

# Establishing a Baseline Measure for Evaluating Upstream, Primary Prevention Efforts: Quantifying Fatal Events Associated with Law Enforcement Service Calls and Encounters in Minnesota – 2016-2021

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## Introduction

Safety is one of the many conditions necessary to achieve optimal health, and law enforcement is a key strategy employed by governments to create and preserve public safety. When encounters with law enforcement result in death, however, there are health and safety consequences not only for the person who lost their life, but also for entire families and communities, as well as the officers involved. A public health approach, such as a fatality review, which aims to understand upstream systems change that could prevent adverse health outcomes has been used successfully in a variety of complex areas such as maternal deaths, sudden unexplained infant deaths, and suicides in military veterans.

The purpose of a public health approach is not to evaluate whether an action is justifiable. While many incidents occurring during encounters with law enforcement are determined by criminal justice system actors to be defensible, there is recognition that lethal force, even when ruled “justifiable” from a legal perspective, is sometimes preventable. (Source: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6080222/>).

A public health response to these traumatic incidents, including components such as multi-disciplinary fatality reviews, can produce actionable recommendations that can be implemented at the community level. Within that context, it is essential to be able to classify, categorize, and count fatalities – including those caused by self-harm and accidents - that occur during a service call or law enforcement encounter. In this way community intervention efforts that focus on prevention can be assessed and evaluated.

Between 2020 and 2022, the Minnesota Department of Health (MDH) completed the following analysis to 1) find the most accurate count possible of fatal events associated with a call for law enforcement service or other encounters with law enforcement in Minnesota to share with the public and 2) evaluate the usefulness of various governmental and non-governmental systems for tracking these events. To accomplish this task, we identified cases in four data sources – Minnesota death certificates, the [National Violent Death Reporting System \(NVDRS\)](https://www.cdc.gov/violenceprevention/datasources/nvdrs/index.html) (<https://www.cdc.gov/violenceprevention/datasources/nvdrs/index.html>), the online [Fatal Encounters database](https://fatalencounters.org/) (<https://fatalencounters.org/>), and the use of force dataset available as part of the Minnesota Bureau of Criminal Apprehension’s (BCA) Crime Data Explorer – and compiled a master dataset of all identified deaths. Using this method, MDH was able to identify at least 177 cases occurring in Minnesota during the years 2016-2021 using a definition that

includes deaths due to interpersonal use of force, suicides, accidents and other deaths. Of the decedents, 176 were civilians and one was a law enforcement official. MDH found that, while each dataset had its own advantages for case detection, no individual dataset was able to capture all known Minnesota cases for the time period under study.

## Methods

MDH created a master dataset of Minnesota incidents by identifying and linking relevant records from death certificate data, the Minnesota National Violent Death Reporting System (MNVDRS), Fatal Encounters, an externally validated online crowd-sourced database, and the use of force dataset available as part of the Minnesota Bureau of Criminal Apprehension's (BCA) Crime Data Explorer.

## Case Definition

An incident was considered a fatality associated with a law enforcement service call or encounter 1) the injury leading to death was sustained as a result of an encounter in the community between at least one law enforcement officer and at least one civilian and 2) the law enforcement officer, whether on- or off-duty, was acting with the intention of arresting lawbreakers, suppressing disturbances, maintaining order, or performing another legal action. For the purposes of this analysis, the category of law enforcement officers includes police officers, state troopers, active military, correctional officers, federal agents, and private security guards. An encounter "in the community" refers to events that take place outside of a jail or prison setting, including transportation to or from jails or prisons. Deaths associated with use of force by off-duty law enforcement officers are not considered for inclusion unless the officer was acting with the intention of arresting lawbreakers, suppressing disturbances, maintaining order, or performing another legal action. For example, if an off-duty police officer were to intervene in an armed robbery, any death that resulted from this action would be included. However, an unintentional traffic fatality associated with an officer who was off duty would not be included.

