



# **Violent Deaths in Massachusetts: Surveillance Update 2003**

**Massachusetts Department of Public Health**  
Center for Health Information, Statistics, Research and Evaluation  
Injury Surveillance Program  
National Violent Death Reporting System-MA

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For other Department of Public Health data, register for MassCHIP, the Department's FREE internet-accessible data warehouse:

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## INTRODUCTION

Violent death represents a serious but preventable public health problem. The U.S. Centers for Disease Control and Prevention (CDC) introduced the National Violent Death Reporting System (NVDRS) in 2001 in order to improve the surveillance of violent deaths nationwide.<sup>1</sup> A violent death results from the intentional use of physical force or power against oneself, another person, or a group or community. Violent deaths include suicides, homicides, deaths due to legal intervention (excluding executions), and deaths of undetermined intent. Violent deaths are classified as undetermined when the medical examiner has insufficient evidence to establish whether a death was unintentional, was deliberately self-inflicted, or was caused by assault. While not enough is known about these deaths to definitively establish intent, they are included in NVDRS because limited information about intent is sometimes available. Additionally, information about unintentional firearm injury deaths is collected although they are not considered violent deaths.

Currently operating in 17 states<sup>2</sup>, NVDRS is a state-based surveillance system that compiles information on violent deaths in order to provide a detailed picture of how and why they occur. In Massachusetts, the Violent Death Reporting System is part of the Injury Surveillance Program within the Massachusetts Department of Public Health (DPH). NVDRS utilizes multiple data sources, including death certificates, medical examiner files, and law enforcement records in creating its data records. The NVDRS is an incident-based surveillance system, enabling identification of multiple deaths from the same incident or between victims and suspects.

Detailed information from multiple sources will enhance the ability of researchers, prevention specialists and policymakers to develop a better understanding of when, where, why and how violent deaths occur, as well as who is at risk and their relationship to suspects. Information about the circumstances associated with violent death is a particularly unique and important feature of NVDRS, since it may help in identifying specific risk factors precipitating violence. Much as data on motor vehicle deaths has been used to guide highway safety initiatives over the past 30 years, the goal of NVDRS is to provide the information needed to reduce and prevent violent death.

In this report, information on homicides, suicides, and deaths of undetermined intent are summarized by counts, percentages, and rates. Simple counts represent the most basic measure of violent injury and are important for quantifying the problem, while percentages offer a way of showing distributions in the underlying population relative to some factor of interest, such as age or gender. Rates add an additional level of detail by taking account of the size of the underlying population and facilitating comparisons between groups. We examined violent deaths by demographics (age group, gender, race/ethnicity, marital status, and education level), weapon type, geographical location, and month of injury.

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<sup>1</sup> Additional information on NVDRS can be found at <http://www.cdc.gov/ncipc/profiles/nvdrs/facts.htm>.

<sup>2</sup> NVDRS states include Alaska, California, Colorado, Georgia, Kentucky, Maryland, Massachusetts, New Jersey, New Mexico, North Carolina, Oklahoma, Oregon, Rhode Island, South Carolina, Utah, Virginia, and Wisconsin.

## **METHODS**

### **Objectives**

With approximately 50,000 suicides and homicides taking place in the United States a year, the need for a national violent death surveillance system emerged as a significant public health issue in the late 1990s. Until recently, there was no public health surveillance system to collect information on these deaths and apply it to prevention efforts. With federal funding, the Massachusetts Department of Public Health is now collecting detailed information on violent deaths as part of NVDRS. This report summarizes results from the first year of data collection in Massachusetts.

### **Data Sources**

In this report, violent deaths are identified on the basis of International Classification of Diseases, Tenth Revision (ICD-10) codes for the underlying cause of death field on death certificates. All suicides, homicides, deaths of undetermined intent, deaths due to legal intervention, and unintentional firearm deaths that occurred in Massachusetts in 2003 were included in the final analysis. The grouping of ICD-10 codes used in this report can be found in the Technical Notes section of the Appendix.

