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July 30 2013 18:25

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Racial/Ethnic Variations in Veterans' Ambulatory Care Use

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Publication info: American Journal of Public Health 95.12 (Dec 2005): 2231-7.
ProQuest document link

Abstract: We assessed racial/ethnic variations in patterns of ambulatory care use among Department of Veterans Affairs (VA) health care-eligible veterans to determine if racial/ethnic differences in health care use persist in equal-access systems. We surveyed 3227 male veterans about their health and ambulatory care use. Thirty-eight percent of respondents had not had a health care visit in the previous 12 months. Black (odds ratio [OR]=0.5), Hispanic (OR=0.4), and Asian/Pacific Islander veterans (OR=0.4) were less likely than White veterans to report any ambulatory care use. Alternately, Whites (OR=2.2) were more likely than other groups to report ambulatory care use. Being White was a greater predictor of health care use than was having fair or poor health (OR=1.4) or functional limitations (OR=1.5). In non-VA settings, racial/ethnic minorities were less likely to have a usual provider of health care. There was no VA racial/ethnic variation in this parameter. Racial/ethnic disparities in health and health care use are present among VA health care-eligible veterans. Although the VA plays an important role in health care delivery to ethnic minority veterans, barriers to VA ambulatory care use and additional facilitators for reducing unmet need still need to be investigated.

Full text: Headnote

Objectives. We assessed racial/ethnic variations in patterns of ambulatory care use among Department of Veterans Affairs (VA) health care-eligible veterans to determine if racial/ethnic differences in health care use persist in equal-access systems.
Methods. We surveyed 3227 male veterans about their health and ambulatory care use.
Results. Thirty-eight percent of respondents had not had a health care visit in the previous 12 months. Black (odds ratio [OR]=0.5), Hispanic (OR=0.4), and Asian/Pacific Islander veterans (OR=0.4) were less likely than White veterans to report any ambulatory care use. Alternately, Whites (OR=2.2) were more likely than other groups to report ambulatory care use. Being White was a greater predictor of health care use than was having fair or poor health (OR=1.4) or functional limitations (OR=1.5). In non-VA settings, racial/ethnic minorities were less likely to have a usual provider of health care. There was no VA racial/ethnic variation in this parameter.
Conclusions. Racial/ethnic disparities in health and health care use are present among VA health care-eligible veterans. Although the VA plays an important role in health care delivery to ethnic minority veterans, barriers to VA ambulatory care use and additional facilitators for reducing unmet need still need to be investigated.
(Am J Public Health. 2005;95:2231-2237. doi:10.2105/AJPH.2004.043570)

The reduction or elimination of racial and ethnic disparities in health is the focus of many public health efforts.1 A large portion of the observed racial/ethnic health disparities stem from racial/ethnic differences in the use of health care services. These differences in health care use are often a direct consequence of differences in access to health care.2-5 However, the 2002 Institute of Medicine report Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care6 highlights the role of barriers beyond access to care that contribute to variations in health care services use and in health outcomes.

The Department of Veterans Affairs (VA) is a model system for studying racial/ethnic disparities beyond differences in access to care that contribute to variations in the use of health services. It is the largest integrated health care system in the United States. The VA prioritizes care to veterans with military service-connected disabilities and those with low incomes.7 As an equal access system, all eligible veterans may use VA ambulatory care services without paying an annual premium. It has been described as an important but often unrecognized component of the nation's public health safety net.8,9

Much of the prior research on racial/ethnic variations in VA care has focused on determining who undergoes invasive procedures within the VA.10-12 Although these studies suggest that racial/ethnic disparities may exist in VA care for invasive procedures, the findings do not necessarily generalize to the ambulatory care setting or to less complex interventions. Research conducted in the ambulatory care setting documented the VA's role in delivering health care services to traditionally underserved groups (Blacks, Hispanics, poor people, and uninsured people).13,14 Although it documented equal entry into the VA system, this research did not determine whether VA ambulatory care use occurs solely on the basis of health care need.

