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## Addressing the Health Needs of Rural Native Veterans: Assessment and Recommendations

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## **ADDRESSING THE HEALTH NEEDS OF RURAL NATIVE VETERANS: ASSESSMENT AND RECOMMENDATIONS\***

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#### **ABSTRACT**

Native Veterans comprise unique populations within the Veterans Administration (VA) system of care and represent a proud tradition of military service. Limited healthcare data available on rural Native veterans indicate significant disparities in access to care and health status compared with other populations. This article provides an assessment of current challenges, barriers, and issues related to addressing the healthcare needs of rural Native veterans and offers recommendations to improve healthcare for this special population. To meet the needs of rural Native veterans it will be important to: conduct needs assessments to gather important health data about rural Native veterans; develop a clearinghouse of information on and for rural Native veterans and disseminate this information widely; develop strategies to enhance transportation policies and provisions; expand the use of technology and outreach; work toward increasing cultural competence among VA employees; and improve the availability of traditional healing services.

Native veterans, such as American Indians, Alaska Natives, Native Hawaiians and other Pacific Islanders, comprise unique and diverse populations within the

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Veterans Health Administration (VHA) system of care. Among Native veterans, those living in rural and highly rural areas are faced with significant barriers in access to health care (Johnson, Carlson, and Hearst 2010; U.S. Department of Veterans Affairs 2003a). Therefore, assessing their health needs and developing strategies to address those needs are important priorities.

The purposes of this paper are to review the literature regarding rural Native veterans, to provide an assessment of the status of addressing the healthcare needs of rural Native veterans based on the literature review and to report on proposed recommendations to improve the health status of these special populations. First, we present definitions to develop a common language regarding Native veterans and rurality. Following, a brief overview of important demographics and health status information is reviewed. Next, we provide an assessment of the current challenges, barriers, and access issues related to delivery of effective healthcare for rural Native veterans. Finally, we offer recommendations for improving healthcare for rural Native veterans.

It is important to note that the focus of this paper is limited to rural American Indian and Alaska Native veterans in the contiguous United States. While Alaska Natives living in Alaska, Native Hawaiians, and other Pacific Islanders represent important subpopulations of the rural Native veteran population, they deserve a more detailed and focused analysis than can be provided through a subsection of this paper given the unique geographic challenges they face, differing political arrangements, lack of IHS coverage, and their cultural distinctiveness and diversity. Consequently, providing an assessment of the status of addressing the healthcare needs of Alaska Native veterans in Alaska, or Native Hawaiian and other Pacific Islander veterans, and proposing recommendations for future direction to improve healthcare for these special populations is beyond the scope of this manuscript.

## DEFINITIONS

When referring to rural Native veterans noting how groups are defined is important. The VHA has used self-identification as the means of classifying this population since 2003, although this method of identification is still not consistently practiced (Sohnnet al. 2006; Spoot et al. 2009). Any veteran who self-identifies as American Indian, Alaska Native, Native Hawaiian, or Pacific Islander is considered as such.

Regarding rurality, the VHA defines populations as urban, rural, and highly rural based on census blocks, groups, and tracts. An “urban” veteran is any enrollee in a Census-defined urbanized area. A “rural” veteran is any enrollee not designated

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as urban. “Highly rural” veterans are those defined as rural and reside in counties with less than seven civilians per square mile (Veterans Health Administration 2008a).

#### Overview of Rural Native Veteran Demographics and Health Status

American Indian and Alaska Native veterans have a proud tradition of military service. Proportionately, there are more AIAN veterans than any other minority racial/ethnic group with 12 percent of the population over 18 years of age current veterans (black: 11 percent; Asian: 4 percent, Hispanic/Latino: 5 percent; white: 15 percent) (U.S. Census Bureau 2010). Today, 346,623 veterans identify themselves as American Indian or Alaska Native, alone or in combination with another racial group (Holiday, Klein, and Wells 2006). Of those AIAN veterans who identify as solely Native, 38 percent live in rural areas. This is proportionately higher than any other racial or ethnic group with 28.8 percent of white, 11.9 percent of Latino, and 8.9 percent of Asian veterans living in rural areas (U.S. Census Bureau 2007).

American Indian and Alaska Native veterans have made significant contributions in U.S. military history. However, very little is known about these special populations. The few studies published which report on rural Native veterans have indicated that they often have a lower quality of life compared with urban Native veterans, and they face considerable barriers to care, including limited transportation and long distances to adequate health care facilities, appropriate diagnostic services, and specialty care (Wallace et al. 2006; Weeks et al. 2004, 2008; West 2009).

Native populations in general and rural Native populations in particular suffer significant health care disparities when compared with the general population (Indian Health Service 2010). Furthermore, traditional beliefs and cultural practices that are more prevalent among rural Native populations may influence their health care decisions. For example, some traditional beliefs maintain that talking about undesirable health problems may cause them to happen. These beliefs hold particular challenges for health education and disease prevention. Cultural differences in communication styles may also hinder effective communication about health care (Noe et al. 2010; Zuckerman et al. 2004).

