Injury Prevention Advisory Council (IPAC) and Indiana Violent Death Reporting System (INVDRS) Meeting

Friday, July 17, 2020



Trauma and Injury Prevention Mission

To develop, implement and provide oversight of a statewide comprehensive trauma care system that:

- Prevents injuries.
- Saves lives.
- Improves the care and outcomes of trauma patients.



Trauma and Injury Prevention Vision

Prevent injuries in Indiana.



Round Robin and Introductions

- Name
- Position
- Organization/ Association
- Updates
- Current Projects and Programs
- Upcoming events





Invite New Members

Please forward my contact information to colleagues interested in violence & injury prevention!



Resource Guide App



- UPDATED!
- Free download for iOS & Android
 - phone & tablet capabilities
- Available in Apple & Google Play stores



ISDH Updates



Grant Activities

- Students Teachers and Officers Preventing (STOP) School Violence
 - Submitted in June



Upcoming Events

- Online Suicide Prevention
 Summit
 - August 29-30
 - https://www.mentalhealthacade
 my.net/suicideprevention/aas



ISTCC/ITN Meeting Dates

- Indiana State Trauma Care Committee, Indiana Government Center, 10 am EST
 - August 21st
 - October 16th
 - December 11th

- Indiana Trauma Network, Indiana Government Center, 12:30 pm EST
 - August 21st
 - October 16th
 - December 11th



IPAC/INVDRS Meeting Dates

- September 18th
- November 20th



Unintentional Injury Program Spotlight: WARN Program

Jerry Richert, Indianapolis Fire Department, jerry.richert@indy.gov

Unintentional Injury Data Presentation: Drowning Fatalities in Indiana

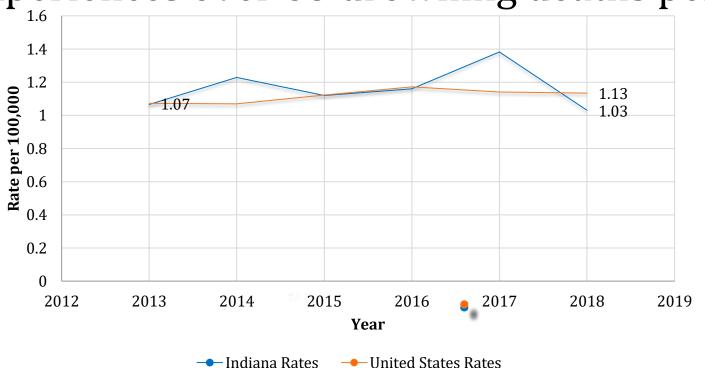
Veronica Daye, *Injury Prevention Epidemiologist* Trauma and Injury Prevention Division



Drowning Deaths

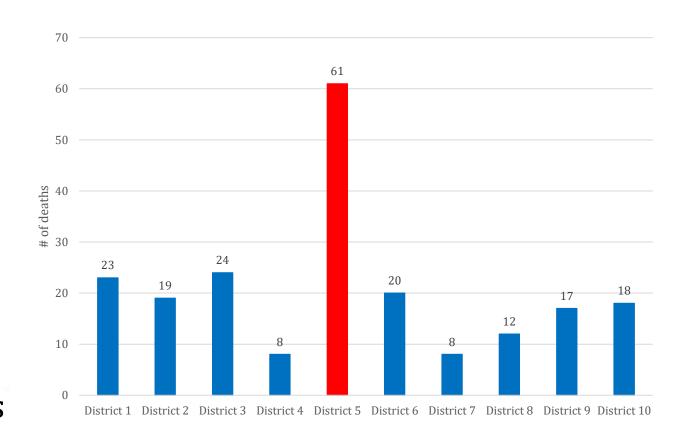
• Unintentional drowning is a leading cause of unintentional injury deaths for individuals under the age of 55

Indiana experiences over 65 drowning deaths per year



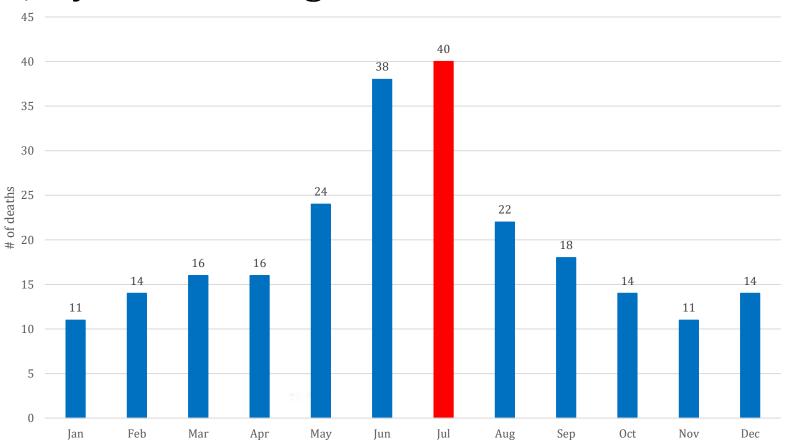
Drowning Deaths by Location (2016-2018)

- 238 deaths over the three years
- District 5 had the highest amount of deaths
 - Marion County had the most deaths (41)
- Counties with over 10 drowning deaths:
 - Allen Co. had the second highest deaths (15)
 - Hamilton Co. had 14 deaths
 - Lake Co. had 10 drowning deaths