Our main objective was to describe racial/ ethnic variations in veterans' ambulatory care use that are independent of access to care or health care need. Given the Institute of Medicine findings, we hypothesized that VA health care-eligible ethnic minorities would have greater health care need than Whites but be less likely to use health care services. Factors beyond access to care that are associated with health outcomes include not only whether people who need health care get it but also what happens to individuals once they gain access to the health care system. We also hypothesized that ethnic minority veterans would be less likely than White veterans to have a usual provider of health care to help them navigate the health care system.

METHODS

Design

We conducted a 20-minute telephone survey to measure ambulatory care use among VA health care-eligible veterans of 4 racial/ethnic groups (Asian/Pacific Islander, Black, Hispanic, and White). The survey was administered by the Gallup Organization from November 2000 through February 2001 to a stratified random sample of veterans residing in southern California and southern Nevada, corresponding to the Veterans Integrated Service Network (VISN) 22. Stratification parameters were race/ethnicity and ambulatory care user type. Potential VA user respondents were identified through patient lists maintained by each VISN 22 VA facility of veterans who had used any VA service during fiscal year 2000 (VA list sample). Although patient lists include all VA users, 8.6% of records have missing telephone numbers. VA nonusers were identified through random digit dialing (RDD) of the VISN 22 population, with telephone numbers selected from the general Bellcore frame of all listed and unlisted VISN 22 numbers. This nonuser sampling frame excludes veterans without a telephone. Male veterans were included in the sample if they were honorably discharged from the military and self-identified as belonging to 1 of the targeted racial/ethnic groups for this study. Female veterans and Native American veterans, who are the subjects of separate analyses, were not included in this sample.15 To ensure a minimum sample size for individual racial/ ethnic groups, Asian/Pacific Islander and Hispanic veterans were oversampled.

Measures

The Behavioral Model of Health Services Utilization is the conceptual model that guided this investigation.16-18 The original framework described factors that predict health care use.16 The model suggests that use is a function of a predisposition by people to use health care services, factors that enable or impede such use, and people's need for care. Predisposing characteristics tend to be immutable attributes of the individual that affect the use of health care services, such as race/ethnicity. Enabling characteristics are attributes of the individual or of the person's environment, such as VA health care eligibility, that affect access to care.

Race/ethnicity was self-defined and categorized as White, Black, Hispanic, and Asian/ Pacific Islander.

Ambulatory care user type was based on respondent self-reported sites for ambulatory care use in the prior 12 months. VA health care users were defined as individuals who reported any VA health care visit in the prior 12 months. VA users included both VA-only users and dual VA/non-VA users. Non-VA-only users were individuals whose ambulatory care use was limited to non-VA settings. Nonusers of health care services were individuals who reported no health care visits in the prior 12 months.

We assessed features of ambulatory care utilization, including the usual source of health care, the number and location of ambulatory care visits, whether the individual had an identified usual provider of health care, and if

so, whether that provider was an attending physician in contrast to a resident (under attending physician supervision), nurse practitioner, or some other type of health care provider. We asked VA users their main reason for using VA health care. We asked nonusers of VA care (including non-VA-only users and nonusers of ambulatory care) about their reasons for not using VA health care services.

Health-related measures included overall health, disability status, and number of diagnosed medical conditions reported from a list of common diagnoses (accident-related injury; arthritis; cancer; diabetes; HIV infection; heart condition; hypertension; posttraumatic stress disorder; stroke; or drug/alcohol, eye/ vision, hearing, kidney/bladder, lung, prostate, psychiatric/mental/emotional, or stomach/digestive problems). Functional limitations were measured as having any limitation in activities of daily living or in instrumental activities of daily living. To control for other factors in the behavioral model associated with race/ethnicity and the use of health services, we measured age, education, employment status, marital status, period of military service, annual income, and health insurance.