Rural Native veterans also have unique challenges arising from vast cultural diversity, their transitory nature, and their geographic remoteness. Rural Native veterans have higher incidence of mental health problems (Kramer et al. 2009d; Weeks et al. 2008) and are four times more likely than white veterans to report unmet healthcare needs (Kramer et al. 2009a, 2009c). Roughly 40 percent of

American Indian veterans live on geographically dispersed reservations or tribal lands that are often remote, isolated, and considered highly rural, making delivery of health care a significant challenge (U.S. Census Bureau 2007).

American Indian and Alaska Native veterans, overall, rank poorly on several other important dimensions of quality of life. These include: educational attainment, income, home ownership, and employment. Older American Indian and Alaska Native veterans are less likely to have completed high school compared with all other racial and ethnic groups (Holiday et al. 2006). American Indian and Alaska Native veterans are the ethnic group most likely to have family incomes below \$30,000. The proportion of American Indian and Alaska Native veterans earning less than \$10,000 in annual household income is roughly twice the proportion of veterans in general earning that amount. American Indian and Alaska Native veterans are less likely to own homes (66 percent compared to 78 percent in the general population). In 2006, among those under 65, 6 percent of American Indian and Alaska Native veterans were unemployed compared with 3 percent of veterans in general (Holiday et al. 2006). These quality of life measures may even be more highly impacted for rural Native veterans because of high unemployment in rural, reservation areas with rates as high as 50 percent in some areas (U.S. Census Bureau 2007).

Native veterans, overall, display considerable disparities in healthcare coverage and access compared with non-Hispanic whites. Though a recent study demonstrated that barriers to care due to cost are nominal for American Indian veterans, barriers to care due to navigating the healthcare system and barriers due to lack of transportation are significant, especially for rural Native veterans (Johnson et al. 2010). American Indian veterans, overall, are almost twice as likely to be uninsured than non-Hispanic white veterans (95 percent CI: 1.6 –2.7). Generally, American Indian veterans are significantly more likely to delay care due to not getting timely appointments, not getting through on the phone, and experiencing transportation problems compared with white veterans (Johnson et al. 2010).

There are currently extremely limited systemwide data on service utilization patterns for rural Native veterans within the VA (Kramer et al. 2009d, 2009c). However, certain conclusions can be drawn from regional and local service patterns as well as regional/local programs targeted at rural Native veterans. Rural Native veterans largely reside and are clustered on rural reservations or tribal lands. Furthermore, these reservations are not uniformly distributed and can have a wide population range from a few hundred residents with a handful of veterans to more

than 100,000 residents with thousands of veterans (U.S. Census Bureau 2007). Currently, clustering of Native specific programs within the VA also appears to follow a pattern where most of the known programs are located in the Northwest, Southwest, and Northern Plains, where the largest American Indian tribes are located. Within these regions programs have been targeted at specific communities. Consequently, not all communities within these areas have access to Native-specific programs.

### Current Challenges and Barriers for Rural Native Veteran Healthcare

#### Lack of Information

A comprehensive review of the existing, published literature focusing on Native veterans was conducted on OVID and Google Scholar in August 2009. Search parameters did not limit publication year or publication type (i.e., publications were not limited to peer-reviewed articles). Out of the 66,900 articles published on veterans overall, only 140 (0.2 percent) focused specifically on Native veterans, although Natives comprise 2 percent of the veteran population. Of these articles, none focused solely on “rural” Native veterans. It is important to note that most articles address Native issues in broadly defined categories (i.e., American Indian and Alaska Native tribal affiliation or geographical boundaries such as Alaska), although there is much diversity within these broadly defined classes and a lack of focus on the diverse cultural traditions among these groups could affect healthcare.

Published literature that is available on Native veteran populations indicates that access to health care services, lack of cultural competence and culturally-appropriate services, lack of collaboration between the various agencies serving Native veterans, and racial misclassification of Native veterans in VHA datasets continue to be significant challenges (Kramer 2008; Kramer et al. 2009a, 2009b). These challenges are further exacerbated in highly rural areas. Following is a discussion of each of these challenges.

#### *Access to Healthcare Services*

While no data are available specific to rural Native veterans, access to healthcare services continues to be a primary barrier for Native veterans and their families. The difficulty in locating and accessing specialty care is particularly acute for Native veterans. Upwards of 35 percent of rural veterans report having restricted access to primary care services because of distance barriers (Weeks et al. 2004, 2008) and that lack of access is likely even higher for rural Native veterans given other compounding factors. These compounding factors might include: a lack

of knowledge about what services and benefits are available, a lack of affordable and readily available transportation, the costs of services rendered, excessive wait times, paperwork, delayed access to needed services, and co-morbidities (Villa 2003).