To fully understand the public health impact of encounters between civilians and law enforcement, it is necessary to examine a broad range of potential health outcomes. While the most publicized deaths associated with law enforcement have been deaths related to use of force, this case definition also seeks to capture other types of deaths that take place during encounters between civilians and law enforcement, including accidents, suicides, and deaths of a manner that could not be determined. Deaths that occur during these encounters are included whether they occurred to an officer or a civilian. Likewise, the case definition includes deaths occurring to bystanders, i.e., civilians who were not the intended subject of a use of force. This inclusive case definition is designed to be consistent with and similar to the definition used by the federal Bureau of Justice Statistics Arrest Related Deaths program ([Bureau of Justice Statistics \(BJS\) - Arrest-Related Deaths](https://www.bjs.gov/index.cfm?tid=82&ty=tp) <https://www.bjs.gov/index.cfm?tid=82&ty=tp>).

The federal Bureau of Justice Statistics collects the data to fulfill the data collection requirement of the Death in Custody Reporting Act of 2000 (DICRA). The DICRA legislation required the collection of data on deaths that occur in the process of arrest (source: [Arrest-Related Deaths \(ARD\) | Bureau of Justice Statistics \(ojp.gov\)](#) – Methodology section). Therefore, the Arrest-Related Deaths (ARD) program has not been limited to data on traditional notions of police use of lethal force or justifiable homicides. The ARD program collects information about homicides, suicides, accidental deaths, and deaths attributed to intoxication and medical conditions that occurred during an interaction with state or local law enforcement. The Bureau of Justice Statistics (BJS) uses the term "arrest-related" to capture all circumstances associated with the actions or events that occurred during an attempt by law enforcement to detain an individual. BJS defines a death as arrest-related when the event that caused the death (e.g., gunshot wound, cardiac arrest, or drowning) occurred during an interaction with state or local law enforcement personnel. MDH adopted definitions similar to those used by the federal Bureau of Justice Statistics for its review of available data to be consistent with the federal standard and because of the public health value of the approach.

## Data Sources

### Death certificates

An event was considered to have been “captured” by this data system if the underlying cause of death recorded on the death certificate belonged to one of the ICD-10 code families associated with legal intervention: Y35 and Y89.0.

### National Violent Death Reporting System (NVDRS)

The National Violent Death Reporting System (NVDRS) was established by the CDC in 2003 to collect data on violent deaths, including homicides, suicides, deaths of undetermined intent, and unintentional firearm injuries, occurring in participating states. [Minnesota’s NVDRS \(MNDVRS\) \(https://www.health.state.mn.us/communities/injury/data/mnvdrs.html\)](#) abstractors use information from death certificates, medical records, and law enforcement records to create a highly detailed data system that can be used to study the context of violent deaths in the state.

Due to routine delays associated with MNVDRS, data from this source were only available for 2016, 2017, 2018, and 2019.

An event was considered to have been captured by this data system if any of the following conditions were true of the record associated with the death:

- The manner of death was recorded as “6 – Legal Intervention”
- The “relationship between suspect and decedent” was recorded as “50 – Law Enforcement”
- The underlying cause of death belonged to one of the ICD-10 code families associated with legal intervention: Y35 and Y89.0

- The death was marked as occurring “while the victim was in custody” AND the events described in the incident description fields were consistent with the fatality associated with a law enforcement call for service or encounter case definition
- The death was marked as being “preceded by a crime” AND the events described in the incident description fields were consistent with the fatality associated with a law enforcement call for service or encounter case definition

## **Fatal Encounters**

All confirmed events included in Fatal Encounters were considered to have been captured by Fatal Encounters.

## **Bureau of Criminal Apprehension’s Use of Force Data**

The Minnesota BCA includes information on officer use of force in its Crime Data Explorer ([Minnesota Crime Data Explorer \(cde.state.mn.us\)](https://cde.state.mn.us)), an interactive dashboard that community members can use to explore crime data submitted monthly by local law enforcement agencies in accordance with state and federal law. Information about use of force incidents leading to death, serious injury, or discharge of a firearm in the direction of an individual is available from 2020 onward.

