

Racial and Ethnic Health Disparities in TRICARE

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Background: As a major provider of health care for racial and ethnic minority groups, the federal government has affirmed its commitment to the elimination of health disparities. Although numerous studies have examined health care disparities in various federal systems of care, few have examined these issues within TRICARE, the Department of Defense (DoD)'s program for providing health care coverage to members of the uniformed services and their dependents.

Methods: This study provides an exploratory analysis examining apparent disparities in health status, access to and satisfaction with care, and use of preventive care using the 2007 Health Care Survey of DoD Beneficiaries. Analyses compare outcomes by race/ethnicity and between TRICARE beneficiaries and national norms derived from the National Consumer Assessment of Health Plans Study Benchmarking Database and the National Healthcare Disparities Report, and are stratified by duty status.

Results: Compared to black non-Hispanics, a higher proportion of white non-Hispanic active-duty and retiree TRICARE beneficiaries reported good to excellent health status. However, on most measures, we found no differences between white non-Hispanic beneficiaries and members of racial/ethnic groups. When differences did exist, minority populations were likely to report better access to and use of services than whites.

Conclusions: Although health disparities exist in health status and some measures of preventive care, black non-Hispanics and Hispanics often receive more equitable care under TRICARE than in the nation as a whole. These findings suggest the need to explore the characteristics of TRICARE that may be associated with more-favorable outcomes for racial and ethnic minority groups.

Keywords: health disparities ■ race/ethnicity

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INTRODUCTION

Racial and ethnic health disparities have been described as one of the most serious health care problems in the United States.¹ Estimates suggest that disparities lead to more than 83 000 excess deaths per year among blacks compared with whites.² Disparities like these also undermine the core value of equality in US society.³ Since 2002 publication of the Institute of Medicine's report, *Unequal Treatment*, elimination of health disparities has become one of the primary goals of the US health care system.¹

The federal government is a major provider and financier of health care for minority populations. In 2001, of the 29 million blacks with health insurance, 12 million were covered by Medicare and Medicaid, and another 1 million were covered by the Department of Veterans Affairs (VA) and the Department of Defense (DoD)'s TRICARE program.¹

TRICARE is the DoD's health care program for those entitled to health care benefits during or consequent to service in the armed forces, including active-duty personnel, retired service members, members of the National Guard and National Reserves, and the families of these members, as well as survivors and others entitled to health care from the DoD. TRICARE provides health insurance coverage through 5 separate programs—TRICARE Prime, a managed care option; TRICARE Extra, a preferred provider option; TRICARE Standard, a fee-for-service option; TRICARE for Life, a supplementary health care coverage for beneficiaries who are entitled to Medicare Part A and enrolled in Part B; and TRICARE Reserve Select, which provides insurance coverage similar to TRICARE Standard and Extra to deactivated members of the National Guard and Reserves who purchase it. Beneficiaries receive care either through civilian providers reimbursed by TRICARE (known as *purchased care*) or from hospitals and clinics operated by the uniformed services (known as *direct care*).

Although a large body of literature has examined health disparities within the other federally funded systems of health care,^{1,4-7} few have addressed this issue within the TRICARE program.⁸⁻¹⁰ Ensuring equity in health care is important to TRICARE because it is part of the larger DoD mission to ensure "equality of treatment and opportunity for all persons in the armed ser-

vices without regard to race, color, religion, or national origin."¹¹ TRICARE Management Activity (TMA) manages the TRICARE health care program and promotes policies and programs that are designed to ensure uniform delivery of high-quality health care to the extent possible. To the degree that TRICARE can demonstrate more-equitable delivery of health care than civilian health care systems, the program can serve as a model for eliminating health disparities.

METHODS

This study uses the 2007 Health Care Survey of DoD Beneficiaries (HCSDB) to examine racial and ethnic disparities within TRICARE. The goal was to determine whether patterns of disparities observed within the larger US health care system are also present in TRICARE. Outcomes of interest include health care access, satisfaction with one's care, and use of preventive services.