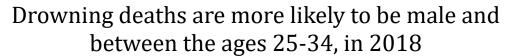


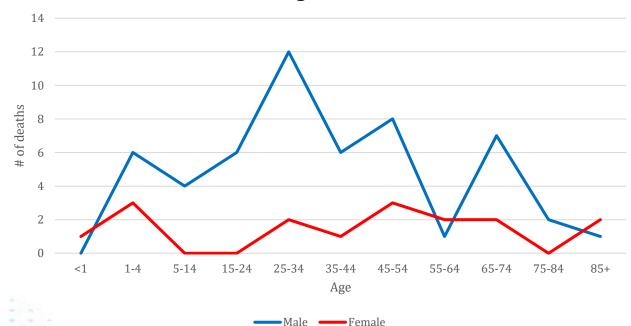
Drowning Deaths by Month (2016-2018)

 The summer months account for nearly half of all drowning deaths with July have the highest count

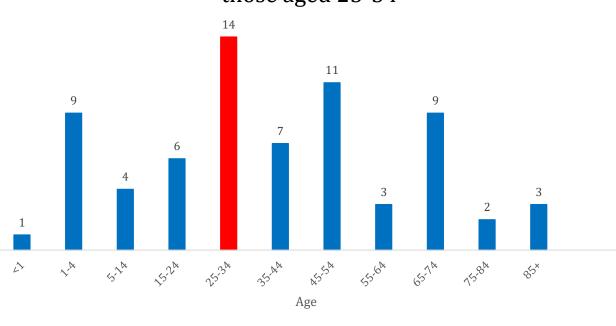


Demographic Variables (2018)



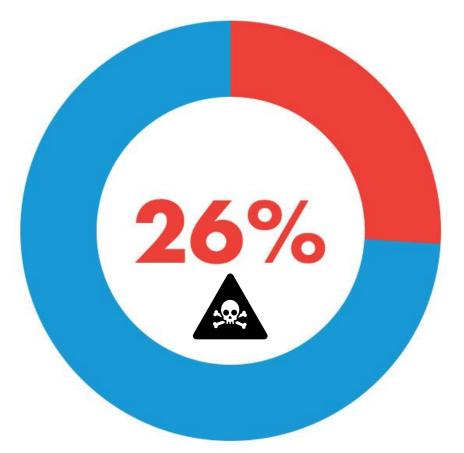


In 2018, drowning deaths were highest for those aged 25-34



Drowning Deaths and Poisonings (2018)

• For those over 18, 26% had a drug-related or alcohol-related poisoning as a contributing cause of death



Contact information

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Trauma and Injury Prevention Division

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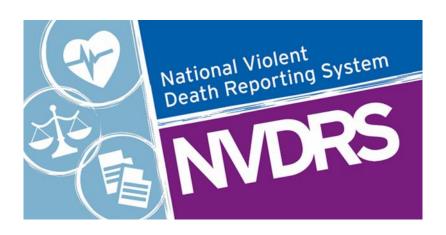
National Center for Injury Prevention and Control Division of Violence Prevention



National Violent Death Reporting System (NVDRS) Overview

NVDRS Science Officer

INVDRS Advisory Committee Meeting July 17, 2020



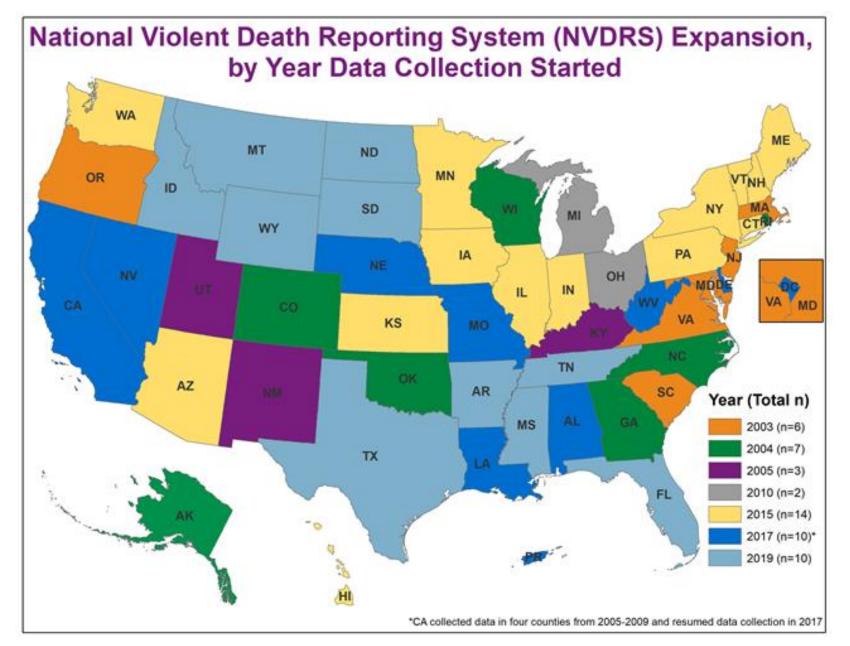
The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

What Do We Know About Violence?