## **Combined Dataset**

All confirmed cases identified in one or more of the previously described data systems were added to the combined dataset. To prevent duplication, deaths identified from death certificates, MNVDRS, and Fatal Encounters were linked using decedent age and sex as well as incident date and location. Each record in the combined dataset includes the following information: a record identification number, decedent’s name, decedent’s age, decedent’s sex, decedent’s race and ethnicity, incident date, incident location, manner of death and underlying cause of death as recorded on the death certificate, manner of death as recorded in MNVDRS if applicable, and whether that record had been detected in each of the component datasets. The combined dataset also included two cases that were not detected by any of the data sources described above but were brought to MDH’s attention by local news media.

## **Analysis**

After a case was determined to meet the MDH case definition for a fatality associated with a law enforcement call for service or encounter, descriptive statistics were calculated to describe the demographic characteristics of decedents and the geographic locations of incidents. To examine how these measures differ over time and across different types of death, these statistics were stratified by calendar year and manner of death as recorded on the death certificate. The manner of a death is determined by a trained professional, usually a coroner or medical examiner, to be one of the following: homicide, suicide, accidental, natural, or could not be determined.

It is important to note here that the term homicide, as it is used by coroners and medical examiners to denote manner of death, refers to any death of one person at the hands of another, regardless of whether that action was justified or legal. If a decedent's death certificate says that the manner of death was a homicide, this does not necessarily imply that someone was found legally responsible or criminally liable for that death. Information about the outcomes of legal investigations into these incidents is provided by the Minnesota Department of Safety (DPS).

To avoid confusion between homicide as a manner of death and homicide as a legal term, this report will refer to deaths that are classified as homicides on the death certificate as "deaths due to interpersonal use of force."

## Results

The combined dataset included 177<sup>1</sup> cases in Minnesota during the period under study, including 33 from 2016, 25 from 2017, 26 from 2018, 28 from 2019, 29 from 2020, and 36 from 2021. Of these deaths, 79 (45%) were classified as deaths due interpersonal use of force, 54 (31%) were classified as suicides, 39 (22%) were classified as accidents, and 5 (3%) were classified as "could not be determined." Of these deaths, 120 resulted from one or more gunshot wounds, and 44 resulted from a motor vehicle collision. The remaining 13 deaths involved two drownings, two restraints, two falls, one stabbing, and six deaths that could best be described as a medical emergency.

Of the 79 deaths due to interpersonal use of force, 67 were incidents where an officer shot a civilian with a firearm, and three were incidents where a civilian died after being restrained by an officer. There was one incident where a civilian shot a law enforcement officer with a firearm. The remaining nine incidents involved deaths of civilians resulting from motor vehicle collisions that were classified as homicide by the medical examiner. In these cases, it is unclear from available data exactly who is implied to have exerted the interpersonal use of force resulting in death, or why the death investigator charged with the case chose to classify each death as a homicide.

Among the 177 known decedents, 176 were civilians, and one was a law enforcement officer. Nearly all, 161 (91%) were male and the median age was 35. The proportion of male decedents remained steady over the six study years (91% in 2016, 84% in 2017, 88% in 2018, 96% in 2019, 93% in 2020, and 92% in 2021), as did the median age (35 in 2016, 39 in 2017, 33 in 2018, 34 in 2019, 37 in 2020, and 35 in 2021). The median age of decedents and percent of decedents who were male were similar across all manners of death.

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<sup>1</sup> 175 of these cases were detected using the surveillance methodology described above. Two additional cases were not detected using death certificates, the Minnesota Violent Death Reporting System, Fatal Encounters, or the crime but rather brought to MDH's attention by local news media.