Data

The HCSDB is a quarterly survey of active-duty military personnel, retirees, and family members who are eligible for care under the Military Health System (MHS).¹² It was developed by the TMA to provide information on beneficiaries' opinions of their DoD health care benefits. Each survey includes self-reported measures of health status and access to, use of, and satisfaction with care. The cross-sectional quarterly surveys are combined into an annual data set at the end of the calendar year. The survey uses a permanent random number sample selection method to minimize overlap among samples.

Each quarter, surveys are sent to a stratified random sample of 50 000 adult MHS beneficiaries drawn from the Defense Enrollment Eligibility Reporting System (DEERS), a computerized database of persons entitled under law to TRICARE benefits. In 2007 the overall unweighted survey response rate was 25.1%, but these rates vary substantially across enrollment and beneficiary groups, ranging from a low of 15.6% among active duty beneficiaries to a high of 77% for retirees aged 65 or older. Sample sizes for a given year are, therefore, increased to account for survey nonresponse based on the average response rates from the prior year's survey. The data file also includes weights to adjust for nonresponse and to account for the survey's complex sample design.¹²

The HCSDB contains questions from the Consumer Assessment of Health Care Providers and Systems (CAHPS[®], Agency for Healthcare Research and Quality, Rockville, Maryland) health plan survey, version 3.0, a validated instrument with well-established psychometric properties.¹³ CAHPS questions in the HCSDB were validated by factor analysis and correlation with resource use in MHS health service records. Factor loadings were found to be very similar to those observed by CAHPS developers, establishing that when used within the

HCSDB, CAHPS questions exhibited similar psychometric properties to those exhibited when the questions were fielded as part of the CAHPS instrument.^{13,14} The correlation of responses to the HCSDB with objective measures of health care use has been established by research matching survey responses to health service records in MHS administrative data systems. Questions in the HCSDB taken from CAHPS were found to be strongly predictive of resource use in children with special health care needs, when survey responses were linked to health care service records.¹⁵ Questions from CAHPS behavioral health supplement adopted for the HCSDB were also found to predict use of behavioral health care resources in linked service records.¹⁶

We compared results from the 2007 HCSDB with those from the 2006 National CAHPS Benchmarking Database (NCBD) for commercial health plans, which are the most recent normative data available for the CAHPS questions contained in the HCSDB, and with data from the Agency for Healthcare Research and Quality's 2007 National Healthcare Disparities Report (NHDR).^{17,18} Data in the NCBD were voluntarily provided by participating health plans. Data in the NHDR were drawn from multiple sources, including surveillance, vital statistics, and health care organization data systems.¹⁸ The measures calculated from the NCBD were the same as those calculated from the HCSDB. All preventive measures in the NHDR were directly comparable to the measures included in the HCSDB, with the exception of the colon cancer screening measure. In the HCSDB, protoscopy was not included as an option for screening; in the NHDR data source for this measure, protoscopy was included. However, in some cases, the results presented in the NHDR were drawn from data collected in years prior to 2007.¹⁸

Outcome Measures

This study examined health status, access to and satisfaction with care, and receipt of preventive services. Health status was measured using the respondent's self-reported health, a 5-category variable that was dichotomized to compare those reporting poor or fair health with those reporting good, very good, or excellent health. Four measures addressed beneficiary access to and satisfaction with care. The 2 access measures included the respondent's ability to (1) find an acceptable personal doctor or nurse and (2) see a specialist when needed. For the 2 satisfaction measures, patients were asked to rate their doctor on whether he or she (1) listened to the patient's concerns and (2) was courteous and respectful. The measures of preventive services included (1) receipt of smoking cessation counseling, (2) colon cancer screening, (3) Pap smear, (4) mammography, and (5) an annual flu shot, according to recommendations from *Healthy People 2010* by age and sex.¹⁹

Stratifying Variables

In the HCSDB, respondents were asked to self-report both their race and ethnicity. Race included the following 5 categories: white, black or African American, American Indian or Alaska Native, Asian, and Native Hawaiian or other Pacific Islander. Ethnicity identified persons of Hispanic or Latino origin; respondents could specify Mexican, Puerto Rican, Cuban, or other Latino descent. Due to the small sample size for some subgroups, analyses focused on the following 3 racial/ethnic categories: non-Hispanic whites (hereafter referred to as whites), non-Hispanic blacks (hereafter referred to as blacks), and Hispanics.

