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Racial and Ethnic Disparities in the VA Healthcare System: A Systematic Review

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PREFACE

VA's Health Services Research and Development Service (HSR&D) works to improve the cost, quality, and outcomes of health care for our nation's veterans. Collaborating with VA leaders, managers, and policy makers, HSR&D focuses on important health care topics that are likely to have significant impact on quality improvement efforts. One significant collaborative effort is HSR&D's Evidence-based Synthesis Pilot Project (ESP). Through this project, HSR&D provides timely and accurate evidence syntheses on targeted health care topics. These products will be disseminated broadly throughout VA and will: inform VA clinical policy, develop clinical practice guidelines, set directions for future research to address gaps in knowledge, identify the evidence to support VA performance measures, and rationalize drug formulary decisions.

HSR&D provided funding for the two Evidence Based Practice Centers (EPCs) supported by the Agency for Healthcare Research and Quality (AHRQ) that also had an active and publicly acknowledged VA affiliation—Southern California EPC and Portland, OR EPC—so they could develop evidence syntheses on requested topics for dissemination to VA policymakers. A planning committee with representation from HSR&D, Patient Care Services, Office of Quality and Performance, and the VISN Clinical Management Officers, has been established to identify priority topics and to insure the quality of final reports.

Comments on this evidence report are welcome and can be sent to Susan Schiffner, ESP Program Manager, at Susan.Schiffner@va.gov.

EXECUTIVE SUMMARY

INTRODUCTION

Numerous studies have demonstrated racial and ethnic disparities in health care in the United States.These disparities have been demonstrated in the Veterans Affairs (VA) healthcare system, where financial barriers to receiving care are minimized. The VA is committed to delivering high-quality care in an equitable manner, and as such, to eliminating racial and ethnic disparities in health care. To inform this effort, we systematically reviewed the existing evidence on disparities within the VA, to address the following objectives:

1) Determine in which clinical areas racial and ethnic disparities are prevalent within the VA;
2) Describe what is known about the sources of those disparities; and
3) Qualitatively synthesize that knowledge to determine the most promising avenues for future research aimed at improving equity in VA health care.

METHODS

Our review consisted of two components: a systematic review of the existing literature reporting the findings of research on racial disparities within the VA, and an environmental scan of ongoing or recently completed studies of racial disparities within the VA. We critically analyzed the evidence, compiled a summary of findings by clinical topic area, and drew conclusions based on qualitative synthesis of the findings. After summarizing the findings for each clinical topic, we synthesized the descriptions and summaries of the literature for each clinical topic to derive a set of "cross-cutting" themes related to the underlying causes of healthcare disparities. These served as the basis for a proposed set of potential interventions for future research aimed at reducing racial disparities in VA health care.

RESULTS

Arthritis and Pain Management: Studies of osteoarthritis and pain management reported racial differences in joint replacement surgery and analgesic medication use that generally indicate less aggressive management of osteoarthritis in blacks compared to whites. These differences are not likely explained by differences in symptom severity, as blacks tend to report similar if not greater levels of pain compared to whites.

Blacks appear less willing than whites to undergo joint replacement surgery. This greater reluctance appears to be due to less familiarity with the procedure and worse expectations with regard to surgical outcomes, including post-operative recovery, chronic pain, and functioning. Blacks also appear to place greater value than whites on non-medical options for managing arthritis, particularly prayer. However, the degree to which lower willingness among black veterans explains observed disparities in joint replacement surgery is unknown.

Cancer: Studies comparing blacks and whites with cancer suggest that for some cancers, blacks are less likely to undergo potentially curative surgical resection but equally likely to undergo non-surgical interventions, such as chemotherapy and radiation. Studies exploring possible reasons for this disparity suggest that physicians engage in less effective partnerships with black veterans and provide them with less information as compared to white veterans. Part of this communication disparity appears to be related to black veterans' being less assertive or active in their conversations with physicians. As a result of less effective partnerships and less information exchange between physicians and black veterans, physicians engender less trust among black as compared to white veterans. The degree to which these differences in communication, partnership, and trust actually explain disparities in cancer surgery is unknown.