Violent death cases in the NVDRS database are first identified by reviewing the “manner of death” field on death certificates. A record is created in the NVDRS database for any death categorized as homicide, suicide, or of undetermined intent. For each record, additional information is subsequently added from law enforcement and medical examiner sources. Law enforcement documents include police reports and ballistic reports from the Boston Police Department and MA State Police Crime Lab. In addition, information from supplemental homicide reports (SHR) and National Incident Based Reporting System (NIBRS) are obtained from the MA State Police Crime Reporting Unit (CRU). The Office of the Chief Medical Examiner provides autopsy reports, toxicology results, hospital records, and Emergency Medical Services (EMS) records. Newspaper articles are also collected.

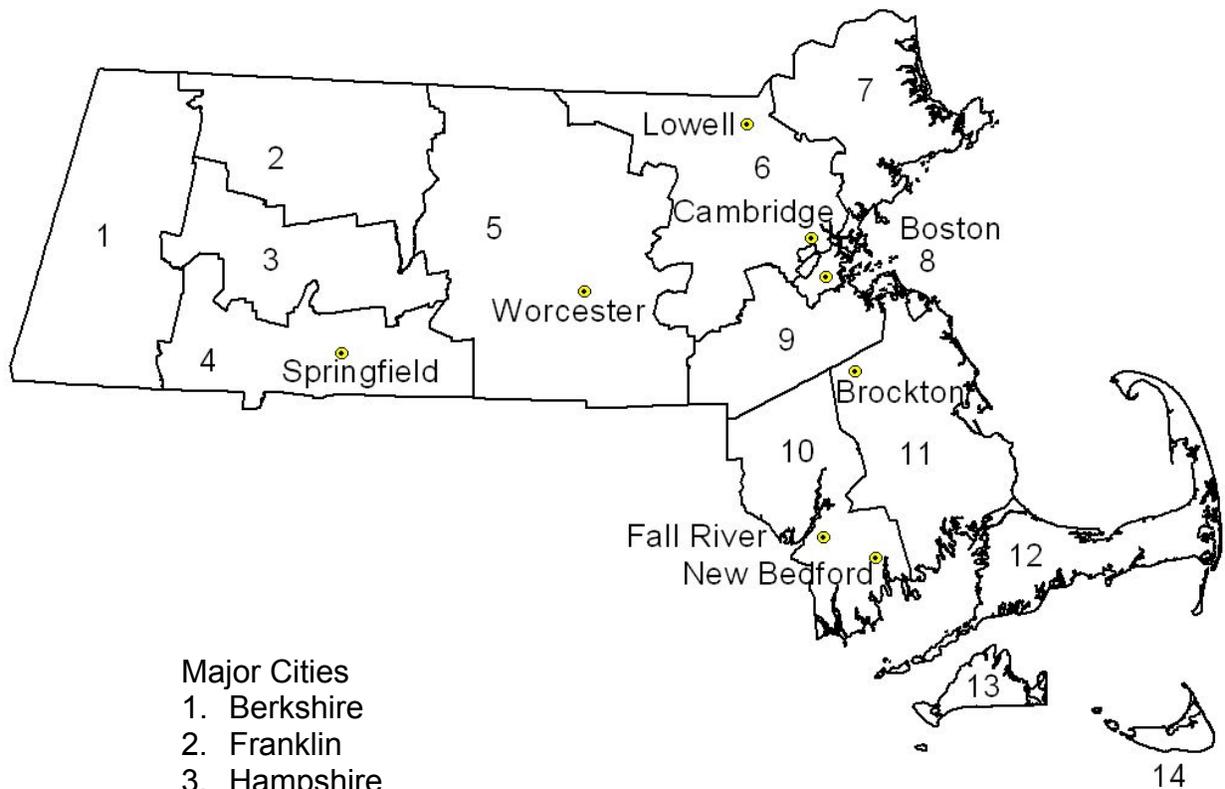
Over 270 data elements may be collected for each incident in the data base, including information on the following when applicable: the incident, the victim and suspect, toxicology, weapon(s), circumstances associated with a homicide or suicide, relationship between a suspect and victim, and relationship between a person and weapon. Before finalizing the database, a death file maintained by the Registry of Vital Records and Statistics is generated for all codes meeting the ICD-10 case definition. Discrepancies with preliminary death file are identified and reconciled to create the final database.

