

## Service Delivery Innovation Profile

# Anonymous, Online Program and Peer Support Enhance Veterans' Access to Behavioral Health Services, Reduce Posttraumatic Stress Disorder and Depressive Symptoms

Innovation

## Snapshot

### Summary

Vets Prevail is an anonymous, on-line program that seeks to enhance access to behavioral health services for veterans who are reluctant to seek such care, with the goal of reducing psychological distress and promoting adjustment to civilian life. Through a dynamic, interactive interface, the program offers seven self-paced modules based on cognitive behavioral theory, an evidence-based approach to reducing symptoms associated with posttraumatic stress disorder and depression. The program features avatars, messages, and vignettes that are customized, based on the user's experience and stage of life; access to peer support through one-on-one chats and community message boards; and incentive programs that encourage users to stick with the program. In various studies, Vets Prevail has enhanced access to behavioral health services (in part by reducing the stigma associated with doing so) and generated significant improvements in symptoms related to posttraumatic stress disorder and depression and high levels of satisfaction among users. The symptom reductions are comparable to those seen with inperson therapy, at a fraction of the cost.

### Evidence Rating [\(What is this?\)](#)

**Strong:** The evidence consists of multiple studies, including a randomized, controlled trial and two studies evaluating key metrics before and after program implementation. These studies assessed the program's impact in various areas, including the stigma associated with accessing mental health treatment, symptoms related to posttraumatic stress disorder and depression, and functional status.

### Date First Implemented

2009

The initial trial of the program began in September 2009.

### Problem Addressed

**Many veterans experience posttraumatic stress disorder (PTSD) and depression, which increase the risk of various related problems, including divorce, suicide, and difficulties functioning and holding down steady employment. Despite these risks, the vast majority of veterans facing mental health issues do not seek treatment. The reluctance to seek care is itself a symptom of PTSD and also is driven by other factors, including perceived stigma related to seeking help, geographic barriers, and other systemic barriers to accessing care.**

- **Increased risk of PTSD, depression, and related problems:** A 2009 study estimated that roughly 300,000 U.S. veterans are coping with some form of psychological problems, such as depression or PTSD.<sup>1</sup> Between 17 and 22 percent of all veterans who have returned from Iraq and Afghanistan have PTSD and/or depression.<sup>2</sup> The average level of distress experienced by these veterans is 4.5 times higher than that experienced by civilians.<sup>3</sup> Veterans with PTSD and/or depression face an increased risk of various problems, including twice the risk of committing suicide as civilians.<sup>4</sup> They also often have problems functioning on a daily basis, frequently have troubled and tumultuous relationships with family and friends, and commonly turn to alcohol and/or drugs to help in dealing with their problems.<sup>5,6,7,8,9,10</sup> As a result, veterans tend to have more difficulty holding down a job and maintaining relationships; in fact, compared

with nonveterans, military personnel are four times more likely to be unemployed and three times more likely to get divorced.<sup>5</sup>

- **Failure to access mental health treatment:** Up to 77 percent of veterans with PTSD and/or depression do not seek mental health treatment. The failure to seek treatment stems in part from the nature of PTSD, a symptom of which is the desire to avoid any reminders of the trauma.<sup>11</sup> Other barriers exist as well, including the stigma associated with seeking help (many veterans view seeking help as a sign of weakness<sup>12</sup>), the need to travel long distances for inperson care, inadequate supply of caregivers within the military medical system, and other systemic barriers.<sup>13</sup>

## **Patient Population**

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Vulnerable Populations > Mentally ill; Military/Dependents/Veterans

### **Description of the Innovative Activity**

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**Vets Prevail is an anonymous, online program that seeks to enhance access to behavioral health services for veterans reluctant to seek such care. Through a dynamic, interactive interface, the program offers seven self-paced modules based on cognitive behavioral therapy (CBT). The program features avatars, messages, and vignettes that are customized based on the user's experience and stage of life; access to peer support through one-on-one chats and community message boards; and incentive programs that encourage users to stick with the program.** Key program elements are detailed below:

- **Marketing to target users:** Prevail Health Solutions (which developed the program) and the U.S. Department of Veterans Affairs (VA) promote the availability of Vets Prevail to veterans who might benefit from it. The VA distributes descriptive materials and features the program on relevant portions of its Web site. Prevail Health Solutions does the same and uses paid and unpaid advertising and marketing on various social media platforms. Many veterans learn about the program through word of mouth, including via social networking sites. Those who are interested come to a Web site that provides more information about the program; the site generates visits from about 20,000 unique users each month, with roughly 1,000 deciding to use the program.
- **Anonymous enrollment and initial assessment:** Those interested in program services enroll anonymously by creating a user name (which need not be their real name) and password and providing an e-mail address. As part of this process, the user enters basic demographic and symptom-related information that allows the program to customize the services offered. The enrollment and assessment process typically takes less than 5 minutes. The following information is also requested:
  - **Demographic information:** This information includes age, gender, ethnicity, level of education, employment status, family status (e.g., married or single, children), dates of military service (including branch of service), and ZIP Code.
  - **Behavioral health symptoms:** Users answer very brief questions related to behavioral health symptoms they may be experiencing. The assessment includes questions from several clinically validated tools to measure levels of PTSD and depression and to determine how the veteran is functioning in everyday life. Users complete these assessments at enrollment and on a periodic basis throughout the program to gauge their progress. As part of this process, the program ascertains the level of distress concerning a variety of potential life stressors, including romantic relationships, friendships, educational needs or concerns, unemployment or work-related stresses, financial problems, and potential alcohol and substance abuse issues.
- **Structured, customized, self-administered modules based on CBT:** The core of the program consists of seven modules based on CBT that veterans can access via the Internet. Veterans complete the modules at their own pace, typically taking about 3 weeks to do so (though they can be completed in as little as a week and a half). The program is highly structured based on CBT principles, yet at the same time customized to the specific needs of the user, as outlined below:
  - **Structured content based on CBT:** The program begins by providing background information to users on CBT, including how it works and what they can expect from it. CBT seeks to break the cycle of negative emotions, which can lead to negative behaviors and thoughts. To that end, two lessons cover

general CBT concepts, two lessons focus on thoughts and emotions (a separate module on each), two focus on behaviors, and a final module provides a recap and summary of what the user has learned and accomplished. Throughout the process, users receive specific assignments that must be completed before moving to the next step, with the tasks assigned being tailored to the veteran. As appropriate, the program refers users to additional modules on issues they may be facing, such as substance abuse or eating disorders.

- **Customized interface and content:** Based on the demographic information provided and the veteran's current mental health status and challenges, the program creates a customized path through the seven self-directed lessons. For example, the program creates a personal avatar matched for gender, ethnicity, and marital status. The program also uses customized story lines and vignettes that frame the content within topics and issues personally relevant to the veteran. Veterans facing stresses related to their spouse or children will be presented with situations and scenarios that incorporate those stresses, while those who are not married or do not have children will be given different scenarios customized to their unique circumstances. In a module about stress, veterans who are students might be presented with a scenario where a teacher scolds them for failing to complete an assignment, while a housewife might be presented with a scenario where her children are misbehaving. Scenarios and content also vary based on the specific behavioral health issues the veteran is dealing with—for example, they will be different for those struggling with depression than for those with an anxiety or eating disorder.
- **One-on-one peer support:** Trained coaches, who are also veterans, guide and support users throughout the process. At any time, users can request to "chat" with a peer coach by clicking on a link that is always visible on the screen. This link opens up an anonymous, instant-messaging chat with a peer coach, and coaches are available most hours of the day (except in the very early hours of the morning). The system provides coaches with relevant information on users requesting the chat (e.g., demographic profile, major behavioral health issues and challenges) and offers suggested conversations and other prompts based on this information. As a result, coaches are in a position to answer questions veterans may have, ranging from simple ones, such as how to log in to the system, to more complex questions related to completing required tasks or homework associated with the modules. As part of the CBT content, Vets Prevail also proactively encourages users at various structured points within the modules to open the chat window and engage with a peer coach. During these interactions, the coach introduces himself/herself and engages in a conversation designed to ensure that the veteran understands the CBT-based material. The program also proactively suggests that a veteran chat with a coach if his or her interactions with the system suggest high levels of distress. During these interactions, the coach will assess the veteran's current mental health needs and facilitate access to additional resources if needed.
- **Online community support networks:** The program allows veterans who are currently using the system and those who have graduated from it to interact online through community message boards where questions are posted and answered. These virtual community networks provide an opportunity to garner social support from other veterans who are struggling or have struggled with similar issues. Program graduates who post particularly motivational or helpful comments may be asked to play a more active role in the community space as a mentor to others.
- **"Soft" referral to local resources for those with severe problems:** Whenever an assessment, user-coach chat, or other information provided by the veteran indicates severe levels of distress and/or major problems with daily functioning, a message pops up on the screen program that strongly encourages the veteran to seek additional support. To facilitate access to such support, the system can automatically connect a user to the closest VA intake coordinator, the VA's 24-hour crisis hotline, and/or therapists in the area who volunteer to provide an hour a week of counseling to veterans as part of the Give an Hour Foundation.
- **Incentive points redeemable for prizes:** Veterans earn points for each module they complete and for specific tasks within modules, with the program keeping track of all points earned. Points can be redeemed through an automated system for gift cards and other rewards.