Cardiovascular Diseases: There were mixed findings across studies on racial disparities in the use of invasive procedures in veterans with cardiovascular diseases, but the majority of studies exploring this association found that non-whites undergo fewer procedures than whites. In one study an observed disparity in the use of cardiac catheterization was partly explained by greater overuse of the procedure among whites than blacks.

Studies found greater aversion to invasive procedures among blacks compared with whites, as well as lower trust among blacks and greater emphasis on religion as an alternative to medical care. Notably, blacks were less familiar with cardiovascular procedures, and this lack of familiarity helped explain racial differences in willingness to undergo procedures in at least one study.

Patient-physician communication behaviors differed between black and white veterans. One study identified a potential cycle of passivity in which black veterans, and veterans interacting with race discordant physicians, received less information overall because they less often engaged in communication behaviors (e.g. questions, assertions) that typically elicit more information from doctors. In focus groups, black veterans placed greater emphasis on the need for trust in their physicians in deciding about invasive procedures, while white veterans placed greater emphasis on clinical indications.

While racial differences were apparent in factors that might influence the use of cardiac care—e.g., aversion to surgery, trust, communication—studies that were able to examine the influence of these factors on actual use of invasive procedures generally found that they did not explain observed disparities. Physician decision making was more influential, and in one study physician recommendations helped explain racial disparities in cardiac procedure use, even after accounting for clinical variables and severity of coronary disease. The degree to which this difference in physician recommendations for black vs. white veterans was driven by clinical factors not captured by the studies, by the influence of patient preferences on physician decision making, or by physician bias, was not determined.

Blacks were more likely to delay seeking treatment for heart failure symptoms and were less adherent (both intentionally and unintentionally) to medication regimens. Among veterans with peripheral arterial disease, blacks had higher rates of limb amputation. The reasons underlying these findings of lower adherence and later presentation were not investigated.

The impact of regionalization of services was greater among blacks than whites in one study. The presence of a local cardiac surgical program increased the likelihood of invasive procedure use to a significantly greater degree among blacks than among whites, suggesting that regionalization of cardiac care may have a greater impact on blacks than whites, exacerbating existing disparities.

Diabetes: Existing studies reveal mixed results regarding racial disparities in diabetes care, but overall, the quality of care—as measured by process measures (appropriate test ordering) and outcome measures (control of blood pressure, glucose, and lipids)—appears to be worse for non-white veterans compared to whites. Some of the difference in outcomes may be explained in part by lower adherence among non-white veterans.

Importantly, one study found no disparities in quality measures when examining VA data alone. However, when non-VA health care use was included, the study revealed poorer chronic disease monitoring for black and Hispanic as compared to white veterans with diabetes, since white veterans were more likely to receive care outside the VA.

HIV and Hepatitis C: Clinical management of veterans with HIV was generally similar across racial groups. Self-reported medication adherence was similar for black and white veterans, though objective data based on computerized pharmacy refill records revealed lower adherence among blacks. Non-white veterans with HIV suggested ways to improve adherence, including use of a medication plan and more supportive health care and social interactions. Despite inconsistent findings on medication adherence and racially similar clinical management, age-adjusted mortality is higher among non-white veterans with HIV. Minority veterans appear to be diagnosed with HIV at a later stage and have more severe illness at the time of diagnosis, which may contribute to survival disparities.

Black and Hispanic veterans with hepatitis C appear less likely than whites to receive antiviral treatment, and Hispanic veterans in one study were more likely than whites to discontinue treatment. The reasons underlying these disparities were not explored.

Mental Health and Substance Abuse: Studies comparing utilization and outcomes of mental health care by veteran race do not reveal consistent patterns. In general, the quality of inpatient and residential treatment for substance abuse and mental illness was similar across racial groups; disparities were observed more often in outpatient settings.