Statistical Analysis

To determine racial/ethnic variations in sociodemographic, health-related, and ambulatory care use characteristics, we conducted χ^sup 2^ tests for categorical variables and t tests for continuous measures. To compare racial/ ethnic variations in features of ambulatory care across ambulatory care user types, for each ambulatory care user type, we conducted separate logistic regression analyses for each feature of ambulatory care. Following Rothman,19 we made no adjustments to P values for multiple comparisons but have presented all comparisons that were evaluated.

To determine racial/ethnic differences in any use of ambulatory care services in the prior 12 months, we compared nonusers of ambulatory care with all other respondents (VA users and non-VA-only users). We calculated odds ratios for any ambulatory care use, comparing each racial/ethnic group with White veterans, adjusting for sociodemographic and health-related measures thought to affect the use of health services. Only 1 of a set of highly correlated variables was entered into the model. To determine racial/ ethnic differences in reasons for not using VA health care, for each main reason reported, we calculated odds ratios for each racial/ ethnic group compared with White veterans.

To ascertain whether our measured effects of race/ethnicity on ambulatory care use were an artifact of combining VA list and RDD sampling frames, we also determined racial/ethnic differences in the use of ambulatory care services when the analysis was limited to the RDD sample.

Sampling weights were developed to correct for the disproportional allocation of the sample across racial/ethnic groups and user types. The weighting involved 2 steps: probability weighting to correct for the unequal selection probability and poststratification weighting to make the final sample reflect the general VISN 22 population according to the number of veteran users and nonusers in each geographic area by zip code. The race/ethnicity user-type sampling stratum from which each respondent was sampled provided the population size (N) and the sample size (n) for calculation of the probability weight (N/n). For users, the total weighted number of users for each facility within each racial/ethnic group was matched to the corresponding numbers obtained from those lists. The total number of nonusers was estimated by subtracting the total number of users (N= 235 752) from the total estimated veteran population for that area (N= 1496 635).20 For the RDD stratum, the number of telephone lines within the sampled household also was used in the derivation of probability weights, and the weighting factor was the inverse of the number of telephone lines that was truncated at 2. The final weights were computed as a product of the probability and the poststratification weights, normalized so that the weighted sum matched the total sample size. Sample weights were applied in all analyses. All analyses were conducted using the SAS statistical software system, version 6.12.21

RESULTS

Gallup interviewers contacted 23 901 individuals from 45 510 telephone numbers dialed (contact rate=53%). Of the individuals contacted, 18 285 completed the screening process (cooperation rate=76%). Eighteen percent

(n=3343) of those screened were eligible to participate in the study, and among those who were eligible, 3227 (97%) completed the interview. Response rates did not differ between the VA list and RDD sampling frames. Thirty-seven percent of respondents were White, 28% Black, 28% Hispanic, and 8% Asian/Pacific Islander. Table 1 describes sociodemographic, health-related, and ambulatory care use characteristics of the study population by race/ethnicity. There were statistically significant differences among the 4 racial/ethnic groups in most baseline characteristics. Compared with White veterans, Black and Hispanic veterans were younger and less likely to be 4-year-college graduates, married, or have an annual income greater than $30 000. Asian/Pacific Islander veterans were more likely than White veterans to be married and to have health insurance. Compared with other groups, Black veterans were more likely to have fair or poor health and to have functional limitations (Tables 1 and 2). Compared with White veterans, Hispanic veterans were less likely and Asian/Pacific Islander veterans were more likely to have fair or poor health.

TABLE 1—Demographic, Health-Related, and Ambulatory Care Use Characteristics of Study Population, by Race/Ethnicity: Southern California and Southern Nevada, November 2000–February 2001