- Number of violent deaths only tells part of story
- Millions of people experience adverse physical, mental, and economic consequences
- Violence erodes communities by reducing productivity, decreasing property values, and disrupting social services
- Devastating impact on families, communities, and society
- Violence is preventable
 - Information needed for prevention





^{*}Each VDRS program operates out of the state health department or through a bona fide agent

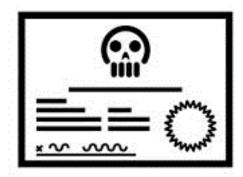
NVDRS

- Data collected by states and territories through partnerships
- No personally identifying information collected in system
- Information collected using a web-based application
- Trained abstractors enter data consistent with CDC guidance
 - 8
- Provides information for prevention

NVDRS Case Definition

- Suicide
- Homicide
- Deaths of undetermined intent
- Legal intervention (excluding executions)
- Unintentional firearm deaths





Death Certificates



LE Reports



C/ME Reports



600+ variables



Injury characteristics



Demographics



Circumstances



Mental Health Diagnoses



Toxicology

NVDRS is Unique

- It is a partnership between states, data providers and CDC
- Tells the who, what, when, where, why, and how
- Is comprehensive includes all age groups
- Combines sources to get full picture
 - Details about incident
 - Information about victims, suspects
 - Information about circumstances: events that preceded or were determined to be related to the violent death

Technical Assistance

Support to VDRS Recipients Through NVDRS Technical Assistance – A Team Effort!



- CDC has a series of technical manuals (e.g., implementation Manual, coding manual, web-based system guide)
- NVDRS abstractors receive training
- Each VDRS program has a CDC Project Officer (PO) and Science Officer (SO)
- Monthly calls with all states and CDC
- Individual calls with PO/SO, ad-hoc calls, e-mails
- Monitoring of project performance
- Monthly coding workgroup calls with states
- Help Desk (e-mail)
- Reverse Site Visit Annual Meeting
- NVDRS listserve
- Monitoring of Data Quality



Data Dissemination Examples

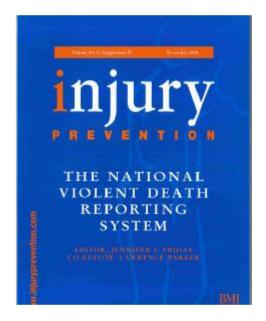
Who uses NVDRS data?

- Local, state, national violence prevention officials
- Public health community
- Healthcare providers
- Vital Statistics programs
- Law enforcement
- Coroners/medical examiners
- Schools of medicine, psychology, public health, sociology
- Other stakeholder groups



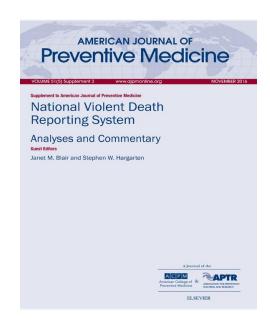
NVDRS Journal Supplement

First NVDRS Supplement



Published in December 2006

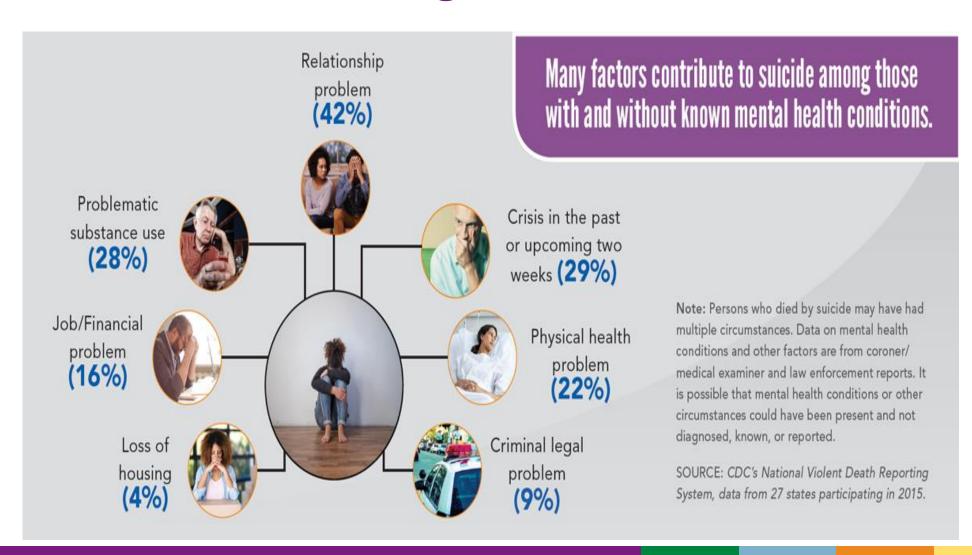
Second NVDRS Supplement



Published in October 2016



Factors Contributing to Suicide



NVDRS MMWR Surveillance Summarv

Centers for Disease Control and Prevention

MWR

Morbidity and Mortality Weekly Report

October 4, 2019

Surveillance Summaries / Vol. 68 / No. 9

Surveillance Summaries

Surveillance for Violent Deaths — National Violent Death Reporting System, 32 States, 2016

Allison Ertl, PhD¹; Kameron J. Sheats, PhD¹; Emiko Petrosky, MD¹; Carter J. Betz, MS¹; Keming Yuan, MS¹; Katherine A. Fowler, PhD¹

Division of Violence Prevention, National Center for Injury Prevention and Control, CDC

Abstract

Problem/Condition: In 2016, approximately 65,000 persons died in the United States as a result of violence-related injuries. This report summarizes data from CDC's National Violent Death Reporting System (NVDRS) regarding violent deaths from 32 U.S. states for 2016. Results are reported by sex, age group, race/ethnicity, type of location where injured, method of injury, circumstances of injury, and other selected characteristics.

Period Covered: 2016.

