Geographic Availability of Substance Use Disorder Treatment for Veterans

The Need for Data-Driven Solutions

Jonathan H. Cantor

CT-A2808-1

Testimony presented before the U.S. Senate Committee on Veterans' Affairs on June 14, 2023



For more information on this publication, visit www.rand.org/t/CTA2808-1.

Testimonies

RAND testimonies record testimony presented or submitted by RAND associates to federal, state, or local legislative committees; government-appointed commissions and panels; and private review and oversight bodies.

Published by the RAND Corporation, Santa Monica, Calif.
© 2023 RAND Corporation

RAND® is a registered trademark.

Limited Print and Electronic Distribution Rights

This publication and trademark(s) contained herein are protected by law. This representation of RAND intellectual property is provided for noncommercial use only. Unauthorized posting of this publication online is prohibited; linking directly to its webpage on rand.org is encouraged. Permission is required from RAND to reproduce, or reuse in another form, any of its research products for commercial purposes. For information on reprint and reuse permissions, please visit www.rand.org/pubs/permissions.

www.rand.org

Geographic Availability of Substance Use Disorder Treatment for Veterans: The Need for Data-Driven Solutions

Testimony of Jonathan H. Cantor¹ The RAND Corporation²

Before the Committee on Veterans' Affairs
United States Senate

June 14, 2023

hairman Tester, Ranking Member Moran, and members of the committee, I want to thank you for your invitation to testify today on what is a pressing and urgent public health problem. My name is Dr. Jonathan Cantor. I am a policy researcher at the RAND Corporation. My training is in health policy research, and I have conducted extensive research on the geographic availability and accessibility of substance use disorder (SUD) treatment for veterans, military service members, and the civilian population.³

During my almost seven-year career as a RAND researcher, I have sought to develop and improve the quality of metrics to measure and track the geographic availability of SUD treatment—both where treatment is located and whether those in need can actually access this care. I have examined the marketplace of SUD care provided by the U.S. Department of Veterans Affairs (VA) and non-VA providers. In 2018, I was a task lead for a study that calculated novel measures of geographic accessibility of SUD treatment for a national sample of

¹ The opinions and conclusions expressed in this testimony are the author's alone and should not be interpreted as representing those of the RAND Corporation or any of the sponsors of its research.

² The RAND Corporation is a research organization that develops solutions to public policy challenges to help make communities throughout the world safer and more secure, healthier and more prosperous. RAND is nonprofit, nonpartisan, and committed to the public interest. RAND's mission is enabled through its core values of quality and objectivity and its commitment to integrity and ethical behavior. RAND subjects its research publications to a robust and exacting quality-assurance process; avoids financial and other conflicts of interest through staff training, project screening, and a policy of mandatory disclosure; and pursues transparency through the open publication of research findings and recommendations, disclosure of the source of funding of published research, and policies to ensure intellectual independence. This testimony is not a research publication, but witnesses affiliated with RAND routinely draw on relevant research conducted in the organization.

³According to Catherine McLaughlin and Leon Wyszewianski, "Availability measures the extent to which the provider has the requisite resources, such as personnel and technology, to meet the needs of the client. Accessibility refers to geographic accessibility, which is determined by how easily the client can physically reach the provider's location" (Catherine G. McLaughlin and Leon Wyszewianski, "Access to Care: Remembering Old Lessons," Health Services Research, Vol. 37, No. 6, December 2002, p. 1441. Emphasis in original).

U.S. veterans.⁴ We found that, while many veterans lived within a 15-minute drive of an SUD treatment facility, most lived around an hour from a VA facility that provided specialized SUD treatment. While these data are useful, our research highlights significant challenges to accurately measuring the geographic availability and accessibility of SUD treatment. These challenges include an inability to access data on the total capacity of a facility, the services the facility offers for veterans particularly, the approximate wait time to the next appointment, and the quality of care received. Today, I will discuss how existing data limit our ability to comprehensively measure geographic availability of SUD treatment for veterans. I will also discuss how existing data inhibit our ability to calculate disparities in access based on where veterans live, as well as their personal attributes, such as sex, race, and ethnicity.

