The best they can be
Veterans and active-duty military still struggle with mental health, but data and analytics can help.

Civil War soldiers knew it as “soldier's heart.” For those in World War I, the condition was called “shell shock.” It’s even mentioned in Shakespeare’s Henry IV. Throughout history and literature, post-traumatic stress disorder has been the de facto poster child of mental health issues in the military. But it’s not the whole story.

With time and insight, we’ve learned the mental challenges military members face are both more complex and more common than once thought. In 2018, the suicide rate of active-duty soldiers was 24.8 per 100,000, up from 21.9 in 2017. Veterans are 1.5 times more likely to die by suicide than non-veterans, after adjusting for differences in age and sex.

These troubling statistics have compelled many in and outside the government to take action. In the last decade, the U.S. Departments of Defense and Veterans Affairs have received increased financial and political support for mental health and suicide prevention. The U.S. Senate earlier this year approved landmark bi-partisan legislation that increases rural access to VA counselors and telehealth services, offers alternative therapy options like yoga and acupuncture and bolsters the VA’s mental health workforce.
Businesses are stepping up as well. Leidos, a science and technology solutions leader, is one of the largest health IT service providers to the VA, continuing the company’s long-standing commitment to military members and their families. From operating counseling programs to optimizing electronic health record systems, Leidos’s work ensures service members get the help they need more efficiently than ever.

**Bridging a gap**

Despite these efforts, a persistent gap remains in mental health care. Many active-duty military members don’t take advantage of the programming available to them, and about half of surveyed veterans don’t receive the counseling they need.

Why the divide? One reason is a simple lack of awareness. Many service members don’t know about the VA’s mental health resources, where to go, how to apply—or even that they needed help to begin with. Another is fear of the stigma attached to seeking counseling. While the larger society has made great strides in these areas, encouraging active duty military members to report psychological health issues is still a problem, especially since it can have career consequences, such as loss of security clearance.

From their research and experience, the behavioral health experts and clinicians at Leidos have found that early prevention and normalization are two keys to overcoming these barriers. Many of the programs they develop and manage embrace an outreach model, such as the landmark Adolescent Support and Counseling Service, which was started in 1987 to provide counseling for military dependents suffering from substance abuse. In the program’s first 30 years, Leidos has served 20,000 adolescents—statistically one of the most at-risk populations—without a single suicide.

By introducing programs like ASACS aimed at adolescents, counselors can help the young people who make up much of the active duty military force (most new recruits are under the age of 25) before mental health issues manifest. And if such problems emerge later in their military careers, whether it’s PTSD or other common disorders such as anxiety or depression, service members are better equipped to seek support.

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“It [mental health] is not just a question of exposure to traumatic situations,” said Louis Valente, a Leidos clinical supervisor who served two tours of duty in the Vietnam War with the U.S. Army’s Special Forces. “So much of what a service member brings into the military is from their family of origin. Many come from poverty, domestic violence, and substance abuse. Those issues don’t go away by virtue of putting on a uniform. I think we’d come a long way if we follow young inductees through their service in a less invasive capacity.”

Valente also credits the overwhelming success of ASACS with providing his team access to the broader military—an important step in erasing the stigma of mental health care. “It bought us an entry into working with command, which is important when talking about normalization of mental health,” he said. “We had the opportunity to brief local commanders on developments and risk factors in their specific community. We need to bring that more within the military culture.”

The intersection of data and holistic mental health

Data and analytics offer another strategic insight into how we can lower suicide risk and provide the military with the best possible mental health care. By parsing through vast databases of patient information, linking datasets like medical records, personal data and service information, and applying complex modeling and statistical measures, analysts can determine patients most at risk for mental illness, as well as the best and most effective treatment.

Thanks to a 50-year relationship with the federal government and 40 years serving the VA, Leidos has become a leader in this space with an unprecedented level of research and data across the continuum of military service, from recruitment to retirement.

“As scientists progress and we receive better data, we can actually come up with signature programs at scale,” said Michael D. Lumpkin, head of human performance, who is a former Navy officer and was Assistant Secretary of Defense for Special Operations and Low Intensity Conflict during the Obama administration. “We have to take the individual and make them the best possible individual they can be.”

“We’re looking at the whole continuum—from working with the data in our electronic health record business to the research that our group does to then providing information to clinical decision-makers and providers that can translate to patients.”

Kevin Kaiser, Vice President and Division Manager Biobehavioral Research, Leidos
The Human Performance and Behavioral Health division at Leidos takes it one step further, conducting human subject and data-based research on physical and psychological health in multiple test environments, including virtual reality. Their work, which focuses on the entire deployment cycle, has led to notable discoveries such as how the use of morphine in-theatre to treat significant bodily injury can minimize long-term psychological health issues like PTSD. That finding may have implications for other disorders such as suicide and insomnia. The division currently is running a study on the effectiveness of surf therapy as an intervention for PTSD and depression.

“We’re looking at the whole continuum—from working with the data in our electronic health record business to the research that our group does to then providing information to clinical decision-makers and providers that can translate to patients,” said Kevin Kaiser, vice president and division manager of Biobehavioral Research at Leidos.

Leidos also recently launched Military Health System Genesis, the new electronic health record system for the DOD, a tool that is poised to bring in a new era of more informed choices and early detection of suicide risk. With even more data at their fingertips, analysts hope to seamlessly connect the dots between studies and the real world.

But integrating years of longitudinal data into clinical workflows and sharing that information among organizations also presents challenges. To bridge this knowledge-sharing gap, the DOD and the VA in April implemented a new capability for sharing electronic health records with community partners.

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“We have great data on our active-duty military,” Kaiser said. “But once people leave active duty, it’s sometimes very difficult to see what type of things they’re getting treated for and their longer-term health care.” Linking the active-duty and VA datasets offers the power of creating a holistic picture from start to finish.

“There are almost 1.5 million people on active duty right now, and not one of those 1.5 million people are the same,” Lumpkin said. “But if we have enough data, we can create programs at scale to support everybody as an individual to optimize their performance, have readiness on the battlefield, and provide them with good lives and a good future. I think it’s a noble goal we need to strive for.”