**Table 1: Characteristics of Decedents in Known Minnesota fatalities associated with a law enforcement call for service or encounter, 2016-2021**

<b>Year and Manner of Death</b>	<b>Median Age (IQR)</b>	<b>Male (%)</b>	<b>White (%)</b>	<b>Black, African, or African American (%)</b>	<b>Hispanic or Latino (%)</b>	<b>Asian or Pacific Islander (%)</b>	<b>American Indian or Alaska Native (%)</b>	<b>Twin Cities Metropolitan Area (%)</b>
<b>All years N=177*</b>	35 (27, 41)	161 (91)	109 (62)	39 (22)	14 (8)	6 (3)	10 (6)	102 (58)
<b>2016 N=33</b>	35 (28.5, 41)	30 (91)	22 (67)	6 (18)	3 (9)	1 (3)	1 (3)	18 (55)
<b>2017 N=25</b>	39 (31, 48)	21 (84)	20 (80)	2 (8)	0 (0)	2 (8)	1 (4)	15 (60)
<b>2018 N=26</b>	33 (23, 43)	23 (88)	19 (73)	2 (8)	2 (8)	0 (0)	3 (12)	14 (54)
<b>2019 N=28</b>	34 (27, 40)	27 (96)	13 (46)	8 (29)	2 (7)	2 (7)	3 (11)	17 (61)
<b>2020 N=29</b>	37 (24, 45)	27 (93)	14 (48)	11 (38)	2 (7)	1 (3)	1 (3)	16 (55)

<b>Year and Manner of Death</b>	<b>Median Age (IQR)</b>	<b>Male (%)</b>	<b>White (%)</b>	<b>Black, African, or African American (%)</b>	<b>Hispanic or Latino (%)</b>	<b>Asian or Pacific Islander (%)</b>	<b>American Indian or Alaska Native (%)</b>	<b>Twin Cities Metropolitan Area (%)</b>
<b>2021 N=36</b>	34 (21.5, 40)	33 (92)	21 (58)	10 (28)	5 (14)	0 (0)	1 (3)	20 (56%)
<b>Deaths due to Interpersonal Use of Force N=79*</b>	32.5 (24, 40)	73 (92)	39 (49)	21 (27)	9 (11)	4 (5)	7 (9)	46 (58)
<b>Suicide N=54</b>	36 (30, 41)	53 (98)	41 (76)	8 (15)	4 (7)	0 (0)	1 (2)	21 (39)
<b>Accident N=39</b>	37.5 (25, 48)	31 (79)	24 (62)	10 (26)	1 (3)	2 (5)	2 (5)	31 (79)
<b>Could not be determined N=5</b>	40 (28.5, 48.5)	4 (80)	5 (100)	0 (0)	0 (0)	0 (0)	0 (0)	4 (80)

\*Includes one law enforcement official.

This study identified significant disparities in rates of fatality associated with a law enforcement call for service or encounter by race and ethnicity. One hundred and nine of 177 (61%) people who died were white, though 84% of all Minnesotans are white. Twenty-two percent were Black, African, or African American, though only 7% of all Minnesotans are Black, African, or African American. Eight percent were Hispanic or Latino, while only 6% of all Minnesotans are

Hispanic or Latino. Three percent of those who died were Asian or Pacific Islander, though 5% of all Minnesotans are Asian or Pacific Islander. Finally, 6% of those who died were American Indian or Alaskan Native, though only 1% of all Minnesotans are American Indian or Alaska Native.

Racial disparities differ by type of death. For example, when only deaths due to interpersonal use of force are considered, the disparity between white Minnesotans (49% of deaths due to interpersonal use of force) and Black Minnesotans (27% of deaths due to interpersonal use of force) becomes more pronounced. Comparatively, when only suicides are considered, the racial and ethnic makeup of those who died, 76% of whom are white, more closely resembles the racial and ethnic makeup as Minnesota as a whole.