	White (n=1179)	Black (n=910)	Hispanic (n=894)	Asian/Pacific Islander (n=244)	Total (N=3227)
Sociodemographic characteristics					
Mean age, y	59.8	57.1*	52.8*	58.1	58.4
Years of age, %*					
21–44	16.8	23.5	32.6	7.0	19.8
45–64	42.4	41.5	36.7	62.9	42.0
≥65	40.8	35.0	30.7	30.1	38.2
College graduate, %	36.5	18.5*	17.0*	31.1	31.0
Employed, %	49.8	53.7	52.5	55.1	50.9
Married, %	70.2	59.1*	57.9*	83.6*	67.3
Annual income ≥$30 000, %	72.2	55.4*	64.7*	77.4	68.9
Health insurance, %	83.1	81.8	79.5	92.2*	82.6
Period of military service, %*					
World War II	28.2	15.6	17.9	11.1	24.5
Korean conflict	31.2	32.7	21.3	23.7	29.7
Vietnam war	34.4	43.7	49.4	60.7	38.7
Persian Gulf war	6.2	8.0	11.4	4.6	7.2
Health-related characteristics, %					
Overall health fair or poor	19.1	32.2*	14.5*	27.3*	20.4
Functional limitations					
Any ADL limitation	11.0	26.9*	11.3	11.6	13.2
Any IADL limitation	22.1	33.6*	23.1	21.2	23.7
Disabled	5.1	6.3	6.3	1.7	5.3
Any medical condition	77.1	76.8	65.3*	84.5	75.5
Number of medical conditions*					
0	22.9	23.2	34.7	15.5	24.5
1	39.1	41.0	47.3	46.1	40.8
2	23.1	13.9	9.2	20.3	19.7
≥3	14.9	21.9	8.8	18.0	15.0
Ambulatory care use characteristics, %					
No ambulatory care use	33.6	45.9*	53.7*	35.0	38.3
Any VA use	12.1	19.1*	8.2*	8.1	12.3
VA-only use	6.3	12.9*	5.4	3.7	7.0
Dual VA–non-VA use	5.8	6.2	2.8*	4.5	5.3
Non-VA–only use	54.4	35.0*	38.1*	56.9	49.4
Source of care					
Emergency department or none	6.0	9.1*	1.2*	0.5	5.6
Has a usual provider of care	75.6	72.1	71.5	52.7*	73.9
Usual provider is attending MD[a]	91.8	79.1*	88.5*	91.1	89.6

Note. ADL = activities of daily living; IADL = instrumental activities of daily living; VA = Department of Veterans Affairs; MD = medical doctor.
[a]From subset of sample with an identified usual provider for care.
*$P < .05$ compared with White veterans.

Features of Ambulatory Care Use

Ambulatory care use varied significantly by race/ethnicity (Table 1). Overall, 38.3% of respondents reported no health care visits in 12 months, 12.3% of respondents reported VA use, and 49.4% reported non-VA-only ambulatory care use. Unadjusted odds ratios for any use of ambulatory care were lower for Hispanic veterans and Black veterans than for White veterans, and they were similar for Asian/Pacific Islander and White veterans (Table 3). Racial/ethnic variations were present in the distribution of features of ambulatory care (Tables 1 and 2).

Veterans who did not have a usual source for health care or who reported an emergency department as their usual source for care constituted 5.6% of the sample, with Black veterans more likely than White veterans (Table 1) and nonusers of ambulatory care more likely than users (8.4% vs 3.9%; Table 2) to lack a non-emergency department usual source for health care. However, stratifying on ambulatory care user type eliminated this Black-White difference. Asian/ Pacific Islander veterans were less likely than other groups to

have a usual provider of care. Among those reporting a usual provider of care, Black and Hispanic veterans were less likely to report having an attending physician than Whites, in contrast to a resident, nurse practitioner, or other type of usual health care provider. Stratifying these features of care on ambulatory care user type did not alter the racial/ethnic variations among non-VA-only users and nonusers of ambulatory care. However, among VA-only users, dual VA/non-VA users, and all VA users combined, there were no racial/ethnic variations in these features of care.

