

2022 Annual Survey



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Introduction

Mission Statement

Our mission is to partner with communities to prevent veteran suicide. Our programs accomplish this by starting at the community level and understanding the unique situations of veterans and their families. We connect local veteran-serving organizations with the appropriate resources, services, and partners that they need to support veterans, their families, and caregivers at every stage of veterans' lives. Our ultimate goal is to improve the quality of life for veterans and to end veteran suicide by empowering local communities to serve them proactively and holistically before a crisis occurs.

Our upstream approach to veteran empowerment is a four-step plan to Connect, Educate, Advocate, and Collaborate with veterans, their families, caregivers, and the communities that support them.

In pursuit of this mission, we have undertaken a critical initiative to gauge the impact of community involvement on veteran suicide rates. In 2020 suicide rate of veterans almost double the rate for the average population. ¹We at the Americas Warrior Partnership (AWP) believe that the best way to prevent veteran suicide is to get involved. We developed a survey to help understand the needs of our veteran community, and what issues they face in their daily lives. One way to assess the overall attitude of a veteran is through the Hope Scale Score. By conducting an in-depth survey, we endeavor to gain profound insights into the experiences, challenges, and aspirations of our veteran community. The Hope Scale Score, as a key metric, serves as a valuable indicator of the overall attitude and well-being of veterans. This report represents a significant step forward in our mission, offering a comprehensive analysis of survey results that will contribute to a better understanding of the complex issue of veteran suicide.

Furthermore, we recognize the power of cutting-edge technology, including artificial intelligence (AI), as a tool to model and predict the effects that community-based interventions have on the Hope Scale scores of veterans. Leveraging AI algorithms, we can analyze vast datasets and identify patterns and trends that might otherwise go unnoticed. This innovative approach enables us to gain a deeper understanding of which community initiatives are most effective in positively impacting the mental well-being of veterans, leading to higher Hope Scale scores.

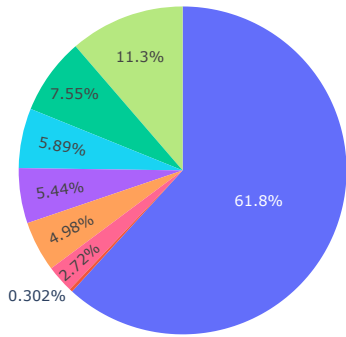
Through our four-step approach of Connect, Educate, Advocate, and Collaborate, we strive to engage with veterans, their families, caregivers, and the communities that support them in a holistic manner. We believe that this approach, rooted in community involvement, has the potential to bring hope and healing to our veterans in need and ultimately address the alarming rates of veteran suicide. This report is a testament to our commitment to making a positive difference in the lives of our veterans and ensuring that no one who has served our nation feels alone or without support in their time of need.

Survey Results

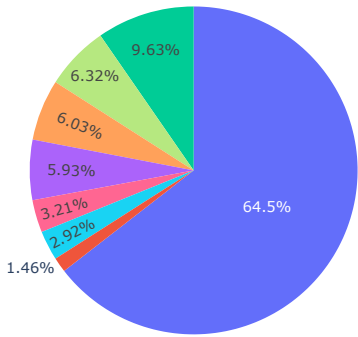
In order to best serve the veteran and service community, it is important to understand who they are, where they come from, and what challenges they are facing. This report encompasses a comprehensive set of questions designed to assess the multifaceted dimensions of community involvement and support for active military members, veterans, and their families. The inquiries spanned topics including the existence of a robust support network in the community, the impact of community involvement on individuals' mental health, the availability of vital services, and the connections forged among veterans and their families. Additionally, the survey explored the responsiveness and reliability of community support services, covering areas such as education enrollment, financial habits, and employment support. These questions collectively aimed to provide a holistic understanding of the role of community engagement in the lives of active military members, veterans, and their families, shedding light on the potential influence on overall well-being, satisfaction, and quality of life.