Data from the DEERS provided information on duty status (active duty, reserve/guard, or retiree) and enrollment status (member, dependent, or survivor). The analyses excluded TRICARE Reserve Select beneficiaries due to small sample sizes for these beneficiaries. Due to differences in health needs and survey response rates,

our analyses also distinguished active-duty personnel and their families (active-duty beneficiaries) from military retirees and their dependents (retirees). First, active-duty beneficiaries were more likely to use direct care. Second, the 2 groups had different health care needs since active-duty beneficiaries were generally younger than retirees. Finally, as noted earlier, the response rates differed considerably between the 2 groups. When family members were included, the response rate for active-duty beneficiaries increased to an average of 20.1% and dropped to an average of 58.1% among retirees. Given the low response rate for active-duty beneficiaries, we chose to compare results across the 2 groups to check the consistency of findings.

To provide a sense for the TRICARE population, we present descriptive statistics on a limited number of demographic and other background variables included in the HCSDB, including age, gender, education, and insurance status. Insurance status includes response cat-

Table 1. Sociodemographic and Other Characteristics of Respondents of the 2007 Health Care Survey of Department of Defense Beneficiaries^a

	Total (%)	White, Non-Hispanic (%)	Black, Non-Hispanic (%)	Hispanic (%)
N = 47 896		72.4 ^b	10.1 ^b	8.9 ^b
Age				
18-34	28.4	27.0	26.1	39.9
35-64	62.9	62.7	69.1	56.0
≥65	8.7	10.2	4.8	4.1
Gender				
Male	48.8	49.9	52.6	45.4
Female	51.2	50.1	47.4	54.6
Education				
High school or less	22.9	20.6	20.4	24.0
Some college	41.0	40.0	50.5	47.4
4-year college graduate	15.8	16.5	13.4	14.0
Beyond 4-year college graduate	20.3	22.8	15.8	14.7
Insurance coverage				
Prime, <65, active duty	33.1	32.1	39.9	37.2
Prime, <65, nonactive duty and prime, ≥65	38.1	36.7	38.5	39.1
Standard/Extra and TRICARE Reserve Select	8.8	9.5	4.9	8.2
Medicare and TRICARE Plus	8.3	9.7	5.0	4.4
Other insurance	10.0	10.5	8.5	9.2
VA	1.8	1.6	3.2	2.0
Beneficiary category				
Active duty	26.7	25.8	32.7	29.4
Dependents of active duty	16.4	15.5	13.3	21.3
Active and inactive reserve/guard	7.1	7.3	7.1	7.3
Dependents of active and inactive reserve/guard	5.7	5.9	3.9	7.6
Retirees	19.9	21.0	22.8	13.7
Survivors and dependents of retirees	24.1	24.3	20.1	20.7

^a Sample sizes and Total column include all racial/ethnic groups captured in the HCSDB (ie, white non-Hispanic, black, non-Hispanic, Hispanic, American Indian/Alaska Native, Asian/Pacific Islander). Due to rounding, totals may not equal exactly 100%.

^b Non-Hispanic whites account for 72.4% of the total sample, non-Hispanic blacks for 10.1%, and Hispanics for 8.9%. American Indian/Alaska native and Asian/Pacific Islander comprise the remainder of the sample but are excluded from our analyses.

egories for the 6 TRICARE health plans, other federally funded health insurance (Medicare, Federal Employees Health Benefit Program, and Medicaid), civilian health insurance (such as HMOs), and other service-related insurance systems (including the Uniformed Services Family Health Plan and the VA).