Clinicians tend to more frequently diagnose and treat black veterans with mental illness as having psychotic disorders (e.g., schizophrenia) and white veterans as having affective disorders (e.g., bipolar disorder, depression). The underlying causes of these disparities in diagnostic and treatment patterns remains unclear.

Studies investigating the effect of the "racial environment" on mental health and substance abuse outcomes suggest that black veterans may derive benefit from having a racially concordant clinician, and from being in a racially concordant treatment group. These findings are considered preliminary and warrant validation in future studies.

Preventive and Ambulatory Care: Studies of preventive and ambulatory care use by veteran race reveal mixed findings. For some services—e.g., colorectal cancer screening, lipid lowering therapy—racial disparities do not appear prevalent. Studies did reveal disparities in some primary care outcome measures, including achieving blood pressure and lipid goals, but these findings may have explained in part by more severe disease among non-whites. Non-whites with hypertension were less adherent to medications, both unintentionally and intentionally, part of which was related to medication side effects. Qualitative research findings suggested that disparities in cardiovascular risk management may be related to low health literacy, less knowledge, and less assertiveness with physicians among black, as compared to white, veterans. Blacks were less likely than whites to receive influenza vaccines. Additionally, both blacks and Hispanics were less likely than whites to know they needed a vaccination and more likely to rely on physician recommendations and reminders to receive vaccinations.

Non-white veterans are generally more likely than white veterans to use the VA healthcare system. American Indian/Alaska Natives and Hispanics were more likely than whites to have unmet health needs, while blacks and Asian/Pacific Islanders were similar to whites on this outcome measure. Non-white veterans identified interpersonal care, knowledge about VA services and eligibility, and dissatisfaction with the VA as barriers to obtaining VA care, though a study of women veterans found no racial differences in satisfaction among women using VA primary care.

Rehabilitative and Palliative Care: Studies of end-of-life care were mixed but suggest that in some cases, black veterans are less likely than whites to have advanced directives or to engage in hospice care. Black veterans in one study were more likely to die in the hospital and in another study were more likely to undergo gastrostomy tube placement. Together, these studies suggest that black veterans receive a less palliative approach to care at the end of life. Reasons for these findings have not been explored.

Other Clinical Topics: Studies across a range of clinical topics not covered above collectively suggest that black and other non-white veterans tend to receive less aggressive medical care than whites. Part of this may relate to greater skepticism among black veterans towards new medications and medical technology. Some of the variation seen in large national database studies may also be related to regional or facility-level practice variation, but findings of racial variation in single-center studies indicate that this explanation cannot account for many of the observed disparities. The degree to which racial bias among healthcare providers is responsible for racial disparities in care remains unclear but is suggested by the finding in one study that physicians were more likely to write do-not-resuscitate orders based on medical futility among non-white compared to white patients, independent of the same physicians' predictions of the likelihood that the patients would survive resuscitation efforts.

SUMMARY AND SYNTHESIS

Prevalence of Disparities

- There is no clear indication that disparities are more prevalent in some clinical areas than others. Although there have been more studies in the area of cardiovascular disease than

in other realms (as is also true in the non-VA literature), disparities appear to exist in all clinical arenas.

- Disparities appear to be more consistently observed for processes that entail more risk or require more intensive decision making, communication, or effort on the part of patients and/or providers: surgery/invasive procedures and medication adherence.
- In studies examining quality indicators that represent intermediate health outcomes—such as control of blood sugar, blood pressure, or cholesterol—non-white veterans generally fared worse than whites. This is a troubling finding, in that it may indicate that disparities in healthcare delivery are contributing to real disparities in health outcomes. Alternatively, these studies suggest that racial disparities might reflect "regressive" healthcare delivery; i.e., minority veterans are receiving *less* and *lower* quality health care despite needing *more* and *higher* quality care, as reflected by poor control of their diabetes, hypertension, and hyperlipidemia.
- Most of the reviewed studies compared African American and white veterans. Fewer studies examined Hispanics, American Indians, and Asians. In general, disparities in the VA appear to affect African American and Hispanic veterans most significantly.
- Not all disparities should be assumed to reflect underuse of health care among non-whites, particularly in the realm of surgical and other invasive procedures. In at least one study, differential use of cardiovascular procedures was found to reflect overuse among whites rather than underuse among African Americans.[31] However, in many cases, disparities do appear to represent inappropriate underuse of procedures (i.e., lower quality care) among non-whites.
- Because white veterans tend to use non-VA care more than non-white veterans do, studies that do not capture non-VA utilization, particularly those using administrative data, may underestimate the degree of disparities, find disparities to be absent when they in fact exist, or find "reverse" disparities (non-whites receive more/better care) when in fact no disparities exist. At least two studies have demonstrated this misleading effect of not capturing non-VA utilization.

