

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

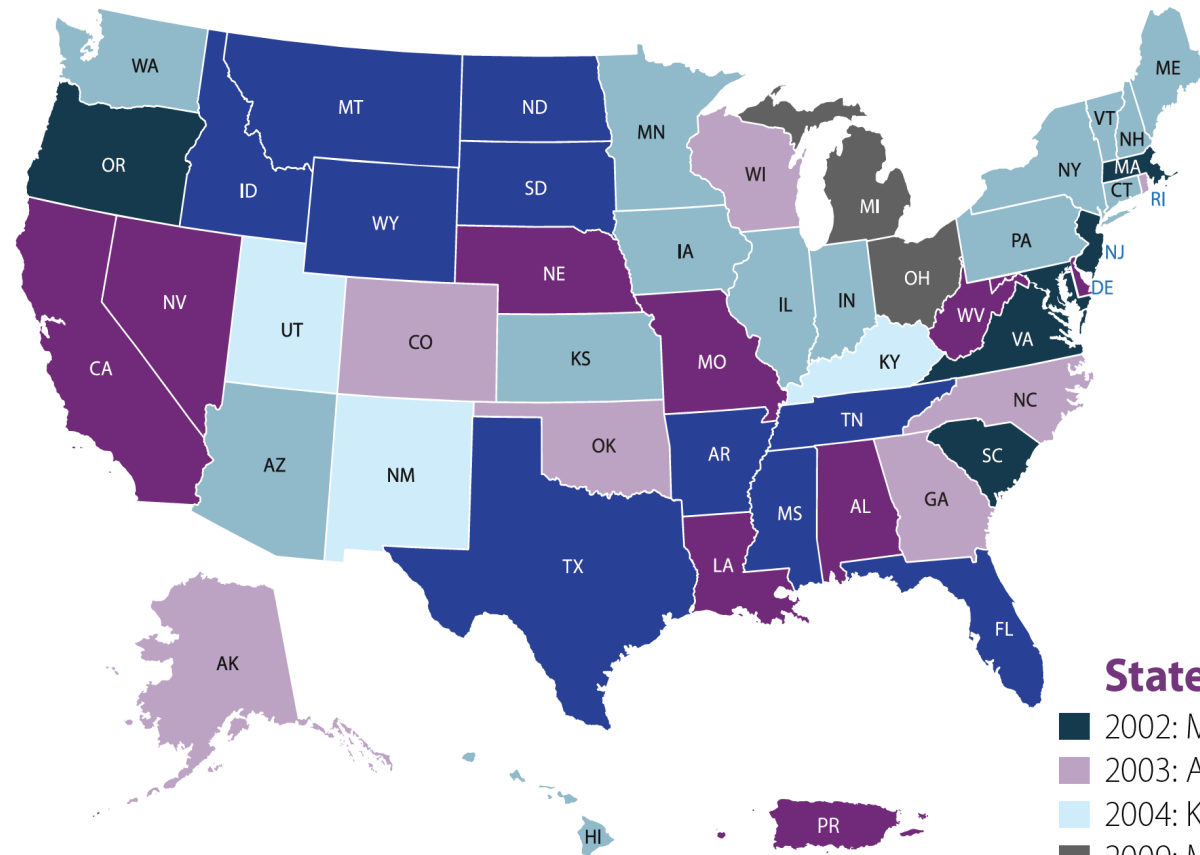
Topics

- 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



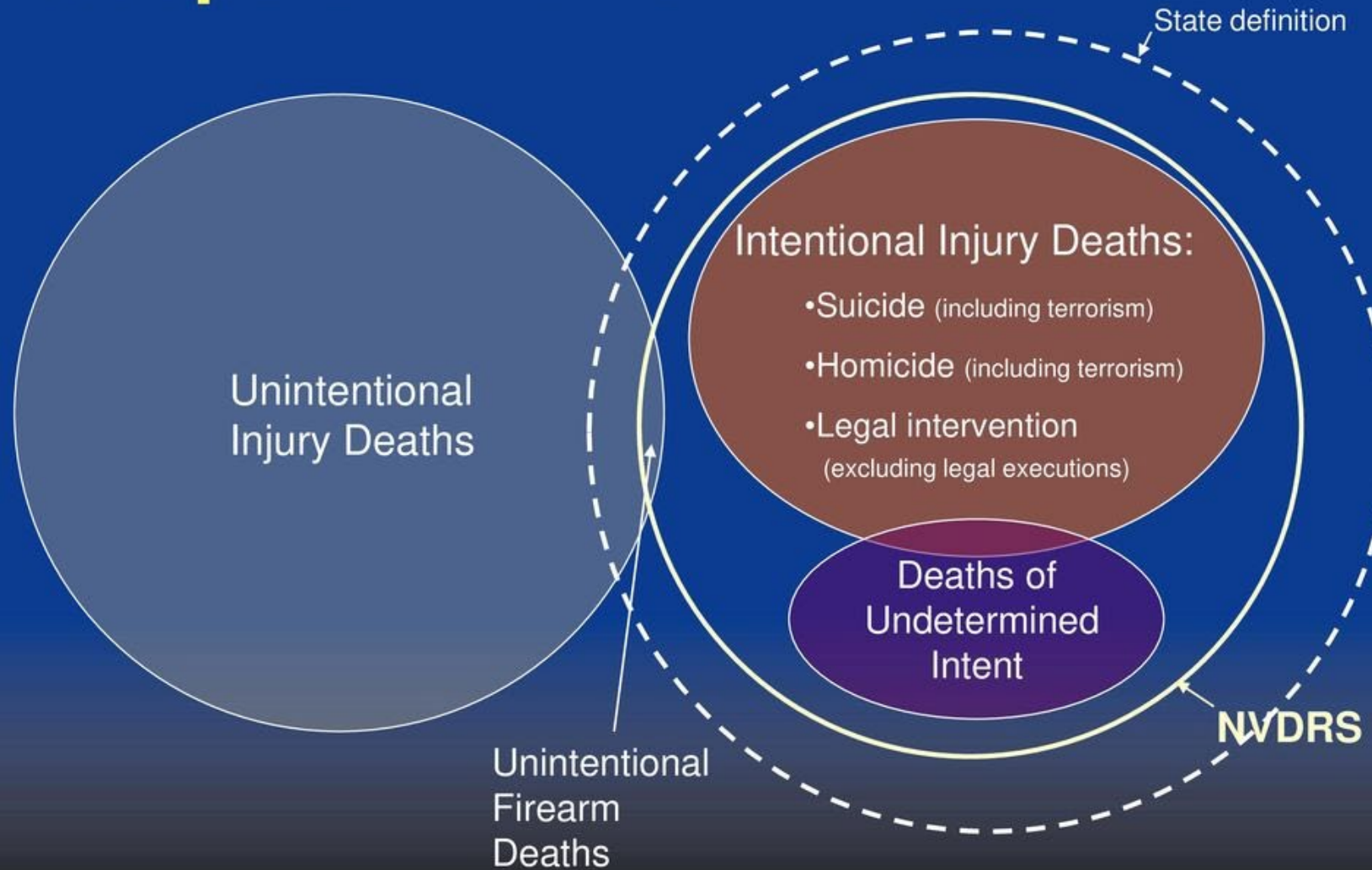
The Reach of NVDRS

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

Scope of NVDRS



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

Death certificate

Medical examiner information

Police reports

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

Weapon type

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.

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)

	2015			2016			2017			2018			Total		
	DC	ME	%	DC	ME	%	DC	ME	%	DC	ME	%	DC	ME	%
Arizona	1830	1714	93.7	1912	1857	97.1	1963	1888	96.2	2065	1990	96.4	7770	7449	95.9
<u>By County of Death</u>															
Apache County	34	8	23.5	26	15	57.7	31	8	25.8	34	9	26.5	125	40	32.0
Cochise County	39	39	100.0	36	36	100.0	34	34	100.0	21	21	100.0	130	130	100.0
Coconino County	74	71	95.9	64	61	95.3	78	72	92.3	79	68	86.1	295	272	92.2