### **Statistical Measures**

Three measures are used to summarize violent deaths: counts, percentages, and rates. Simple counts represent the most basic measure of violent injury and are important for quantifying the problem, while percentages offer a way of showing distributions in the underlying population relative to some factor of interest, such as age or gender. Rates add an additional level of detail by taking into account the size of the underlying population and facilitating comparisons between groups. We did not age-adjust rates. The crude rates

provide the true rate of injury within a population, which is important for proper community-level prevention strategies. Death rates are expressed as the number of deaths per 100,000 population. Refer to the Technical Notes section of the Appendix for detailed information on population estimates used for calculating rates. Rates were calculated for specific demographic group (i.e., age, gender, marital status), as well as by county and city level.

### Location of Counties and Major Cities in Massachusetts



- Major Cities
1. Berkshire
  2. Franklin
  3. Hampshire
  4. Hampden
  5. Worcester
  6. Middlesex
  7. Essex
  8. Suffolk
  9. Norfolk
  10. Bristol
  11. Plymouth
  12. Barnstable
  13. Dukes
  14. Nantucket

# **Section 1: Overview of Violent Death**

**Table 1.1: Victim Count, Percent, and Rate of Violent Death by Demographics, Massachusetts, 2003**

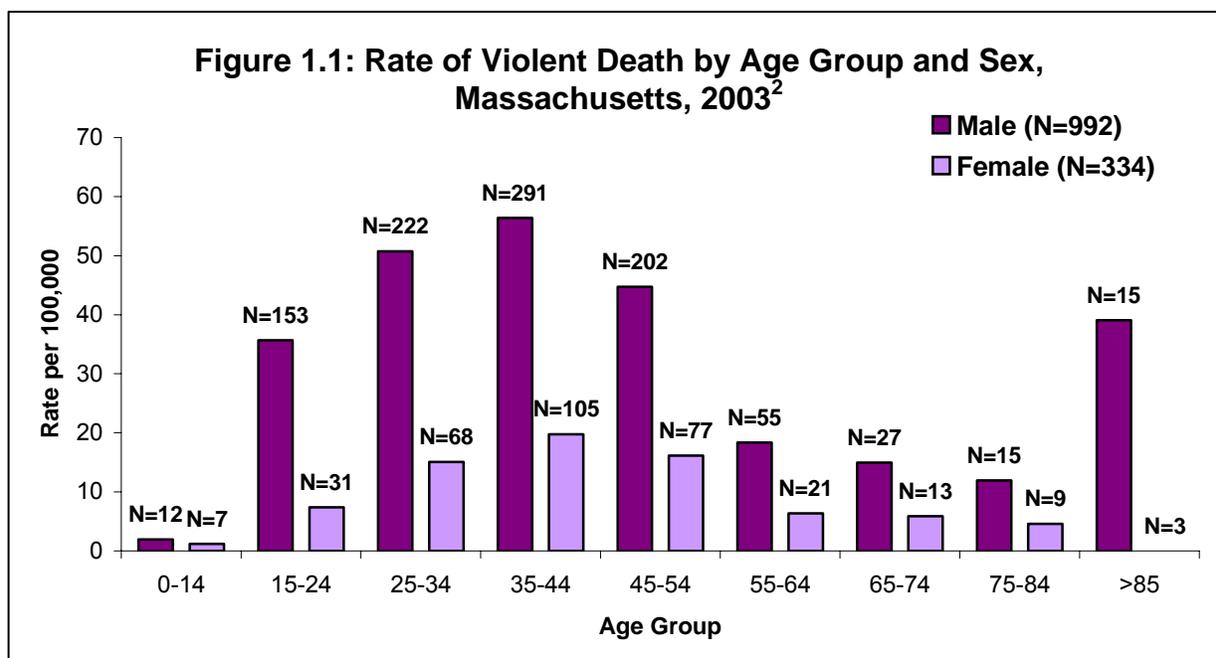
	Victim Count	Percent	Rate per 100,000 <sup>1</sup>
<b>Intent</b>			
Homicide	139	10.5	2.2
Suicide	423	31.9	6.6
Undetermined	762	57.5	11.9
Legal Intervention/Other	2	0.2	---
<b>Sex</b>			
Male	992	74.8	32.0
Female	334	25.2	10.1
<b>Race/Ethnicity</b>			
White, Non-Hispanic	1,045	78.8	19.9
Black, Non-Hispanic	108	8.1	28.3
Asian, Non-Hispanic	23	1.7	7.8
Hispanic	123	9.3	25.6
Other, Non-Hispanic/Unspecified <sup>2</sup>	27	2.0	----
<b>Age Group</b>			
0-14	19	1.4	1.6
15-24	184	13.9	21.7
25-34	290	21.9	32.6
35-44	396	29.9	37.8
45-54	279	21.0	30.1
55-64	76	5.7	12.1
65-74	40	3.0	10.0
75-84	24	1.8	7.4
85+	18	1.4	13.7
<b>Total</b>	<b>1,326</b>	<b>100</b>	<b>20.7</b>

