

VA Academic Affiliations Matter in the Era of Community Care: A Model From California

Joanna R. Sells, PhD; and John R. McQuaid, PhD

Background: The Veterans Health Administration (VHA), 1 of 3 administrative branches in the US Department of Veterans Affairs (VA), is the largest integrated health care system in the United States. The VHA has 4 missions: providing health care to eligible veterans; supporting research to benefit veterans and the larger society; providing education for health care trainees; and supporting emergency response.

Observations: In service of these goals, the VA has academic affiliations with training institutions throughout the country, offering unique and extensive training and research opportunities. These affiliations are a 2-way street where both the VA and the affiliate provide and gain from their partnership. For example, VA affiliations with University of California (UC) med-

ical schools benefit veteran care and are a major contributor to the UC academic mission. This article explores the history of the VA, current veteran demographics and needs, academic affiliations, and the integrated care model of training in all VHA facilities. The VA and UC academic affiliation system is described further with regard to shared research and educational functions.

Conclusions: We identify risks to academic affiliations if a shift occurs from VHA care to VA-managed community-based care following the implementation of recent legislation. We also provide suggestions for VA academic affiliates to help assess and guide the potential impact of increased VA-managed community care.

Joanna Sells is a US Department of Veterans Affairs (VA) and University of California, San Francisco (UCSF) Quality Scholar Psychology Fellow. **John McQuaid** is Associate Chief of Staff for Mental Health, both at the San Francisco VA Health Care System and Vice Chair, Department of Psychiatry Weill Institute of Neuroscience, UCSF.
Correspondence:
Joanna Sells
(joanna.sells@va.gov)

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The Veterans Health Administration (VHA), 1 of 3 administrative branches in the US Department of Veterans Affairs (VA), is the largest integrated health care system in the United States.¹ The VHA has 4 missions: providing health care to eligible veterans; supporting research to benefit veterans and the larger society; providing education for health care trainees; and supporting emergency response.¹ In service of these goals, VA has academic affiliations with universities throughout the country, offering unique, extensive training and research opportunities. Both the VA and the affiliate benefit from these partnerships. For example, VA affiliations with University of California (UC) medical schools benefit veteran care while facilitating the UC academic mission. Through these affiliations, trainees who learn within the VHA's highly effective integrated care model become health care professionals (HCPs) who are prepared to enter health care systems in California and meet the state's demand for high-quality integrated care with an emphasis on primary care, mental health care, and care for aging populations.^{2,3}

This report explores the history of the VHA, current veteran demographics and needs, VA academic affiliations, and the integrated care model of training in all VHA fa-

ilities. The VA and UC academic affiliation is described further with regard to shared research and educational functions. Finally, we identify potential risks to academic affiliations associated with increased VA reliance on community-based care following the implementation of recent legislation. We provide suggestions for VA academic affiliates to help assess and guide the potential impact of increased VA-managed community care.

VHA RESOURCES

The VHA serves more than 9 million veterans through 170 medical centers and 1,074 outpatient care sites.¹ In fiscal year 2017, the VA provided 109 million outpatient visits, and treated 615,000 inpatient medicine/surgical patients and 149,000 patients in inpatient mental health.⁴ The VHA focuses on the distinct concerns of veterans, which arise from military service as well as their broader health care needs. Veterans have higher rates of medical and mental health conditions than those of the general public; different cohorts in this population experience distinct medical and mental health concerns (Table 1).⁵

In addition, although veterans are disproportionately older men, the population is diversifying.⁶ For example, the number of female veterans is growing; furthermore,

changes in the law now allow lesbian, gay, bisexual, and transgender (LGBT) individuals to serve openly, which has both reduced barriers for this population and allowed for LGBT veterans who were not eligible for VA care due to less than honorable discharges to have those discharges upgraded. As a result, care has been tailored to include the development of Women Veterans Program Managers and related services and LGBT and related identities resources such as LGBT Veteran Care Coordinators in every VA facility nationwide.^{7,8} The VA continues to adapt to serve all veterans; part of this adaptation is training HCPs to provide veteran-centered care for a growing and diversifying population.