Sources of Disparities

Several themes emerged from our review as likely contributors to racial disparities in VA health care:

- **Veteran medical knowledge and information sources.** Non-white and white veterans differ in their degree of familiarity with and knowledge about medical interventions. This difference stems from different levels of experience with those interventions among minority vs. white veterans and their families, friends, and communities; from different amounts of information conveyed by healthcare providers; and from different levels of health literacy and understanding among veterans. Different knowledge and information may affect patients' perceptions of, or degree of uncertainty about, the necessity and benefits of medical interventions in relation to their risks. Uncertainty about the necessity of interventions may in turn reduce patients' willingness to accept and adhere to them. Several studies indicate that minority veterans are less informed about their care, compared to white veterans, and that this difference affects decision making.

- **Veteran trust and skepticism.** Minority veterans also tend to harbor less trust and more skepticism about the benefits of medical interventions, relative to their risks. These perceptions appear to be influenced by lack of familiarity with medical interventions (described above), by historical or personally experienced discrimination, and for some African American veterans in particular, by a reliance on religious and spiritual avenues for coping with illness as opposed to medical therapies. Studies in our review suggest that minority veterans are more skeptical of information provided by healthcare professionals, as compared to white veterans. It is important, however, not to misconstrue this skepticism as unwarranted. White veterans' general lack of skepticism may be more problematic if it leads to acceptance of unnecessary or undesired care.

- **Racial/cultural milieu.** Some have suggested that a more racially and culturally congruent healthcare environment (including racially concordant healthcare providers) for minority veterans may elevate trust, reduce skepticism, and enhance the acceptability of care. Two studies directly examined this issue and found that African American veterans experienced better interactions and fared somewhat better clinically, when cared for by African American vs. white providers. Another study suggested that black patients in group therapy might fare better when grouped with other black patients.

- **Patient participation.** Several studies suggest that non-white veterans are less active participants in their care as compared to white veterans. Non-white veterans tend to ask fewer questions of their providers, who in turn provide less information. Less information, as discussed above, may lead to lower acceptance of and adherence to medical interventions. In addition, lower patient participation diminishes the strength of the patient-provider partnership, which may in turn lead to less investment by both parties in following recommended care plans, and to lower trust and greater skepticism among minority veterans.

- **Clinician judgment.** Studies suggest that clinicians' diagnostic and therapeutic decision making varies by veteran race. The degree to which this differential decision making is based on clinical factors vs. non-clinical factors, including racial stereotypes, is unclear. For instance, in one study clinicians judged African American veterans to be less appropriate candidates for coronary interventions, even after accounting for chart-documented variables. The degree to which this judgment reflected undocumented clinical factors vs. non-clinical influences was not clear. Similarly, clinicians prescribe opioid medications less frequently to African American vs. white veterans and are more likely to diagnose African American veterans presenting with mental illness as having psychotic vs. affective disorders. The degree to which these phenomena are driven by racial differences in co-existing substance abuse disorders, by cross-cultural misunderstanding of symptom presentations, or by racial bias, remains unclear.