**Table 2: Race-Rate Disparities in 176 civilian Deaths Occurring During Law Enforcement Service Calls and Encounters**

<b>Incidence</b>	<b>White</b>	<b>Black, African, or African American</b>	<b>Hispanic or Latino</b>	<b>Asian or Pacific Islander</b>	<b>American Indian or Alaska Native</b>
<b>Average annual incidence rate, 2016-2021</b>	0.4 per 100,000	1.7 per 100,000	0.8 per 100,000	0.3 per 100,000	2.2 per 100,000
<b>Rate Ratio</b>	1.0 (Reference)	4.5	2.0	0.9	5.7

Over the entire study period, death certificates captured 71% of known deaths associated with interpersonal use of force or categorized as homicides by medical examiners and other death investigators but only 45% of total known incidents, (with total capture rates varying from 27% in 2016 to 69% in 2020). In years where MNVDRS data were available (2016-2019), MNVDRS captured 93% of known deaths due to interpersonal use of force and 75% of total known incidents. Fatal Encounters captured 95% of known deaths due to interpersonal use of force and 83% of total known incidents during the six years.

Of all sources, MNVDRS had the highest sensitivity to suicides. For years for that MNVDRS data was available, the system captured 86% of suicides, whereas death certificates and Fatal Encounters captured only 17% and 59% of suicides over the entire study period, respectively. The low sensitivity of Fatal Encounters to suicides is to be expected, given that its case-finding method relies on media reports and suicides associated with an encounter or service call may be comparatively less publicized than deaths due to interpersonal use of force.

Of all sources, Fatal Encounters had the highest sensitivity to accidents. The system captured 90% of known accidents whereas death certificates and MNVDRS captured 33% and 0%,



respectively. The low sensitivity of MNVDRS to accidents is expected, as the inclusion criteria for MNVDRS do not include accidental deaths unless an unintentional firearm injury is involved.

**Table 3: Percent of known Minnesota fatalities associated with a law enforcement call for service or encounter captured in each database by year and manner of death, 2016-2021.**

<b>2016</b>	<b>Minnesota Vital Statistics System (%)</b>	<b>Minnesota Violent Death Reporting System (%)</b>	<b>Fatal Encounters (%)</b>	<b>BCA Use of Force (%)</b>	<b>Total Combined Dataset</b>
Deaths due to Interpersonal Use of Force	8/18 (44)	18/18 (100)	16/18 (89)	Not available	18
Suicide	1/12 (8)	11/12 (92)	4/12 (33)	Not available	12
Accident	0/3 (0)	0/3 (0)	3/3 (100)	Not available	3
Year Total	9/33 (27)	29/33 (88)	23/33 (70)	Not available	33

<b>2017</b>	<b>Minnesota Vital Statistics System (%)</b>	<b>Minnesota Violent Death Reporting System (%)</b>	<b>Fatal Encounters (%)</b>	<b>BCA Use of Force (%)</b>	<b>Total Combined Dataset</b>
Deaths Due to Interpersonal Use of Force	8/10 (80)	10/10 (100)	10/10 (100)	Not available	10
Suicide	3/7 (43)	5/7 (71)	5/7 (71)	Not available	7
Accident	0/6 (0)	0/6 (0)	6/6 (100)	Not available	6
Could not be Determined	0/2 (0)	1/2 (50)	2/2 (100)	Not available	2
Year Total	11/25 (44)	16/25 (64)	23/25 (92)	Not available	25

<b>2018</b>	<b>Minnesota Vital Statistics System (%)</b>	<b>Minnesota Violent Death Reporting System (%)</b>	<b>Fatal Encounters (%)</b>	<b>BCA Use of Force (%)</b>	<b>Total Combined Dataset</b>
Deaths Due to Interpersonal Use of Force	10/13 (77)	11/13 (85)	12/13 (92)	Not available	13
Suicide	0/7 (0)	5/7 (71)	3/7 (43)	Not available	7
Accident	0/6 (0)	0/6 (0)	6/6 (100)	Not available	6
Year Total	10/26 (38)	16/26 (62)	21/26 (81)	Not available	26

