



Human Immunodeficiency Virus Telehealth Collaborative Care Programs (HIV TCC)

This model of care improves access to infectious disease specialty care for rural Veterans living with human immunodeficiency virus (HIV) in partnership with the primary care medical home and is recommended for replication at other facilities.

Medical Issue

The Veterans Health Administration (VHA) is the single largest provider of HIV care in the United States with 31,726 total Veterans served living with HIV in fiscal year (FY) 2023, of which 5,934 Veterans were rural (18%). VHA also is the largest geriatric provider of HIV care in the United States, with approximately 23,944 (77%) greater or equal to age 50 years.¹

Longitudinal HIV care with antiretroviral therapy initiation and monitoring is critical to maintain optimal immunological function for the prevention of HIV-related cancers and associated opportunistic infections.

Access Challenge

Approximately 5,000 rural Veterans living with HIV and additionally Veterans living in urban areas with service and age related disabilities face a disproportionate burden to access high quality HIV care due to transportation challenges and HIV specialty care concentrated in urban centers.^{1,2,3,4}

This project deploys telehealth modalities to bridge the quality and access gap among rural Veterans and establishes a robust foundation of health care infrastructure and workforce development for high quality, sustainable specialty infectious disease care.

Monthly, targeted, team conference calls ensure continued mentorship and programmatic direction, and targeted site portfolios are generated for data to care models. Each quarter, the number of rural Veterans living with HIV

receiving care as well as HIV Pre-exposure Prophylaxis (PrEP) encounters are also tracked to enhance continuity of care between HIV infectious disease specialists and primary care Patient Aligned Care Teams (PACTs).

Solution

This model successfully combines:

1. Use of Clinical Video Telehealth and VA Video Connect (VVC) and video on demand to deliver HIV specialty care
2. Creation of shared-care relationships between primary care teams in outlying clinics and the HIV specialty clinic
3. A central care manager who works to coordinate care across teams
4. Use of a data to care model to facilitate population management within and across sites
5. Monthly programmatic strategic calls among participating sites for best practices

A cluster randomized controlled trial was initially employed for the original program pilot with pre- and post-intervention HIV viral load suppression rates recorded. Improvements in HIV viral load suppression were demonstrated among rural Veterans at telehealth intervention sites.⁴ Objective results taken from this cluster randomized controlled trial showed significant suppression in HIV viral load, indicating better antiretroviral adherence with those participating in HIV TCC enhanced telehealth services.

Findings

- ☑ Rural Veterans found telehealth a secure and practical way to continue HIV longitudinal care and now currently a robust method for longitudinal HIV prevention (PrEP).⁵



- ✔ For FY23, the HIV TCC program oversaw 5,458 total telehealth visits for HIV care with 2,289 total unique Veterans served for PrEP in FY23 across both sustaining and active sites.
- ✔ Since FY15, the HIV TCC program has successfully and sustainably expanded sequentially each year to 2-3 centers per year, now totaling 21 centers in 2024.
- ✔ As of FY24, successful dissemination has been deployed to 21 U.S. Department of Veterans Affairs (VA) medical centers, including Iowa City, Iowa (as the initial pilot) as well as Houston, Texas; Dallas, Texas; San Antonio, Texas; Indianapolis, Indiana; Atlanta, Georgia; Dayton, Ohio; Tampa, Florida; and Jackson, Mississippi. Adding in FY20 was successful expansion to Phoenix, Arizona; New Orleans, Louisiana; Portland, Oregon; Seattle, Washington; rural greater Los Angeles, California; and Togus, Maine. Memphis, TN was added in FY22, and for FY23 dissemination was successful to the frontiers of rural and island care within the United States, with Minneapolis, MN VA and VA Pacific Island Health Care System.
- ✔ Accomplishments ongoing since FY23 is intensive work with the Minneapolis, MN VA with strengthened telehealth outreach to the St. Cloud, MN VA (includes 98% rurality of Montevideo, Bemidji, Brainerd, Fergus Falls, Alexandria) and fostered new services and linkages to Black Hills Health Care System (Hot Springs and Fort Meade, South Dakota) which includes Aberdeen, Watertown, Wagner, Pine Ridge, Pierre (all >99% rurality).
- ✔ FY23-25 continued outreach with Veterans of Pacific Islands including deployment of new

telehealth and laboratory infrastructure to rural Veterans living with HIV in catchment areas of Molokai, Lihue, Lanai, and Hilo (combined 97-98% rurality) and living on rural outer islands of Hawai'i, American Samoa, Guam, and Saipan, from which residents must typically seek a once-a-week plane ride to obtain lifesaving care at the main Honolulu VA facility.

Conclusion

The HIV TCC model was successful in bringing up-to-date, high quality HIV specialty care to rural Veterans living with HIV. Objective results taken from a cluster randomized controlled trial showed significant suppression in HIV viral load, indicating better antiretroviral adherence with those participating in HIV TCC enhanced telehealth services.

The HIV TCC program builds solid infrastructure foundations within participating VA facilities to integrate HIV specialty care to corresponding primary care PACTs with enhanced case management for rural Veterans.

¹ VHA Support Service Center (VSSC), Corporate Data Warehouse (CDW) HIV Cube, Accessed 2020.

² Ohl ME, Dillon D, Moeckli J, Ono S., Waterbury N., Sissel J., Yin J., Neil B., Wakefield B., Kaboli P. Mixed- methods evaluation of a telehealth collaborative care program for persons with HIV infection in a rural setting. *J Gen Intern Med.* 2013 Sep;28(9):1165-73.

³ Ohl ME, Richardson K, Kaboli PJ, Perencevich E, Vaughan-Sarrazin M. Geographic access and use of infectious diseases specialty and general primary care services by veterans with HIV infection: Implications for telehealth and shared care programs. *J Rural Health.* 2014 Sep;30(4):412-21.

⁴ Ohl ME, Richardson K, Rodriguez-Barradas MC, Bedimo R, Marconi V, Morano JP, Jones MP, Vaughan-Sarrazin M. Impact of availability of telehealth programs on documented HIV viral suppression. A cluster-randomized program evaluation in Veterans Health Administration. *Open Forum Infectious Disease.* 2019 May 10;6(6).

⁵ Morano JP, Ohl ME. VA Telehealth Best Practices, ID Week Conference (Infectious Disease Society of America), October 2019, Washington, DC. *J Rural Health.* 2014 Sep;30(4):412-21.

The Office of Rural Health (ORH) works to see that America's Veterans thrive in rural communities. To support the health and well-being of rural Veterans, ORH and its Veterans Rural Health Resource Centers establish and disseminate initiatives that increase access to care for the 2.7 million rural Veterans enrolled in the U.S. Department of Veterans Affairs' health care system. Key focus areas include programs that address workforce shortages, transportation, primary care, mental health, telehealth, and specialty care.