Description of System: NVDRS collects data regarding violent deaths obtained from death certificates, coroner/medical examiner reports, law enforcement reports, and secondary sources (e.g., child fatality review team data, Supplementary Homicide Reports, hospital data, and crime laboratory data). This report includes data collected from 32 states for 2016 (Alaska, Arizona, Colorado, Connecticut, Georgia, Hawaii, Illinois, Indiana, Iowa, Kansas, Kentucky, Maine, Maryland, Massachusetts, Michigan, Minnesota, New Hampshire, New Jersey, New Mexico, New York, North Carolina, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, Utah, Vermont, Virginia, Washington, and Wisconsin). NVDRS collates information for each death and links deaths that are related (e.g., multiple homicides, homicide followed by suicide, or multiple suicides) into a single incident.

Results: For 2016, NVDRS captured 40,374 fatal incidents involving 41,466 deaths in the 32 states included in this report. The majority (62,3%) of deaths were suicides, followed by homicides (24,9%), deaths of undetermined intent (10.8%), legal intervention deaths (1.2%) (i.e., deaths caused by law enforcement and other persons with legal authority to use deadly force acting in the line of duty, excluding legal executions), and unintentional firearm deaths (<1.0%). (The term legal intervention is a classification incorporated into the *International Classification of Diseases, Tenth Revision [ICD-10]* and does not denote the lawfulness or legality of the manner of death. Suicide rate adults aged 45–64 years, and

Childhood Firearm Injuries



Childhood Firearm Injuries in the United States

Katherine A. Fowler, PhD, a Linda L. Dahlberg, PhD, a Tadesse Haileyesus, MS, b Carmen Gutierrez, MA, c Sarah Bacon, PhD a

OBJECTNES: Examine fatal and nonfatal firearm injuries among children aged 0 to 17 in the United States, including intent, demographic characteristics, trends, state-level patterns, and circumstances.

METHODS: Fatal injuries were examined by using data from the National Vital Statistics System and nonfatal injuries by using data from the National Electronic Injury Surveillance System. Trends from 2002 to 2014 were tested using joinpoint regression analyses. Incident characteristics and circumstances were examined by using data from the National Violent Death Reporting System.

RESULTS: Nearly 1300 children die and 5790 are treated for gunshot wounds each year. Boys, older children, and minorities are disproportionately affected. Although unintentional firearm deaths among children declined from 2002 to 2014 and firearm homicides declined from 2007 to 2014, firearm suicides decreased between 2002 and 2007 and then showed





The New York Times





The Washington Post





Homicides of Women MMWR (A Top 10 MMWR of 2017)







Morbidity and Mortality Weekly Report

July 21, 2017

Racial and Ethnic Differences in Homicides of Adult Women and the Role of Intimate Partner Violence — United States, 2003–2014

Emiko Petrosky, MD1; Janet M. Blair, PhD1; Carter J. Betz, MS1; Katherine A. Fowler, PhD1; Shane P.D. Jack, PhD1; Bridget H. Lyons, MPH1

Homicide is one of the leading causes of death for women aged ≤44 years.* In 2015, homicide caused the death of 3,519 girls and women in the United States. Rates of female homicide vary by race/ethnicity (1), and nearly half of victims are killed by a current or former male intimate partner (2). To inform homicide and intimate partner violence (IPV) prevention efforts, CDC analyzed homicide data from the National Violent Death Reporting System (NVDRS) among 10,018 women aged ≥18 years in 18 states during 2003-2014. The frequency of homicide by race/ethnicity and precipitating circumstances of homicides associated with and without IPV were examined. Non-Hispanic black and American Indian/ Alaska Native women experienced the highest rates of homicide (4.4 and 4.3 per 100,000 population, respectively). Over half of all homicides (55,3%) were IPV-related; 11,2% of victims of IPV-related homicide experienced some form of violence in the month preceding their deaths, and argument and jealousy were common precipitating circumstances. Targeted IPV prevention programs for populations at disproportionate risk and enhanced access to intervention services for persons experiencing IPV are needed to reduce homicides among women.

CDC's NVDRS is an active state-based surveillance system that monitors characteristics of violent deaths, including homicides. The system links three data sources (death certificates, coroner/medical examiner reports, and law enforce-

available years).† Five racial/ethnic categories§ were used for this analysis: white, black, American Indian/Alaska Native

†In 2003, the National Violent Death Reporting System (NVDRS) began data collection with six states (Maryland, Massachusetts, New Jersey, Oregon, South Carolina, and Virginia) participating seven states (Alaska, Colorado, Georgia, North Carolina, Oklahoma, Rhode Island, and Wisconsin) joined in 2004, four (California, Kentucky, New Mexico, and Utub) in 2005, and two (Ohio and Michigan) in 2010. California did not collect statewide data and concluded participation in 2009. Ohio collected statewide data starting in 2011 and the ultimate goal is for NVDRS to expand to include all 50 states, U.S. territories, and the District of Columbia.

§Information on race and ethnicity are recorded as separate items in NVDRS consistent with U.S. Department of Health and Human Services (HHS) and Offsice of Management and Budget standards for race/ethnicity categorization. HHS guidance on race/ethnicity is available at https://aspe.hhs.gov/datacnel/standards/AC/4302/index.shtml.