<b>2019</b>	<b>Minnesota Vital Statistics System (%)</b>	<b>Minnesota Violent Death Reporting System (%)</b>	<b>Fatal Encounters (%)</b>	<b>BCA Use of Force (%)</b>	<b>Total Combined Dataset</b>
Deaths Due to Interpersonal Use of Force	13/14 (93)	12/14 (86)	14/14 (100)	Not available	14
Suicide	0/10 (0)	10/10 (100)	5/10 (50)	Not available	10
Accident	3/3 (100)	0/3 (0)	3/3 (100)	Not available	3
Could not be Determined	1/1 (100)	1/1 (100)	1/1 (100)	Not available	1
Year Total	17/28 (61)	23/28 (82)	23/28 (82)	Not available	28

<b>2020</b>	<b>Minnesota Vital Statistics System (%)</b>	<b>Minnesota Violent Death Reporting System (%)</b>	<b>Fatal Encounters (%)</b>	<b>BCA Use of Force (%)</b>	<b>Total Combined Dataset</b>
Deaths Due to Interpersonal Use of Force	9/9 (100)	Not available	9/9 (100)	9/9 (100)	9
Suicide	2/6 (33)	Not available	6/6 (100)	0/6 (0)	6
Accident	9/13 (69)	Not available	10/13 (77)	0/13 (0)	13
Could not be Determined	0/1 (0)	Not available	1/1 (100)	0/1 (0)	1
Year Total	20/29 (69)	Not available	26/29 (90)	9/29 (31)	29

<b>2021</b>	<b>Minnesota Vital Statistics System (%)</b>	<b>Minnesota Violent Death Reporting System (%)</b>	<b>Fatal Encounters (%)</b>	<b>BCA Use of Force (%)</b>	<b>Total Combined Dataset</b>
Deaths Due to Interpersonal Use of Force	8/15 (53)	Not available	14/15 (93)	12/15 (80)	15
Suicide	3/12 (25)	Not available	9/12 (75)	0/12 (0)	12
Accident	1/8 (13)	Not available	7/8 (88)	0/8 (0)	8
Could not be Determined	0/1 (0)	Not available	1/1 (100)	1/1 (100)	1

<b>2021</b>	<b>Minnesota Vital Statistics System (%)</b>	<b>Minnesota Violent Death Reporting System (%)</b>	<b>Fatal Encounters (%)</b>	<b>BCA Use of Force (%)</b>	<b>Total Combined Dataset</b>
Year Total	12/36 (33)	Not available	31/36 (86)	13/36 (36)	36

<b>All Years</b>	<b>Minnesota Vital Statistics System (%)</b>	<b>Minnesota Violent Death Reporting System (%)</b>	<b>Fatal Encounters (%)</b>	<b>BCA Use of Force (%)</b>	<b>Total Combined Dataset</b>
Deaths Due to Interpersonal Use of Force	56/79 (71)	51/55 (93)	75/79 (95)	21/24 (88)	79
Suicide	9/54 (17)	31/36 (86)	32/54 (59)	0/18 (0)	54
Accident	13/39 (33)	0/18 (0)	35/39 (90)	0/21 (0)	39
Could not be Determined	1/5 (20)	2/3 (67)	5/5 (100)	1/2 (50)	5
Total	79/177 (45)	84/112 (75)	147/177 (83)	22/65 (34)	177

## **Discussion**

Fatalities associated with law enforcement calls for service or encounters are a health outcome of great public concern in Minnesota and the United States. This MDH review of available data shows that state health departments have the opportunity to use definitions already in use at state and federal level, specifically those used by the federal Bureau of Justice Statistics Arrest-Related Deaths (ARD) to improve the breadth and quality of information related to deaths associated with service calls and other encounters with law enforcement. This broader, more inclusive definition has the public health benefit of expanding from use of force events to include suicides, accidents, and other deaths, and creates the opportunity for comparative analysis between the different types of deaths and to compare Minnesota results to national results. Including suicides, accidents and other deaths creates the opportunity for comparative

analysis between the different types of deaths and to compare Minnesota results to national results.