In this testimony, I will first discuss the complexity of SUD treatment for veterans given the frequent existence of co-occurring mental health problems. Second, I will provide a brief overview of the geographic accessibility of SUD treatment for veterans based on our research. Third, I will describe why it is difficult to assess disparities in the geographic accessibility of SUD treatment for veterans. Finally, I will recommend a few ways to improve data collection and reporting on providers to better understand the geographic availability and accessibility of treatment for SUD for veterans and ways it can be measured over time.

SUD Treatment for Veterans Is Complex Because of Co-Occurring Mental Health Problems

In 2020, around 12 percent of veterans 18 years of age or older had an SUD, according to the National Survey on Drug Use and Health.⁵ Approximately 1.1 million veterans suffered from *both* an SUD and a mental illness.⁶ Most individuals who present with a co-occurring mental health problem and an SUD do not receive treatment for either condition.⁷ There are many possible contributors to this treatment gap. For example, addiction counselors lack awareness of mental health conditions and lack training on how to treat co-occurring disorders.⁸ Other possible

_

⁴ Eric R. Pedersen, Kathryn E. Bouskill, Stephanie Brooks Holliday, Jonathan Cantor, Sierra Smucker, Matthew L. Mizel, Lauren Skrabala, Aaron Kofner, and Terri Tanielian, *Improving Substance Use Care: Addressing Barriers to Expanding Integrated Treatment Options for Post-9/11 Veterans*, RAND Corporation, RR-4354-WWP, 2020, www.rand.org/pubs/research_reports/RR4354.html.

⁵ Substance Abuse and Mental Health Services Administration, "2020 National Survey on Drug Use and Health: Veteran Adults," presentation slides, July 2022, www.samhsa.gov/data/sites/default/files/reports/rpt37926/2020NSDUHVeteransSlides072222.pdf.

⁶ Substance Abuse and Mental Health Services Administration, 2022.

⁷ Katherine E. Watkins, Audrey Burnam, Fuan-Yue Kung, and Susan Paddock, "A National Survey of Care for Persons with Co-Occurring Mental and Substance Use Disorders," *Psychiatric Services*, Vol. 52, No. 8, August 2001.

⁸ Substance Abuse and Mental Health Services Administration, *Substance Use Disorder Treatment for People with Co-Occurring Disorders*, Treatment Improvement Protocol (TIP) 42, SAMHSA Publication PEP20-02-01-004, March 2020.

reasons for this treatment gap include personnel shortages and workforce burnout. Burnout among mental health staff compromises the quality of the patient-provider relationship and has led many to leave the workforce. In short, veterans may have more-complex requirements than nonveterans when seeking treatment for SUD, and they may seek treatment in the context of a more constrained workforce with limited expertise or capacity to provide them with effective care for their specific needs.

There are a multitude of other reasons why a veteran with an SUD would not receive the necessary care. First, some veterans who use substances do so to self-medicate their posttraumatic stress disorder (PTSD) symptoms. These veterans may be hesitant to seek treatment because of their treatment providers' policies. For example, some behavioral health treatment programs will not accept a patient unless the patient is abstinent from substances for a certain period of time. Second, many veterans fear seeking mental health or SUD treatment because it could negatively affect their career advancement. In qualitative interviews, a sample of veterans told researchers that they find it difficult to balance their recovery, which would benefit from treatment, with vocational goals that may require that they disclose that they are receiving such care. Third, co-occurring disorders often go unidentified. A practitioner may identify an SUD or a mental health disorder but not necessarily both. Finally, the appropriate treatment for an individual with an SUD and a co-occurring mental health disorder is more complex than treating one or the other alone. Many treatment facilities that specialize in either mental health or SUDs are not equipped to address the needs of veterans with co-occurring disorders. There are not enough opportunities for formal training in the treatment of co-occurring

⁹ Claire Snell-Rood, Robin A. Pollini, and Cathleen Willging, "Barriers to Integrated Medication-Assisted Treatment for Rural Patients with Co-Occurring Disorders: The Gap in Managing Addiction," *Psychiatric Services*, Vol. 72, No. 8, August 2021.