To date, several important reports have been published related to access issues for veterans. Two reports were published by the VA Office of Rural Health related to access to medical care in remote rural areas although neither focused specifically on rural Native Veterans (Office of Rural Health 2008a; Veterans Health Administration 2008b). Both reports highlight transportation as a primary obstacle to access. Westermeyer and colleagues published a study on perceived barriers to mental health care for American Indians and Hispanic veterans, albeit not specific to rural Native veterans (Westermeyer et al. 2002). Results of this study indicated several statistically significant barriers identified by American Indian veterans, such as: a lack of understanding within the VHA system regarding the needs of American Indian veterans and their culture; American Indian veterans' preferences to obtain mental health services from traditional healers from within their own tribal culture; American Indian veterans' distrust of VHA mental health clinicians; a limited number of American Indian mental health caregivers; a lack of VHA services in many American Indian communities; a lack of knowledge among American Indian veterans regarding eligibility for VHA services; and a lack of understanding among American Indian families regarding how the VHA operates or how to access the VHA. Again, these challenges are likely to be especially acute for rural Native veterans given their remote locations.

There have been several locally and regionally-based programs that have demonstrated initial success in increasing access to care for rural American Indian and Alaska Native veterans. Examples in the Northern Plains region include: The Tribal Veterans Representative (TVR) Outreach Workers Program, telepsychiatry clinics, traditional healing collaborations, and employee education (Brooks 2010; Shore et al. 2007, 2008). In the Southwest region, examples include Tribal Outreach and Coordination, and traditional healing programs. However, more evaluation is needed to: 1) assess the efficacy of these important programs and to examine what additional efforts and interventions may be effective; 2) determine what knowledge and interventions are generalizable across locales; 3) identify which models have demonstrated success; and 4) assess how effectively the VHA has interacted at the community level.

### *Cultural Competence*

Literature focusing on the provision of culturally competent care for racial and ethnic groups has promoted the use of “individualized medicine,” which is characterized as appropriate, consistent, and adapted to cultural beliefs and practices (Shore, Shore, and Manson 2008). Although no data are currently available for rural Native veterans specifically, a recent study (Kramer et al. 2009a) revealed that while most Native veterans were generally satisfied with the quality of care received by the VHA and IHS facilities, most agreed that neither organization was fully culturally competent. Patients reported that IHS lacked competence of veterans’ health needs and VHA lacked competence on Native health beliefs and behaviors (Kramer et al. 2009a). Additionally, neither VHA nor IHS facilities meet federal standards for Culturally and Linguistically Appropriate Services (CLAS) for Native veterans, with only 25 percent of facilities having conducted CLAS needs assessments with this population (Kramer et al. 2009c). Although providers who are trained in cross-cultural settings with Native populations are critical to culturally competent care, isolated, rural settings; lack of resources; and lower salaries are often significant hurdles for VHA and IHS facilities to recruit and retain cross-culturally trained healthcare providers (Dixon and Roubideaux 2001).

### *Traditional Healing*

Related to the provision of culturally-competent care is access to, and receipt of, culturally-appropriate and culturally-adapted care. Preliminary work indicates the importance of traditional healing practices for many American Indian and Alaska Native communities. Five research articles were identified that examined utilization rates of traditional healing services, of those only one specifically focused on Native veterans (Buchwald, Beals, and Manson 2000; Gurley et al. 2001; Kim and Kwok 1999; Marbella et al. 1998; Novins et al. 2004). These studies indicate ambiguous results regarding utilization patterns, with rates ranging from 8.4 to 70 percent depending upon location, population, and diagnosis (Beals et al. 2005; Buchwald, Beals, and Manson 2000; Gurley et al. 2001). Results of these studies indicate that American Indians and Alaska Natives utilize traditional healing services differentially, according to availability, religious and spiritual preferences, age, education, geography, and diagnosis. Patients may also use traditional healing without the knowledge of biomedical providers. Although these studies indicate that when traditional healing options were considered, overall service use was similar across groups with similar health care needs, more research is needed to



determine whether availability of traditional healing service might improve healthcare for rural Native veterans. The question of whether need, preference, or availability is the key impetus for traditional healing services use can be addressed only if future studies consider the full array of health service options, including those perceived to be complementary, alternative, or supplementary to care in the biomedical sector.

Native traditional healing practices incorporate a holistic approach encompassing mind, body, and spirit in the healing process. This holistic approach has particular relevance for Native veterans who often have disorders related to trauma (Shore et al. 2008). Currently there are many potential barriers to the provision and availability of traditional healing practices in Native healthcare. These barriers include issues involving: 1) traditional healer credentialing, 2) evaluation of the therapeutic efficacy of traditional healing practices, 3) oversight of these practices, and 4) funding and reimbursement. Further examination of the role of traditional healing for Native veterans' healthcare, the potential models of collaboration, and the potential use of these practices in the VHA healthcare system is necessary, especially given the high rates of utilization of traditional healing within the Native population.

Finally, it is important to note that traditional healing is often considered "alternative" or "complementary" medicine in the literature. Alternative implies a secondary option; that there is some other primary system, generally more preferred, with which the practice in question is being compared (Johnston 2002). Therefore, the assumption is that Native traditional healing is an alternative practice in comparison with the dominant, Western biomedical model. However, this perspective might be biased by a Western, ethnocentric paradigm. For some Native cultures or for some Native individuals, Western biomedicine appears to be alternative medicine, that is, the one less likely to be preferred or sought first. Consequently, when considering whether the VHA should make special provisions, policies, or funding related to traditional healing practices it may be helpful not to consider these practices as alternative or complementary and therefore of secondary importance.