Demographics - Race

Non-Military Respondents



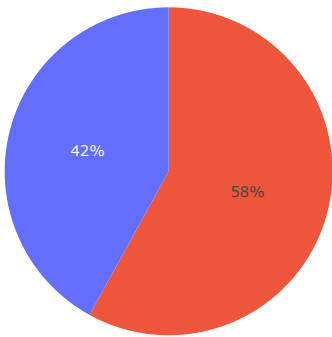
Military Respondents



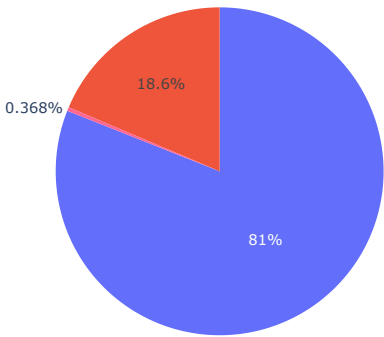
- White American
- American Indian or Alaska Native
- Black or African American
- Hispanic or Latino
- Native Hawaiian or Other Pacific
- Asian American
- Prefer not to answer
- Other/ Multi-racial

Demographics - Gender

Non-Military Respondents



Military Respondents



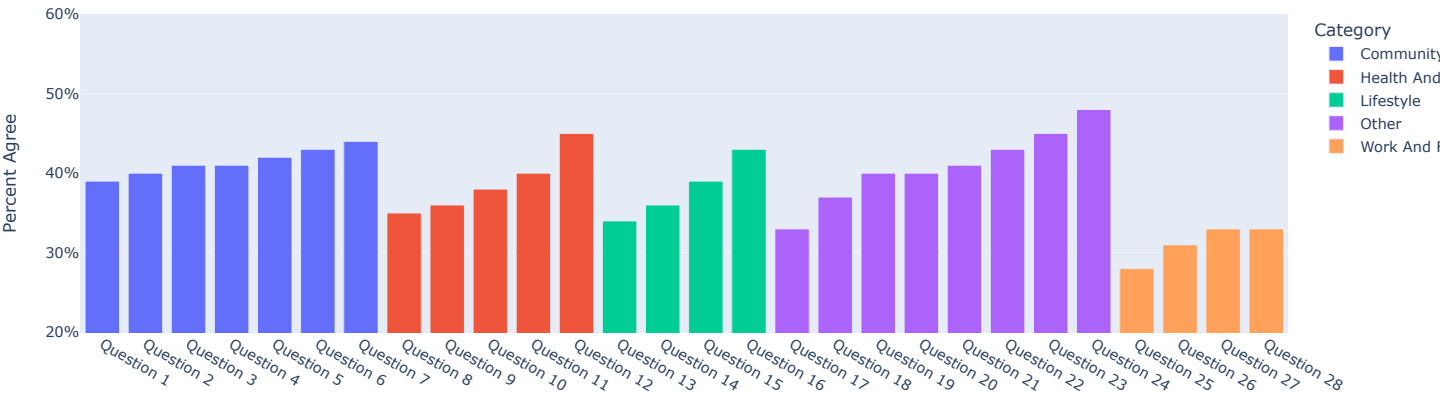
- Male
- Female
- Other

Community Involvement Questions

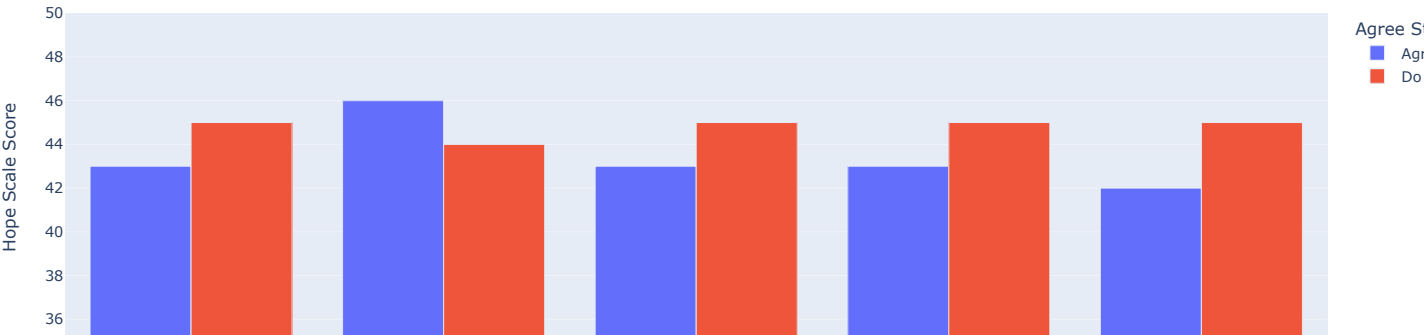
Number	Question
Question 1	There is a strong network of support for active military/veterans in my community?
Question 2	Have helped me feel more connected to my community?
Question 3	My community is invested in active military/veterans?
Question 4	There are opportunities for active military members/veterans in my community?
Question 5	Have improved my community's understanding of active military/veterans issues?
Question 6	Active military members/veterans can thrive in my community?
Question 7	Organizations in my community provide active military/veterans with the services they need?
Question 8	Has helped me improve my eating habits?
Question 9	Have assisted me with filing healthcare/benefits claims?
Question 10	Has reduced my level of daily stress?
Question 11	Have helped me become healthier overall?