### **Context of the Innovation**

Prevail Health Solutions is a health care technology company that builds and delivers systematic online behavioral health programs designed to reach those reluctant to seek care. The company was originally founded to help address high-profile behavioral health issues in veteran and military populations.

The impetus for Vets Prevail came from Richard Gengler, chief executive officer of Prevail Health Solutions and a former Navy pilot who served in the Iraq war. While studying at the University of Chicago School of Business, Mr. Gengler became friends with a primary care physician (also a veteran) who often commented on how many of his patients had underlying behavioral health issues but refused to see a psychologist. The physician impressed on Mr. Gengler the need for online avenues to help these patients.

## Results

**In various studies, Vets Prevail has enhanced access to behavioral health services for veterans reluctant to seek such services (in part by reducing the stigma associated with doing so) and generated significant improvements in PTSD and depression-related symptoms and high levels of satisfaction among users. The symptom reductions are comparable to those seen with inperson therapy, at a fraction of the cost.**

- **Enhanced access among those reluctant to seek behavioral health services:** Vets Prevail has enhanced access to behavioral health services among veterans previously resistant to seeking and/or otherwise unable to access such care. For example, roughly 80 percent of all users had not previously sought any health care services (including behavioral health services) through the VA before enrolling in the program. In addition, 60 percent of users come from rural areas with no nearby VA facilities. Several studies have shown that Vets Prevail reduces the stigma associated with accessing behavioral health services. In a randomized trial known as VEST (Veterans' Empowerment over Stress Trial) conducted in partnership with Rush University and the Bristol-Myers Squibb Foundation to test Vets Prevail among 309 veterans, participants showed a slight decline in the stigma associated with accessing mental health care during the 12-week period after enrollment, while those in the control group exhibited a slight increase in stigma scores over this period. (This difference suggested a trend toward less stigma, but did not meet the test of statistical significance.)<sup>13</sup> An earlier study comparing pre- and post-implementation outcomes found that the program significantly improved veterans' willingness to accept a mental health diagnosis and reduced perceived social norms and stigma associated with seeking treatment.<sup>14</sup>
- **Reductions in symptoms comparable to inperson care:** Multiple studies have shown that Vets Prevail generates reductions in depression and PTSD symptoms comparable to those achieved through inperson care.
  - **Fewer PTSD symptoms:** In VEST, participants reported statistically significant reductions in PTSD symptoms over the 12-week period following enrollment, while those receiving usual care reported a slight worsening of symptoms over the same period. After 12 weeks, the average Vets Prevail participant no longer met the clinical criteria for PTSD. Additional analyses found that the program worked equally well for men and women and for minorities and nonminorities, regardless of the level of trauma experienced by the veteran. The program was particularly helpful in making veterans feel less "on guard," distant and cut off from others, and emotionally numb, while also reducing the frequency of disturbing thoughts and memories.<sup>13</sup> The earlier study showed similar results, with participants exhibiting statistically significant declines in PTSD symptoms.<sup>14</sup> A recent study of 2,215 veterans who used the program also found that it led to significant declines in PTSD severity, with the average participants' posttreatment severity of symptoms being below the clinical threshold indicating probable PTSD.<sup>15</sup>
  - **Fewer depressive symptoms:** The VEST trial found similar results with respect to depression, with Vets Prevail participants experiencing statistically significant reductions in symptoms while those in the control group experienced a slight worsening of symptoms. As with PTSD, the average Vets Prevail participant no longer met the clinical criteria for depression after completing the program. Additional analysis found the program helped women more than men (although it produced statistically significant declines in symptoms for both genders), worked equally well for minorities and nonminorities, and worked equally well regardless of the level of trauma experienced by the veteran. The program was particularly effective in helping veterans concentrate, feel happier, and be less bothered by negative thoughts.<sup>13</sup> The earlier study showed similar results, with participants exhibiting statistically significant declines in depressive symptoms.<sup>14</sup> The recent study of 2,215 veterans also found that the program significantly reduced depression-related symptoms and anxiety, with the average participant falling below the clinical threshold indicating probable depression or general anxiety disorder.<sup>15</sup>

