2	43.3	23.1	53.5	
Other	8.0	10.0	10.3	4.7	
Language at home (%)					
English only	70.3	65.5	87.2	58.1	.013*
Education (%)					
<High School	17.9	23.3	17.9	14.0	.860
High school graduate/GED	41.1	36.7	41.0	44.2	
Some college	29.5	23.3	30.8	32.6	
4-year degree or more	11.6	16.7	10.3	9.3	
Health literacy, inadequate	37.5	26.7	38.5	44.2	.311
Income (%)					
<\$25 000	55.4	56.7	59.0	51.2	.547
\$25 001 to 50 000	20.5	20.0	15.4	25.6	
>\$50 000	19.6	13.3	23.1	20.9	
Income, unknown	4.5	10.0	2.6	2.3	
Married (%)	44.6	53.3	35.9	46.5	.335
Household size, mean $\pm$ SD	2.0 $\pm$ 0.9	1.9 $\pm$ 0.7	1.9 $\pm$ 0.88	2.1 $\pm$ 1.1	.533
Cognitive status					
Any impairment (%)	4.5	3.3	2.6	7.0	.590
Functional impairment (%)					
ADL impairment	20.5	13.3	20.5	25.6	.444
IADL impairment	39.3	20.0	35.9	55.8	.007
Assistance device use (%)					
Independent, inside	70.5	76.7	71.8	65.1	.554
Independent, outside	48.2	60.0	51.3	37.2	.142
Insurance (%)					
Medicare	83.9	86.7	87.2	79.1	.542
Medicaid	24.1	36.7	28.2	11.6	.037*
Other insurance	51.8	53.3	53.8	48.8	.885
Source(s) of care (%)					
Non-VHA provider	55.4	60.0	56.4	51.2	.746
Most of care					
VHA	84.8	86.7	76.9	90.7	.210
Non-VHA	15.2	13.3	23.1	9.3	
Unknown	0.0	0.0	0.0	0.0	
Travel to clinic					
Drive (%)	49.1	50.0	46.2	51.2	.897
Travel time, minutes $\pm$ SD	35 $\pm$ 22	39 $\pm$ 10	36 $\pm$ 26	31 $\pm$ 18	.381

ALD, Activities of Daily Living; GED, general education degree; IADL, Independent Activities of Daily Living; NH, Non-Hispanic; SD, standard deviation; VHA, Veterans Health Administration.

\**P* < .05.



**Appendix Table 3: Characteristics of Non-Hispanic White Participants Across Self-Reported Health Status**

	Total	Self-Reported Health			<i>P</i> value
		Excellent or Very Good	Good	Fair or Poor	
N	54	11	32	11	
%		20.4	59.3	20.4	
Age categories (%)					
65 to 74 years	27.8	27.3	21.9	45.5	.522
75 to 84 years	46.3	63.6	46.9	27.3	
85 years and older	25.9	9.1	31.3	27.3	
Race/ethnicity (%)					
NH white	100.0	NA	NA	NA	
Language at home (%)					
English only	94.4	100.0	93.8	90.9	.625
Education (%)					
<High School	13.0	9.1	18.8	0.0	.686
High school graduate/GED	27.8	18.2	28.1	36.4	
Some college	40.7	54.5	34.4	45.5	
4-year degree or more	18.5	18.2	18.8	18.2	
Health literacy, inadequate	27.8	27.3	18.8	54.5	
Income (%)					
<\$25 000	42.6	36.4	50.0	27.3	.262
\$25 001 to 50 000	27.8	45.5	15.6	45.5	
>\$50 000	14.8	18.2	15.6	9.1	
Income, unknown	14.8	0.0	18.8	18.2	
Married (%)	33.3	36.4	31.3	36.4	.926
Household size, mean $\pm$ SD	1.7 $\pm$ 0.9	1.5 $\pm$ 0.5	1.8 $\pm$ 1.0	1.7 $\pm$ 0.8	.468
Cognitive status					
Any impairment (%)	5.7	0.0	6.3	10.0	.596
Functional impairment (%)					
ADL impairment	29.6	18.2	21.9	63.6	.021*
IADL impairment	42.6	36.4	37.5	63.6	.286
Assistance device use (%)					
Independent, inside	72.2	81.8	65.6	81.8	.427
Independent, outside	40.7	72.7	25.0	54.5	.012*
Insurance (%)					
Medicare	96.3	90.9	96.9	100.0	.510
Medicaid	9.3	0.0	9.4	18.2	.339
Other insurance	59.3	36.4	65.6	63.6	.222
Source(s) of care (%)					
Non-VHA provider	75.9	81.8	71.9	81.8	.703
Most of care					
VHA	64.8	81.8	68.8	36.4	.030*
Non-VHA	33.3	9.1	31.3	63.6	
Unknown	1.9	9.1	0.0	0.0	
Travel to clinic					
Drive (%)	61.1	54.5	59.4	72.7	.649
Travel time, minutes $\pm$ SD	30 $\pm$ 20	36 $\pm$ 15	32 $\pm$ 22	22 $\pm$ 12	.283

ALD, Activities of Daily Living; GED, general education degree; IADL, Independent Activities of Daily Living; NA, not applicable; NH, Non-Hispanic; SD, standard deviation; VHA, Veterans Health Administration.

\* $P < .05$ .

**Appendix Table 4: Categories of Reasons for Veteran Affairs and Non-Veteran Health Administration Use Across Self-Reported Health Status for Non-Hispanic White Respondents and Respondents of Other Races and Ethnicities**

	Total	Excellent or Very Good	Good	Fair or Poor	<i>P</i> value
NH-white, N (%)	54	11 (20)	32 (59)	11 (20)	
Other, N (%)	112	30 (27)	39 (35)	43 (38)	
Acceptability (%)					
NH-white	55.6	54.5	50.0	72.7	.424
Other	34.8	46.7	33.3	27.9	.247
Accessibility (%)					
NH-white	37.0	54.5	31.3	36.4	.385
Other*	37.5	13.3*	43.6*	48.8*	.005*
Affordability (%)					
NH-white	25.9	18.2	34.4	9.1	.206
Other	36.6	40.0	41.0	30.2	.541
Availability (%)					
NH-white	27.8	54.5	18.8	27.3	.073
Other	23.2	20.0	28.2	20.9	.656
Accommodation (%)					
NH-white	11.1	9.1	12.5	9.1	.926
Other	10.7	3.3	12.8	14.0	.307

NH, Non-Hispanic.

\**P* < .05.