VHA Resources in California

California has the largest population of veterans in the United States (Table 2).^{9,10} Of the 9,116,200 VA enrollees nationwide, 760,910 (8%) reside in California, and of those, 463,410 had at least 1 VA visit in the past year.^{3,10} The VHA is organized into 21 Veterans Integrated Service Networks (VISNs) that include multiple health care systems in the region associated with each VISN. California is part of VISN 21 (Northern California, Nevada, and Pacific Islands) and VISN 22 (Southern California, Nevada, and New Mexico). Among veterans who served in the recent Iraq and Afghanistan conflicts, 5.5% accessed care in VISN 21 and 9.3% accessed care in VISN 22.¹¹ The VHA provides critical infrastructure for meeting complex veteran needs, as well as related specialized training, education, and research for HCPs. This specialization has been the basis for the broad system of affiliations between VA and academic systems.

The VA continues to be a high priority in the federal budget process.¹² In 2017, slightly more than 9% of the VA health care budget, \$6.4 billion, was spent on medical care in California.¹⁰ Consequently, California has a noteworthy portion of VA infrastructure (Table 3).^{13,14} California has 8 VA medical centers (VAMCs) with hospital service (Fresno, Loma Linda, Long Beach, Palo Alto, Sacramento, San Diego, San Francisco, West Los Angeles), 3 VAMCs without hospital service (2 locations in the Palo Alto system and Sepulveda), 1 stand-alone extended-care fa-

TABLE 1 Conditions of Veterans Accessing VHA Care by Military Conflict and Era⁵

Criteria	Gulf War ^a	OEF/OIF/OND ^a	Vietnam Era ^b
Eligible for VHA care, No.	621,901	1,724,058	--
VHA users, %	46.1	57.9	40.7
Men	91.9	87.9	96.8
Enlisted	91.7	91.1	--
Active duty (remainder Reserve/Guard)	83.4	59.0	--
Army veteran	59.0	59.4	--
Navy veteran	18.3	13.7	--
Marine veteran	12.6	14.0	--
Air Force veteran	10.1	12.8	--
Diseases among VHA users, %			--
Musculoskeletal system/connective system	63.6	59.2	--
Nervous system/sense organs	58.0	47.9	--
Circulatory system	48.3	--	--
Digestive system	--	36.7	--
Ill-defined conditions ^c	61.5	54.7	--

Abbreviations: OEF, Operation Enduring Freedom; OIF, Operation Iraqi Freedom; OND, Operation New Dawn; VHA, Veterans Health Administration.

^aGulf War veterans deployed August 1990 to February 1991; Gulf War and OEF/OIF/OND veteran disease and symptom data are collected from veterans who accessed VHA health care October 1, 2001 to September 30, 2013.

^bVietnam Era data are limited to number of VHA health care users and those who identified as men.

^cCommon symptoms without an obvious cause or test abnormalities.

cility (Martinez Community Living Center), and 1 stand-alone residential care facility (San Diego Domiciliary).⁹ The vast VA infrastructure in California and large population of veterans creates a strong demand for HCPs in the state.

VA EDUCATION AND COLLABORATION

VA has been training clinicians and scholars since 1946, when VA academic affiliations were established by Memorandum Number 2.^{15,16} Today, the VA is the largest educator of HCPs in the United States.¹⁷ In 2015, an estimated \$10.3 to \$12.5 billion was spent on mandatory Medicare graduate medical education (GME).¹⁸ In 2017, the VA spent \$1.78 billion of discretionary funding on GME to fund 11,000 full-time equivalent (FTE) slots, leading to > 43,000 physician residents (> 30% of all physician residents) spending part of their training in a VHA facility.^{18,19}

This training mission has multiple benefits. It provides the VA with access to new HCPs who have the necessary training in veteran-specific needs, while supporting the national need for HCPs. In 2018, 120,890 clinical trainees received some or all of their