¹⁰ Committee to Evaluate the Department of Veterans Affairs Mental Health Services, National Academies of Sciences, Engineering, and Medicine, "Mental Health Workforce and Facilities Infrastructure," in *Evaluation of the Department of Veterans Affairs Mental Health Services*, National Academies Press, 2018.

¹¹ Howard D. Chilcoat and Naomi Breslau, "Posttraumatic Stress Disorder and Drug Disorders: Testing Causal Pathways," *Archives of General Psychiatry*, Vol. 55, No. 10, October 1998.

¹² Alan Bernhardt, "Rising to the Challenge of Treating OEF/OIF Veterans with Co-Occurring PTSD and Substance Abuse," *Smith College Studies in Social Work*, Vol. 79, No. 3–4, July–December 2009; Karen H. Seal, Greg Cohen, Angela Waldrop, Beth E. Cohen, Shira Maguen, and Li Ren, "Substance Use Disorders in Iraq and Afghanistan Veterans in VA Healthcare, 2001–2010: Implications for Screening, Diagnosis and Treatment," *Drug and Alcohol Dependence*, Vol. 116, No. 1–3, July 1, 2011.

¹³ Ann M. Cheney, Christopher J. Koenig, Christopher J. Miller, Kara Zamora, Patricia Wright, Regina Stanley, John Fortney, James F. Burgess, and Jeffrey M. Pyne, "Veteran-Centered Barriers to VA Mental Healthcare Services Use," *BMC Health Services Research*, Vol. 18, No. 591, 2018.

¹⁴ Brian J. Stevenson, Ummul Kathawalla, Camille Smith, and Lisa Mueller, "Career Development in Transitional Work Settings: A Qualitative Investigation Among Veterans and Vocational Counselors," *Journal of Career Development*, October 28, 2022.

¹⁵ Mary Ann Priester, Teri Browne, Aidyn Iachini, Stephanie Clone, Dana DeHart, and Kristen D. Seay, "Treatment Access Barriers and Disparities Among Individuals with Co-Occurring Mental Health and Substance Use Disorders: An Integrative Literature Review," *Journal of Substance Abuse Treatment*, Vol. 61, February 2016.

disorders;¹⁶ thus, there are a limited number of providers able to provide evidence-based care for co-occurring disorders. This could be particularly pronounced in areas of the country with a dearth of behavioral health care providers—called *Mental Health Professional Shortage Areas*.

Fortunately, the Veterans Health Administration (VHA) appears to be addressing this problem. According to the 2018 National Mental Health Services Survey, more than half—around 56 percent—of VA medical centers (VAMCs) had a specialized treatment program for co-occurring disorders.¹⁷ More-recent data indicate that this percentage has been increasing.

Geographic Access to SUD Treatment Is Difficult to Measure with Existing Data Resources

Recent national research found that less than 10 percent of veterans with an SUD in 2020 received any treatment. A key determinant for whether an individual receives SUD treatment is how far they have to travel for care. To date, there have been few studies that have examined distance to SUD treatment (geographic accessibility) as a barrier to care for a national sample of veterans. A study of 266,301 female veterans who received *any* care from VHA in 2009 found that the longer the drive time to a provider, the less likely the veteran received outpatient care in the following two years. Distance also predicts whether veterans obtain step-down aftercare, which is incredibly important for achieving long-term treatment success, after discharge from inpatient SUD treatment. Less than half of patients who received inpatient SUD treatment and lived more than 25 miles from their nearest outpatient mental health care facility received any follow-up care. In the follow-up care.