TABLE 2—Health and Ambulatory Care Use Characteristics, by Ambulatory Care User Type and Race/Ethnicity: Male Veterans, Southern California and Southern Nevada, November 2000–February 2001

	White (n=1179)	Black (n=910)	Hispanic (n=894)	Asian/Pacific Islander (n=244)	Total (N=3227)
Ambulatory care visits per year, mean					
VA users	11.4	13.5	12.7	7.8	11.9
VA visits, VA users	8.1	11.9*	11.1*	5.2	9.1
Non-VA visits, VA users	3.2	1.6*	1.6*	2.6	2.7
Non-VA–only users	5.9	3.8	4.3	2.0	5.4
Overall health fair or poor, %					
No ambulatory care use	12.6	28.6*	8.6	5.1	14.0
Ambulatory care use	22.5	35.2*	21.4	39.4*	24.4
Usual source of care is emergency department or none, %					
No ambulatory care use	8.9	16.4*	1.1*	0.2	8.4
Ambulatory care use	4.7	2.9	1.4*	0.6	3.9
Any VA use	3.7	6.5	6.3	4.1	4.5
Non-VA–only use	4.9	0.9*	0.3*	0.1	3.8
Has a usual provider of care, %					
No ambulatory care use	71.8	74.9	60.6*	68.5	70.0
Ambulatory care use	77.5	69.9*	83.2	43.6*	76.2
Any VA use	76.3	73.6	68.8	77.0	75.0
Non-VA–only use	77.8	67.9*	86.3*	38.5*	76.5
Usual provider is attending MD, %[a]					
No ambulatory care use	92.7	89.9	85.1*	83.4	90.5
Ambulatory care use	91.3	70.7*	92.2	95.5	89.1
Any VA use	77.4	75.7	77.9	85.5	77.2
Non-VA–only use	94.4	68.1*	95.2	96.9	92.1

Note. VA = Department of Veterans Affairs; MD = medical doctor.
[a] From subset of sample with an identified usual provider of care.
*$P < .05$ compared with White veterans.

Predictors of Ambulatory Care Use

The adjusted odds ratios for the use of ambulatory care by Asian/Pacific Islander, Black, and Hispanic veterans compared with White veterans are presented in Table 3. After we adjusted for differences in sociodemographic and health-related characteristics, all groups had significantly lower odds for having an ambulatory care visit than White veterans. The corresponding adjusted odds ratios for not having an ambulatory care visit (not shown) were 2.4 (95% confidence interval [CI]=1.9, 3.0) for Hispanic veterans, 2.3 (95% CI=1.3, 3.8) for Asian/Pacific Islander veterans, and 2.0 (95% CI=1.5, 2.5) for Black veterans. By contrast the adjusted odds ratio for having an ambulatory care visit was 1.5 for those with an activity-of-daily-living limitation and 1.4 for those with fair or poor health. Period of military service and age were highly correlated; results for the model substituting age group categories for period of military service were similar (data not shown). The main effects of race/ethnicity on ambulatory care use did not differ between the model run on the full sample (constituted of the VA list and RDD samples, presented in Table 3), and the model run on the sample limited to the RDD list (data not shown). However, limiting the model to the RDD sample increased the effect of insurance (odds ratio [OR]=2.7) and high income (OR=1.3) on ambulatory care use.

TABLE 3—Predictors of Ambulatory Care Use by VA Health Care Users and Nonusers in Previous 12 Months: Male Veterans, Southern California and Southern Nevada, November 2000–February 2001