TABLE 2 California and US Veteran Characteristics^{9,10}

Demographics	California	United States
Veterans, No.	1,681,730	19,998,799
Age ≥ 65 y, %	50.5	47.1
Women, No.	143,211	1,882,848
Adult population who identify as veteran, %	6.1	6.6
Military retirees, No. Identify as veteran, %	157,276 9.4	2,156,647 10.8
Wartime service, No.	1,278,065	15,180,741
Peacetime service, No.	351,174	4,421,574

training in the VA system.²⁰ Of the 152 US medical schools that are accredited by the Liaison Committee on Medical Education, 95% collaborate with the VA for training while 100% of the 34 doctor of osteopathic medicine programs have VA training collaborations.²⁰ The VA currently has an additional 18 partnerships with nursing schools.²¹ Further, 1,800 college and universities, including Hispanic-serving institutions and historically black colleges and universities, have VHA affiliations that provide training for more than 40 clinical health profession education programs.¹⁷

This training model has been successful in supporting VA staffing, as health care providers who trained in the VA are more likely to work in the VA.²² Among current VA employees, > 80% of optometrists, > 70% of podiatrists and psychologists, and > 60% of physicians received some part of their training in the VA system.²³ In combination with recent increased funding for staffing, the ability of the VA to directly hire trainees in identified professions, and the expansion of loan forgiveness to high-demand specialties (eg, psychiatry), the training partnership between the VA and affiliates has been critical in maintaining the needed VA workforce.^{22,24,25}

The VA Office of Academic Affiliations is responsible for all graduate medical and dental education administration in the VA system, which makes up 85% of its total budget. For each trainee, the VA provides approximately \$60,000 toward their stipend in exchange for training and patient care time at a VHA hospital (Kenneth R. Jones, PhD, email communication, August 27, 2018).

California Health Care Education

The UC public university system, founded in 1869, currently has 10 campuses with a combined student body of > 280,000 students, along with 227,000 faculty and staff members.²⁶ For every research dollar provided by California, the UC secures \$7 in federal and private funding.²⁶ The UC has 6 medical centers (Davis, Irvine, Los Angeles, Riverside, San Diego, and San Francisco); each is affiliated with at least 1 local VAMC.^{27,28}

California trains a substantial share of health care trainees. In 2016, there were 10,429 physician residents in training in California.²⁹ In 2017/2018, the San Francisco VAMC trained 1,178 medical students/residents, 57 pharmacy students, 25 nurse practitioner students, 19 optometry interns/students/residents, 11 dental students/residents, and 3 physical therapy students.²⁰ In total, 6,223 UC health professions students were trained in VHA facilities during the 2017/2018 training year (Table 4).²⁰ As of 2016, there were 105,907 physicians in California, and of those, 57% completed their GME in California.²⁹ In California in 2015, 74 GME-sponsoring institutions graduated 3,568 residents and fellows, an increase of 10% since 1997.³⁰ Of these sponsoring institutions, 6 of the top 8 programs were UC schools that graduated 48.4% (1,727) of all California residents and fellows in 2015.³⁰

Despite these resources, California faces a major shortage of HCPs, particularly in primary, behavioral health, and older adult care.³ Today, 7 million Californians live in counties with a federally designated shortage of primary, dental, and mental health care providers.³ Most of these Californians are Latino, African American, or Native American, and they live in fast-growing rural and urban regions, including Los Angeles; the San Joaquin Valley; and the Inland Empire (San Bernardino and Riverside Counties).³ Current recommendations to meet increasing demands as California's population increases, grows older, and faces increased health care demands include expanding residency programs to yield 1,872 additional primary care physicians and 2,202 additional psychiatrists by 2030.³ To meet this shortage and prepare for future health care demands, health care education is paramount; in California, VA and UC affiliations are central to addressing these needs.

The VA plays a particularly important role in supporting GME, which is essential to meeting both VA and California's unmet HCP needs, as GME determines the number of medical practitioners available per specialty.³⁰ The VA was the second largest GME fund provider in California at \$90,662,608 (Medicare provided \$552,235,626) and the California government provided a small portion of GME funding.³⁰ VA education funding is a direct result of the VA provision of clinical care in one of the most innovative and modern health care systems in the world.