NSIDE

- 747 Surveillance for Silicosis Deaths Among Persons Aged 15–44 Years — United States, 1999–2015
- 753 Progress Toward Measles Elimination Bangladesh, 2000–2016
- 758 Notes from the Field: Cluster of Acute Flaccid Myelitis in Five Pediatric Patients — Maricopa County, Arizona, 2016
- 761 Notes from the Field: Cronobacter sakazakii Infection Associated with Feeding Extrinsically Contaminated

The New York Times

MEDPAGE TODAY



Article Metrics Altmetric: News (110) Blogs (9) Twitter (1364) Facebook (21) Wikipedia (2) Google+ (4) Reddit (1) QnA (1) Mendeley (39)

Citations: 12

Views: 44,233

Views equals page views plus PDF downloads

Metric Details

Suicides Among American Indian/Alaska Natives



Morbidity and Mortality Weekly Report

March 2, 2018

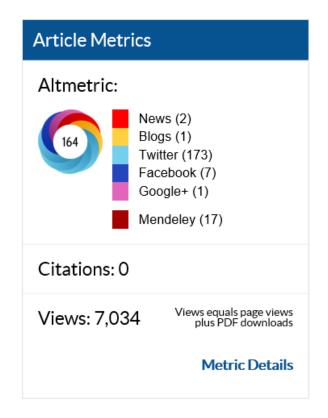
Suicides Among American Indian/Alaska Natives — National Violent Death Reporting System, 18 States, 2003–2014

Rachel A. Leavitt, MPH1.2; Allison Ertl, PhD2; Kameron Sheats, PhD2; Emiko Petrosky, MD2; Asha Ivev-Stephenson, PhD2; Katherine A. Fowler, PhD2

Suicide disproportionately affects American Indians/Alaska Natives (AI/AN). The suicide rate among AI/AN has been increasing since 2003 (1), and in 2015, AI/AN suicide rates in the 18 states participating in the National Violent Death Reporting System (NVDRS) were 21.5 per 100,000, more than 3.5 times higher than those among racial/ethnic groups with the lowest rates.* To study completed suicides across all ages of AI/AN, NVDRS data collected from 2003 to 2014 were analyzed by comparing differences in suicide characteristics and circumstances between AI/AN and white decedents. Group differences were assessed using chi-squared tests and logistic regression. Across multiple demographics, incident characteristics, and circumstances. AI/AN decedents were significantly different from white decedents. More than one third (35.7%) of AI/AN decedents were aged 10-24 years (versus 11.1% of whites). Compared with whites, AI/AN decedents had 6.6 times the odds of living in a announcedition area 2.1 since the adde of a positive about all data from the 18 participating states.[†] Analyses were limited to suicide decedents aged ≥10 years. Non-Hispanic AI/AN are defined in NVDRS as persons with ancestries of the original inhabitants of North America who maintain their cultural

INSIDE

243 CDC Grand Rounds: Promoting Hearing Health Across the Lifespan



In 2003, the National Violent Death Reporting System (NVDRS) began data collection with six states (Maryland, Massachusetts, New Jensey, Oregon, South Carolina, and Virginala participating seven states (Alaska, Colorado, Georgia, North Carolina, Oklahoma, Rhode Island, and Wisconsin) joined in 2004, three (Kentucky, New Mexico, and Utah) in 2005, and two (Michigan and Ohio) in 2010. Ohio collected statewide data starting in 2011 and Michigan starting in 2014. CDC provides funding for state participation, and the ultimate goal is for NVDRS to expand to include all 50 states, U.S. territories, and the District of Columbia.

Chronic Pain and Suicide

Original Research

Annals of Internal Medicine

Chronic Pain Among Suicide Decedents, 2003 to 2014: Findings From the National Violent Death Reporting System

Emiko Petrosky, MD, MPH; Rafael Harpaz, MD, MPH; Katherine A. Fowler, PhD; Michele K. Bohm, MPH; Charles G. Helmick, MD; Keming Yuan, MS; and Carter J. Betz, MS

Background: More than 25 million adults in the United States have chronic pain. Chronic pain has been associated with suicidality, but previous studies primarily examined nonfatal suicidal behaviors rather than suicide deaths associated with chronic pain or the characteristics of such deaths.

Objective: To estimate the prevalence of chronic pain among suicide decedents in a large multistate sample and to characterize suicide decedents with and without chronic pain.

health, substance use, interpersonal problems, life stressors), and suicide planning and intent.

Results: Of 123 181 suicide decedents included in the study, 10 789 (8.8%) had evidence of chronic pain, and the percentage increased from 7.4% in 2003 to 10.2% in 2014. More than half (53.6%) of suicide decedents with chronic pain died of firearm-related injuries and 16.2% by opioid overdose.

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Cancer and Suicide



Received: 11 January 2018

Revised: 19 March 2018

Accepted: 24 March 2018

DOI: 10.1002/pon.4720

PAPER WILEY

Circumstances of suicide among individuals with a history of cancer

Centers for Disease Control and Prevention, Atlanta, GA, USA

Correspondence

Greta Massetti, Centers for Disease Control and Prevention, 4770 Buford Hwy, Atlanta, GA 30341, USA.

Abstract

Objective: Cancer can trigger psychological distress, which may be associated with risk of suicide. We explored precipitating circumstances of suicides among decedents with and without a history of cancer.

Suicides among Lesbian and Gay Individuals

American Journal of Preventive Medicine

RESEARCH ARTICLE

Suicides Among Lesbian and Gay Male Individuals: Findings From the National Violent Death Reporting System



Bridget H. Lyons, MPH,¹ Mikel L. Walters, PhD,² Shane P.D. Jack, PhD,¹ Emiko Petrosky, MD, MPH,¹ Janet M. Blair, PhD, MPH,¹ Asha Z. Ivey-Stephenson, PhD¹

Using VDRS Data for Prevention

How are NVDRS data used?

