Arizona Violent Death Reporting System

Data quality improvement and training
August 13, 2021
Goals for Today

• Learn from our partners
• Inform audience about AZ-VDRS and its role within the NVDRS
• NVDRS data scope and utility
• Importance of data quality element from each source
• Value of quality data downstream
• Provide training and resources to assist the improvement of death scene investigation reporting and documentation
Topics

• NVDRS
• Medicolegal Death Scene Investigations
• AZ-VDRS and the Death Scene Investigator
• Missing Data Report
• Key areas of data quality
• Resources
• Discussion
National Violent Death Reporting System
NVDRS
A unique public health surveillance system
National Scope of NVDRS

The Reach of NVDRS

NVDRS began collecting data on violent deaths from six states in 2002, followed by progressive additions to the system over several years. In 2018, NVDRS was expanded to include data collection from all 50 states, Puerto Rico, and the District of Columbia. This expansion brings NVDRS closer to the goal of providing a complete picture of violent deaths across the nation.

States added by year:
- 2002: MA, MD, NJ, OR, SC, VA
- 2003: AK, CO, GA, NC, OK, RI, WI
- 2004: KY, NM, UT
- 2009: MI, OH
- 2014: AZ, CT, HI, IA, IL, IN, KS, ME, MN, NH, NY, PA, VT, WA
- 2016: AL, CA, DE, DC, LA, MO, NE, NV, Puerto Rico, WV
- 2018: AR, FL, ID, MS, MT, ND, SD, TN, TX, WY
Un-redacted sources of data contributing to AZ-VDRS

- Death Certificates (100% coverage)
  Arizona Department of Health Services

- Medical Examiner Reports (90% coverage)
  All medical examiners offices in AZ
  New Mexico ME

- Law Enforcement Reports (87% coverage)
  City police
  Sheriffs departments

- Other sources
  Hospital data, MOU in place, IRB approved
Examples of types of data

Demographics
- e.g., age, sex, education, occupation, etc.
- Suspect information

Cause & manner of death
- Homicide or suicide
- ICD-10 codes and descriptions

Toxicology data

Circumstance information
- Incident-level (e.g., time & place, wounds, etc.)
- Individual-level (e.g., criminal history, relationship & life stressors, etc.)

Mental & physical health issues
- e.g., substance abuse, history of suicide attempts or ideation, terminal illness, etc.

Weapon type
Medicolegal Death Investigations

A process of documentation
Medicolegal Death Investigators

• Investigate all suspicious, violent, undetermined and unexpected deaths.

• Knowledge and skills at the intersection of law and medicine.

• Often is one of the most medically knowledgeable people at the scene of the crime and is important in deciding whether further investigation is necessary.

• See the American Board of Medicolegal Death Investigators (AMBDI) for more information.
Medicolegal Death Investigations

Detailed documentation of the scene and circumstances about the victim and the fatal incident are critical to a comprehensive and accurate understanding of the death – and how to prevent, intercede, and address potential future deaths.

Encompasses a broad range of knowledge and skills

Critical component of coroner/medical examiner

Important contributor to law enforcement investigation
Importance of data from the death scene

Critical source of information

Victim-centric information

“Story” of the fatal event
AZ-VDRS Missing Data Report

Representativeness and quality of Arizona data on violent deaths
Excellent data elements

• Victim Demographics
  • Basic vitals (sex, age race/ethnicity, age, etc.)

• Extended demographics
  • education, usual industry/occupation, marital status, veteran status
  • Relationship status and sexual orientation less reported

• Residence and injury location(s)

• Injury details
The Missing Data Problem

- DC data is at 100%
- LE and ME level data present shortfalls

- Two chief reasons for missing data on decedents:
  1. Non-participating agencies; and
  2. Poor data collection and recording protocols by responsible agencies.
Data Collection Quality/Completeness

- Data quality and completeness is the second critical component to resolving the AZ-VDRS missing data problem.

- Among participating agencies, some of the reports generated are very sparse on details, especially regarding the circumstance variables, which are so critical.

- AZ-VDRS codes circumstances based on the details provided primarily in report narratives. Protocol requires explicit information to be present in the source document in order to endorse the specific circumstance.
### Number of ME Reports Obtained for Arizona Violent Deaths by County of Death and Year, 2015-2018 (N=7,770)

<table>
<thead>
<tr>
<th></th>
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#### By County of Death

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**Total** 1912 1857 97.1 1963 1888 96.2 2065 1990 96.4 7770 7449 95.9
## Number of Decedents With at Least One ME Circumstance Coded Among Participating and Abstracted ME Partner Reports by Death county, 2015-2018 (N=7,402)

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<th>2017</th>
<th>2018</th>
<th>Total</th>
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<tr>
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<tr>
<td>Yavapai</td>
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<td>Total</td>
<td>1673</td>
<td>1538</td>
<td>91.9</td>
<td>1856</td>
<td>1716</td>
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</table>
## Data Collection Quality/Completeness

### Medical Examiner Circumstances Known, 2015-2018 (N=7,402)

<table>
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<tr>
<th>Manner</th>
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<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
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<td>Total</td>
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<td>7.4</td>
<td>6856</td>
<td>92.6</td>
<td>7402</td>
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</tbody>
</table>
AZ-VDRS and the Death Scene Investigation

*Detailed documentation is everything.*
Circumstance
Data Tells the Story

It is important to include as much detail and corroboration as necessary to provide a clear picture of what led to the violent death.

Understanding these circumstances are crucial to downstream interventions and policy developments.