#### Collaboration: Veterans Administration and Indian Health Service Memorandum of Understanding

The topic of health care system collaboration has recently received much attention and press in the healthcare systems serving Native veterans. Attention to this topic has been generated by the 2003 execution of the Memorandum of

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Understanding (MOU) between the VHA and the IHS (U.S. Department of Veterans Affairs 2003b) and a recently revised MOU signed on October 1, 2010. The purpose of the original MOU was to facilitate cooperation and resource sharing between the two agencies by integrating the strengths and expertise of both organizations to deliver quality health services and to improve the health status of American Indian and Alaska Native veterans. The MOU holds key importance for rural Native veterans given that IHS facilities primarily serve rural AIAN.

Since the execution of the original MOU in 2003, several studies have examined VHA/IHS collaboration (Kramer 2008; Kramer et al. 2008, 2009b, 2009c). These studies conclude that while the MOU has had a positive impact in drawing attention to Native veteran issues and has made some initial progress toward goals, several prominent barriers to improving healthcare for Native veterans persist. These barriers include: 1) the distance between VHA and IHS facilities makes collaboration difficult, 2) the lack of formal relationships that hinders sharing of information on mutual patients and coordination of care, 3) lack of information about local VHA and IHS resources for American Indian and Alaska Native veterans, 4) differences in organizational characteristics and management practices, 5) lack of cultural competency and difficulty in VHA enrollment and 6) eligibility determination for American Indian and Alaska Native veterans. Additionally, though the MOU was an important step in the right direction, it was not binding to specific IHS or VHA facilities, did not address health care provided through tribal programs, and was not binding with individual American Indian and Alaska Native tribes. These issues have limited its ability to have a significant impact on the level of local programmatic and collaborative development.

The original MOU required the completion of needs assessments for American Indian and Alaska Native veterans for each Veteran Integrated Service Network (VISN). However, there remains sparse substantive data on the health status, healthcare access, and health risks of American Indian and Alaska Native veterans.

In October 2010, the MOU was revised. The five original goals of the preexisting MOU were maintained. However, the revised MOU provides much more guidance regarding how to accomplish these goals and seeks to improve on the original MOU by providing concrete tracking, resource, and accountability mechanisms and specific commitments regarding what will be done to: increase and enhance access to care; improve coordination of care; improve quality of care; improve efficiency and effectiveness; increase cultural awareness and culturally competent care; and to address emergency, disaster, and pandemic preparedness and response.

*Racial Misclassification*

Previous studies (Sohn et al. 2006; Spont et al. 2009) have highlighted several problems with race determination for Native veterans using VHA medical dataset. Until 2003, only one of six possible race groups was collected for each patient: Hispanic-White, Hispanic-Black, American Indian, Black, Asian, or White. Given that many Native veterans express a combination of heritage from one or more other racial groups; Native ancestry may not have been the primary race recorded. Race classification problems are due to the fact that VHA race data before 2003 were recorded by an observer (e.g., the intake clerk or other health care provider), not by self-identification. Consequently, categorization was based on subjective assumptions of the recorder. In 2003 the VHA instituted a new method of collecting race data. This method allows for categorization of up to seven different race ancestries using the five federally-mandated racial categories (American Indian or Alaska Native, Asian, black or African American, Native Hawaiian or other Pacific Islander, or white), and a separate categorization of ethnicity (Hispanic or Latino, or not Hispanic or Latino). Additionally, the method of collecting the data is also noted, for example, if race were self-identified, noted by a proxy, or noted by some other observer. These changes in the method of collecting race data have decreased the likelihood of racial misclassification. However, the multiple sources of race information gathered coupled with fairly high levels of missing data (about 25 percent of all cases) still create substantial analytic challenges (U.S. Department of Veterans Affairs 2010). Additionally, to date, there is no standardized indication of specific tribal/community/village affiliation within the VHA electronic medical record, which presents challenges for exploration of clinical data at this level of abstraction.

Recommendations to Improve Healthcare for Rural Native Veterans

Following are recommendations to improve healthcare for rural Native veterans. These recommendations were derived through an information-gathering process that included a comprehensive review of the existing literature to identify current issues and challenges, and subsequent discussions among key stakeholders, VHA staff and administrators, and community leaders through their participation in administrative and program planning sessions focused on rural Native veterans. Discussions were held during VA sponsored program planning sessions, phone conversations and community meetings in which key stakeholders were asked their opinions about how to address the healthcare needs of rural Native veterans. It should be noted that most of these recommendations lack empirical support at this

time. As such, these recommendations should be considered as potential strategies pending future research that demonstrates evidence of effectiveness.