Statistical Analysis

This study examined whether health care disparities exist within TRICARE through a descriptive analysis of measures by race and ethnicity. As noted earlier, analyses were stratified by race/ethnicity and active-duty status and compared results for HCSDB respondents with benchmarks from civilian health plans (that is, the 2006 NCBD and the 2007 NHDR), resulting in 2 comparisons for all measures. First, in order to determine the presence of a disparity, we compared outcomes for black and Hispanic beneficiaries with those of white beneficiaries. Second, we compared the magnitude of any disparity within the TRICARE active-duty and retiree cohorts with national norms. Statistical analysis was conducted using *t* tests of differences in proportions with Bonferroni adjustment for multiple comparisons in order to reduce the probability of making a type I error. In the text that follows, the *p* value reported is the *p* value with a Bonferroni adjustment for 2 comparisons. Test statistics and standard errors of proportion estimates were calculated using the DESCRIPT procedure in SUDAAN (Research Triangle Institute, Research

Triangle Park, North Carolina) to account for the complex sample design.²⁰

RESULTS

Sociodemographic and Other Characteristics

Table 1 presents the unweighted totals for sociodemographic and other characteristics of HCSDB survey respondents. Persons aged 65 or older represented fewer than 9% of survey respondents. Overall, white respondents were older and Hispanic respondents younger than black respondents. Specifically, compared to white and black non-Hispanics, there were more Hispanic respondents in the 18-to-34-year age category (39.9% vs 27.0% for whites and 26.1% for blacks). Compared to blacks and Hispanics, white respondents were more likely to be aged 65 years and over. Although women are a slight majority of respondents (51%), black respondents are more likely to be male (52.6%) than female, and Hispanic respondents are much more likely to be female (54.6%) compared to white respondents (50.1%).

There was a broad range of educational experiences in the sample. For nearly one-quarter of respondents, the highest level of educational attainment was a high school degree; another 41% had some college training. Almost 16% of respondents had a 4-year college degree and the remaining 20% had some graduate education. Although about the same proportion of white and black respon-

Table 2. Health Status and Access: US Norm vs TRICARE Active Duty and Retired, by Race/Ethnicity

Measure	Non-Hispanic Whites	Non-Hispanic Blacks	Hispanics
	% (SE)	% (SE)	% (SE)
Self-rated health good or excellent			
US norm	60.2 (0.2)	47.9 ^a (0.5)	54.0 ^a (0.5)
TRICARE active duty	70.1 (0.5)	61.2 ^a (1.4)	64.7 ^a (1.5)
TRICARE retired	48.1 (0.6)	40.5 ^{a,b} (1.7)	48.5 ^b (2.1)
No problem finding a personal doctor			
US norm	72.2 (0.2)	73.5 (0.6)	73.0 (0.6)
TRICARE active duty	52.2 (0.6)	63.1 ^{a,b} (1.4)	53.5 (1.6)
TRICARE retired	68.9 (0.6)	66.6 (1.7)	61.6 ^{a,b} (2.3)
No problem seeing a specialist			
US norm	79.5 (0.2)	78.7 (0.6)	72.4 ^a (0.7)
TRICARE active duty	55.1 (0.8)	61.0 ^{a,b} (2.1)	54.5 ^b (2.2)
TRICARE retired	79.7 (0.5)	75.2 ^a (1.8)	72.2 ^a (2.3)
Doctor listened carefully			
US norm	93.0 (0.1)	91.9 ^a (0.3)	90.7 ^a (0.4)
TRICARE active duty	78.6 (0.6)	87.0 ^{a,b} (1.0)	80.0 (1.4)
TRICARE retired	93.4 (0.3)	91.3 (1.0)	90.3 ^a (1.2)
Doctor showed respect			
US norm	94.1 (0.1)	92.7 ^a (0.3)	92.6 ^a (0.3)
TRICARE active duty	82.0 (0.5)	88.3 ^{a,b} (1.2)	85.2 ^{a,b} (1.2)
TRICARE retired	93.8 (0.3)	91.5 ^a (1.0)	92.4 (1.1)

Source: TRICARE data are drawn from the 2007 Health Care Survey of Department of Defense Beneficiaries. US norm data are drawn from the CAHPS® Health Plan Survey, 2006 CAHPS® Benchmarking Database, Commercial.

