

South Dakota State University Open PRAIRIE: Open Public Research Access Institutional Repository and Information Exchange

Ethel Austin Martin Program Publications

7-2015

Suicides and Suicide Attempts in Adolescents and Adults Aged 10 Years and Older

Wei Bai

South Dakota State University, Wei.Bai@sdstate.edu

Teresa Binkley

South Dakota State University, teresa.binkley@sdstate.edu

Lon Kightlinger

South Dakota State University, lon.kightlinger@sdstate.edu

Bonny Specker

South Dakota State University, Bonny.Specker@sdstate.edu

Follow this and additional works at: https://openprairie.sdstate.edu/eam pubs

Recommended Citation

Bai, Wei; Binkley, Teresa; Kightlinger, Lon; and Specker, Bonny, "Suicides and Suicide Attempts in Adolescents and Adults Aged 10 Years and Older" (2015). Ethel Austin Martin Program Publications. 11. https://openprairie.sdstate.edu/eam_pubs/11

This Newsletter is brought to you for free and open access by Open PRAIRIE: Open Public Research Access Institutional Repository and Information Exchange. It has been accepted for inclusion in Ethel Austin Martin Program Publications by an authorized administrator of Open PRAIRIE: Open Public Research Access Institutional Repository and Information Exchange. For more information, please contact michael.biondo@sdstate.edu.



VOLUME 27 NUMBER 4 JULY 2015

CONTENTS: Dr. Kemp retires from TB program.... page 5 | Severe Combined Immunodeficiency (SCID) screening in South Dakota page 5 | South Dakota Cancer Registry online cancer data tool page 6 | Selected South Dakota morbidity report, January—May 2015 page 7

Suicides and Suicide Attempts in Adolescents and Adults Aged 10 Years and Older, South Dakota, 2009-2013

By Wei Bai, Ph.D., Teresa Binkley, Ph.D., Lon Kightlinger, Ph.D., Bonny Specker, Ph.D. EA Martin Program, South Dakota State University & South Dakota Department of Health

National Suicide Rates

According to the Centers for Disease Prevention and Control, over 40,000 people die by suicide every year in the United States amounting to approximately one suicide death every 13 minutes. Suicide is the tenth leading cause of death for all ages, the second leading cause of death among persons aged 10-24 years, and the fifth leading cause of death for ages 45-59 years. Ninety percent of people who die by suicide have a diagnosable psychotic disorder at the time of their death. In 2009, 33.3% of suicide decedents tested positive for alcohol, 23.0% for antidepressants, and 20.8% for opiates, including heroin and prescription painkillers.

Suicide rates are expressed as the number of suicide deaths per 100,000 people and reported by age, sex, race/ethnicity, and geographic region/state. The following United States suicide rates are given for 2013:

- By age highest suicide rate (19.1/100,000) is among people 45-64 years old. The second highest rate (18.6/100,000) is among those 85 years and older. Younger age groups consistently have lower rates than middle-aged or older adults.
- By sex usually around four times higher in men than women (20.2 vs. 5.5/100,000 respectively). Of suicide deaths in 2013, 77.9% were male and 22.1% were female.
- By race/ethnicity highest rate is among whites (14.2/100,000) while American Indians and Alaska Natives have the second highest rate (11.7/100,000).
- By region/state nine states have age-adjusted rates in excess of 18/100,000: Montana (23.7), Alaska (23.1), Utah (21.4), Wyoming (21.4), New Mexico (20.3), Idaho (19.2), Nevada (18.2), Colorado (18.5), and South Dakota (18.2). Five states have age-adjusted suicide rates lower than 9/100,000: District of Columbia (5.8), New Jersey (8.0), New York (8.1), Massachusetts (8.2), and Connecticut (8.7).

Suicides and Attempted Suicides in South Dakota, 2009-2013

Suicides (completed suicide) and suicide attempts (self-inflicted non-fatal injuries) are serious and preventable public health issues. Suicides were identified by death certificates with cause of death defined using ICD-10 codes of X60 - X84, Y87.0 and Y10 - Y34. Attempted suicides were identified using South Dakota Association of Healthcare Organizations (SDAHO) hospital records and were defined using ICD-9 codes E950.0 - E959.9 and E980.0 - E989.9. The purpose of this bulletin is to provide information on rates and trends of suicides and attempted suicides in South Dakota.

In 2013, South Dakota had the fourteenth highest suicide rate in the United States (all ages; http:// www.suicidology.org/resources/facts-statistics). Understanding demographic characteristics associated with suicide or suicide attempts is important in preventing suicide. Different demographic patterns were observed for suicide vs. attempted suicide in South Dakota in 2009-2013:

- There has been an increase in attempted suicides between 2009 and 2013 (Figure 1). This increase has been seen among whites and American Indians (Figure 2), and in females and males (Figure 3).
- Females have a higher rate of suicide attempts, while males have a higher rate of successful suicides (Figure 3).
- Suicide rates remain relatively constant among males' ages 15 to 50 years, while among females there is an increase in the 40-44 year age group (Figure 4).
- Suicide attempts decline with age in both sexes (Figure 5).
- The majority of suicides among females are by poisoning and hanging, while suicides among males are by firearms and hanging. The majority of suicide attempts in both sexes are by poisoning (Figure 6).