#### *Improve Information Gathering and Dissemination*

Conduct further needs assessments. It is recommended that funding to conduct needs assessments with specific focus on rural Native veterans be made available by the VA for each Veterans Integrated Service Network (VISN). These needs assessments should follow a common methodology and share a common database that is accessible at a national level. The needs assessments would be most effective when targeted at the tribal or village level and when they include an evaluation of disease burdens and lifetime risk progression; physical and mental quality of life measures; and normative assessments through survey data collection instead of historical utilization trends.

*Establish and fund a rural Native veteran's clearinghouse.* The establishment of a VHA Rural Native Veterans Clearinghouse is warranted. The VHA could emulate the U.S. Department of Health and Human Services, which established the Rural Assistance Center (RAC), by providing a coordinated point of contact and source of information for rural Native veterans. This would increase access to appropriate resources for rural Native veterans, their families, and healthcare providers who serve them.

#### *Improve Access*

*Improve current transportation policies and practices.* While the VHA has improved access to primary care by establishing Community-based Outpatient Clinics (CBOCs), access to specialty care continues to be lacking with upwards of 35 percent of veterans experiencing access issues related to distance and transportation needs (Indian Health Service 2009; Veterans Health Administration 2008b). A recent assessment of current transportation policies and practices for rural Native veterans conducted by the VRHRC-WR, Native Domain, has proposed several strategies for expansion and/or better coordination of transportation services. These include: 1) examining the effect of recent changes in VA transportation reimbursement policy, evaluating the current transportation policies that facilitate travel in a vehicle not owned by the veteran, and assessing the match between travel guidelines and VA treatment guidelines; 2) expanding the use of technologies to provide services and reduce the need for transportation by assessing the current utilization of telehealth technologies, expanding them where feasible, and enhancing centralized and coordinated appointment scheduling; 3) completing an inventory

of community resources available to improve transportation for rural Native veterans and examining the feasibility of future collaborations and partnerships; 4) further disseminating and implementing novel strategies that have been successful in increasing local access to services for rural Native veterans, such as the Tribal Veterans Representative (TVR) program; and 5) focusing on prevention to improve the health status of Native veterans thus reducing the need for treatment and thereby the need for travel.

Develop and expand technology-based tools and services. Limits on resources, both in budgetary and staffing terms, are constant challenges for healthcare providers serving rural Native veterans. Technology-based tools and services can enable more efficient organization of resources and care provision leading to greater efficiency. For example, the VHA introduced a national home telehealth program, Care Coordination/Home Telehealth (CCHT). The purpose of this program was to coordinate care of veterans with chronic conditions and avoid their unnecessary admissions to long-term institutional care. Data from the CCHT indicate a 25 percent reduction in the number of bed days of care, a 19 percent reduction in the number of hospital admissions, and mean satisfaction score ratings of 86 percent after enrollment in the program (Darkins et al. 2008).

Results of the CCHT suggest that rural Native veterans may benefit from e-health tools such as telemedicine and telehealth, consumer health informatics, health information networks, health knowledge management, health portals, virtual healthcare teams, and mobile devices (Ball and Lillis 2001).

Growing evidence and experience over the past decade suggest the emergence of VHA Telepsychiatry Clinics specifically targeted at rural Native veterans as a promising model of care (Shore et al. 2007, 2008; Shore and Manson 2004a, 2004b, 2005). However, before such tools are implemented on a systemwide scale, it is necessary to gain a better understanding of how rural Native veteran populations regard, interact with, and accept these technologies, and how these technologies affect health outcomes for this population.

Expand existing outreach efforts. Over the past eight years, the Montana VA Health Care System, with the VISN 19 Minority Veterans Program, has developed the Tribal Veterans Representative (TVR) program. This program draws upon Native veterans selected by their Tribal Councils to become TVRs. TVRs function to help rural Native veterans enroll in, obtain benefits and care from, and navigate the VHA. The program gives the TVRs a series of materials, trainings, and continuing linkages with VHA resources to aid in their support of Native veterans. The TVR program is considered a model for national outreach strategies not only

for Native veterans but also for all rural veterans. The VHA employee education system, with the TVR program, has developed training materials for this program for national dissemination. The TVR program could continue to expand. One logical avenue of further dissemination is to partner the TVR program with the VISN Rural Health Representatives for VISN-wide evaluation and potential dissemination and diffusion.

#### Increase Cultural Appropriateness and Adaptability of Services

Improve VA employee cultural competence. Priorities could be established to ensure that providers: are aware of, accept, and value cultural differences; are aware of their own culture and values; understand the range of dynamics that result from the interaction among people of different cultures; develop cultural knowledge of the particular community served or access cultural brokers who may have that knowledge; and develop the ability to adapt individual interventions, programs, and policies to fit the cultural context of the individual, family, or community (Crosset al. 1989). For lasting impact, training would be promoted as an ongoing process throughout the provider's career. Additionally, best practices could be developed for disseminating this knowledge to those working in rural areas with Native veterans.