These VA training opportunities benefit the UC system and California by helping train integrated care practitioners to meet the increasing demand. Integrated care—the coordination of mental health care, substance use disorder treatment, and primary care services—is designed to improve health outcomes by helping people with multiple and complex health care needs access care.^{31,32}

As the largest integrated health care system in the country, the VA brings important clinical, research, and educational opportunities to academic affiliates. A systematic review examining cost and quality outcomes in integrated care systems found improved quality of care compared with nonintegrated care systems; thus, many US government agencies and the World Health Organization are establishing integrated care systems as a standard and universal approach.^{31,33,34} While cost savings as a result of integrated care are unclear, most studies in this review reported a decrease in utilization of services.³³ The presumption of more efficient and higher quality care is also predicated on features such as system-wide accessibility of comprehensive medical records that provide more information to HCPs, promote collaboration, and measure and reward performance, all of which are possible using the VA electronic health record (EHR) system.^{35,36} The VA offers an excellent opportunity for training in integrated care as this model is required of all VAMCs and community-based outpatient clinics (CBOCs).³⁷

Providing integrated care to the citizens of California is among the 10 priorities of the California Future Health Workforce Commission (a group of California health care leaders cochaired by the UC system president) for immediate action and guides their

TABLE 3 California and US VA Facilities^{13,14}

Facility Types	California, No. ^a	United States, No. ^b
Outpatient care sites/clinics	72	1,269
Community Vet Centers	30	300
Inpatient care hospitals	9	146
VA cemeteries	11	141
VA regional benefits offices	3	56

Abbreviation: VA, US Department of Veterans Affairs.

^aAs of October 12, 2018.

^bAs of September 30, 2019.

recommendations on developing and expanding the health care workforce; therefore, training in an integrated health care system is especially important for California HCPs.³ Nearly three-quarters of California's population aged ≥ 65 years has a chronic health condition that could benefit from integrated care; however, the current supply of HCPs is insufficient to meet the growing demand for geriatric care.^{38,39}

The VA has a robust training program to produce scholars and practitioners who specialize in geriatric care. This includes the Geriatric Scholars Program, which has the goal of integrating geriatrics into primary care through professional development. The Geriatric Scholars Program is a component of the VA Geriatric Research Education and Clinical Centers at urban VAMCs to help provide education and clinical resource connections with rural CBOCs where geriatrics expertise is lacking.

The California Future Health Workforce Commission is highlighting the need to prioritize workforce development in primary care, mental health care, and care for the aging.³ These priorities are shared as foundational services within the VHA.⁴⁰ The alignment of these priorities creates an excellent rationale for increasing training and education of the UC health care workforce in the California VA system through academic affiliations.

VA Research Collaborations

The VA Office of Research and Development has existed for more than 90 years with a mission to improve veteran health and well-being via research and attract,

TABLE 4 Health Professions Students Graduating in 2017-2018 Training Year (N = 6,223)²⁰

University of California Facilities	Health Professions Students, No. (%)
Los Angeles	1,780 (29)
San Diego	1,273 (20)
San Francisco Medical Education Program	1,155 (19)
Irvine	1,012 (16)
Davis	493 (8)
San Francisco Medical Center	196 (3)
San Francisco School of Pharmacy	89 (1)
Berkeley	68 (< 1)
Berkeley School of Optometry	53 (< 1)
San Francisco School of Nursing	50 (< 1)
Skaggs School of Pharmacy, San Diego	44 (< 1)
San Francisco School of Dentistry	9 (< 1)
Santa Barbara	1 (< 1)

train, and retain high-caliber researchers. VA provides a rich environment to conduct observational and interventional research due to its large, diverse veteran population, institutional support, and integrated information system with extensive EHR data.⁴¹ The success of the VA in facilitating research is evidenced by the fact that 3 VA investigators have been awarded Nobel prizes, and 7 have received Lasker Foundation Awards.⁴² The size of the VA allows for innovative large-scale research, such as the Million Veteran Program (MVP). The MVP study developed a megabiobank of VA health records, questionnaires, and blood samples from nearly 1 million veterans to study genetic influences on health and disease and integrate genetic testing into health care delivery.⁴³ In addition to producing high-quality, innovative research, more than 60% of VA investigators also provide direct patient care.⁴²