Including the broader spectrum of deaths serves the public health purpose of gaining greater understanding about the circumstances and factors involved in deaths due to interpersonal use of force, suicides, and accidents to potentially prevent future deaths, among either law enforcement officers or civilians. When someone dies by suicide or in a vehicle collision during an encounter with law enforcement, there may be the possibility that the death could have been prevented if different policy decisions had been made upstream. Greater review and understanding of these events using a public health approach can lead to prevention and potentially healing for those involved and affected.

This review of available data also shows the need to use multiple data sources. By combining data from death certificates, MNVDRS, fatal encounters, and the BCA’s crime data explorer, MDH was able to identify 175 cases that took place in Minnesota during 2016-2021. No single data source captured all known incidents. It is likely there are incidents from the study period that were not captured by any of these three data sources. Two such incidents, which were brought to MDH’s attention via local news sources, are reflected in the total count of 177. As MDH continues to explore options for improving the quality of its data collection on this topic, additional data sources may be considered for inclusion in the case-finding methodology.

Each component data source had its own strengths and limitations, which are summarized in Table 4. The sensitivity of death certificate data varied by year and by manner of death, and many deaths were not assigned an ICD-10 code indicating legal intervention. MNVDRS captured a sizeable proportion of incidents, especially homicides. However, MNVDRS data is only available to authorized users, and it takes more than two years after the occurrence for the data to become available. Fatal Encounters captured a comparable portion of incidents in real time despite lacking the resources and level of detail available to government sources. The use of force data available in the BCA’s crime data explorer was timely and well equipped to capture incidents where decedents died as a direct result of force applied by law enforcement officials.

**Table 4: Summary of Data Sources Used to Quantify fatalities associated with a law enforcement call for service or encounter in Minnesota, 2016-2021**

<b>Data Source</b>	<b>Minnesota Office of Vital Records Death Certificates</b>	<b>MNVDRS</b>	<b>Fatal Encounters</b>	<b>BCA Use of Force Data</b>	<b>Linked Dataset</b>
Database Inclusion Criteria	Died in Minnesota	Died in Minnesota Assigned cause of death is an	“All deaths that happen when police are present or that are	Use of force by an officer of a Minnesota law	Appearance in at least one of the previously mentioned datasets.

Data Source	Minnesota Office of Vital Records Death Certificates	MNVDRS	Fatal Encounters	BCA Use of Force Data	Linked Dataset
		ICD-10 code consistent with MNVDRS case definition for violent deaths.	caused by police.”	enforcement agency that results in death or serious bodily injury or involves the discharge of a firearm at or in the direction of an individual.	Narrative field review to ensure compliance with fatality associated with a law enforcement call for service or encounter case definition.
Linking Variables Available	Name, age, sex, date of death, zip code of death, zip code of injury	First initial of last name, age, sex, date of death, zip code of death, zip code of injury	Name, age, sex, date of death, zip code of death, zip code of injury	Date of incident, location of incident	Name, age, sex, date of death, zip code of death, zip code of injury
Case-Finding Criteria for Inclusion in Master Dataset	Presence of any legal intervention code (Y35, Y89.0) in any cause of death field.  Narrative field review to ensure compliance with fatality associated	[Type of death = 6 (legal intervention) OR relationship between suspect and decedent = 50 (law enforcement ) OR victim in custody = 1, 2, or 6, or 8	Incident occurred in Minnesota.  Narrative field review to ensure compliance with fatality associated with a law enforcement call for service or	Incident type = Death  Incident occurred in Minnesota.	N/A