^a Indicates significant difference (*p* < .05), compared to non-Hispanic whites.

^b Indicates that size of TRICARE difference is significantly different than size of US norm difference (*p* < .05).

dents reported education beyond high school, fewer black respondents reported graduating from a 4-year college or postgraduate education. Compared to white and black respondents, Hispanics were least likely to have attended additional schooling beyond high school, but compared with black respondents, similar proportions reported graduating from college or receiving postgraduate education.

The majority of respondents (about 71%) were covered by a TRICARE Prime plan, which was the managed care option. Active-duty personnel and their dependents comprised about 43% of respondents. Retirees, their dependents, and survivors accounted for nearly the same proportion (about 44%). The remaining 13% of respondents were active and inactive reservists and National Guard members and their dependents. Compared to white and Hispanic respondents, black respondents included a higher proportion of males and were more likely to be active-duty personnel covered under Prime.

In comparison, persons aged 65 and over were 12.8% of the sample from the NCBDB, with those aged 35 to 64 comprised 72.1% of the sample; persons aged 18 to 34 comprised the remaining 15.1% (data not shown). Slightly more than 60% of the NCBDB sample were women. High school graduates were 28.2% of the sample and 33.4% had completed some college. Nearly 30% of sample had a 4-year college degree or higher (18.7% had a 4-year degree and another 19.7% had attended graduate school).

Outcome Measures by Race and Ethnicity

Tables 2 and 3 present results on respondents' health status, access to and satisfaction with care, and receipt of preventive services. Each measure was stratified by race and ethnicity and compared to US norms. Our results suggest that there were fewer racial and ethnic health disparities within TRICARE compared to the general US population. When disparities existed in TRICARE, their magnitude was lower and in many cases suggested minority beneficiaries receive more, and not less, health care than their white counterparts.

Table 2 shows that, similar to US norms, a significantly higher proportion of white active-duty beneficiaries described their health as good or excellent, compared to black and Hispanic active-duty beneficiaries (70.1%, compared to 61.2% and 64.7%, respectively; $p = .000$ and $p = .033$, respectively). Among retirees, a significantly higher proportion of whites described their health as good or excellent, compared to blacks (48.1%, compared to 40.5%; $p = .000$), though differences between Hispanic and white retirees were not significant.

Table 2 also shows results for 2 measures of access to primary and specialty care. Among active-duty beneficiaries, a significantly higher proportion of blacks than whites reported no problems finding a personal doctor (63.1%, compared to 52.2%; $p = .000$), while among retirees, a smaller proportion of Hispanics than whites reported no problem (61.6%, compared to 68.9%; $p = .003$). With regard to specialty care, a significantly larger

Table 3. Preventive Services: US Norm vs TRICARE Active Duty and Retired, by Race/Ethnicity

Measure	Non-Hispanic Whites	Non-Hispanic Blacks	Hispanics
	% (SE)	% (SE)	% (SE)
Smoking cessation counseling			
US norm	60.9 (1.0)	53.5 ^a (2.5)	42.2 ^a (2.9)
TRICARE active duty	63.3 (1.4)	61.4 (4.0)	53.4 ^a (3.8)
TRICARE retired	76.7 (1.2)	74.2 (3.6)	60.0 ^a (5.4)
Colon cancer screening, age ≥50			
US norm	58.5 (0.6)	48.5 (1.6)	37.3 ^a (1.8)
TRICARE retired	62.6 (1.1)	55.7 (3.3)	55.7 ^b (4.0)
Pap smear			
US norm	79.1 (0.5)	80.2 (1.0)	74.4 ^a (1.1)
TRICARE active duty	94.0 (0.4)	96.2 ^a (0.7)	92.7 (0.9)
TRICARE retired	75.3 (0.7)	86.2 ^{a,b} (1.7)	82.2 ^{a,b} (2.2)
Mammography, age ≥40			
US norm	68.2 (0.7)	64.7 (1.5)	58.9 ^a (1.7)
TRICARE active duty	77.9 (1.2)	82.0 (2.8)	74.1 (3.4)
TRICARE retired	83.2 (0.6)	90.1 ^{a,b} (1.5)	87.8 ^{a,b} (1.9)
Flu shot, age ≥65			
US norm	73.5 (0.7)	56.4 ^a (2.2)	56.3 ^a (2.5)
TRICARE retired	73.9 (0.8)	64.6 ^a (3.7)	66.3 (4.8)