VA research areas of focus include homelessness, polytrauma, traumatic brain injury, hearing and vision loss, spinal cord injury, mental health, pain management, precision medicine, prosthetics and amputation

care, women's health, and chronic diseases, such as Parkinson and Alzheimer diseases.⁴⁴ The VA estimates that, in 2021, total VA research spending will include a request of \$787 million in addition to \$370 million from the National Institutes of Health, the Department of Defense, and the Centers for Disease Control and Prevention, and \$170 million from other nonfederal sources, for a projected total of \$1.3 billion. This budget will support 2,200 projects with direct research and reimbursable employment of 3,275 FTEs, which are key to supporting VA academic affiliations.⁴⁵ These funds translate into substantial benefits to the UC system, including shared research and training resources, grant-funding opportunities for UC faculty, and the ability to recruit top researchers, educators, and clinicians to its institutions.

VA RELIANCE ON COMMUNITY CARE

The current VHA model is an integrated health care system that provides comprehensive, wraparound services to enrolled veterans, which are cost-effective, high quality, and consistently found to have equal or superior quality of care compared with that in the community.^{6,46-50} Despite public criticism about wait times and access to care in the VA system, one study showed that VA wait-time statistics were comparable with or faster than those for community HCPs.^{51,52} However, VA care coordination has undergone several changes to address these public criticisms, namely, the Veterans Access, Choice and Accountability Act of 2014 (38 USC § 1703 VACAA) and the VA MISSION Act of 2018 (42 USC § 274). VACAA was designed to increase access to care for veterans who live ≥ 40 miles from VA health care facilities or who are unable to be seen within 30 days of their preferred or clinically appropriate date.⁵³ More than 2 million veterans (almost 25% of VHA-enrolled veterans) have received community care since the inception of VACAA in 2014.⁵⁴

Recently, the MISSION Act mandated developing additional VA-coordinated community-based care through the establishment of a Veterans Community Care Program, which was established using existing VA 2019 fiscal year funds and did not include additional appropriations despite

expanded criteria for community care referrals.⁵⁵ Without additional future appropriations, VA funds would be shifted from VA care into community care. While increasing access to community care has in some cases led to care that is faster and closer and that was previously inaccessible in local VA specialty care, these efforts could reduce veteran engagement with the VA system.⁵⁶

The changes implemented in VACAA and the VA MISSION Act were driven by important and valid concerns, including evidence of VA staff and officials covering up service deficiencies.⁵¹ Veterans in rural areas often have limited access to VA resources, and long travel to VAMCs or clinics can be an impediment. Veterans who have chosen community care tended to be those who have poorer health status, who live further away from VA facilities, women, and those who identified as White or Hispanic.^{56,57} While VA health care is on average equivalent to or better than community resources, there is significant variability in quality within the VA system. Advocates have argued that providing competition and choice for veterans places pressure on the VA to improve care where it is not meeting expectations. Therefore, access to community care is an important resource for veterans and needs to be implemented effectively and efficiently to help veterans receive the care they need. However, expansion of community care access, depending on how it is implemented, also can have effects on academic partnerships and the education and research missions that should be incorporated into planning.

Each VA health care system receives funding through the Veterans Equitable Reimbursement Allocation (VERA), which provides funds largely based on the number of enrolled veterans and the complexity of the care they receive.⁵⁸ One potential implication of the shift among veterans to community care is a reduction in patients enrolled in VA programs, thus decreasing funding given to the VA to allocate for training and research. By definition, increased VA-managed community care means less opportunity for integrated training that brings together primary, mental health, and substance use care to meet patient needs. The Center for Medicare and Medicaid Services has developed a

national initiative to help states develop programs in integrated care, particularly for individuals who are eligible for both Medicare and Medicaid.⁵⁹ For states to develop integrated care, they need trainees who function well in this model. Integrated care training is particularly vulnerable to disruption because any portion of a veteran's care being transferred to the community can impede integration. In effect, training in integrated care, likely the most efficient and cost-effective approach to health care for reasons discussed earlier, could be reduced as providers and trainees are required to manage and coordinate patient care between separate institutions.³⁵

Educational Impact

The shift in usage from VA to community care has potential implications for academic affiliates, particularly in education and research.⁶⁰ If more people are served in community settings, potentially some VAMCs could be reduced, realigned, or closed. If this restructuring happens, academic partnerships could be impacted negatively. The VA is instituting an Infrastructure Review Commission with the task of examining current VA utilization. If a VA site with an academic affiliate was considered for realignment or closure, the reduction would eliminate the ability of the academic affiliate to provide education and research collaborations at that site.