Under the Maintaining Internal Systems and Strengthening Integrated Outside Networks Act (MISSION Act) of 2018, VA established an access standard of a 60-minute drive time for specialty care, including SUD treatment.²² In 2019, the Wounded Warrior Project (WWP) partnered with RAND researchers to understand geographic accessibility of co-occurring mental

¹⁹ Kyle Beardsley, Eric D. Wish, Dawn Bonanno Fitzelle, Kevin O'Grady, and Amelia M. Arria, "Distance Traveled to Outpatient Drug Treatment and Client Retention," *Journal of Substance Abuse Treatment*, Vol. 25, No. 4, December 2003.

¹⁶ Howard Padwa, Erick G. Guerrero, Joel T. Braslow, and Karissa M. Fenwick, "Barriers to Serving Clients with Co-Occurring Disorders in a Transformed Mental Health System," *Psychiatric Services*, Vol. 66, No. 5, May 2015.

¹⁷ Substance Abuse and Mental Health Services Administration, *National Mental Health Services Survey (N-MHSS): 2018: Data on Mental Health Treatment Facilities*, 2019.

¹⁸ Substance Abuse and Mental Health Services Administration, 2022.

²⁰ Sarah A. Friedman, Susan M. Frayne, Eric Berg, Alison B. Hamilton, Donna L. Washington, Fay Saechao, Natalya C. Maisel, Julia Y. Lin, Katherine J. Hoggatt, and Ciaran S. Phibbs, "Travel Time and Attrition from VHA Care Among Women Veterans: How Far Is Too Far?" *Medical Care*, Vol. 53, No. 4, Supp. 1, April 2015.

²¹ Susan K. Schmitt, Ciaran S. Phibbs, and John D. Piette, "The Influence of Distance on Utilization of Outpatient Mental Health Aftercare Following Inpatient Substance Abuse Treatment," *Addictive Behaviors*, Vol. 28, No. 6, August 2003.

²² U.S. Department of Veterans Affairs, "VA Launches New Health Care Options Under MISSION Act," news release, June 6, 2019.

health and SUD treatment.²³ We used two national databases to assess geographic accessibility of mental health and SUD treatment facilities nationwide. We linked these data with two different sets of data from the WWP, which included information on WWP alumni veterans' zip codes of residence. Our calculations indicated that, on average, WWP alumni lived 12 minutes from a *mental health facility* that had a co-occurring SUD program and 11 minutes from the nearest *SUD treatment facility* that had a co-occurring mental health program. For these veterans, the closest VAMCs or VA-affiliated facilities that provided treatment for co-occurring mental health disorders and SUDs were, on average, 57.0 and 66.3 minutes from where the veterans lived, "for mental health and substance use treatment facilities, respectively."²⁴ Our results were encouraging: Most WWP alumni veterans were able to access treatment programs for co-occurring mental health conditions and SUDs within the 60-minute drive time standard.

One major limitation of this line of research is that while a facility may be within a 60-minute drive time, it may not be able to accept the veteran as a patient. Our study did not incorporate measures of treatment capacity or wait times. Currently, there is no national database that includes these measures for all VA and non-VA facilities that provide SUD treatment. A second limitation of this work is that a veteran's zip code is a pretty broad indicator of where the veteran lives, and our estimates would be more accurate if we used veterans' specific addresses. Finally, our study was based on a sample of WWP alumni veterans, and whether these findings hold for all veterans is unknown.

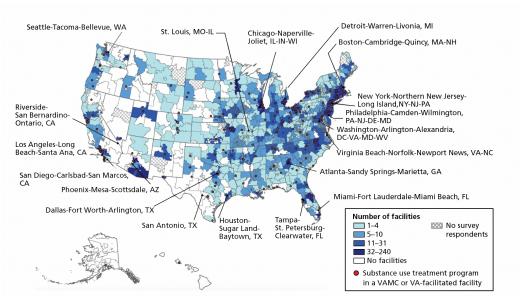
Disparities Are Also Difficult to Measure Using Existing Data Resources

