



## ASCEND for veteran suicide prevention: Enhancing surveillance to save lives

Suicide rates among United States (US) veterans were higher and rose faster than those among non-veteran adults from 2005-2019 (U.S. Department of Veterans Affairs (VA), 2021). It has thus become increasingly urgent to better understand factors driving this risk. A key component to addressing this public health crisis is identifying trends in and factors that influence risk for suicidal self-directed violence within the veteran population. Identifying factors across social-ecological levels (individual, relationships, community, society) can assist healthcare providers and policy makers in elucidating prevention and intervention targets (Cramer et al., 2017). This is consistent with, and essential to, implementing public health approaches to veteran suicide prevention.

Since 2016, the VA has implemented systematic annual reporting of the rate and number of all veteran suicides (VA, 2021). This work has been instrumental for understanding the scope of veteran suicide, identifying subpopulations at heightened risk, and supporting evaluation of VA suicide prevention programs. Although suicide surveillance is tremendously important, comparable systems to assess suicidal thoughts and behaviors (i.e., *non-fatal suicidal self-directed violence* [NF-SSDV]) have been limited to veterans who use VA healthcare (Hoffmire et al., 2016). This is a substantial limitation as the majority of veterans who have died by suicide did not use Department of Veterans Affairs (VA) healthcare in the year preceding their death (VA, 2020). Further, prior studies on the prevalence of NF-SSDV among nationally representative samples of veterans have tended to focus on suicidal ideation and suicide attempt, resulting in a lack of information regarding other types of NF-SSDV, such as preparatory behaviors and interrupted suicide attempts. Finally, there is also substantial lag in the data available on veteran suicides, and suicide attempts are among the strongest predictors of subsequent suicide mortality (Botswick et al., 2016). Thus, more timely information on NF-SSDV prevalence, trends, and drivers, including both risk and protective factors, among veterans is pivotal to advancing upstream suicide prevention.

With these needs in mind, the VA Office of Mental Health and Suicide Prevention funded a new initiative that will address these gaps: *Assessing Social and Community Environments with National Data (ASCEND) for Veteran Suicide Prevention* (<https://www.mirecc.va.gov/visn19/ascend/>). ASCEND is a cross-sectional survey of US veterans that aims to serve, through recurring administration, as a surveillance system to document prevalence and trends over time in NF-SSDV among veterans across the US, regardless of their use of VA healthcare.

ASCEND also examines risk and protective factors for NF-SSDV across social-ecological levels. Individual-level factors include constructs such as emotional and mental health, trauma exposure, healthcare access and help-seeking, firearm access, history of psychosocial stressors such as justice involvement and homelessness, military service history, and demographics (age, sex and sexual orientation, gender identity, race, ethnicity, education, relationship status, income and

financial crisis, employment). Relationship-level factors include family/household composition and care giving responsibilities, social connectedness and suicide loss. Community-level factors comprise community stigma, social cohesion, and community environment and problems. Societal factors (i.e., social determinants of health) will be assessed through linkage with publically available, national datasets (e.g., Agency for Healthcare Research and Quality Social Determinants of Health Database). Further, ASCEND assesses the impact of critical timely issues, such as the Coronavirus Disease-2019 (COVID-19) pandemic and experiences of discrimination, on veterans lives overall and in relation to NF-SSDV.

To achieve these goals, ASCEND comprises a multidisciplinary team of VA investigators and external subject matter experts in survey development and implementation. ASCEND has also included involvement from national leaders and veteran stakeholders through a Federal Partners Engagement Board (FPEB) and Veteran Engagement Board (VEB). The FPEB comprises leaders in other federal agencies tasked with large-scale, national health surveys and surveillance efforts (i.e., VA, Department of Defense, Centers for Disease Control and Prevention, National Institutes of Health, and Health Resources and Service Administration). Collaboration with the FPEB, through biannual meetings, aims to ensure ASCEND applies insights gained from other national survey surveillance initiatives. The VEB includes veteran partners from across the country who meet monthly to ensure that veterans' perspectives are integrated into the survey design, content, recruitment methods, and materials. Input from both the FPEB and VEB members have been integral to the success of ASCEND.

The development of ASCEND (which occurred from June 2018 to November 2020) focused on design of the survey instrument and data collection protocol. This included: (1) literature reviews to understand gaps in knowledge regarding NF-SSDV and its drivers in veterans; (2) reviewing existing NF-SSDV measures and designing alternative ways of assessing NF-SSDV comprehensively, succinctly, and via self-report; (3) determining best practices for efficiently assessing individual- and community-level factors of interest; (4) designing and obtaining approval for a secure, confidential, and user-friendly platform for collecting survey data; (5) developing a sampling frame representative of all living veterans; and, (6) developing a comprehensive recruitment protocol to engage veterans from diverse backgrounds based on geography (region and rurality), gender, race, ethnicity, and recency of separation.

In March and April 2020, the initial survey underwent cognitive testing with nine Veterans to assess respondents' understanding of survey items, explore their decision processes for responding to key questions, and examine the appropriateness of item directions and response categories (Alaimo et al., 1999). Results were used to refine survey content. Additionally, to ensure ASCEND findings were interpretable

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within the context of current events, questions were added to examine the impact of the COVID-19 pandemic and experiences of racial/ethnic discrimination.

In December 2020, the ASCEND pilot study launched, with the goal of obtaining survey responses from 500 veterans. The pilot aimed to establish survey response rates overall and within key subgroups, to test the impact of various design elements on response rates and bias, and to evaluate the psychometric performance of survey measures. Pilot enrollment ended in February 2021 and exceeded the recruitment target ( $N = 567$ ). Pilot findings were used to determine optimal methods for the first large-scale ASCEND survey, Wave 1, which will launch in February 2022. Both the pilot study and ASCEND Wave 1 oversample veterans historically underrepresented in suicide prevention research, including women, rural veterans, and those transitioning out of military service. In Wave 1, we will expand recruitment efforts to U.S. Pacific Island Territories to improve our understanding of NF-SSDV risk and drivers among Asian American and Pacific Islander veterans.

It is our goal for ASCEND Wave 1 findings to be leveraged to inform: (1) how to better tailor and target veteran suicide prevention programming both within the VHA and the communities in which veterans live; and (2) optimal ASCEND surveillance design to ensure recurring surveys are administered in an efficient and informative manner and adaptable to the changing needs and priorities within veteran suicide prevention.

In sum, by engaging veteran and federal partners in its design, as well as attending to risk and protective factors spanning the social-ecological model, ASCEND is poised to provide novel and critical information necessary to accelerate understanding of suicidal self-directed violence among veterans. We look forward to sharing findings from ASCEND, with the ultimate goal of providing new information essential to addressing this public health crisis and saving veteran lives.

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#### Declaration of Competing Interest

We have no conflicts of interest to declare with respect to the authorship and/or publication of this article.

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