	Adjusted OR (95% CI)[a]	P
Race/ethnicity		
White	1.0	...
Asian/Pacific Islander	0.4 (0.3, 0.7)	.0022
Black	0.5 (0.4, 0.6)	<.0001
Hispanic	0.4 (0.3, 0.5)	<.0001
Sociodemographic characteristics		
College graduate	0.9 (0.8, 1.1)	.2856
Employed	0.9 (0.7, 1.1)	.2330
Married	1.4 (1.2, 1.7)	.0003
Annual income ≥ $30 000	1.0 (0.9, 1.3)	.6696
Health insurance	1.3 (1.0, 1.6)	.0214
Period of military service		
Vietnam war	1.0	
World War II	0.9 (0.7, 1.2)	.6324
Korean conflict	0.6 (0.5, 0.7)	<.0001
Persian Gulf war	0.7 (0.5, 1.0)	.0412
Health-related characteristics		
Overall health fair or poor	1.4 (1.1, 1.8)	.0069
Any ADL limitation	1.5 (1.1, 2.0)	.0146
Any IADL limitation	0.8 (0.6, 1.0)	.0572
Disabled	1.3 (0.8, 2.0)	.2187
0 medical conditions	1.0	
1 medical condition	2.5 (2.0, 3.1)	<.0001
2 medical conditions	1.9 (1.5, 2.5)	<.0001
≥3 medical conditions	4.1 (3.0, 5.6)	<.0001

Note. VA = Department of Veterans Affairs; ADL = activities of daily living; IADL = instrumental activities of daily living; OR = odds ratio; CI = confidence interval.
[a]Unadjusted odds ratios for any use of ambulatory care, with Whites as the reference group (OR = 1.0), were 0.9 for Asians/Pacific Islanders (95% CI = 0.6, 1.4), 0.6 for Blacks (95% CI = 0.5,0.7), and 0.4 for Hispanics (95% CI = 0.4, 0.5). Adjusted odds ratios for any use of ambulatory care were 2.2 for Whites (95% CI = 1.8, 2.6), with all other racial/ethnic groups as the reference group.

Among VA health care users, the most commonly reported reason for using VA health care was affordability, cited by 31% of respondents. There were no statistically significant racial/ethnic variations in this main reason for VA use. For nonusers of VA health care, the most commonly cited barrier to VA use for ethnic minority veterans were interpersonal aspects of quality of care (Table 4). These included how courteous the staff or physicians were and whether the veteran was treated with respect. For White veterans, the high cost per visit (referring to the copayment for veterans who did not have a disability related to their military service and did not meet the VA's low income threshold) was cited as the main barrier to VA health care use. Asian/Pacific Islanders were also significantly more likely than other groups to report inability of family members to receive VA care as a reason for not using the VA, with 14% reporting this in contrast to 3% of other groups (P<.0001). In aggregate, ethnic minority veterans were more likely to report dissatisfaction with the VA. Hispanic veterans were more likely to cite lack of knowledge about VA eligibility and services as a barrier to VA use.

TABLE 4—Odds Ratios (ORs) for Barriers to VA Health Care Use, by Race/Ethnicity

	Overall Percentage Reporting	White (n = 1179)	Black (n = 910)	Hispanic (n = 894)	Asian/Pacific Islander (n = 244)
Poor interpersonal quality of VA care (not treated with courtesy and respect)	30.10	1.0	1.1	1.1	1.6*
Dissatisfaction with VA	9.50	1.0	1.7	2.1*	5.8*
Lack of knowledge about VA eligibility and services	14.60	1.0	0.7	1.8*	1.5

Note. VA = Department of Veterans Affairs.
*P < .05.

DISCUSSION

We found that Black, Hispanic, and Asian/ Pacific Islander veterans, despite being eligible for VA care, were less likely than White veterans to use health care services in a 12-month period. As in prior studies,13 we found

that Black and Hispanic veterans had lower income than White veterans, and Black and Asian/Pacific Islander veterans had worse health status. Our finding of lower rates of use of health services among ethnic minority veterans persisted even after we adjusted for access-related and health-related factors. This demonstrates that racial/ethnic disparities in the use of health services are present even among VA health care-eligible veterans. Having a diagnosed medical condition had the strongest association with ambulatory care use. However, because a medical visit is necessary to establish a medical diagnosis, this association contributes less to our understanding of the determinants of ambulatory care use than that of other measures. As expected, we did find that having health insurance, an activity-of-daily-living limitation, or fair or poor health were independently associated with an increased likelihood of ambulatory care use. However, ethnic minority group membership was a stronger (negative) predictor of ambulatory care use than enabling and need-related factors other than having a diagnosed medical condition. This suggests that access to care is not equitable in the veteran population.