Figures 1 and 2 are heat maps that demonstrate the large variability in geographic accessibility of mental health and SUD treatment facilities with specialized treatment programs for co-occurring disorders and WWP alumni. Areas in white are zip codes that lack one of these facilities within a 60-minute drive time from the veteran's zip code. The maps show that VAMCs and VA-affiliated facilities tend to be located in areas of the country with the largest number of non-VA facilities that serve veterans (as shown by the darker blue shading). In other words, facilities that serve veterans, be they VA or non-VA, cluster together. However, additional analyses by our research team indicated that, if we were to remove the VAMCs and VA-affiliated facilities from the maps, there would be less geographic accessibility for veterans to receive treatment, highlighting the critical role that VA plays in substance use treatment for veterans.

²³ Pedersen et al., 2020.

²⁴ Pedersen et al., 2020, p. 74.

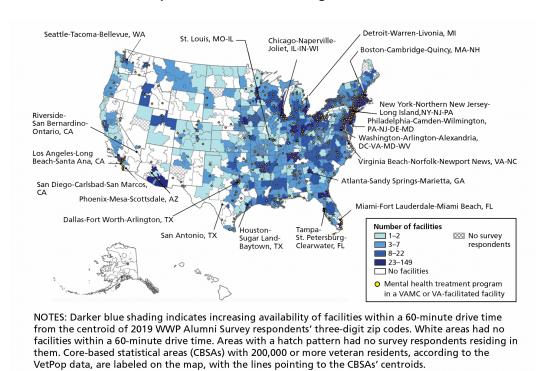
Figure 1. SUD Treatment Facilities with a Specialized Co-Occurring Disorders Program and a Specialized Treatment Program for Veterans



NOTES: Darker blue shading indicates increasing availability of facilities within a 60-minute drive time from the centroid of 2019 WWP Alumni Survey respondents' three-digit zip codes. White areas had no facilities within a 60-minute drive time. Areas with a hatch pattern had no survey respondents residing in them. Core-based statistical areas (CBSAs) with 200,000 or more veteran residents, according to the VetPop data, are labeled on the map, with the lines pointing to the CBSAs' centroids.

SOURCE: Reproduced from Pedersen et al., 2020.

Figure 2. Mental Health Treatment Facilities with a Specialized Co-Occurring Disorders Program and a Specialized Treatment Program for Veterans



SOURCE: Reproduced from Pedersen et al., 2020.

Almost one-quarter of U.S. veterans reside in rural communities.²⁵ There is a concern that it is more difficult for rural veterans to receive care given that they must travel farther than veterans who live in urban areas. Treatment services in rural areas have challenges that include a shortage of specialized providers and a lack of accessible public transportation. In one study of 15 VHA primary care clinics in eight Midwestern states, distance was listed as a significant barrier for rural veterans seeking health care. And the effect of distance can be compounded by other factors, such as a veteran's health status, functional impairment, travel cost, and work or family obligations.²⁶ In 2019, the U.S. Government Accountability Office examined whether there was a disparity in SUD treatment utilization based on whether the veteran resided in an urban or a rural locality. The study found that veterans in urban and rural localities used VA SUD treatment services at a similar rate.²⁷ Thus, while there is a concern that there is a geographic disparity in health care access between rural and urban veterans, this disparity does

²⁵ Office of Rural Health, U.S. Department of Veterans Affairs, "Rural Veterans: Rural Veteran Health Care Challenges," webpage, undated, www.ruralhealth.va.gov/aboutus/ruralvets.asp.

²⁶ Colin Buzza, Sarah S. Ono, Carolyn Turvey, Stacy Wittrock, Matt Noble, Gautam Reddy, Peter J. Kaboli, and Heather Schacht Reisinger, "Distance Is Relative: Unpacking a Principal Barrier in Rural Healthcare," *Journal of General Internal Medicine*, Vol. 26, No. 2, Supp. 2, November 2011.