<sup>1</sup> Rates were not calculated for counts less than 5 and are considered unstable for counts less than 20. Rates were not age-adjusted. See Technical Notes for calculating rates.

<sup>2</sup> Rates were not calculated due to lack of denominator information.

## Key Findings: Demographics of Violent Deaths, Massachusetts, 2003

- ❑ Violent deaths claimed the lives of 1,326 people in MA in 2003 – an average of 26 deaths a week.
- ❑ The MA violent death rate for all intents was similar to the U.S. rate (20.7 and 20.0/100,000, respectively)<sup>1</sup>. MA rates for homicides and suicides are lower than the U.S. rates.
- ❑ Suicide was 3 times more frequent than homicide. Of the 1,326 violent deaths, 32% were suicides and 10% were homicides.
- ❑ Over half the violent deaths were of undetermined intent (57%), the majority (93%) of which was poisonings and drug overdoses. The rate of undetermined deaths in MA was 11.9/100,000, compared to the U.S. rate of 1.7/100,000<sup>1</sup>. The difference in rates between MA and U.S. is due largely to differences in classification practices between medical examiners in 2003.
- ❑ The majority (75%) of violent death victims were males.
- ❑ Violent death victims in MA were disproportionately represented by those less than 45 years of age. The highest violent death rate was among ages 35 to 44.



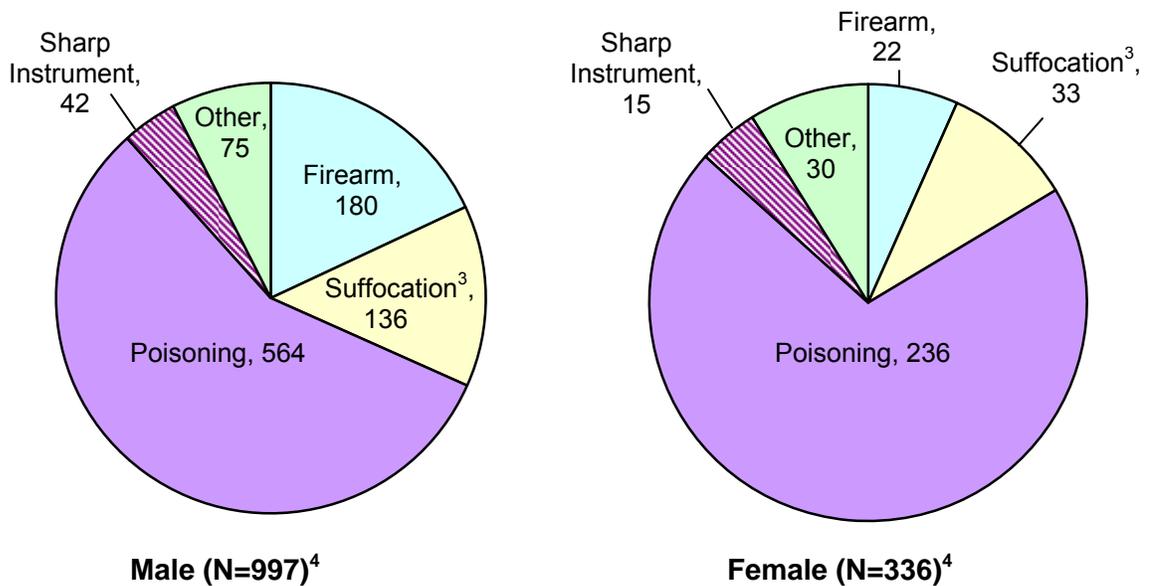
<sup>1</sup> Minino AM, Anderson RN, Fingerhut LA, Boudreault MA, Warner M. Deaths: Injuries, 2002. National vital statistics report; vol 54 no 10. Hyattsville, Maryland: National Center for Health Statistics. 2006.

