



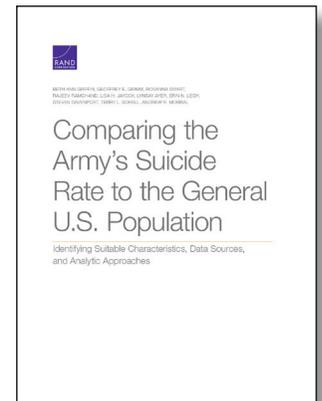
Comparing the Army's Suicide Rate to the General U.S. Population

Identifying Suitable Characteristics, Data Sources, and Analytic Approaches

Beth Ann Griffin, Geoffrey E. Grimm, Rosanna Smart, Rajeev Ramchand, Lisa H. Jaycox, Lysay Ayer,

Erin N. Leidy, Steven Davenport, Terry L. Schell, Andrew R. Morral

www.rand.org/t/RR3025



To what degree is the suicide trend in the U.S. Army unique to that service, relative to what is observed in the general U.S. population? Researchers investigate how accounting for additional population risk factors beyond age and gender (race/ethnicity, time, marital status, and educational attainment) affects suicide rate differences between soldiers and a comparable subset of the general U.S. population.



RESEARCH QUESTIONS

- What characteristics explain variability in the Army's suicide rate?
- What data sources are available to identify variability in general U.S. suicide rates?
- What characteristics explain variability in the general U.S. population suicide rate?
- On what factors might the authors aim to match or standardize the general U.S. population to look like that of the Army?
- What are the effects and implications of expanding the matching factors to include age, gender, race/ethnicity, time, marital status, and educational attainment?
- What is the potential effect of "unmatchable" factors on the comparison of suicide rates between the Army and the general U.S. population?



KEY FINDINGS

Matchable, comparable factors between the Army and the general U.S. population are needed

- The authors identified six factors available for comparing the populations: gender, age, race/ethnicity, time, marital status, and educational attainment.
- Five additional factors could be important for this comparison: geography, parenthood, occupation, mental health, and firearm availability.

continued on back

Using an expanded set of factors reveals that the expected suicide rate in the general U.S. population is consistently lower than when adjusting for age and gender only

- Marital status was the key factor driving this shift.

Occupation coding needs to be improved to compare the Army with the general U.S. population

- As occupation is a known risk factor for suicide in both populations, better-quality data on decedents in the general population would be useful.
- A soldier's job-related duties and operational tempo are other factors that may distinguish the Army and general U.S. populations, but drawing parallels between job categories in the two populations proved difficult.

Firearm data are lacking

- Soldiers may differ from their general population counterparts regarding ownership of or access to personally owned firearms.
- The lack of high-quality data on personally owned firearms among soldiers and the general population impedes the Army's ability to study this potentially important factor.

Mental health diagnoses need to be examined and standardized

- Mental health conditions are among the strongest risk factors for suicide; however, accounting for mental health diagnoses when comparing the Army and general U.S. population will require identifying data in the U.S. population that link known diagnoses to deaths.



RECOMMENDATIONS

- When comparing the Army's suicide rate with that of the general U.S. population, comparisons should be adjusted for age, gender, and year, and for the additional matchable factors of race/ethnicity, educational attainment, and marital status.
- Because the conclusions one can draw from comparing the suicide rates of the Army and the general U.S. population will change depending on which factors are used to match the populations, the preferred comparison should be the one that includes factors that (1) are associated with suicide risk, (2) differ between the military and the general population, and (3) are outside the control of the Army.
- The Army should collaborate with the U.S. Census Bureau, the Centers for Disease Control and Prevention (CDC), and the U.S. Department of Labor to improve occupation/industry coding for general U.S. population deaths.
- The Army should collect voluntary data on soldiers who own personal firearms and should encourage the CDC or another federal agency to resume collecting voluntarily provided survey data on gun ownership and use in the general population.
- Future research should examine the suicide risk among those with mental health diagnoses in the Army relative to similar individuals in the general U.S. population.