Develop a VHA cultural competency curriculum. It is necessary to follow through with previous recommendations to develop a VHA cultural competency curriculum and training process for providers serving rural Native veterans (U.S. Department of Veterans Affairs 2003b). Within the VHA there are already several sets of training materials targeted at Native veterans and models of employee education. Examples of these include the TVR training program materials, Office of Care Coordination web training for American Indian Telehealth Services and the "Wounded Spirits Ailing Hearts" training program on treating PTSD in American Indian and Alaska Native veterans (Rocky Mountain Telehealth Training Center 2008a,2008b; U.S. Department of Veterans Affairs 2000).

One potential first step would be to systematically catalogue the training materials available within the VA as well as those available from outside, partnering organizations (e.g., IHS, Tribal communities). Relevant VA offices (e.g., Office of Minority Affairs, Employee Education System, and VA Office of Care Coordination) could collaborate to create a catalogue of these materials, and then develop further strategic plans for their refinement, development, and deployment to increase cultural knowledge and competency of VHA employees. The strategic plan might include a range of trainings (general to specific, targeted at VHA employees' roles

and interaction with Native veterans (e.g., administrative vs. clinical), with regional and local adaptations and input.

Explore collaborations between traditional healing and existing VA healthcare. The further examination of the role of traditional healing practices in the VHA healthcare system is important (Beals et al. 2005; Gurley et al. 2001). It would be beneficial to undertake evaluation activities to examine the extent to which traditional Native healing and Native culture is utilized and to examine rural Native veterans' preferences/recommendations regarding the types and scope of traditional healing they are interested in having available. It will be important to examine how traditional healing is affected by the evolving integration of traditional healing into mainstream, institutionalized healthcare systems and to determine the value of traditional healing services to Native veterans. This work needs to be carried out with the understanding that the use of, and collaboration with, traditional healing in the VHA system needs to ultimately defer to local Native culture for guidance, acceptance, and authority. Additionally, developing a national support/consultation team is important. This team could serve as a working group to collaborate with relevant VA offices (e.g., Office of Minority Affairs, Employee Education System, Office of Care Coordination) to develop a strategic plan for the refinement, further development, and deployment of training materials for VHA employees to increase cultural knowledge and competency related to rural Native veterans. Education should include the use of traditional practices, VHA traditional healing policies, and local tribal traditional activities and resources.

#### *Increase Collaboration*

It would be helpful to complete an assessment of the progress toward completion and integration of recommendations made by the Expert Panel convened in 2009 (Indian Health Service 2009) to review an aggregated list of opportunities for fostering closer collaboration between the IHS and the VHA and to determine the status of these strategies with specific focus on their impact upon rural Native veterans. If strategies have not been integrated, action plans and time lines could be developed to ensure their successful integration. Additionally, potential collaborative efforts with rural health organizations and external stakeholders outside the IHS and VHA systems need to be explored. Potential partnerships with federal agencies such as the DHHS Office of Rural Health Policy (ORHP), the National Rural Health Association (NRHA), the National Organization of State Offices of Rural Health (NOSORH) and relevant Native

organizations, such as Tribal Leaders Councils, could to be pursued and assessed in a systematic process.

### Conclusions

Rural Native veterans continue to face significant barriers to healthcare. Many important strategies and programs have begun to address these challenges. However, a more systematic and integrated effort is needed. In this paper we have presented a brief assessment of the current challenges, barriers, and issues related to the provision of effective healthcare for rural Native veterans and have offered several recommendations to address these issues.

Given the diversity of the rural Native veteran population, it will be helpful if these recommendations are implemented with a national scope that incorporates a local focus. A national scope is needed to engage the VA system in collaborative, coordinated, and cohesive efforts focused on rural Native veterans, with a local focus to adapt national efforts to make them relevant at tribal and community levels. All of the recommendations must have clearly delineated processes and strategies to adapt programs, policies, and best practices at the local level. The successful processes and strategies need to be elicited and systemized as implementation guidelines. In combination, adopting these recommendations can improve efforts to address the health needs of rural Native veterans and ultimately their health status.

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## REFERENCES

- Ball MJ, Lillis J. 2001. E-health: transforming the physician/patient relationship. *International Journal of Medical Informatics* 61(1):1–10.
- Beals, Janette, Douglas K. Novins, Nancy R. Whitesell, Paul Spicer, Christina M. Mitchell, Spero M. Manson. 2005. "Prevalence of Mental Disorders and Utilization of Mental Health Services in Two American Indian Reservation Populations." *American Journal of Psychiatry* 162:1723–32.
- Brooks, Elizabeth A. 2010. "Factors Affecting Outpatient Service Use for Veterans with PTSD." Department of Veterans Affairs Office of Rural Health, Veterans Rural Health Resource Center-Western Region: Native Domain. Unpublished manuscript.
- Buchwald, Dedra, Janette Beals, and Spero M. Manson. 2000. "Use of Traditional Health Practices Among Native Americans in a Primary Care Setting." *Medical Care* 38:1191–9.