<sup>2</sup> Rates were not calculated for counts less than 5 and are considered unstable for counts less than 20. Rates were not age-adjusted. See Technical Notes for calculating rates.

**Table 1.2: Victim Count, Percent, and Rate of Violent Death by Race/Ethnicity and Sex, Massachusetts, 2003**

	Male			Female		
	Victim Count	Percent	Rate per 100,000 <sup>1</sup>	Victim Count	Percent	Rate per 100,000 <sup>1</sup>
White, Non-Hispanic	762	76.8	30.1	283	84.7	10.4
Black, Non-Hispanic	97	9.8	52.8	11	3.3	5.6
Asian, Non-Hispanic	14	1.4	9.7	9	2.7	6.0
Hispanic	104	10.5	43.5	19	5.7	7.9
Other, Non-Hispanic/ Unspecified	15	1.5	--- <sup>2</sup>	12	3.6	--- <sup>2</sup>
<b>Total</b>	<b>992</b>	<b>100</b>	<b>32.0</b>	<b>334</b>	<b>100</b>	<b>10.1</b>

**Figure 1.2: Method of Violent Death by Sex, Massachusetts, 2003**



<sup>1</sup> Rates were not calculated for counts less than 5 and are considered unstable for counts less than 20. Rates were not age-adjusted. See Technical Notes for calculating rates.

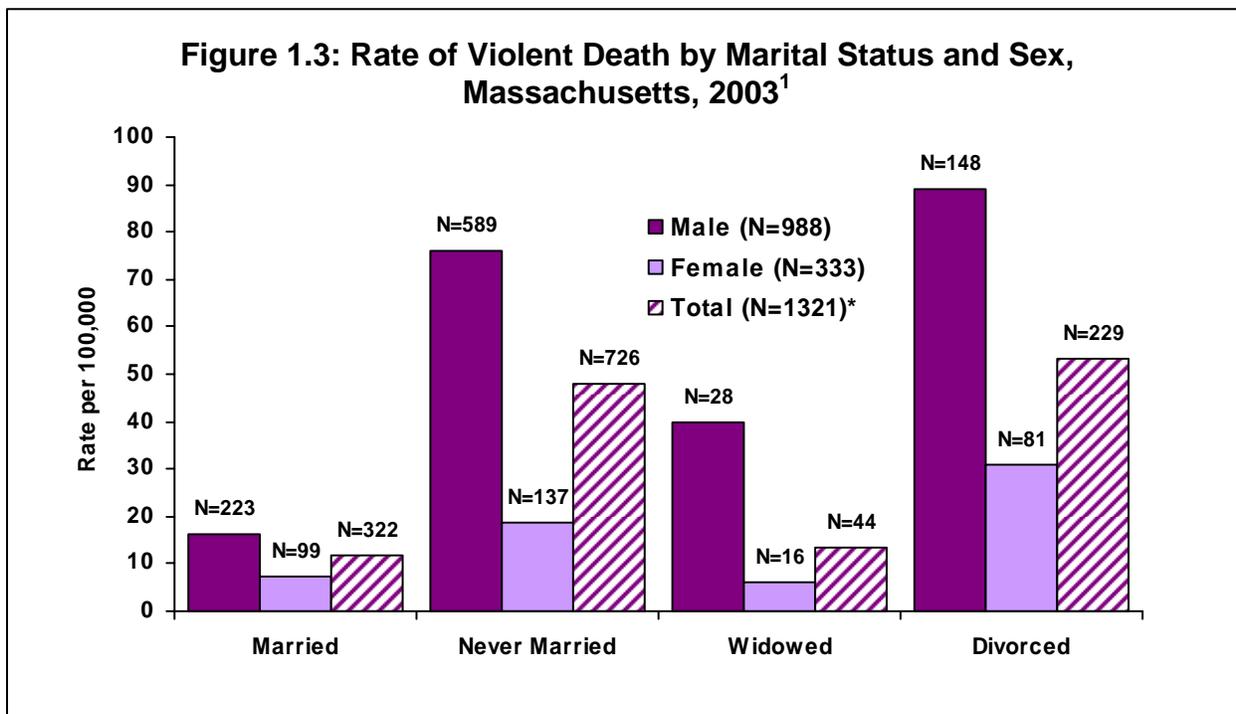
<sup>2</sup> Rates were not calculated due to lack of denominator information.