- Inform communities
 - Document circumstances
 - Who, what, when, and where?
 - Insight as to why



- Guide and target violence prevention programs, policies, and practices
 - Support planning and implementation of activities at the local, state, and federal levels
- Monitor and evaluate prevention programs and strategies

Data Supports Suicide Prevention

Rhode Island

- Data used to provide an overview of the epidemiology of youth suicide
- Mental health issues often precipitated suicides

Information used to inform communities on signs and

risks of suicide



Data Supports Suicide Prevention

Oregon

- Data indicated need to target older adults
- Developed state suicide prevention plan and targeted prevention efforts on older adults
- Over 1/3 of decedents had visited a physician in the last 30 days of their life
- Suggested that training physicians could be a promising approach

Suicides of Active Duty Military and Veterans

Alaska

- Using VDRS data to identify veteran suicides and the circumstances involved
- Working with the Alaska Veteran Affairs (VA) suicide prevention program
- Information will be used to develop policies, intervention and prevention strategies



How can the system benefit Law Enforcement?

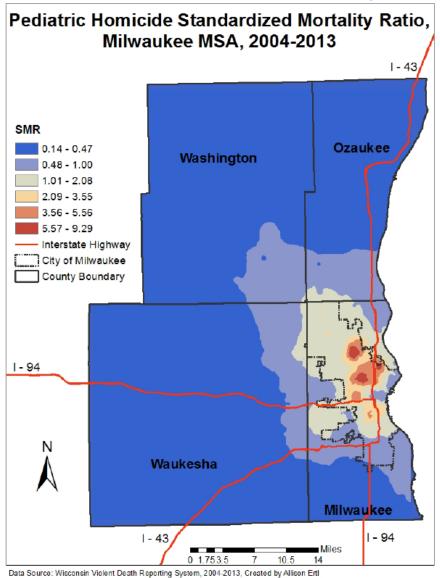
Law Enforcement-Related Analyses Using NVDRS

- Published in the American Journal of Preventive Medicine
 - Occupational Homicides of Law Enforcement Officers,
 2003-2013 (Blair JM, Fowler KA, Betz CJ, et al.)
 - Deaths Due to Use of Lethal Force by Law Enforcement,
 17 States, 2009-2012 (DeGue S, Fowler KA, Calkins C.)
- What these papers add:
 - NVDRS can address timely topics
 - Lethal force study first to examine characteristics using a multi-state system
 - Information for prevention and action

Using Mapping for Law Enforcement

- Geographic analysis can help reveal patterns of violent death
- More effective deployment of law enforcement
- Better use of public safety resources
- Stronger, targeted crime policies
- Greater understanding of crime
- Guide and target violence prevention efforts
- Create healthier, safer communities

NVDRS in Action:Map from the WI Violent Death Reporting System



Data Supports Homicide Prevention

Oklahoma

7456.pdf

- Tested intervention for police officers responding to domestic violence calls
- Data used to secure support for implementation and evaluation of the intervention
- VDRS data on intimate partner homicides included in the final report of the National Institute of Justice, Police Departments' Use of the Lethality Assessment Program: A Quasi-Experimental Evaluation https://www.ncjrs.gov/pdffiles1/nij/grants/24



Suicides Among First Responders

Colorado

- First responders (law enforcement, fire, EMS) more likely to have been a veteran than general population of suicide decedents
- Raises issues about needs veterans may have as they transition from one high-stress position to another
- Acknowledges needs of veterans continuing work as first responders
- Prevention can focus on positive mental and physical health



information from death certificates, coroner/medical examiner reports, and law enforcement reports, which allows for greater case detail than death certificates alone. Using CoVDRS we are able to analyze the unique circumstances and

deaths among Colorado first responders from 2004 to 2014. Cases were defined as a first responder based on a structured review of the Usual Industry and Usua Occupation text fields collected from the death certificate. These fields are

NVDRS Brings Together Data Sources to Inform Law Enforcement and Public Health

- Allows law enforcement to have a comprehensive view of violent deaths
- CDC and VDRS programs have ongoing relationships with LE partner organizations and work with LE partners
 - Work with LE partners to enhance access and availability of quality data



Future Directions

- NVDRS requires continued efforts to build and maintain relationships with stakeholders, including LE
- LE officers have been helpful with NVDRS
 - Retired LE officers who provide expertise as abstractors
 - Serve as liaisons to help states get reports
- Each VDRS program is required to have an Advisory Board
- Talk to people in your state: we can help you identify partners
- Collaboration can lead to the development of programs that can ultimately reduce violent deaths

Access to NVDRS Data

NVDRS WISQARS Data – Available to Public

WISQARS

- Public access on the Web
 - http://wisqars.cdc.gov:8080/nvdrs/nvdrsDisplay.jsp
- 2017 NVDRS WISQARS data released Select variables to run your own reports
 - Manner of death
 - Victim/suspect relationship
 - Weapon type
 - Vulnerable populations
 - Circumstances

NVDRS Restricted Access Database (RAD)

- For researchers who meet established criteria
- Opportunity to conduct analyses using NVDRS data
- Data available as a flat file to promote ease of use and analysis
- More information available at the NVDRS RAD website: https://www.cdc.gov/violenceprevention/nvdrs/rad.html



Acknowledgments

NVDRS Grantees

Vital Statistics, Coroner/Medical Examiner, and Law Enforcement staff in NVDRS States

Surveillance Branch, Office of the Chief

- Kathleen McDavid Harrison PhD MPH FACE, Surveillance Branch Chief
- Leroy Frazier Jr. MSPH CHES,
 Surveillance Branch Deputy Chief