- **Veteran social support and resources.** Non-white veterans may have fewer social support and other external resources to help with both illness management and decision making. This is particularly relevant in that minority veterans may rely more heavily on external resources than on healthcare professionals for information and support. This may particularly affect adherence and decision making around high-risk procedures.

- **Healthcare facility characteristics.** Some disparities are at least partly explained by the fact that minority and white veterans tend to receive care at different VAMCs. In some cases, VAMCs that disproportionately serve minority veterans have fewer available services or deliver lower quality care overall than VAMCs serving predominantly white veterans. This potential source of disparities, however, remains underexplored. It should be noted that many studies have demonstrated disparities within single VAMCs, suggesting that system-level factors are unlikely to explain all observed disparities.

Future Research Recommendations

The findings of our review suggest several promising areas for future research to further elucidate and reduce/eliminate racial disparities in health care within the VA.

- **Decision aids and information tools.** Because disparities may arise from different levels of familiarity with and information about medical interventions, tools that provide accurate information about the rationale, risks, and benefits of interventions have the potential to "even the playing field" among minority and white veterans in terms of knowledge. In designing decision aids and information tools for minority veterans, investigators should pay attention to issues of literacy, language, and culture.

- **Patient activation interventions.** Interventions to make patients more active participants in their interactions with healthcare providers and in the management of their illnesses have been shown to improve health outcomes. They may also reduce disparities by breaking the cycle of passivity that leads to less information exchange between minority veterans and their healthcare providers. More active patient participation has the potential to improve patient adherence as well as to strengthen patient-provider partnerships and mutual trust.

- **Patient-centered communication training.** Interventions to make veterans more active participants in their interactions with healthcare providers can also target providers. Clinicians can adopt communication strategies that help solicit patient perspectives and engage patient participation. As with patient activation interventions, patient-centered approaches to healthcare interactions hold the potential to strengthen patient-provider partnerships and mutual trust.

- **Determining sources of variation in clinician judgment by patient race.** As described above, studies have found that clinicians make different judgments based on veteran race. However, the degree to which this variation is driven by clinical characteristics vs. non-clinical factors, such as racial bias, remains unclear. Studies exploring how and why patient race is associated with different clinical decisions would help determine the need for and inform interventions to reduce adverse consequences of racial bias among clinicians.

- **Interventions to promote evidence-based decision making by providers.** Similar to decision aids and information tools for patients, guidelines and decision rules for providers hold the potential to improve equity by "standardizing" care. To the extent that providers may be biased by patient race, guidelines, decision rules, and other quality

improvement tools that promote evidence-based decision making may reduce the influence of provider bias and enhance equity of care among veterans of different race and ethnicity.

- **Adherence support interventions.** Minority veterans appear consistently across studies to be less adherent to treatment plans than whites. Studies suggest that this may in part be due to less social support and planning among minority veterans. Interventions to provide adherence support—e.g., education, assistance with care planning—may help reduce this disparity.

- **Determining facility characteristics associated with healthcare quality and equity.** Some disparities are explained by differences in the healthcare facilities where minority vs. white veterans seek care. Determining the differences in structures and processes across minority- vs. majority-serving VAMCs would inform interventions to eliminate system-level sources of disparities. In addition, studies examining facility-level characteristics associated with more equitable care within VAMCs—including those related to the racial and cultural context at VAMCs, such as the racial composition of clinical staff—would help inform system-level interventions to eliminate disparities.

Future research on disparities in VA healthcare should explicitly define how race is conceptualized within a given study. A group of VA investigators has developed a survey/interview tool to assess the "ecocultural" factors for which veterans' race and ethnicity often serve as proxies. "Unpacking" race and ethnicity in studies of disparities will promote understanding and inform future interventions. Researchers should also be mindful that some disparities represent overuse of medical services among white veterans rather than underuse among non-whites. Clearly, interventions to promote greater use of services among non-whites in these instances is unwarranted. Finally, future studies should attempt to account for non-VA utilization. Because non-VA care is more prevalent among white veterans than among non-whites, ignoring non-VA utilization may generate misleading results.