Question 12	Care deeply about my well being?
Question 13	Have helped me secure stable housing?
Question 14	Has helped me improve my level of physical fitness?
Question 15	Has helped me feel more fulfilled in my daily life?
Question 16	Have connected me to recreational or volunteer opportunities?
Question 17	Have helped me navigate complex bureaucracies?
Question 18	Has empowered me?
Question 19	There are opportunities for my family/caregiver to connect with fellow military/veteran families/caregivers?
Question 20	Have connected me to other veterans?
Question 21	Have connected my family/caregiver to other active military/veteran family members or their caregivers?
Question 22	There are people I can depend on to help me if I really need it?
Question 23	I have the resources I need for my care?
Question 24	Are highly responsive?
Question 25	Have helped me enroll in school?
Question 26	Has helped me improve my financial habits?
Question 27	Have helped me find a job that can support me/my family ?
Question 28	Have helped me stay in my current job?

Community Involvement Results



Most Hope Scale Dependent Questions



Question 13

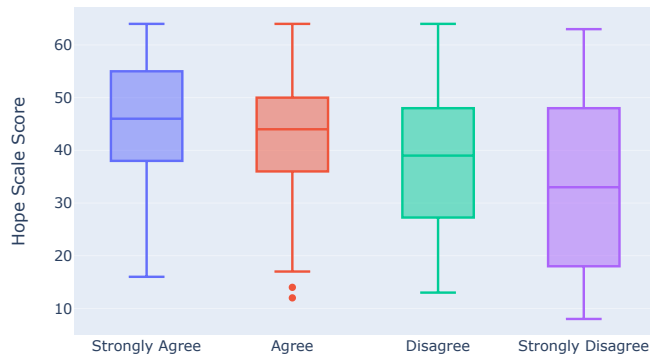
Question 23

Question 25

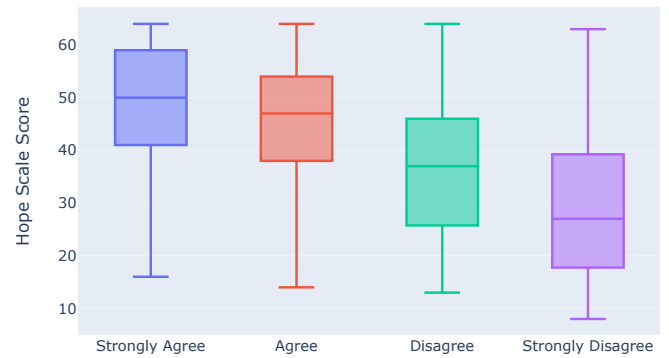
Question 27

Question 28

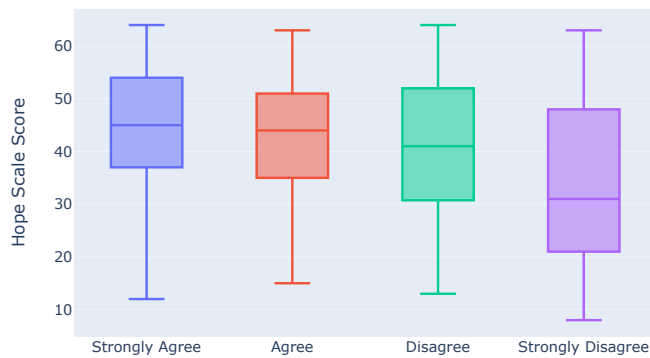
Question 13: Have helped me secure stable housing?