Sources: TRICARE data are drawn from the 2007 Health Care Survey of Department of Defense Beneficiaries (HCSDB). US norm data are drawn from the 2007 National Healthcare Disparities Report. The colon cancer screening measure includes proctoscopy in the National Healthcare Disparities Report. The HCSDB does not include proctoscopy in its measure.

^a Indicates significant difference ($p < .05$), compared to non-Hispanic whites

^b Indicates that size of TRICARE difference is significantly different than size of US norm difference ($p < .05$).

proportion of black active-duty beneficiaries reported no problems seeing a specialist, compared to whites (61.0%, compared to 55.1%; $p = .018$), while among TRICARE retirees, a smaller proportion of both blacks and Hispanics than whites reported no problems (75.2% and 72.2%, respectively, compared to 79.7%; $p = .034$ and $p = .000$, respectively). National norms suggest that Hispanics have more problems than whites finding a specialist. We did not detect such a difference in the active-duty cohort, though the pattern among Hispanic retirees was similar to that observed in the norms.

In contrast to US norms, higher proportions of minority TRICARE beneficiaries reported satisfaction with health care experiences compared to white TRICARE beneficiaries. Compared to whites, significantly higher proportions of black active-duty beneficiaries reported that their doctor listened carefully (87.0%, compared to 78.6%; $p = .022$), results that compare favorably to national norms, and higher proportions of black and Hispanic active-duty beneficiaries reported their doctor showed respect (88.3% and 85.2%, respectively, compared to 82.0%; $p = .000$ and $p = .033$, respectively). However, among retirees, a smaller proportion of blacks reported their doctor showed respect, compared to whites (91.5%, compared to 93.8%, $p = .047$), a disparity not significantly different from national norms.

Racial and ethnic minorities in TRICARE often reported the same or higher levels of receipt of preventive services as their white counterparts (Table 3). In particular, significantly higher proportions of black active-duty and retired beneficiaries reported receipt of Pap smear, compared to whites (96.2%, compared to 94.0%, among active-duty beneficiaries; 86.2% compared to 75.3% among retirees; $p = .011$ and $p = .000$, respectively). A significantly higher proportion of Hispanic retirees (82.0%) also reported receipt of a Pap smear, compared to whites ($p = .005$); among active-duty beneficiaries, there was no significant difference between whites and Hispanics for receipt of this service. In contrast to TRICARE, data on US norms suggested Hispanics lag behind whites and blacks for this measure.

Table 3 further shows that, among TRICARE retirees, higher proportions of blacks and Hispanics reported receiving mammograms, compared to whites (90.1% and 87.8%, respectively, compared to 83.2%; $p = .000$ and $p = .036$, respectively). There were no significant differences across race and ethnicity for mammography services among active-duty beneficiaries. Across all racial and ethnic groups, higher proportions of TRICARE beneficiaries reported receipt of mammography compared to the US norm.

DISCUSSION

This study examined health disparities among beneficiaries of the DoD TRICARE program and found that racial and ethnic minority groups reported favorably on

many measures of health status, access, and receipt of preventive services, compared to whites. Compared to whites, equal or greater proportions of minorities reported favorably on finding a doctor, perceiving that the doctor showed respect, and receipt of colon cancer screening, Pap smear, and mammography. While racial and ethnic disparities exist within TRICARE, they appear less prevalent and of lower magnitude than those observed in other parts of the US health care system.