## HEALTH NEEDS OF RURAL NATIVE VETERANS

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- Cross, T., B. Bazron, K. Dennis, and M. Issacs. 1989. "Towards a Culturally Competent System of Care." Georgetown University Child Development Center, CASSP Technical Assistance Center, Washington, D.C.
- Darkins, Adam, P. Ryan, R. Kobb, L. Foster, E. Edmonson, B. Wakefield, and A.E. Lancaster. 2008. "Care Coordination/Home Telehealth: The Systematic Implementation of Health Informatics, Home Telehealth, and Disease Management to Support the Care of Veteran Patients with Chronic Conditions." *Telemedicine Journal and e-Health* 14:1118–26.
- Dixon, Mim and Yvette Roubideaux. 2001. *Promises to Keep: Public Health Policy of American Indians and Alaska Natives in the 21st Century*. Washington, DC: American Public Health Association.
- Gurley, Dianne, Douglas K. Novins, M. Jones, Janette Beals, Jay H. Shore, and Spero M. Manson. 2001. "Comparative Use of Biomedical Services and Traditional Healing Options by American Indian Veterans." *Psychiatric Services* 52:68–74.
- Holiday, L. F., G. Bell, R. Klein, and M. R. Wells. 2006. "American Indian and Alaska Native Veterans: Lasting Contributions." Washington, DC: VA Office of Policy Assistant Secretary for Policy, Planning, and Preparedness.
- Indian Health Service. 2009. "Collaboration between the Indian Health Service and the Veterans Health Administration." Washington, DC: Indian Health Service.
- Johnson, Pamela J., K.F. Carlson, and M.O. Hearst. 2010. "Healthcare Disparities for American Indian Veterans in the United States." *Medical Care* 48:563–9.
- Johnston, S.L. 2002. "Native American Traditional and Alternative Medicine." *Annals of the American Academy of Political and Social Science* (September):195–213.
- Kim, Catherine and Y.S. Kwok. 1999. "Navajo Use of Native Healers." *Archives of Internal Medicine* 158:2245–9.
- Kramer, Josea B. 2008. "Final Report: VA and Indian Health Service: Access for American Indian Veterans." Washington, D.C.: Department of Veterans Affairs.
- Kramer, Josea B., B. Finke, D. Saliba, S. Jouldjian, and E.M. Yano. 2008. "Fostering Closer Alignment of VHA and IHS." Sepulveda, CA: Geriatric Research Education and Clinical Center.
- Kramer, Josea B., S. Jouldjian, J. Harker, D.L. Washington, and E.M. Yano. 2009a. "Healthcare for American Indian and Alaska Native Women: The Roles of the Veterans Health Administration and the Indian Health Service." Pp. 1–21. Sepulveda, CA: Geriatric Research Education and Clinical Center.

- Kramer, Josea B., R. Vivrette, D. Satter, S. Jouldjian, and L. R. McDonald. 2009b. "Dual Use of Veterans Health Administration and Indian Health Service: Healthcare Provider and Patient Perspectives." *Journal of General Internal Medicine* 24:758–64.
- \_\_\_\_\_. 2009c. "How Veterans Health Administration and Indian Health Service Work Together to Manage Healthcare for American Indian and Alaska Native Veterans." Sepulveda, CA: Geriatric Research Education and Clinical Center.
- Kramer, Josea B., M. Wang, S. Jouldjian, M. L. Lee, B. Finke, and D. Saliba. 2009d. "Veterans Health Administration and Indian Health Service: Healthcare Utilization by Indian Health Service Enrollees." *Medical Care* 47:670–6.
- Marbella, Anne M., M.C. Harris, S. Dichr, Gerald Ignace, and Georgiana Ignace. 1998. "Use of Native American Healers among Native American Patients in an Urban Native American Health Center" *Archives of Family Medicine* 7:182–5.
- Noe, Tim D., J. Shore, J. Kaufmann, C. E. Kaufman, E. Brooks, N. Dailey, and B. Bair. 2010. "Rural Native Veterans and Traditional Healing Practices: Assessment and Recommendations for the Veterans Health Administration." Department of Veterans Affairs, Office of Rural Health, Veterans Rural Health Resource Center-Western Region Native Domain. Unpublished manuscript.
- Novins, Douglas, Janette Beals, Laurie Moore, Paul Spicer, and Spero M. Manson. 2004. "Use of Biomedical Services and Traditional Healing Options Among American Indians." *Medical Care* 42:670–9.
- Office of Rural Health, Veterans Health Administration. 2008. "Report to Congress: Access to Medical Care in Remote Rural Areas." Washington, D.: Veterans Health Administration.
- Rocky Mountain Telehealth Training Center. 2008a. "Cultural Competence in Telehealth Clinics." Salt Lake City, UT: Rocky Mountain Telehealth Training Center.
- \_\_\_\_\_. 2008b. "Development of American Indian Rural Telehealth Clinics." Salt Lake City, UT: Rocky Mountain Telehealth Training Center.
- Shore, Jay H., Elizabeth Brooks, Dan M. Savin, Spero M. Manson, and Anne M. Libby. 2007. "An Economic Evaluation of Telehealth Data Collection with Rural Populations." *Psychiatric Services* 58:830–5.
- Shore, Jay. H., Elizabeth Brooks, DanM. Savin, Heather Orton, Jay Grigsby, and Spero M. Manson. 2008. "Acceptability of Telepsychiatry in American Indians." *Telemedicine Journal and e-Health* 14:461–6.