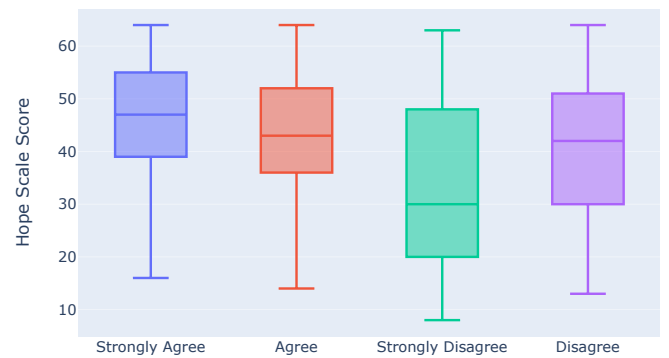
Question 23: I have the resources I need for my care?



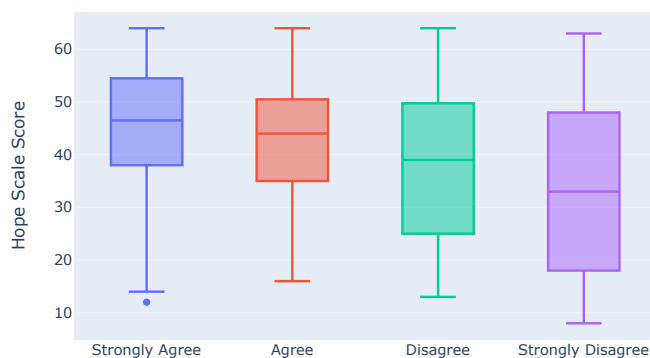
Question 25: Have helped me enroll in school?



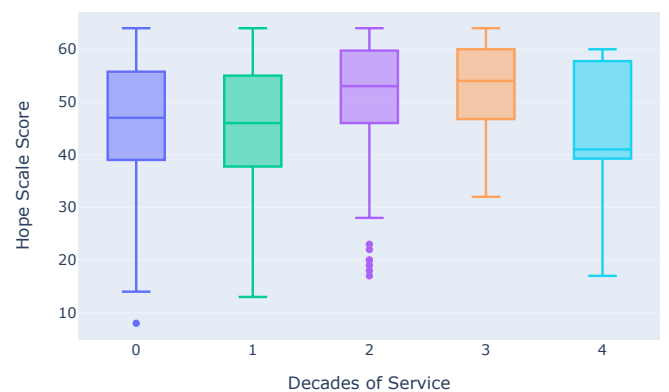
Question 27: Have helped me find a job that can support me/my family ?



Question 28: Have helped me stay in my current job?



Service Length Affect On Hope Scale Score



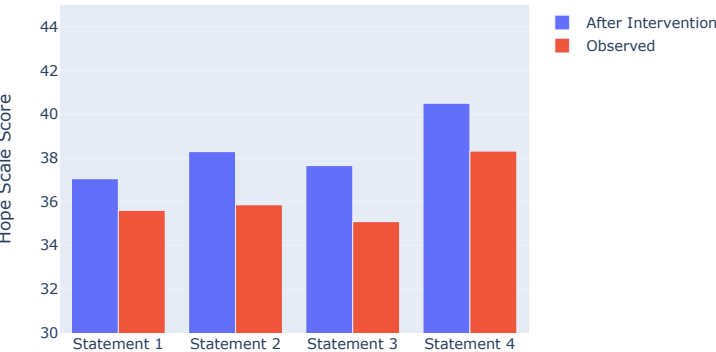
Estimating the effects of impact

In the quest to comprehensively understand the intricacies of veterans' well-being, this section embarks on an exploration of the effects of various impactful factors. We to unveil the relationships between certain actions that we as a community can take and their potential repercussions on the surveyed veteran population. The data-driven garnered from this analysis will shed light on the nuanced dynamics within the veteran community, offering a glimpse into how factors such as community involvement, support networks, and practical considerations may influence hope levels. The figures, "Determining the effects of impact" and "Net effects of impact", visually illuminate the quantitative outcomes of the implementation of remedies to these impact questions. Together, this section represents a vital piece of the survey results puzzle, providing valuable information that can guide targeted interventions and strategies aimed at bolstering the well-being and hope of veterans, ultimately contributing to our mission of preventing veteran suicide and enhancing the quality of life for those who have served our nation.

