



Home-Based Pulmonary Rehabilitation Program

This model of care shows promise to increase rural Veterans' access to care and services, and is recommended for replication at other facilities.

Medical Issue

Chronic pulmonary disease such as Chronic Obstructive Pulmonary Disease (COPD) can cause difficulty breathing, depression, anxiety, limitations in physical activity and exercise, and malnutrition. COPD affects nearly 25% of the Veteran population¹ with an even higher occurrence in rural Veterans.² Pulmonary rehabilitation (PR) is a safe, evidence-based treatment for patients with chronic pulmonary disease that is shown to improve quality of life and reduce hospitalizations.³ However, it is often underutilized by rural Veterans due to access challenges and other barriers.

Access Challenge

Only 1.5% of eligible Veterans participate in pulmonary rehabilitation.⁴ This lack of utilization is due in part to the barriers that prevent Veterans from accessing treatment, including:

- ▶ Lack of on-site PR at VA facilities
- ▶ Long distances to travel and
- ▶ Reimbursement limitations

The in-person PR treatments that do exist in local communities are often limited. To help address this disparity, the U.S. Department of Veterans Affairs (VA) Office of Rural Health (ORH) brings eligible Veterans with chronic pulmonary disease convenient access to high-quality care from the comfort of their own homes. ORH's Home-Based Pulmonary Rehabilitation (HBPR) program bridges the gap by providing rural Veterans with virtual treatment guidance and the tools to follow a structured health care plan.

Solution

Eligible Veterans with chronic pulmonary disease are enrolled in the 12-week HBPR program. Program participants connect with a PR provider via video and/or phone appointments. Providers offer

counseling on exercise, nutrition, stress management, medication management, tobacco cessation, and breathing techniques.

Program participants also receive an education guidebook and at-home exercise equipment such as a pedal exerciser, pedometer, and resistance bands. Each Veteran's treatment plan is tailored to their needs and is designed to fit their unique lifestyle.

HBPR strives to improve Veterans' overall well-being – and initial studies⁵ have shown it to be an effective treatment option.

Veterans who utilize HBPR report:

- ✔ Less shortness of breath
- ✔ Increased exercise capacity
- ✔ Improved nutrition habits
- ✔ Improved depression scores
- ✔ Improved overall quality of life^{4,5}
- ✔ High satisfaction

Subject Matter Expert

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- ¹ Ekaterina Anderson, PhD et al., Care Coordination for Veterans with COPD: A Positive Deviance Study. *Am J Manag Care.* 2020 Feb; 26(2): 63–68
- ² Abrams TE, Vaughan-Sarrazin M, Fan VS, Kaboli PJ. Geographic Isolation and the Risk for Chronic Obstructive Pulmonary Disease–Related Mortality. *Annals of Internal Medicine* 2011;155(2):80.
- ³ Rochester CL, Vogiatzis I, Holland AE, Lareau SC, Marciniuk DD, Puhan MA, et al. An Official American Thoracic Society/European Respiratory Society Policy Statement: Enhancing implementation, use, and delivery of pulmonary rehabilitation. *Am J Respir Crit Care Med* 2015;192(11):1373-1386.
- ⁴ Vercammen-Grandjean C, Schopfer DW, Zhang N, Whooley MA. Participation in Pulmonary Rehabilitation by Veterans Health Administration and Medicare Beneficiaries After Hospitalization for Chronic Obstructive Pulmonary Disease. *J Cardiopulm Rehabil Prev.* 2018;38(6):406-410.
- ⁵ Ekaterina Anderson, PhD et al., Care Coordination for Veterans with COPD: A Positive Deviance Study. *Am J Manag Care.* 2020 Feb; 26(2): 63–68

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.