- **High satisfaction:** Overall, 90 percent of users reported being very or mostly satisfied with the program, with 94 percent saying they would recommend it to a friend dealing with combat-related and/or postdeployment stress.<sup>15</sup>
- **Much lower costs than inperson care:** Program leaders estimate that Vets Prevail costs no more than two percent of what it costs to deliver similar services in person. At scale, estimated program expenses would be only 0.5 percent of the costs of inperson care.

### **Evidence Rating** ([What is this?](#))

**Strong:** The evidence consists of multiple studies, including a randomized, controlled trial and two studies evaluating key metrics before and after program implementation. These studies assessed the program's impact in various areas, including the stigma associated with accessing mental health treatment, symptoms related to posttraumatic stress disorder and depression, and functional status.

### **Planning and Development Process**

Key steps included the following:

- **Mapping out concept:** A small group of individuals, including Mr. Gengler, the aforementioned primary care physician, and others with backgrounds in CBT, technology, and/or issues facing veterans, began mapping out the concept behind Vet Prevails, including how it could work from a technological perspective. As part of this process, the group founded Prevail Health Solutions.
- **Securing funding:** Prevail Health Solutions applied for and received a Small Business Innovation Research (SBIR) grant from the National Science Foundation (NSF), one of 12 Federal agencies that offer SBIR grants. (SBIR functions as a "venture-capital" model for the government, providing funding to companies to support development of new technologies to serve the public sector.) In 2009, NSF provided phase-one funding to support proof-of-concept work related to the program, and over the next 2 years provided additional funding to support bringing the product to market (phase two) and making it commercially viable (phase three).
- **Building, testing, and refining program:** During the 3-year period when NSF funds were available, the development team varied in composition and size but typically involved 20 individuals. During this time, various members of the team conducted focus groups with target users, designed and built the program, and tested it in several pilots. While much of this work was supported by NSF funds, other foundations also supported the pilot tests and research studies. (The Funding Sources section provides more details on these organizations.)
- **Hiring and training peer coaches:** Throughout the development and testing process, program leaders hired and trained veterans as needed to serve as peer coaches. Each new hire completed two types of training. The first training session consisted of a 1-week, full-time course conducted by the VA that led to certification as a veteran peer specialist. The second session involved roughly 40 hours of training, delivered over a 2-week period, focused on the Vets Prevail system and model. As needed and based on demand for services, program leaders continue to hire and train veterans to serve as peer coaches.
- **Integrating with VA for additional pilot test and randomized trial:** In early 2012, funding from Goldman Sachs Gives allowed program leaders to conduct a national pilot test of Vets Prevail in partnership with the VA. This study required integrating the program with existing VA systems (e.g., intake centers, the crisis hotline), thus ensuring that veterans with severe issues could receive seamless referrals to additional VA resources. Following this successful pilot, Bristol-Myers Squibb Foundation provided funding to conduct a full-scale, randomized trial with the VA in 2013.
- **Partnering nationally with VA:** Based on the success of the various studies, Prevail Health Solutions and the VA entered into a formal partnership on November 1, 2013, to make Vets Prevail available to any veteran. Through this partnership, both organizations work proactively to identify those who might benefit from the program.