Mortality Surveillance Team/Surveillance Coordination Team

- Apreal Bailey MPH, Project Officer
- Jamar Barnes MPH, Project Officer
- Carter Betz MS, Programmer/Analyst
- Janet Blair PhD MPH, Team Lead
- Craig Bryant, Computer Scientist
- Scott VanHeest, IT Specialist
- Jacqueline Crain, Public Health Advisor
- Shane Davis Jack PhD, Science Officer
- James Diggs MPH CHES, Public Health Advisor
- Kristiana Dixon PhD, ORISE Fellow
- Allison Ertl PhD Science Officer
- Katherine Fowler PhD, Senior Scientist
- Bernita Frazier PhD MPA, Public Health Advisor
- Asha Ivey-Stephenson PhD, Science Officer
- Rachel Leavitt MPH, ORISE Fellow
- Colby Lokey MPH, Project Officer
- Michele LaLand Project Officer
- Bridget Lyons MPH, Science Officer
- Emiko Petrosky MD, MPH, Science Officer
- Lennisha Pinckney, MPH ORISE Fellow
- Kameron Sheats PhD, Science Officer
- Rebecca Wilson PhD, Science Officer
- Keming Yuan MS, Mathematical Statistician

Thank you!

For more information, contact CDC 1-800-CDC-INFO (232-4636)
TTY: 1-888-232-6348 www.cdc.gov

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.