²⁷ U.S. Government Accountability Office, *Veterans Health Care: Services for Substance Use Disorders, and Efforts to Address Access Issues in Rural Areas*, GAO-20-35, December 2019.

not appear to affect utilization rates for SUD treatment. But more work is needed to confirm this result.

The geographic accessibility of SUD care could also vary based on the sociodemographic characteristics of veterans. For example, women veterans, racial or ethnic minority veterans, or older veterans may disproportionately live in areas with fewer SUD facilities. Our study did not focus on these potential disparities. There are extensive data challenges in quantifying these differences. Such analyses would require detailed data on the addresses, or at least zip codes, of veterans, as well as data on their race/ethnicity, age, and gender. Finally, and perhaps most challenging, the data would need to include whether the veterans suffered from SUDs only or SUDs and mental health problems.

Recommendations

Drawing on my research and existing work, I have several recommendations. Each recommendation pertains to the relative dearth of detailed data that we have on providers or patients. For providers, it would be important for VA to consider updating its SUD programs website to include additional details on the specific types of SUD treatment that a particular facility provides.²⁸ The existing information includes locations, names, addresses, and phone numbers of existing services, but it may be difficult for a veteran to identify the provider that best serves their unique needs. Veterans would benefit from knowing the types of services provided or the specific substances that the facility offers treatment for. Similarly, there is no listing of wait times or capacity for treatment that VA keeps detailed information for.²⁹ Pieces of this information are included on other portions of the VA website,³⁰ but it would be useful to have all the data integrated into one location.

VA's SUD programs website refers individuals to the Substance Abuse and Mental Health Services Administration's (SAMHSA's) Behavioral Health Treatment Services Locator for treatment outside VA.³¹ This locator has historically been based on annual surveys of both mental health and SUD treatment facilities to understand the availability of treatment resources and to help patients identify a provider. (The surveys have since been combined into one.) SAMHSA could consider asking treatment facilities additional specific questions in its annual survey of providers that informs the locator. One approach would be to ask whether specific treatment approaches are available for veterans. Currently, the survey asks about the types of

²⁸ U.S. Department of Veterans Affairs, "Locations: Substance Use Disorder (SUD) Program," webpage, last updated November 3, 2021, www.va.gov/directory/guide/SUD.asp.

²⁹ U.S. Department of Veterans Affairs, "Average Wait Times at Individual Facilities Search," web tool, undated, www.accesstocare.va.gov/PWT/SearchWaitTimes.

³⁰ U.S. Department of Veterans Affairs, "Find VA Locations," web tool, undated, www.va.gov/find-locations/.

³¹ Substance Abuse and Mental Health Services Administration, Behavioral Health Services Locator, web resource, undated, www.samhsa.gov/resource/dbhis/behavioral-health-treatment-services-locator?gclid=CjwKCAjw-IWkBhBTEiwA2exyO_ry7dxpmu35RCm5ybl9kx7RxOgUTWcn7C9od3MGCif0XLOMdIdQ_xoC3-EQAvD_BwE. See also Substance Abuse and Mental Health Services Administration, FindTreatment.gov, homepage, undated, findtreatment.gov.

specialized treatment programs that are present at the responding facility. However, the questionnaire does not ask what treatment approaches are used within those programs. Using 2019 SAMHSA data, we identified 3,782 mental health treatment facilities that contained both a specialized treatment program for veterans and specialized treatment for PTSD and co-occurring disorders. Similarly, we found that there were 5,484 SUD treatment facilities that offered a specialized treatment program for veterans and specialized treatment for trauma and cooccurring disorders.³² However, SAMHSA's data do not describe what the specialized treatment programs for each of these facilities entail. The most recent iteration of the National Substance Use and Mental Health Services Survey, the survey that the locator is based on, has supplementary questionnaires for substance use VA facilities and mental health VA facilities on specific treatment approaches related to suicide. 33 This could be one model to use for asking more-detailed questions on treatments for co-occurring disorders. Separately, one recent audit study of the Behavioral Health Treatment Services Locator data asked targeted questions about residential treatment programs, including questions concerning the costs of services, average wait times, and travel-based inducements to receive treatment at the facility, such as car transportation.³⁴ Many of these measures could be collected by SAMHSA in its annual survey or in audits of the responses of specific facilities in a given year. An eventual long-term goal should be to incorporate quality-of-care measures for these facilities.