A number of studies conducted within other segments of the MHS and the VA have demonstrated a similar lack of disparities between members of racial and ethnic minority groups and whites across a range of conditions and outcomes, including processes of inpatient care, hospital mortality rates, primary care ratings, and use of invasive cardiac procedures after acute myocardial infarction.²¹⁻²⁶ In most cases, these authors have cited the fact that the VA and MHS provide equitable access to care as a reason for their findings. However, additional research has documented worse outcomes for minorities in survival for breast carcinoma, birth outcomes, and mortality following diagnosis of prostate cancer within these same systems of care.^{10,25-30} This suggests that equal access to health care during military service cannot overcome all disparities.

Our results also suggest that some disparities exist within TRICARE. For instance, a higher proportion of white active-duty beneficiaries reported good or excellent health status, compared to minorities. Similarly, a higher proportion of retired whites reported good or excellent health status, compared with retired blacks. These findings are consistent with studies in civilian populations that show racial and ethnic minority groups (particularly blacks) report lower self-rated health than whites.³¹⁻³³ The results suggest that minority active-duty beneficiaries might require more health care services than whites since lower self-rated health has been associated with higher mortality rates and declines in functional ability.^{34,35}

As a major health insurance provider to racial and ethnic minority groups, the federal government, including the TRICARE program, can provide the leadership necessary to understand the sources of health care disparities and develop approaches to overcoming them.³⁶⁻³⁸ Overall, the study results suggest greater progress toward equitable health care in TRICARE than that found in the civilian setting. This is particularly evident for the provision of preventive services, in which higher proportions of TRICARE beneficiaries of all races and ethnicities report receipt of appropriate services compared to US norms. However, the study results also indicate the need to continue to identify sources of disparities. These include the potential for disparities by gender and geographic residence that have been found in studies of the VA.³⁹⁻⁴¹

Limitations

This was an exploratory study. The low survey response rate for active-duty personnel and their dependents was a major limitation to the study's findings. Although the findings were similar between active-duty and retired beneficiaries on a number of measures, there were significant differences on others. For example, although black active-duty beneficiaries were somewhat more likely than whites to report no problem seeing a specialist, black retirees were significantly more likely than white retirees to report this problem. Future research should pursue multivariate analysis to determine if this finding was a result of nonresponse bias or differences in the characteristics and type of health care needs between active-duty and retired beneficiaries.

Another limitation is the fact that while the NCB and the NHDR are the best sources available for comparison, respondents to these surveys may have differed in fundamental ways from the MHS personnel represented in the HCSDB. For example, the NCB and NHDR data were not adjusted by age, race and ethnicity, and educational attainment. Such adjustments would have made the data more comparable to the populations represented in the HCSDB.

Recommendations for Future Research

While this study provides a descriptive analysis of disparities within the TRICARE program, future research should examine these results in the context of multivariate models that include data from DEERS and administrative records, as well as income and other factors that might influence disparities, data that were beyond the scope of this preliminary analysis. After supplementing the survey data with administrative data, it will be possible to examine disparities across a wider range of measures, including treatments for specific conditions (based on administrative claims data). With more expansive data files, it may also be possible to identify factors that lead to disparities within the TRICARE program, as well as protective factors that result in more-equitable care. Since this is the first study within this population, it would be useful to examine data over time to see if findings are consistent and whether or not the situation is better or worse now than in the past.

However, in order to enhance future studies of racial and ethnic health disparities within the MHS, the DoD should focus on improving data collection of racial and ethnic background for eligible beneficiaries. The DEERS is the definitive source of data on persons legally entitled to benefits under the MHS, but it lacks information on race and ethnicity. Improving the collection of this data represents a fundamental step toward eliminating racial and ethnic health disparities.⁴² Like other federal government agencies, the DoD should strive to improve its data systems in order to advance its goals for equality.

CONCLUSION

While this was an exploratory study, our results suggest that racial and ethnic minorities received more equitable health care in TRICARE than in other segments of the US health care system. TRICARE, thus, offers the nation a unique window into the causes, consequences, and solutions for health care disparities.

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