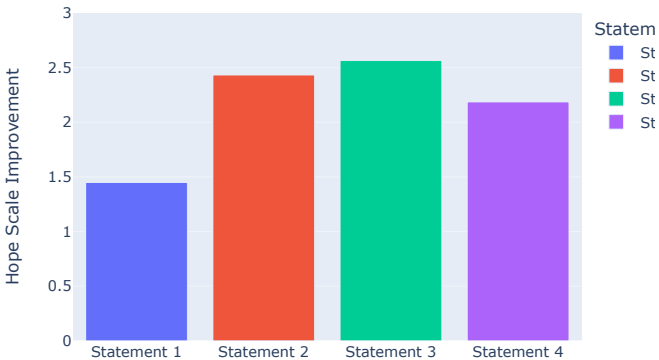
Key Findings

Impact Questions	
Statement Id	Impact Type
Statement 1	Veteran serving organizations care deeply about my well being?
Statement 2	Community is involved with veterans?
Statement 3	Has Dependable Support?
Statement 4	Owens a car?

Determining the effects of impact



Net effects of impact



Four different metrics can be used to quantitatively analyze the effects of intervention on each of the different impact types.

- 1. Hope Scale Score raw improvement. (Predicted mean score after intervention minus Observed mean Score)
- 2. Hope Scale Score percentage increase. - (one hundred times Observed mean Score divided by Raw Increase)
- 3. Hope Scale Score raw increase. - (Sum of Predicted score minus Observed score)
- 4. Percentage of service members positively impacted

Quantitative effects

- 1. Veteran Serving Organizations' Concern for Well-being: When veterans perceive that veteran-serving organizations deeply care about their well-being, the average Hope Scale Score experiences a notable increase of approximately 4.0% ($\pm 0.44\%$). This intervention positively impacts 18% of service men and women, resulting in an average Hope Scale Score improvement of 1.38 (± 0.15) and an overall raw score of 159 (± 17).
- 2. Community Involvement with Veterans: The extent of community involvement with veterans contributes to an average Hope Scale Score increase of approximately 2.0% ($\pm 0.26\%$). This positive impact is observed in 21% of service men and women, resulting in an average raw Hope Scale Score improvement of 0.88 (± 0.09) and an overall raw score of 304 (± 31).
- 3. Dependable Support: Veterans who have dependable support experience a significant increase in their average Hope Scale Score, amounting to approximately 6.9% ($\pm 0.96\%$). This intervention positively affects 15% of service men and women, leading to an average raw Hope Scale Score of 2.43 (± 0.34) and an overall raw score of 470 (± 48).
- 4. Ownership of a Car: The ownership of a car is associated with a substantial average Hope Scale Score increase of approximately 7.02% ($\pm 0.72\%$). This impact is observed in a substantial 35% of service men and women, resulting in an average raw Hope Scale Score improvement of 2.67 (± 0.28) and an overall raw score of 470 (± 48).

These findings underscore the significance of community involvement, dependable support networks, and practical considerations like car ownership in positively influencing hope levels of veterans. The quantified impacts of these factors provide valuable guidance for targeted interventions and strategies aimed at enhancing the well-being and quality of life for those who have honorably served our nation.

Predictive Modelling Of Hope Scale Score

The predictive modeling of Hope Scale Scores represents a pivotal step in comprehending the factors that influence the levels of hope among veterans. This section employs a robust modeling approach, primarily utilizing the Random Forest Regressor, to delve into the intricate interplay between the Hope Scale Scores and a range of impact questions. These questions, carefully selected based on their predictive power, encapsulate diverse aspects of community involvement, support networks, and practical considerations such as car ownership. Through the application of advanced statistical techniques, including cross-validation, null hypothesis testing, and validation against a Linear Regressor, we

establish robust relationships and determine the significance of these questions in shaping veterans' well-being. Overall the model had a mean relative error of predicting 1 Scale Score of ~ 4.4 % ($\alpha < 0.001$).

Modeling Method And Design

The modeling process employed advanced statistical methods, including regression analysis and machine learning algorithms, to unveil the intricate connections between Scale Scores and the impact questions. The model was thoughtfully designed to account for a myriad of factors that might impact hope levels, thereby facilitating a comprehensive assessment of the effects of these questions on veterans' overall well-being. Utilizing the differences between predicted means and observed means, along with Spearman correlation for continuous predictors and ANOVA for categorical predictors, the model was fine-tuned to capture the nuanced relationships.