In non-VA settings, having health insurance significantly influences health care use. We found that VA eligibility reduced the contribution of health insurance and eliminated the impact of income and employment on health care use, compared with their effects in nonveteran populations.2 However, race/ethnicity remained a significant factor. Among VA health care-eligible veterans, race/ethnicity served as a greater barrier to access to care than socioeconomic factors.

Previously, we reported that among ambulatory care users, Black and Hispanic veterans were more likely to use VA care and that this association has persisted over time.13,14 However, our earlier research was limited to users of ambulatory care and therefore examined the second decision point in health care decisionmaking-where to go for care. By identifying determinants of ambulatory care use, the current analysis examines the first decision point in health care decisionmaking-whether to seek care. Despite the availability of VA ambulatory care, we found relative underuse of ambulatory care by all ethnic minority groups, in particular Black veterans; a greater proportion of Black ambulatory care nonusers than White ambulatory care users reported fair or poor health. Interpreting our current findings in light of our prior research suggests that although the VA plays an important role in health care delivery to ethnic minority veterans, this role has not been sufficient to eliminate racial/ethnic disparities in health and health care use.

There are several possible explanations for our main finding of racial/ethnic differences in the decision to seek health care. These include racial/ethnic differences in access to care, health care needs, and prior experiences with differential treatment in the health care interaction that influence expectations for the outcome of future encounters. A significant amount of research documents racial/ethnic disparities in access to health care in non-VA settings, with Blacks and Hispanics more likely to face greater access barriers.2-5 Although our study enrolled only VA health care-eligible veterans, for whom VA care is available without payment of an annual insurance premium, nonfinancial access barriers may help explain our findings. All groups reported similar rates of employment, but Blacks and Hispanics had lower income, raising the possibility that they were in lower-paying jobs that may not include sick leave for health care visits. Others have found that Hispanic veterans in the community tend to underuse VA health care services primarily because they are unaware that they are entitled to such assistance.22 Our research corroborates these findings and may explain some of the Hispanic-White differences we observed in the use of health services. We found that Blacks were less likely to have a usual source of health care, and Asian/Pacific Islanders were less likely to have a usual provider of care. Although these associations may be markers for less access to health care, they also may serve as barriers to health care use.

As with the health disparities found in nonveteran populations,1 we found greater health care need among racial/ethnic minorities. However, in our analysis, adjusting for health-related and sociodemographic characteristics strengthened rather than reduced the association between ethnic minority group membership and lack of ambulatory care use.

The most commonly cited barriers to VA use for Black, Hispanic, and Asian/Pacific Islander veterans were negative interpersonal experiences with VA staff and providers. Differential treatment in the health care encounter has been well documented in non-VA settings.6,23-25 For example, the Commonwealth Fund's 2001 Health Care Quality Survey found substantially higher rates of reported communication difficulties for Black, Hispanic, and Asian/Pacific Islander patients than for White patients.25 In that survey, Blacks were almost twice as likely as their White counterparts to report being treated with disrespect during a health care visit. Our finding that interpersonal aspects of VA care are a barrier for many veterans is particularly disturbing given the VA's safely net role in delivering care to vulnerable veteran populations. Although we did not directly assess the impact of these perceptions on the decision to use ambulatory care, our findings suggest that doctor-patient communication is an area that the VA needs to continue to target for intervention.