Data Source	Minnesota Office of Vital Records Death Certificates	MNVDRS	Fatal Encounters	BCA Use of Force Data	Linked Dataset
	with a law enforcement call for service or encounter case definition.	OR "Death Preceded by a Crime = 1 (Yes) OR presence of an ICD-10 legal intervention code in cause of death field] AND Narrative field review to ensure compliance with fatality associated with a law enforcement call for service or encounter case definition.	encounter case definition.		
Potential Sources of Discrepancy with Other Databases	Deaths that occurred out of state but resulted from incidents occurring in Minnesota may not be included due to interstate	MNVDRS case definition does not include deaths ruled as accidental unless they are firearm related.	Case ascertainment relies on media reporting and crowd-sourced information. Unreported or less publicized	Case definition excludes deaths that are not caused by law enforcement use of force, including suicides, accidents, and	N/A

<b>Data Source</b>	<b>Minnesota Office of Vital Records Death Certificates</b>	<b>MNVDRS</b>	<b>Fatal Encounters</b>	<b>BCA Use of Force Data</b>	<b>Linked Dataset</b>
	data sharing limitations.		deaths less likely to be included.	natural deaths that take place during encounters with law enforcement	
Strengths for use in public health surveillance	Completeness : contains a standardized record for every death in Minnesota.  Timeliness.  Publicly available.	Level of detail for each record  Ability to capture homicides and suicides	Data available in “real time”  Ability to capture accidents and homicides	Timeliness: incidents are generally reflected on the Crime Data Explorer after one month.  Publicly available.	More comprehensive than any one dataset.
Limitations for use in public health surveillance	Identification of incidents relies on inconsistent (and, in many cases, infrequent) application of ICD-10 legal intervention codes.	Significant time delay  Not available for public query  Limited ability to capture deaths ruled as accidents	Comparatively under-resourced: reliance on volunteers for data submission, partial reliance on donations for funding. Access to public records limited by costs of request process.	Public downloadable dataset does not include narrative field describing circumstances . To learn more about a death requires linkage with another source.	Time and labor intensive.  Affected by time delays and data limitations inherent to individual databases.



Data Source	Minnesota Office of Vital Records Death Certificates	MNVDRS	Fatal Encounters	BCA Use of Force Data	Linked Dataset

The data contained in this report were collected and analyzed for public health purposes, meaning that the goals of data collection were to identify cases for review and establish a baseline measure of fatalities associated with law enforcement calls for service and encounters. As cases are reviewed in more detail, MDH staff can identify patterns in circumstances leading up to fatalities and recommend upstream changes to policies and practices that can prevent these incidents from happening. The baseline measure of yearly incidents can be compared to data collected in the future to measure the impact of any prevention measures implemented at the state or local level.

Because of public health’s focus on preventing deaths before they occur, MDH does not investigate these incidents in order to determine retroactively who was at fault in each incident or whether actions taken by those involved in each incident were appropriate, justifiable, or legal. Making these determinations is the responsibility of Minnesota’s prosecution entities and the courts. More information about the outcomes of legal investigation into these incidents can be accessed through DPS.

## Recommendations

To adequately estimate and address the burden of deaths associated with law enforcement service calls and encounters in Minnesota, MDH should monitor and assess these events using a variety of data sources and routinely share these findings with stakeholders and the public. The monitoring should be based on case definitions similar to those used by the federal Bureau of Justice Statistics Arrest-Related Deaths (ARD) program that expand from deaths due to interpersonal use of force to include suicides, accidents and other deaths. These broad case definitions create the opportunity for comparative analysis between the different types of deaths and allow for comparison of Minnesota results to national results. The data that MDH collects should be used to better understand inequities and to inform, develop, and evaluate public health intervention measures. The process should also include a forum through which community members most affected by fatalities associated with law enforcement service calls and encounters can work collaboratively with MDH to set priorities for further data collection and prevention efforts.

## Suggested Citation

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