



# Strategies for Suicide Prevention in Veterans

**EXECUTIVE SUMMARY**

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## PREFACE

VA's Health Services Research and Development Service (HSR&D) works to improve the cost, quality, and outcomes of health care for our nation's veterans. Collaborating with VA leaders, managers, and policy makers, HSR&D focuses on important health care topics that are likely to have significant impact on quality improvement efforts. One significant collaborative effort is HSR&D's Evidence-based Synthesis Pilot Project (ESP). Through this project, HSR&D provides timely and accurate evidence syntheses on targeted health care topics. These products will be disseminated broadly throughout VA and will: inform VA clinical policy, develop clinical practice guidelines, set directions for future research to address gaps in knowledge, identify the evidence to support VA performance measures, and rationalize drug formulary decisions.

HSR&D provided funding for the two Evidence Based Practice Centers (EPCs) supported by the Agency for Healthcare Research and Quality (AHRQ) that also had an active and publicly acknowledged VA affiliation—Southern California EPC and Portland, OR EPC—so they could develop evidence syntheses on requested topics for dissemination to VA policymakers. A planning committee with representation from HSR&D, Patient Care Services, Office of Quality and Performance, and the VISN Clinical Management Officers, has been established to identify priority topics and to insure the quality of final reports.

Comments on this evidence report are welcome and can be sent to Susan Schiffner, ESP Program Manager, at [Susan.Schiffner@va.gov](mailto:Susan.Schiffner@va.gov).

This report is based on research conducted by the Greater Los Angeles Veterans Affairs Healthcare System and Southern California Evidence-based Practice Center (EPC) under contract to the Department of Veterans Affairs. The findings and conclusions in this document are those of the author(s) who are responsible for its contents; the findings and conclusions do not necessarily represent the views of the Department of Veterans Affairs. Therefore, no statement in this article should be construed as an official position of the Department of Veterans Affairs.

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# STRATEGIES FOR SUICIDE PREVENTION IN VETERANS

## EXECUTIVE SUMMARY

### BACKGROUND

Suicide is a devastating outcome of major public health importance. Suicide rates for patients abusing alcohol and other substances, or suffering from other mental health conditions may be elevated. Because suicide prevention is a priority of the Veterans Health Administration, the VA wishes to expand and enhance use of evidence-based prevention or reduction methods..

#### The Key Questions were:

**Key Question 1.** What are the new or improved suicide prevention strategies (e.g. hotlines, outreach programs, peer counseling, treatment coordination programs, and new counseling approaches) that show promise for Veterans?

**Key Question 2.** What solid evidence base supports the most promising strategies?

**Key Question 3.** What evidence is still needed to establish various strategies as the most promising (framed as research questions to guide and focus continued research to expand knowledge regarding the effectiveness of suicide prevention approaches)?

### METHODS

Mann et al. completed a systematic review of the literature on suicide prevention from 1966 through June 2005.<sup>1</sup> They searched MEDLINE, the Cochrane Library, and PsychINFO databases. We updated this using the same search strategy, starting from June 2005 through May 2008. Only studies reporting direct effects of interventions on suicide attempts or completions were considered. Studies reporting results from any country for military or veterans were included, as were studies in Anglo/American countries with adult populations reporting interventions other than strictly mental-health interventions. Titles, abstracts, and articles were reviewed by a psychiatrist trained in the critical analysis of literature. Data were narratively summarized.

### RESULTS

We screened 3,406 titles and performed a more detailed review on 261 articles. We identified seven multifaceted studies of military personnel, five in the US, and two multifaceted national suicide prevention programs. We identified three studies of US veterans. We found 20 randomized or controlled clinical trials of interventions post-suicide attempt. We found a large number of observational studies of restricting access to lethal means, and a small number of heterogeneous trials and studies.