### **Resources Used and Skills Needed**

- **Staffing:** As noted, the upfront development, testing, and refinement of the program involved a group of up to 20 individuals working over a period of several years. On an ongoing basis, the program employs veterans who support users as peer coaches and makes use of volunteers who serve as mentors for the community message boards.

- **Costs:** Specific data on program-related costs are not available. As noted, program leaders believe that the costs of delivering CBT services through the program are a fraction of what it would cost to deliver similar services through inperson visits.

### **Funding Sources**

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On an ongoing basis, the VA pays for Vets Prevail services through a national contract with Prevail Health Solutions. As noted, NSF provided significant funding to support development and testing of Vet Prevails through SBIR grants. In addition, the Robert R. McCormick Foundation, the Bristol-Myers Squibb Foundation, Goldman Sachs Gives, and the Robin Hood Foundation provided grant funding to support evaluation of the program through various pilot tests and other studies. The Iraq and Afghanistan Veterans of America (a national advocacy organization supporting veterans) supported recruitment for one study through targeted e-mail campaigns and strategically placed advertising banners on Web sites frequently used by veterans. On an ongoing basis, the 5,000 psychologists who are members of Give an Hour (a nonprofit foundation founded by a psychologist) provide an hour of free counseling each week to veterans and their family members, some of whom are users of Vets Prevail.

### **Getting Started with This Innovation**

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- **Elicit input from target population:** A build-it-and-they-will-come approach will not get reluctant care seekers to access mental health services. Instead, program leaders must systematically get input from and otherwise involve members of the target population in all aspects of upfront planning and development, including eliciting input on how to overcome the major barriers that limit access to traditional inperson care. Without such input, the resulting program may not work in the real world, leading it to be underused.
- **Find right partners:** Timely and effective deployment of this type of program requires the formation of partnerships with organizations interested in being leaders and innovators in the behavioral health field. In many cases, traditional partners might not want to be at the forefront, preferring instead to follow more closely on the heels of others. Consequently, program leaders need to find partners willing to break down traditional barriers, including those willing to support and pay for virtual/online CBT services that traditionally have been available only through inperson visits.

### **Sustaining This Innovation**

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- **Monitor and share data on program impact:** Regularly collect, analyze, and share data demonstrating the positive impact of the program with key stakeholders, including current and potential funders.
- **Consider expansion to other groups of reluctant care seekers:** Roughly 60 million people in the U.S. suffer from mental health issues, and many are reluctant to seek help and/or otherwise find it difficult to access behavioral health services. Consequently, this type of program has the potential to enhance access to behavioral health care for these populations as well.

### **Spreading This Innovation**

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As noted, Vets Prevail expanded over time from pilot testing with discrete populations to a national service available to any interested veteran. In addition, Prevail Health Solutions has completed development of similar applications for other populations that face barriers to accessing mental health services, including active duty military personnel (Warriors Prevail), college-aged students (Students Prevail), employees with behavioral health issues (iPrevail), and women with postpartum depression (Women Prevail). These programs are in various stages of testing and evaluation.

### **Contact the Innovator**

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*Note: Innovator contact information is no longer being updated and may not be current.*

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### **Innovator Disclosures**

Mr. Gengler reported holding a controlling economic interest in Prevail Health Solutions, LLC, which developed Vets Prevail along with similar applications for other populations. Prevail Health Solutions has a national contract with the U.S. Department of Veterans Affairs to offer Vets Prevail to veterans.

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### **Footnotes**

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## **Contact the Innovator**



## **Funding Sources**

National Science Foundation

U.S. Department of Veterans Affairs

## **Developers**

Prevail Health Solutions

## **Comments**

### **Congratulations**

BY MARY BETH SCHOENING ON THU, 2014-10-30 21:03

Congratulations on work well done. Thanks for sharing information about the process, and good luck applying this proven methodology/program to other populations.

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