The analysis revealed a set of pivotal predictive features that significantly influenced Hope Scale Scores. Among these influential factors were:

- Duration of receiving information or resources from community veteran service providers.
- Perception of the community's ability to support the thriving of active military members/veterans.
- Household annual income for the previous year.
- Credit score.
- Responsiveness of veteran-serving organizations.
- BMI.
- Community involvement with veterans.
- Availability of community opportunities.
- The presence of dependable support.
- Empowerment.
- Fulfillment in daily life.
- Ownership of reliable transportation.
- Assistance with filing healthcare/benefits claims.
- Connections to other veterans and their families/caregivers.
- Improvements in the community's understanding of active military/veterans issues.
- Spiritual or religious practices participation frequency.
- Satisfaction with education benefits and programs.
- Ability to adapt to changes.
- Resources availability for care.
- Resilience after hardships.
- Number of deployments.
- Community organizations providing necessary services.
- Overall satisfaction with the community's ability to provide information and resources.
- Car ownership.
- Value-seeking behavior.
- Opportunities for family/caregiver connections with fellow military/veteran families/caregivers.
- Perceived strength of the support network for active military/veterans in the community.

These findings underscore the intricate web of factors that contribute to veterans' hope levels and serve as a vital resource for informing targeted interventions and strategies at enhancing hope and overall well-being among veterans. By understanding the impact of these questions, we can advance the mission of preventing veteran suicide and the quality of life for those who have valiantly served our nation.

Creation of Derived Factors Using Factor Analysis

The creation of derived factors through factor analysis is a valuable technique in simplifying complex datasets, identifying latent variables, and extracting meaningful patterns from the data. In our analysis, we applied factor analysis to the provided features, resulting in the generation of distinct factors that encapsulate shared variance among the original features. These factors serve as a means of reducing dimensionality while retaining critical information, enabling a more interpretable and concise representation of the data.

Factor analysis revealed four factors, each characterized by a set of original features that exhibited strong interrelationships. These factor names reflect themes and underlying constructs they capture:

Factor: Service and Financial Profile

This factor encompasses features related to military service duration, financial attributes, and interactions with veteran service providers. It provides insight into the financial service-related aspects of the surveyed population.

Factor: Deployment and Resource Seeking

This is characterized by features related to deployment history, the pursuit of value, and seeking various resources and benefits. It sheds light on the deployment experience and resource-seeking behaviors of the surveyed individuals.

Factor: Health and Community Engagement

This factor is marked by features associated with health, community engagement, and participation in a range of events and activities. It offers insights into the health status and community involvement of the respondents.

Factor: Transportation and Adaptability

This factor comprises features related to transportation, adaptability to change, and housing status. It provides a comprehensive view of transportation modes, adaptability, and housing situations within the surveyed population.

The creation of these factors enhances our ability to analyze and interpret the data effectively. By condensing multiple related features into a smaller set of factors, we gain a deeper understanding of the underlying structures and relationships within the dataset. These factors can serve as valuable variables in subsequent analyses, simplifying the complex dataset while preserving its informative content.

It is important to note that factor analysis is an exploratory technique, and the factor names are assigned based on the interpretation of the features comprising each factor. The factor names provide a high-level summary of the shared characteristics within each factor, facilitating a more intuitive understanding of the data's underlying structure.

Conclusion

This report represents a significant step forward, offering a comprehensive analysis of survey results that contributes to a better understanding of the complex issue of veteran suicide. Specifically, our analysis revealed that factors like veterans' perception of the care offered by veteran-serving organizations, the extent of community involvement, dependable support networks, and car ownership all play significant roles in positively influencing hope levels. These quantified impacts provide valuable guidance for targeted interventions aimed at enhancing the well-being and hope of veterans, aligning with our mission to prevent veteran suicide and elevate the quality of life for those who have honorably served our nation. Four distinct factors were identified, each reflecting shared variance among original features. These factors encompassed service and financial, deployment and resource-seeking behaviors, health and community engagement, and transportation and adaptability. They provide a more interpretable and concise representation of the data.

of the data, facilitating a deeper understanding of veterans' experiences. This comprehensive report combines survey insights, predictive modeling, and factor analysis to multifaceted view of the challenges and opportunities within the veteran community. Armed with these findings, we are better equipped to implement targeted interventions strategies that enhance hope, well-being, and the overall quality of life for veterans, ensuring that their sacrifices are met with the support and care they deserve. Together make a lasting impact on the lives of those who have served our nation.

Appendix

Sources

1. <https://www.mentalhealth.va.gov/docs/data-sheets/2022/2022-National-Veteran-Suicide-Prevention-Annual-Report-FINAL-508.pdf>