150 1,073 120 820 Rate per 100,000 764 734 681 90 60 152 30 154 143 144 134

Figure 1. Total Suicides and Suicide Attempts, South Dakota, 2009-2013 Significant increase over time in attempted suicide.

Source: South Dakota Vital Records and SDAHO Inpatient Outpatient Data Collection System, 2009-2013. Numbers on graph are number of cases.

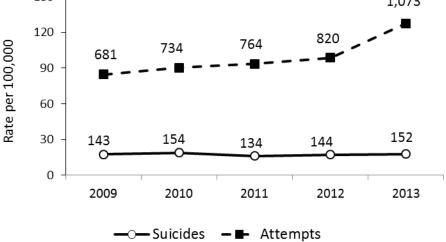
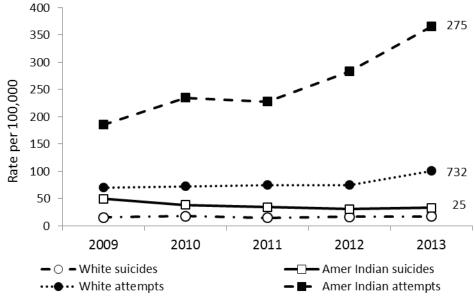


Figure 2. Total Suicides and Suicide Attempts by Race, South Dakota, 2009-2013 Significant increases in attempted suicide in both races.

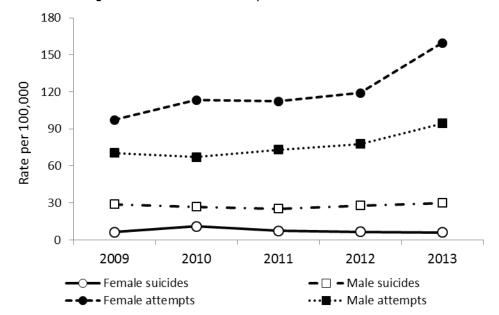


Source: South Dakota Vital Records and SDAHO Inpatient Outpatient Data Collection System, 2009-2013. Numbers on the right are the number of cases in 2013.

South Dakota Public Health Bulle-

Figure 3. Total Suicides and Suicide Attempts by Sex, South Dakota, 2009-2013

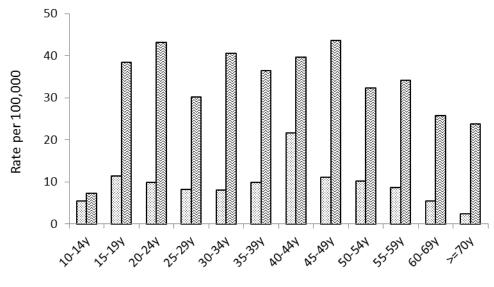
Significant increases in attempted suicide in both sexes



Source: South Dakota Vital Records and SDAHO Inpatient Outpatient Data Collection System, 2009-2013

Figure 4. Total Suicides by Sex and Age, South Dakota, 2009-2013

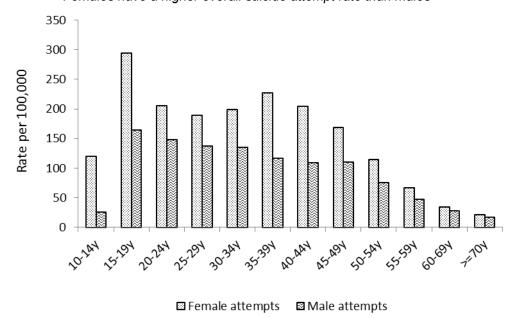
Males have a higher overall suicide rate than females.



☐ Female suicides ☐ Male suicides Source: South Dakota Vital Records, 2009-2013

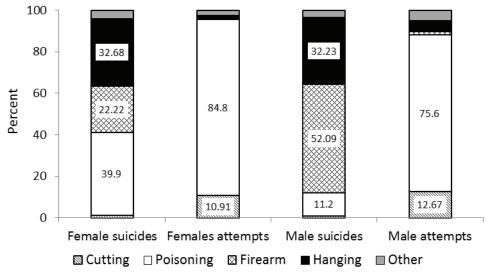
Figure 5. Total Suicide Attempts by Sex and Age, South Dakota, 2009-2013

Females have a higher overall suicide attempt rate than males



Source: SD Association of Healthcare Organizations Inpatient Outpatient Data Collection System, 2009-2013

Figure 6. Total Suicides and Suicide Attempts by Methods, South Dakota, 2009-2013



Source: South Dakota Vital Records and SDAHO Inpatient Outpatient Data Collection System, 2009-2013

Warning Signs

Warning signs of suicide include a person talking about: killing themselves, having no reason to live, being a burden to others, feeling trapped, or having unbearable pain. Behaviors associated with suicide are increased use of alcohol or drugs, acting recklessly, withdrawing from activities, isolating from family and friends, sleeping too much or too little, visiting or calling people to say goodbye, giving away prized possessions, and aggression. They also may be looking for a way to kill themselves such as searching online for materials or means. Moods associated with suicide are depression, loss of interest, rage, irritability, humiliation, and anxiety.

References

http://www.cdc.gov/violenceprevention/pdf/suicide-datasheet-a.pdf https://www.afsp.org/understanding-suicide/facts-and-figures