



BSHOP uses the *Army Behavioral Health Integrated Data Environment (ABHIDE)* to develop routine monitoring of suicidal behavior and answer requests for information (RFIs) from Army leaders. Access to the ABHIDE enables efficient, rapid, retrospective examinations of self-harm behaviors and the assessment of behavioral health-related co-morbidities such as Post Traumatic Stress Disorder (PTSD), depression, substance abuse, domestic violence, and violent crimes.

Why was the ABHIDE created?

Before the ABHIDE, the Army examined suicide on an individual case basis rather than as a potential emerging health problem. Army leadership became concerned when, in 2008, the Army suicide rate appeared likely to exceed the suicide rate in the U.S. population.¹ This led to the recognition of the Army's need to be able to collectively study Soldiers who died by suicide. The Army Behavioral Health Integrated Data Environment (ABHIDE) was created in 2009 to address this gap and serve as a comprehensive data warehouse for information pertaining to suicidal behavior in the Army.² Although the datasets that reside in the ABHIDE are individually used for administrative purposes, the information can now be used to identify patterns and changes in risk factors for suicidal behavior over time.

How can ABHIDE data help military leaders?

Since 2009, the Behavioral and Social Health Outcomes Program (BSHOP) Division has used ABHIDE data to complete an average of 100 routine and ad-hoc requests for information (RFIs) each year. In addition, BSHOP uses data from the ABHIDE to create a comprehensive surveillance report titled *Surveillance of Suicidal Behavioral Publication* released annually in October. BSHOP's analysis and reports have provided military leaders and clinicians with the information needed to focus prevention efforts, refine policies and programs, and allocate and target resources to support prevention, risk mitigation, and early intervention for suicide, as well as other negative behavioral health outcomes.

What types of data are in the ABHIDE?

The ABHIDE documents the life of a Soldier with suicidal behavior from accession to discharge or death. It includes data on active-duty, activated National Guard, and activated US Army Reserve Soldiers who died by suicide, as identified by the Armed Forces Medical Examiner System, or attempted suicide, experienced suicidal ideation, or inflicted nonsuicidal self-injury, as documented by Department of Defense Suicide Event Reports.

Examples of data include:

- Demographics such as age, sex, ethnicity, and marital history
- Military characteristics such as rank, military occupational specialty, and deployment history
- Medical claims data, with diagnosis codes, for hospitalization and ambulatory care at military treatment facilities or services obtained using government insurance (TRICARE)
- Criminal history such as felonies and drug or alcohol offenses
- Routine medical information such as annual physical visits, pre and post deployment health assessments, prescribed medications, and drug test results
- Suicidal event characteristics such as the location, method, and stressors leading up to or at the time of the event

How is the ABHIDE maintained and who has access to it?

Access is restricted to the information technology professionals who load the data on a monthly basis and the BSHOP epidemiologists who analyze the data. The ABHIDE is housed on a secure server and has no web-based applications. Aggregate data are disseminated through the *Surveillance of Suicidal Behavioral Publication* with unlimited distribution. No identified data are released outside BSHOP except in response to rare Freedom of Information Act requests from relatives of the deceased.

What are the data limitations?

The ABHIDE has limitations common to data assemblies such as:

- Lags in data availability - There is a lag between the suicidal event and when the information is loaded into the ABHIDE.
- Issues with data completeness - Some variables may be missing or unknown in the administrative dataset and therefore will not be included in the ABHIDE.

In addition, the overall completeness of the ABHIDE depends on the extent to which suicidal events are identified and reported. For example, suicidal attempts and ideations by Soldiers who were not hospitalized or evacuated from theater are not included in the ABHIDE.

¹Black SA, Gallaway MS, Bell MR, & Ritchie EC (2011). Prevalence and risk factors associated with suicides of army soldiers 2001-2009. *Military Psychology*, 23(4), 433-451.

²Spieß A, Gallaway MS, Watkins EY, Corrigan E, Wills JV, Weir JC, Millikan-Bell AM, & Bell MR (2016). The ABHIDE (Army Behavioral Health Integrated Data Environment): A Suicide Registry. *Military Behavioral Health*, 4(1), 8-17.