The strengths of this study are that it examined the use of ambulatory care in a VA health care-eligible population and included sufficient numbers of racial/ethnic minorities to allow meaningful comparisons. However, this study has several noteworthy limitations that may alter the interpretation of the findings. First, we grouped survey respondents into 4 broad racial/ethnic categories according to the respondents' self-identification. Although these categories correlate with classification schemes used in other studies and facilitate comparison of our data with those of others, the categories are each heterogeneous and do not account for intragroup variation. Second, our study was limited to the southern California and southern Nevada geographic regions. Because of the population distribution in this country, several racial/ethnic groups were likely underrepresented. However, this is 1 of the most ethnically diverse regions of the country, and our findings provide insight into the racial/ethnic variations in ambulatory care use potentially present elsewhere. Third, we did not assess distance to care, which is a barrier for rural populations that may differ across racial/ethnic groups. Last, we excluded female veterans from the current study. Because of the methodological concerns in studying sparse populations such as female veterans,26 they are the subjects of a separate study.15

VA eligibility alone is not sufficient to eliminate racial/ethnic disparities in health and health care use. Within the context of the larger health care system, our findings add to the evidence that the removal of insurance barriers to health care is necessary but not sufficient to promote equitable access to care. Findings from the racial/ethnic disparities literature on cross-cultural communication barriers were borne out by our study. For many ethnic minority veterans in our study, race/ ethnicity was correlated with negative interpersonal experiences with VA staff or with eligibility information gaps. Within the context of VA health care, these findings suggest the need for outreach to disseminate information about VA eligibility and services and interventions to improve the effectiveness of VA clinicians and staff in working with patients of different ethnic backgrounds. Given the VA's unique ability to affect systemwide change, future research should be directed toward elucidating health care system factors that facilitate or constrain patient encounters. Solutions to these problems developed within the VA may serve as models for addressing racial/ethnic health care disparities in the larger health care system.

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This article was accepted September 25, 2004.
Note. The views expressed within are solely those of the authors and do not necessarily represent the views of the Department of Veterans Affairs.
Contributors
D. L. Washington assisted with implementation of the study, completed the analyses, and led the writing. V. Villa assisted with implementation of the study. A. F. Brown assisted with the analyses and writing. J. Damron-Rodriguez assisted with conceptualization and implementation of the study. N. Harada originated and supervised the study. All authors helped to conceptualize ideas, interpret findings, and review the article.
Acknowledgments
This study was funded by the Department of Veterans Affairs, Health Services Research and Development Service (grant ECV97-028). D.L. Washington is a research associate of the Veterans Affairs Health Services Research and Development Service (grant RCD00-017).
The authors gratefully acknowledge Su Sun for her programming expertise. We thank Shena McLaren of the Veteran Identity Project for her invaluable assistance on this project.
Human Participant Protection
This study was approved by the institutional review board of the VA Greater Los Angeles Healthcare System.

Subject: Ambulatory care; Veterans; Health care delivery; Studies; Health services utilization; Users; Medical research; Sample size; Ethnicity; Polls & surveys

MeSH: Adult, Aged, California, Data Collection, Health Services Accessibility, Humans, Male, Middle Aged, Nevada, Ambulatory Care -- utilization (major), Continental Population Groups (major), Ethnic; Groups (major), Veterans (major)

Publication title: American Journal of Public Health

Volume: 95

Issue: 12

Pages: 2231-7

Number of pages: 7

Publication year: 2005

Publication date: Dec 2005

Year: 2005

Section: RESEARCH AND PRACTICE

Publisher: American Public Health Association

Place of publication: Washington

Country of publication: United States

Publication subject: Public Health And Safety, Medical Sciences

ISSN: 00900036

CODEN: AJPHDS

Source type: Scholarly Journals

Language of publication: English

Document type: Journal Article

Document feature: Tables; References

Accession number: 16257951

ProQuest document ID: 215085915

Document URL: http://search.proquest.com/docview/215085915?accountid=145296

Last updated: 2012-02-17

Database: ProQuest Research Library: Health & Medicine,ProQuest Nursing & Allied Health Source,ABI/INFORM Global,ProQuest Social Science Journals

Bibliography

Citation style: APA 6th - American Psychological Association, 6th Edition

Washington, D. L., Villa, V., Brown, A., Damron-Rodriguez, J., & Harada, N. (2005). Racial/Ethnic variations in veterans' ambulatory care use. American Journal of Public Health, 95(12), 2231-7. Retrieved from http://search.proquest.com/docview/215085915?accountid=145296