Gila County	27	7	25.9	27	23	85.2	26	26	100.0	43	40	93.0	123	96	78.0
Graham County	9	1	11.1	12	2	16.7	11	3	27.3	10	7	70.0	42	13	31.0
Greenlee County	1	1	100.0	1	1	100.0	3	2	66.7	3	2	66.7	8	6	75.0
La Paz County	12	5	41.7	9	4	44.4	16	4	25.0	14	8	57.1	51	21	41.2
Maricopa County	987	985	99.8	1089	1085	99.6	1069	1069	100.0	1116	1116	100.0	4261	4255	99.9
Mohave County	89	89	100.0	101	99	98.0	111	110	99.1	118	118	100.0	419	416	99.3
Navajo County	48	23	47.9	58	47	81.0	59	44	74.6	55	41	74.5	220	155	70.5
Pima County	266	265	99.6	262	258	98.5	318	311	97.8	317	307	96.8	1163	1141	98.1
Pinal County	89	87	97.8	81	81	100.0	83	82	98.8	103	102	99.0	356	352	98.9
Santa Cruz County	4	4	100.0	9	9	100.0	4	4	100.0	10	9	90.0	27	26	96.3
Yavapai County	109	87	79.8	96	96	100.0	94	93	98.9	96	96	100.0	395	372	94.2
Yuma County	42	42	100.0	40	40	100.0	26	26	100.0	46	46	100.0	154	154	100.0
Unknown County	0	0	0.0	1	0	0.0	0	0	0.0	0	0	0.0	1	0	0.0
Outside Arizona	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0
Total	1830	1714	93.7	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)

