TITLE: Validity of Mental Health Indicators in Oregon's Violent Death Reporting System Data: An Analysis of Firearm Deaths among Veterans who use the VA Healthcare System

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STUDENT SUBMISSION: No

TOPIC/TARGET AUDIENCE: Public health researchers and practitioners interested in suicide and other violent death surveillance in Oregon.

ABSTRACT: Background/Purpose: The National Violent Death Reporting System (VDRS) collects data on the circumstances of all firearm-related deaths in participating states. Using Department of Veterans Affairs (VA) healthcare records as a criterion standard, we examined the validity of VDRS-reported mental health indicators for Veteran decedents in Oregon between 2003 and 2016. Methods: We probabilistically linked Oregon VDRS to VA data to identify Veteran decedents who used VA healthcare within two years of death. Veterans' VA mental health diagnoses within this time frame were compared to mental health indicators from VDRS data. Validity statistics were calculated for each comparison. Results: We identified 412 VA-using Veterans with fatal firearm injuries. The VDRS-reported mental health indicators greatly undercounted VA mental health diagnoses, including depression (41% sensitivity; 81% specificity; 66% concordance), anxiety (13% sensitivity; 96% specificity; 80% concordance), and posttraumatic stress disorder (49% sensitivity; 97% specificity; 86% concordance). Conclusions: VDRS data missed more than half of mental health diagnoses among VA-using Veterans who died by firearm, suggesting significant limitations in the use of these data. These findings also suggest that VA healthcare data are not systematically accessed in death investigations. Efforts to improve the validity of mental health indicators in state VDRS data are warranted.

OBJECTIVE(S): Describe the circumstances of firearm-related deaths among VA-using Veterans in Oregon between 2003 and 2016.

Compare mental health indicators in Oregon Violent Death Reporting System data to mental health diagnoses in VA healthcare data.

Discuss implications of underreporting of mental health problems in state Violent Death Reporting System data.