## HEALTH NEEDS OF RURAL NATIVE VETERANS

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- Shore, Jay H. and Spero M. Manson. 2004a. "The American Indian Veteran and Post-Traumatic Stress Disorder: A Telehealth Assessment and Formulation." *Culture Medicine and Psychiatry* 28:231–43.
- \_\_\_\_\_. 2004b. "Telepsychiatric Care of American Indian Veterans with Post-Traumatic Stress Disorder: Bridging Gaps in Geography, Organizations, and Culture." *Telemedicine Journal and e-Health* 10:64–9.
- \_\_\_\_\_. 2005. "A Developmental Model for Rural Telepsychiatry." *Psychiatric Services* 56:976–80.
- Shore, Jay H., James H. Shore, and Spero M. Manson. 2008. "American Indian Healers and Psychiatrists: Building Alliances." Pp. 123–35 in *Psychiatrists and Traditional Healers*, edited by M. Incayawar, L. Bouchard, and R. Wintrob. City: STJohn Wiley and Sons, Ltd.
- Sohn, Min-Woong, Huiyuan Zhang, Noreen Arnold, Kevin Stroupe, Brent Taylor, Timothy Wilt, and Denise Hynes. 2006. "Transition to the New Race/Ethnicity Data Collection Standards in the Department of Veterans Affairs." *Population Health Metrics* 4:7.
- Spoont, M. R., J. Hodges, M. Murdoch, and S. Nugent. 2009. "Race and Ethnicity as Factors in Mental Health Service Use Among Veterans with PTSD." *Journal of Traumatic Stress* 22:648–53.
- U.S. Census Bureau. 2007. "2005-2007 American Community Survey." Washington, DC: U.S. Census Bureau.
- \_\_\_\_\_. 2010. "Census 200 Summary File 3 (SF3, Sex by Age by Armed Forces Status of Veteran Status for the Population 18 Years and Over, PCT 66A-PCT66H." Vol. 2010.
- \_\_\_\_\_. "American Community Survey 3-year Estimates, 2006-2008."
- U.S. Department of Veterans Affairs. 2000. "Wounded Spirits, Ailing Hearts." Minneapolis, MN: VA Employee Education System.
- \_\_\_\_\_. 2003a. "2001 National Survey of Veterans: Final Report." Washington, DC: Department of Veterans Affairs.
- \_\_\_\_\_. 2003b. "Memorandum of Understanding between the Veterans Health Administration and the Indian Health Service." Washington, DC: Department of Veterans Affairs.
- \_\_\_\_\_. 2010. "VHA Medical SAS Datasets - Documentation." in *VVA Information Resource Center*, vol. 2010. Washington, D.C.: Department of Veterans Affairs.
- Veterans Health Administration. 2008a. "Definitions of "Rurality." Washington, DC: Office of Enrollment and Forecasting, Veterans Health Administration.

- \_\_\_\_\_. 2008b. "Report to Congress: Access to Health Services in Rural Areas." Washington, D.C.: Office of Rural Health; Veterans Health Administration.
- Villa, V. 2003. "Determinants of VA Ambulatory Care Use among Native American Veterans." Los Angeles, CA: VA Greater Los Angeles Health Care System, Veterans Health Administration.
- Wallace, Amy E., William B. Weeks, S. Wang, A. F. Lee, and L. E. Kazis. 2006. "Rural and Urban Disparities in Health-related Quality of Life among Veterans with Psychiatric Disorders." *Psychiatric Services* 57:851-6.
- Weeks, William B., L. E. Kazis, Y. Shen, Z. Cong, X. S. Ren, D. Miller, A. Lee, and J. B. Perlin. 2004. "Differences in Health-related Quality of Life in Rural and Urban Veterans." *American Journal of Public Health* 94:1762-7.
- Weeks, William B., Amy Wallace, Alan West, Hilda Heady, and Kara Hawthorne. 2008. "Research on Rural Veterans: An Analysis of the Literature." *The Journal of Rural Health* 24:337-44.
- West, Alan. 2009. "A ZIP Code Crosswalk for Applying Urban, Rural, and Highly Rural Classifications." Washington, DC: Veterans Rural Health Resource Center – Eastern Region, Office of Rural Health, U.S. Department of Veterans Affairs.
- Westermeyer, Joseph, J. Canive, J. Garrard, E. Padilla, R. Crosby, and P. Thuras. 2002. "Perceived Barriers to Mental Health Care for American Indians and Hispanic Veterans: Reports by 100 VA Staff." *Transcultural Psychiatry* 39:516-30.
- Zuckerman, Stephen, Jennifer Haley, Yvette Roubideaux, and Marsha Lillie-Blanton. 2004. "Health Service Access, Use, and Insurance Coverage among American Indians/Alaska Natives and Whites: What Role Does the Indian Health Service Play?" *American Journal of Public Health* 94:53-9.