	2015			2016			2017			2018			Total		
	DC	ME	%	DC	ME	%	DC	ME	%	DC	ME	%	DC	ME	%
Arizona	1673	1538	91.9	1856	1716	92.5	1885	1769	93.8	1988	1833	92.2	7402	6856	92.6
<u>By County of Death</u>															
Apache	8	3	37.5	14	8	57.1	8	7	87.5	9	6	66.7	39	24	61.5
Cochise	37	35	94.6	36	33	91.7	34	32	94.1	21	16	76.2	128	116	90.6
Coconino	68	61	89.7	61	55	90.2	72	70	97.2	68	63	92.6	269	249	92.6
Gila	7	7	100.0	23	17	73.9	26	22	84.6	41	24	58.5	97	70	72.2
Graham	1	1	100.0	2	2	100.0	3	1	33.3	7	4	57.1	13	8	61.5
Greenlee	1	1	100.0	1	1	100.0	2	2	100.0	2	2	100.0	6	6	100.0
La Paz	5	5	100.0	4	3	75.0	4	2	50.0	8	7	87.5	21	17	81.0
Maricopa	955	895	93.7	1083	1035	95.6	1065	1034	97.1	1116	1069	95.8	4219	4033	95.6
Mohave	86	81	94.2	101	96	95.0	111	101	91.0	118	109	92.4	416	387	93.0
Navajo	22	21	95.5	47	40	85.1	45	41	91.1	40	32	80.0	154	134	87.0
Pima	265	259	97.7	257	236	91.8	310	278	89.7	308	276	89.6	1140	1049	92.0
Pinal	87	77	88.5	82	61	74.4	82	76	92.7	99	96	97.0	350	310	88.6
Santa Cruz	4	4	100.0	9	9	100.0	4	4	100.0	9	8	88.9	26	25	96.2
Yavapai	88	51	58.0	96	82	85.4	93	73	78.5	96	77	80.2	373	283	75.9
Yuma	39	37	94.9	40	38	95.0	26	26	100.0	46	44	95.7	151	145	96.0
Total	1673	1538	91.9	1856	1716	92.5	1885	1769	93.8	1988	1833	92.2	7402	6856	92.6

Data Collection Quality/Completeness

Medical Examiner Circumstances Known, 2015-2018 (N=7,402)						
Manner	Missing		Endorsed		Total	
	n	%	n	%	n	%
Suicide	330	6.5	4780	93.5	5110	100.0
Homicide	161	11.2	1272	88.8	1433	100.0
Other	55	8.8	804	93.6	859	100.0
Total	546	7.4	6856	92.6	7402	100.0

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

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.

Contributing criminal legal problems

Civil legal problems

Job problem

Financial problem

School problem

Eviction or loss of home

Suicide of friend or family contributed to death

Non-suicide death of friend or family

Anniversary of a traumatic event

Disaster exposure

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

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

Trevor Project

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

No – Not available; unknown

Yes – gang motivated

Yes – suspected gang member involvement

Yes – gang-related, otherwise unspecified

Yes – organized crime (including motorcycle, mafia, & drug cartel)

Homelessness

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

Homicide Information

Was the Homicide related to...

- Another Crime (Describe)?
- Gang Activity/Conflict?
 - Selling, Using or Possessing Drugs?
 - A Hate Crime?
- Arguments Over Money or Property?
- Jealousy Over a Current/Former Intimate Partner?
- Mutual Physical Fight Among At Least Three People?
- Conflict Between Former/Current Intimate Partners?
- Some Other Argument?

Was the Victim...

- A Bystander?
- Using a Weapon?
- Acting in Self-Defense?
- Intervening to Assist a Crime Victim?

In General, What Events Led Up to the Suspect(s) Killing the Victim(s)?

What is the Relationship Between the Suspect(s) and Victim(s)?

Suicide Information

Did the Victim...

- Try to Commit Suicide in the Past?
- Leave a Suicide Note (What Did It Say)?
- Tell Someone About a Plan to Commit Suicide?

What Did Friends/Family Give as the Reason(s) the Victim Committed Suicide?

Arizona Violent Death Reporting System

data that provides a path to prevention



ASU center for violence prevention and community safety

ARIZONA STATE UNIVERSITY

411 N. Central Ave., Suite 680
Phoenix, Arizona 85004
602-496-1425
cvpcs.asu.edu

Important Information to Document

For All Persons Involved in the Incident

- Name, Sex, Age, Race and Ethnicity
- Address and Zip Code of Residence

Event Information

- Time and Date of Injury
- Address and Zip Code of Injury
- Type of Location Where Injury Occurred (e.g. Apartment, Parking Lot, etc.)

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>