<sup>3</sup> NVDRS defines the weapon as Hanging, Strangulation, and Suffocation.

<sup>4</sup> Some deaths resulted from the use of multiple weapons so totals are higher than victim totals.

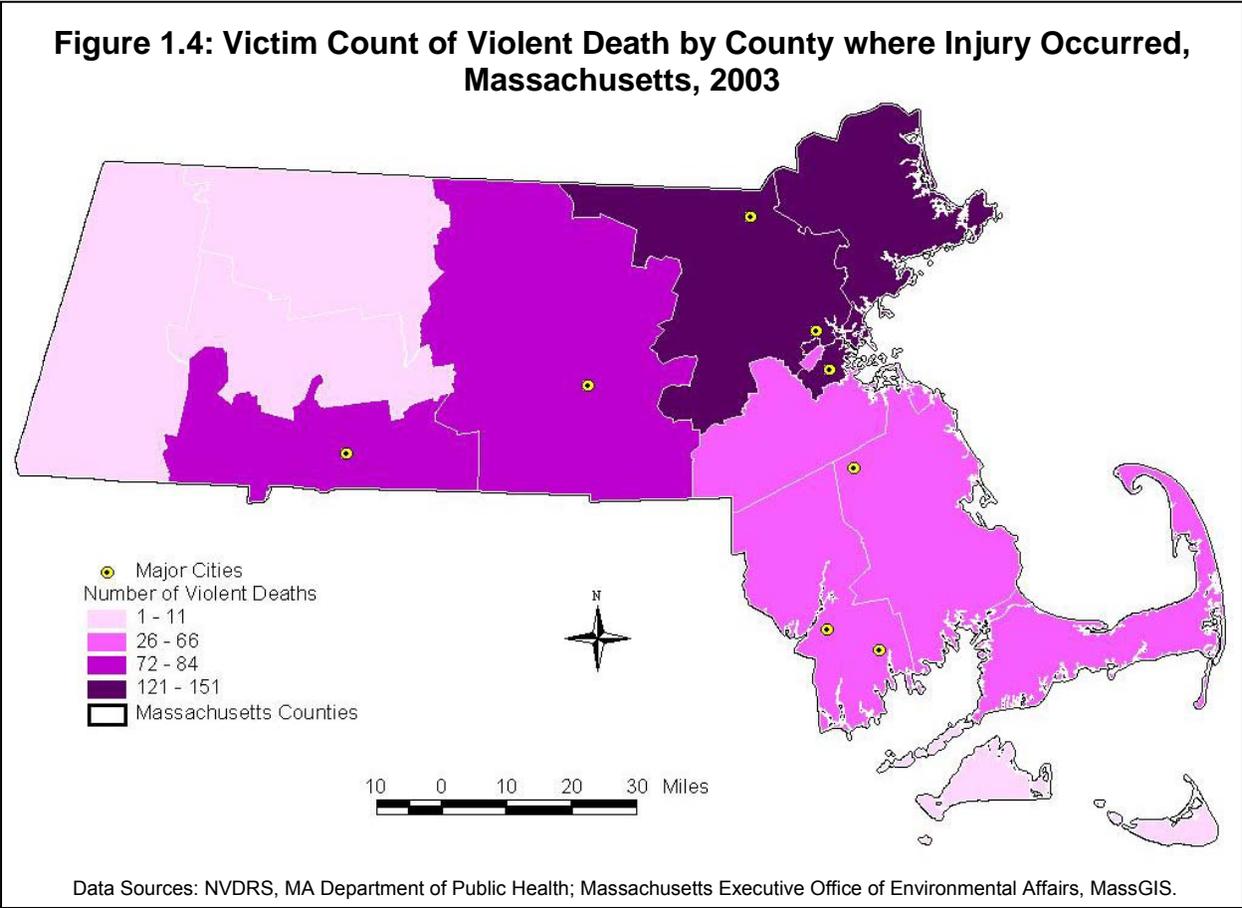
## Additional Key Findings

- ❑ Violent death rate for males 85 years of age or older (39.1 per 100,000) was 12 times higher than for females the same age (3.2 per 100,000).
- ❑ While over three-quarters (79%) of all victims were White, Non-Hispanic, the violent death rate was highest among the population of Black, Non-Hispanic (28.3 per 100,000) followed closely by Hispanic (25.6 per 100,000). Results were similar among males whose race was known and specified (52.8 per 100,000 for Black, Non-Hispanic; 43.5 per 100,000 for Hispanic).
- ❑ Among females whose race was known and specified, the highest violent death rate was among White, Non-Hispanics (10.4 per 100,000).
- ❑ Most of all violent deaths resulted from poisonings (800 or 60%).
- ❑ Male victims were 3 times more likely to be injured by a firearm (180 of 922, or 18%) than female victims (22 of 334, or 7%).
- ❑ Overall, the violent death rate was lowest among married persons (11.9 per 100,000) and highest among divorced persons (53.2 per 100,000).



<sup>1</sup> Rates were not calculated for counts less than 5 and are considered unstable for counts less than 20. Rates were not age-adjusted. See Technical Notes for calculating rates. \*Figure does not include unknown and single not specified status (N=5).