In a less drastic manner, increasing care in the community may change opportunities for academic affiliates to partner with the VA. As noted, the UC system and California veterans benefit immensely from the VHA as an integrated health care system with dedicated missions of education and research. This partnership is a model in which the VA is the primary source of care for eligible enrolled veterans and provides integrated comprehensive services. If the VA moves to serving primarily as a coordinator of community HCPs rather than a direct provider of health care, academic affiliates would need to make major adjustments to both the education and training models. This change could particularly affect specialty training programs that rely on having adequate volumes of patients to provide an extensive experience to meet training needs. If fewer

veterans receive care directly from the VA and are instead dispersed in the community, that will reduce the ability of academic faculty to participate in the education of medical and affiliated trainees and to participate in research in VA settings. It is unclear what other model could replace such a system and be as beneficial to the VA and the academic partners with which it is currently affiliated.

Given the needs that led to the VA increasing access to care and the potential implications discussed for the VA and partnerships with academic affiliates, VA health care systems and academic affiliate partners should consider several steps. These steps involve assessment, coordination, and promotion.

Both the VA and academic affiliates would benefit if the VA shared assessment data on the use of community care, particularly identifying changes that relate to key training and/or research missions. Such data sharing can be critical to determine whether any risks (or potential opportunities) need to be addressed. In addition, increasing research on the outcomes related to both VA care and community-based care is of high value to determine whether the current changes are achieving intended goals. The VA recently funded such work through its research service, and such work is critical for guiding future policy for the VA and for the affiliates.

Coordination among the VA, academic affiliates, and community partners is vital for change. The issue of community care expansion should be a standing item on coordination meetings and shared governance councils between the institutions. It may make sense to establish specific workgroups or committees to coordinate tracking and assessment of the effect of community care expansion on the shared academic mission. One way to address the potential effect of increased community care on the research and education missions would be to include community partners into the partnerships. This strategy could potentially take a number of different forms, from providing education and training to community HCPs, having VA trainees rotate to community settings, or inviting community settings to be research sites for clinical trials. Such partnerships could potentially improve patient care and support the other academic mis-

sions. Coordination could be meaningfully improved by having community HCPs access the VA EHR, thus easing communications. Funding is available for EHR access in the VA MISSION Act and should be a high priority as community care expands. The more that community partners can access and connect with the VA EHR the better they will be able to coordinate care.

Third, the VA and its academic partners need to promote and educate veterans, their families, and their advocates on the benefits that are available through VA care and that are enhanced through academic partnerships. While the VA has been the target of justified criticism, many of its strengths addressed here are not broadly recognized. The VA could promote its sharing of staff and resources with the top academic health care institutions in an area and that veterans often have access to resources that otherwise would not be available without the academic affiliate. Making sure veterans are aware of the benefits available can potentially mitigate the need for community care.

CONCLUSIONS

Given changes from VACAA and the VA MISSION Act, VA and academic affiliates should be active partners in planning for future health care by providing input and feedback on VA structure to help shape federal and state systems moving forward. Institutions can take steps to steer their futures and meet growing clinical, training, and research needs. The VA and its academic partners in health care research are well positioned to develop projects to assess the effects of these changes. Evaluation of key variables including patient care, education, and research productivity are warranted to guide policymakers as they assess whether these changes in the VA are achieving the expressed goals of improving veteran care. Other opportunities to collaborate in the wake of the MISSION Act remain to be discovered within each academic affiliation. By strengthening working relationships between VA and academic teams, these deeply important partnerships can continue to produce clinical, research, and education outcomes that meet the needs of our veterans, our federal and state health care systems, and our country.

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