Intentional Injury Data Presentation: Finalized 2018 Data

Morgan Sprecher, INVDRS Epidemiologist



2018 Death Types

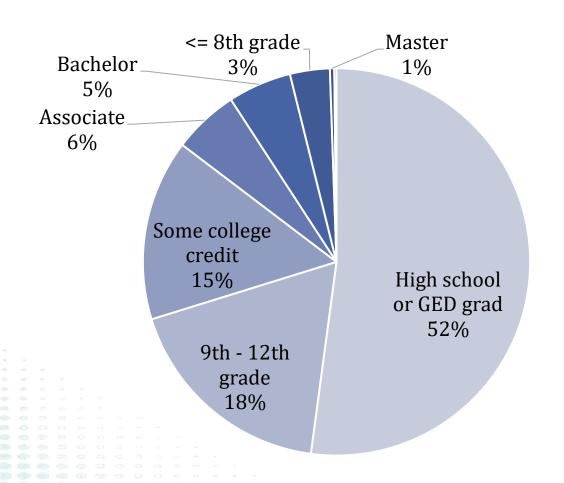
• PDO: 1,123

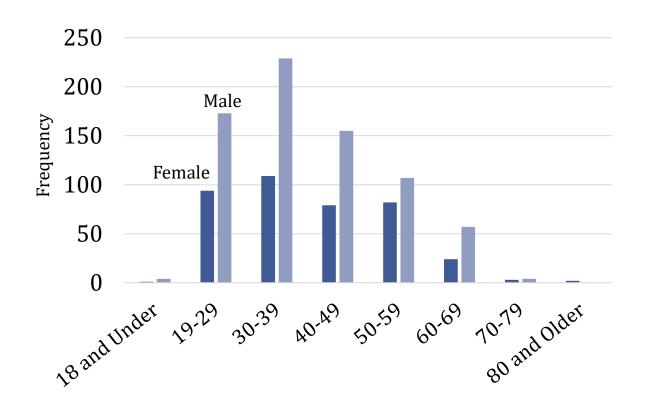
• Suicide: 1,079

• Homicide: 497

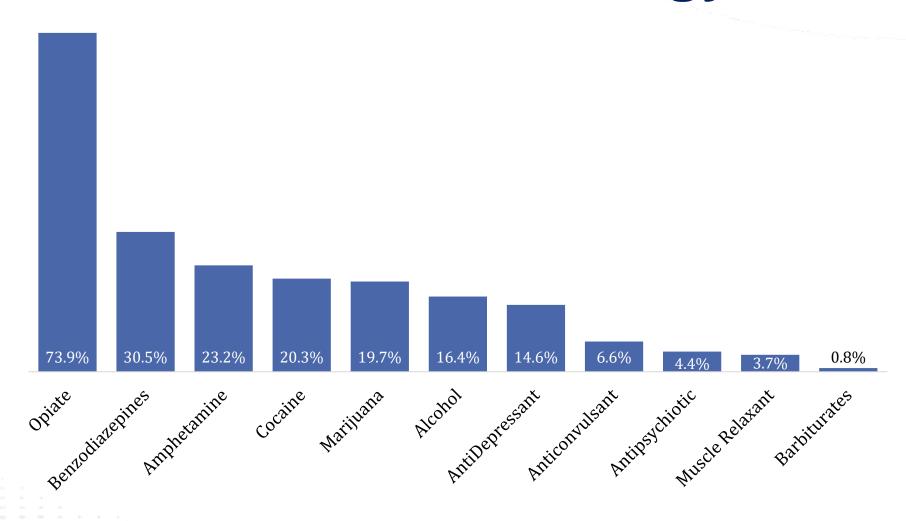
• Undetermined: 95

2018 PDO Demographics

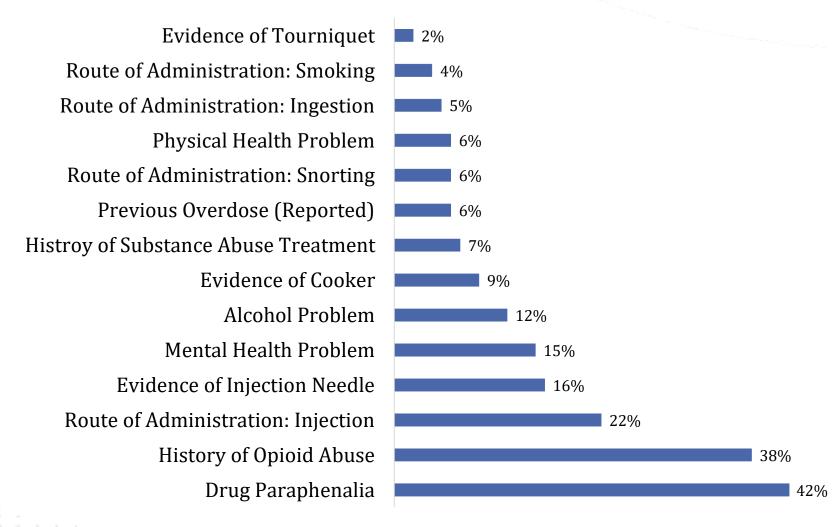




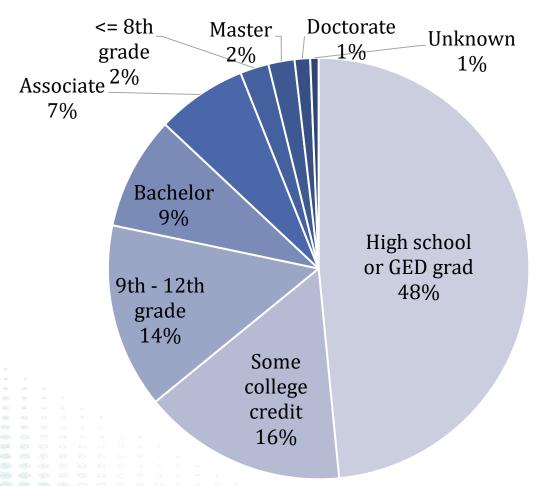
2018 PDO Toxicology

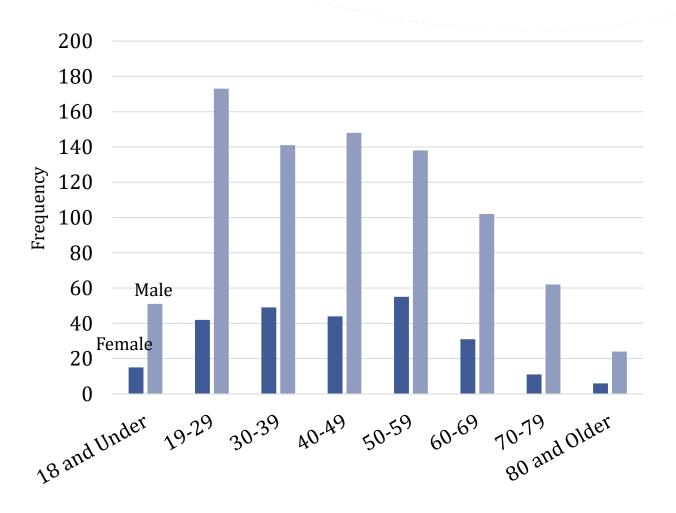


2018 PDO Circumstances



2018 Suicide Demographics





Location of Death

78%

HOUSE/APARTMENT



5%

MOTOR VEHICLE



4%
NATURAL AREA

Type of Weapon



53%

FIREARM



31%

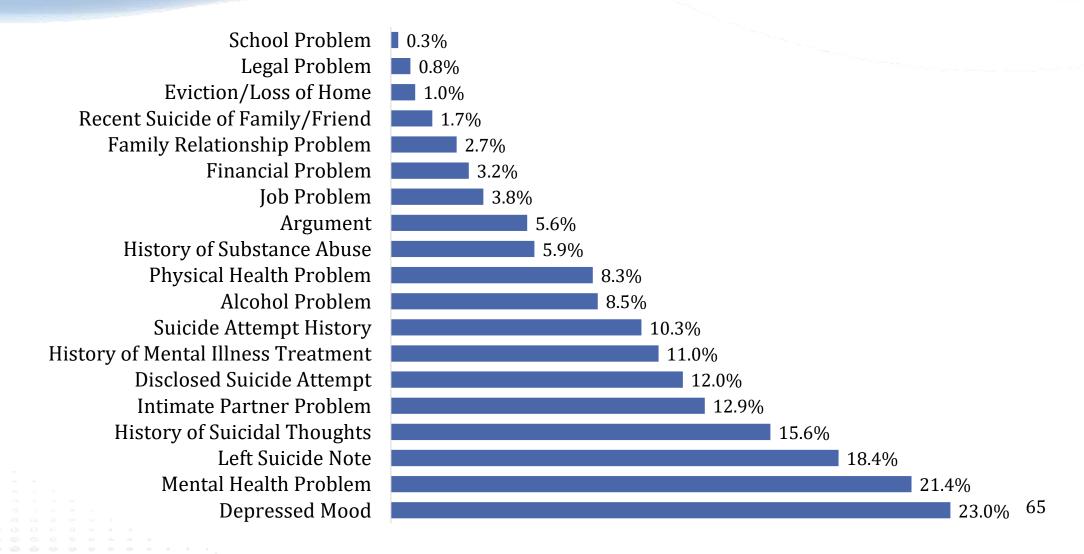
HANGING, STRANGULATION, SUFFOCATION



10%

POISONING

2018 Suicide Circumstances



Contact Information

Morgan Sprecher, INVDRS Epidemiologist

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Thanks for joining!

Feel free to invite new attendees for the next meeting on September 18th!