Victim-centric

Document and corroborate

• Currently life circumstances and history
• Relationships
• Routine activities
Circumstance data

- Mental Health
- Relationship Problems
- Previous Exposure to Violence
- Crime and Criminal Activity
- Life Stressors
- Manner Specific
Mental Health

Currently diagnosed mental health problem

Current depressed mood

Current mental health/substance abuse treatment

Ever treated mental health or substance abuse problem

Alcohol problem

Other substance abuse problem

Other addictions
Relationship Problems

- Intimate partner violence
- Intimate partner problem
- Family relationship problem
- Other relationship problem
- Physical Fight
- Argument
## Previous Exposure to Violence

- Abuse or neglect led to death
- History of abuse or neglect as a child
- Perpetrator or suspect was a caregiver to the victim
- Previous perpetrator of violence in the past month
- Previous victim of violence in the past month
Crime and Criminal Activity

- Precipitated by another crime
- First crime in progress
- Stalking
- Prostitution or sex trafficking
- Terrorist attack
- Walk-by assault
- Gang related

1/18/2022

Arizona State University
Life Stressors

The list of life stressors specifically used by the CDC and AZ-VDRS is listed to the right.

Life stressors can tell an important part of the overall story of the fatal incident, and other stressors and issues that are uncovered during the investigation should be documented.

<table>
<thead>
<tr>
<th>Stressor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contributing criminal legal problems</td>
</tr>
<tr>
<td>Civil legal problems</td>
</tr>
<tr>
<td>Job problem</td>
</tr>
<tr>
<td>Financial problem</td>
</tr>
<tr>
<td>School problem</td>
</tr>
<tr>
<td>Eviction or loss of home</td>
</tr>
<tr>
<td>Suicide of friend or family contributed to death</td>
</tr>
<tr>
<td>Non-suicide death of friend or family</td>
</tr>
<tr>
<td>Anniversary of a traumatic event</td>
</tr>
<tr>
<td>Disaster exposure</td>
</tr>
</tbody>
</table>
Homicide-specific

- Justifiable self-defense
- Victim was a police officer on-duty
- Victim was a bystander
- Random violence
- Victim was an intervener
- Victim used a weapon
- Mercy killing
- Hate crime
- Jealousy (lover's triangle)
- Brawl (3+ people in a physical fight)
- Drive-by shooting
- Drug involvement
Suicide-specific

- History of suicide attempts
- History of expressed suicidal thoughts or plans
- Recently disclosed suicidal thoughts / plan to commit suicide
- Disclosed intent to whom
- Left suicide note
AZ-VDRS Data Improvement

A few key areas for easy data improvement
Training topics

IPV / DV  Trevor Project  Prescription medications  Illicit drugs present

Gangs  Homeless  Employment Info

1/18/2022
Domestic Violence

Three key distinctions:

1. Intimate partners
2. Caregivers
3. Other domestic or family relationships

- Record current or former intimate partner status
- Cohabitation now or previously
- Relationship problems
- Current relationship status
- History of abuse or violence in the relationship, as victim or perpetrator
- Caregiver status
  - Custody dispute
  - Physical or mental illness
  - Substance abuse issues
- Prior criminal justice involvement in this relationship
The Trevor Project is a not-for-profit organization focused on suicide prevention in the LGBTQ+ community, particularly among youth.

Gaps in data

• More than 95% coded as unknown

Document

• Lack of documentation regarding orientation
• Relationships (e.g. status, partner(s), etc.)
Prescription Drugs

It is critical to record details.

These are important to understand the role of these medications in both intentional and unintentional overdose deaths.

- Is it prescribed to the victim?
- Record the name and dosage
- Date prescription filled, and for how many pills
- How much remains?
Illicit Drugs

It is critical to record details.

These are important to understand the role of these medications in both intentional and unintentional overdose deaths.

- What drugs are present?
- How much is on-scene?
- Information about the victim’s history of misuse
- Information about the victim’s history of treatment
- What kind of paraphernalia is present?
Gang-related data

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>No – Not available; unknown</td>
<td></td>
</tr>
<tr>
<td>Yes – gang motivated</td>
<td></td>
</tr>
<tr>
<td>Yes – suspected gang member involvement</td>
<td></td>
</tr>
<tr>
<td>Yes – gang-related, otherwise unspecified</td>
<td></td>
</tr>
<tr>
<td>Yes – organized crime (including motorcycle, mafia, &amp; drug cartel)</td>
<td></td>
</tr>
</tbody>
</table>
Homelessness status is recorded under one of two measures.

**Homeless**
- Traditional definition of transient
- Residing outdoors or in a place not intended for

**Housing Instability**
- “Couch-surfing”
Industry and Occupation Information

There are three coded variables related to the victim’s employment: usual industry, usual occupation, and current occupation.

**Industry**

- Industry is used for broad categories, such as mining, retail, construction, etc.

**Occupation**

- Usual occupation is used for the victim’s usual job (e.g., cashier, teacher, mechanic, etc.).
- Current occupation would indicate if the victim is unemployed, retired, a homemaker, and the like.
AZ-VDRS Resources

How can the ASU and AZ-VDRS team help you?
Pocket Cards

Upon request, ASU can make hardcopies available to you and your staff, as needed

Available in PDF format
How can we help?

SUPPORT FOR FUTURE, LOCAL TRAINING?

SUPPORT FOR CERTIFICATION OR CTE OPPORTUNITIES?

WHAT ELSE DO YOU OR YOUR TEAM NEED TO SUCCEED?
Thank you!

• AZ-VDRS website:
  • https://cvpcs.asu.edu/projects/arizona-violent-death-reporting-system