A separate limitation of the SAMHSA Behavioral Health Treatment Services Locator data is that the information on the treatment services that the facility provides is outdated and not easily understandable by the user.³⁵ Previous studies have found that contacting these providers and posing as a patient provides a more accurate measure of the payments accepted, treatments provided, and time to the next available appointment. Either SAMHSA or VA should consider conducting regular audit studies among non-VA facilities to get a more accurate understanding of the forms of treatment offered, approximate wait times to the next appointment, and total capacity of the facilities for SUD treatment.

Similarly, we lack information on disparities in geographic access to facilities based on sociodemographic characteristics of patients. Given that there may be differences in treatment approaches based on these characteristics, the audits should include calls to treatment facilities by individuals with different genders, races, and ethnicities.

Finally, it would be important for VA to consider alternative ways to expand treatment availability and accessibility of resources. Since the onset of the coronavirus disease 2019 (COVID-19) pandemic, there has been a rapid rise in the use of telehealth services. Preliminary

³³ Substance Abuse and Mental Health Services Administration, "Supplement for Mental Health Veterans Affairs Facilities," supplementary questionnaire for National Substance Use and Mental Health Services Survey, March 31, 2023.

³² Pedersen et al., 2020.

³⁴ Tamara Beetham, Brendan Saloner, Marema Gaye, Sarah E. Wakeman, Richard G. Frank, and Michael Lawrence Barnett, "Admission Practices and Cost of Care for Opioid Use Disorder at Residential Addiction Treatment Programs in the US," *Health Affairs*, Vol. 40, No. 2, February 2021.

³⁵ Aneri Pattani, "National Addiction Treatment Locator Has Outdated Data and Other Critical Flaws," KFF Health News, May 9, 2022.

work has shown that telehealth has increased treatment initiation for SUD in at least one VA hospital outpatient alcohol and drug treatment clinic.³⁶ While telehealth may increase retention for new and continuing opioid use disorder patients, it may do so differently based on characteristics of veterans.³⁷ Research should continue to be conducted on the effectiveness of telehealth in the population of veterans with SUDs and co-occurring mental health problems to reduce geographic disparities.

Conclusion

Far too many Americans, and especially veterans, fail to receive treatment for SUD each year. I am confident that we can increase the number of veterans who receive treatment and prevent unnecessary drug overdose deaths, but that will require an infusion of funding to improve current data collection systems and ensure that veterans can access the information necessary to make treatment decisions. It will also require research on best practices for identifying high-quality providers that meet the needs of veterans. In my testimony today, I outlined several data limitations and how we might be able to address data gaps to understand the availability of SUD treatment resources for veterans. The lack of real-time measures on the capacity and wait times for both VA and non-VA providers for SUD treatment is a significant barrier that hinders our ability to monitor the availability of SUD treatment for veterans. Thank you for giving me the opportunity to speak on such an important issue, and I look forward to your questions.

³⁶ Rebecca E. Sistad, Justin Enggasser, Nicholas A. Livingston, and Deborah Brief, "Comparing Substance Use Treatment Initiation and Retention Between Telehealth Delivered During COVID-19 and In-Person Treatment Pre-COVID-19," *American Journal on Addictions*, Vol. 32, No. 3, May 2023.

³⁷ Madeline C. Frost, Lan Zhang, H. Myra Kim, and Lewei (Allison) Lin, "Use of and Retention on Video, Telephone, and In-Person Buprenorphine Treatment for Opioid Use Disorder During the COVID-19 Pandemic," *JAMA Network Open*, Vol. 5, No. 10, October 2022.