**KEY QUESTION #1: What are the new or improved suicide prevention strategies (e.g. hotlines, outreach programs, peer counseling, treatment coordination programs, and new counseling approaches) that show promise for Veterans?**

**KEY QUESTION #2: What solid evidence base supports the most promising strategies?**

Multicomponent interventions in military personnel probably reduce the risk of suicide. The largest and best described such study was implemented for the US Air Force, and this study provides the most convincing evidence of effectiveness. The report of success of a program in Yugoslavia modeled after the USAF program increases our confidence that the effect is real. A similar program was developed for the US Navy and Marine Corps. However, as with any multicomponent intervention shown to be successful, there are still numerous questions about the relative merit of inclusion of each individual component (could the same effect be achieved with fewer components?) or the possible increase in effectiveness of adding other components, and optimizing the effectiveness of each additional component. Additionally, there are no data about its effect in non-military populations, although veterans would seem to be sufficiently close to a military population that some transferability of results could be assumed. (GRADE quality of evidence = Low, meaning further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate)

There are insufficient studies of suicide prevention programs specifically in veterans to draw conclusions (GRADE quality of evidence = Very Low, meaning any estimate of effect is uncertain)

Psychosocial interventions following a suicide attempt are, at the very best, only minimally effective (GRADE quality of evidence = Moderate, meaning further research is likely to have an important impact on our confidence in the estimate of the effect and may change the estimate).

There are insufficient data to reach conclusions about Community-based Suicide Prevention Centers (GRADE quality of evidence = Very Low , meaning any estimate of effect is uncertain)

We found no studies that assessed the specific effectiveness of any of hotlines, outreach programs as primary prevention interventions, peer counseling, treatment coordination programs, and new counseling programs.

Restriction of access to lethal means probably has an effect on cause-specific suicides, although its effect on total suicides is less clear (GRADE quality of evidence = Low, meaning further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate)

**KEY QUESTION #3: What evidence is still needed to establish various strategies as the most promising (framed as research questions to guide and focus continued research to expand knowledge regarding the effectiveness of suicide prevention approaches)?**

Multifaceted interventions are supported by consistent evidence, although of very mixed quality.

Even if such programs are later determined to be robustly successful, the question of which components in those programs are causally related to the reduction in suicides has not been addressed. This sets as a research issue determining which components work best in which combinations for which populations. The issue of whether some sets of components may have facilitative or synergistic effects has not been addressed.

Psychosocial intervention for suicide attempters have considerable face validity as they address a group with manifest evidence of suicide risk, but there is no consistent evidence in their support in spite of a moderate number of randomized controlled trials that been conducted. This is an area of obvious and considerable interest to the VA, which is now using similar approaches in its clinical programs to identify and track those at high risk with suicide risk flags, screening tools, and suicide prevention coordinators. An additional factor that seems relevant but rarely directly studied is the effect of forming a consistent relationship with a single provider, a therapeutic alliance, and its role in providing a protective degree of social connection, and reducing the harmful consequences of social isolation.

Further randomized controlled trials and high-quality observational studies are definitely needed. Without waiting for such to be completed, and independent of which program components the VA decides to pursue, there are two supporting initiatives that could be implemented in parallel. The first concerns standardizing vocabulary, and the second concerns electronic medical records.

First, all suicide prevention programs are dependent on the accuracy with which assessments of suicidality are conducted. The term “suicide attempt” covers a very broad array of self-injurious behaviors, from intentionally planned, high lethality events that were interrupted by mere happenstance, through low lethality acts marked by a small risk of physical harm, impulsivity, and a high likelihood of discovery by others. Others have noted the importance of establishing and using a consistent nomenclature in this area. It is critical for further advances in suicide reduction that such attempts are carried through.

A very important reason for accurately describing the severity of suicide attempts is that an attempt is widely recognized as a significant risk factor for completions. Although most completed suicides are first attempts<sup>2</sup> and attempters vary in important ways from completers,<sup>3</sup> it is known that survivors of highly lethal attempts have similar clinical and psychosocial profiles to antemortem profiles of suicide completers. This suggests that subcategorization of attempt by lethality (or perhaps other factors) may be clinically useful.

Second, because the VA uses a single, integrated computerized medical record system for all of its clinical activities, any improvements in vocabulary along with new screening and tracking tools would allow for data gathering as part of routine practice – especially for establishing patterns and risk factors for suicide attempts – in advance of formally conducted observational studies or controlled trials.