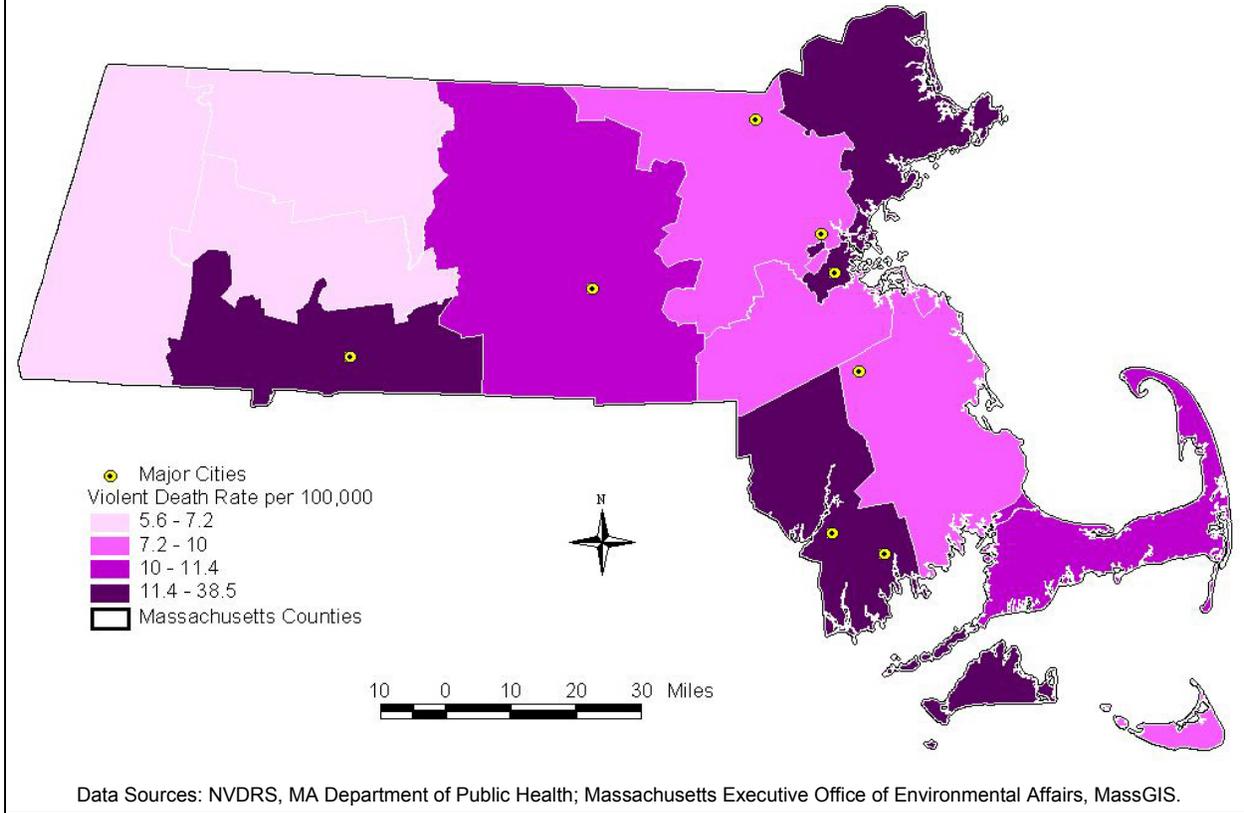
Table 1.3: Victim Count, Percent, and Rate of Violent Death by County where Injury Occurred, Massachusetts, 2003							
	Victim Count	Percent	Rate per 100,000 <sup>1</sup>		Victim Count	Percent	Rate per 100,000 <sup>1</sup>
Barnstable	26	3.2	11.4	Hampshire	12	1.5	7.8
Berkshire	9	1.1	6.8	Middlesex	145	17.9	9.9
Bristol	66	8.2	12.1	Nantucket	1	0.1	---
Dukes	6	0.7	38.5	Norfolk	62	7.7	9.5
Essex	121	15.0	16.4	Plymouth	48	5.9	9.8
Franklin	5	0.6	6.9	Suffolk	151	18.7	22.3
Hampden	72	8.9	15.6	Worcester	84	10.4	10.8
Total <sup>2</sup>		Victim Count 808		Rate per 100,000 <sup>1</sup> 12.5			



<sup>1</sup> Rates were not calculated for counts less than 5 and are considered unstable for counts less than 20. Rates were not age-adjusted. See Technical Notes for calculating rates.

<sup>2</sup> There were 518 victims whose data element for county where injury occurred was unknown. As a result, the total rate differs from the state rate. The majority of victims with unknown county where injury occurred were poisoning deaths.

**Figure 1.5: Rate of Violent Death by County where Injury Occurred, Massachusetts, 2003**



**Table 1.4: Victim Count, Percent, and Rate of Violent Death by City where Injury Occurred<sup>1</sup> with Population Greater than 90,000, Massachusetts, 2003**

	Victim Count	Percent <sup>2</sup>	Rate per 100,000 <sup>3</sup>
Boston	134	15.1	23.2
Brockton	21	2.4	22.1
Cambridge	16	1.8	15.8
Fall River	15	1.7	16.2
Lowell	18	2.0	17.3
New Bedford	27	3.1	28.7
Springfield	40	4.5	26.3
Worcester	21	2.4	12.0

<sup>1</sup> City where injury occurred was provided by the data element for FIPS55 city code from death certificates.

<sup>2</sup> Percents were calculated using the 885 victims with known city where injury occurred.

<sup>3</sup> Rates were not calculated for counts less than 5 and are considered unstable for counts less than 20. Rates were not age-adjusted. See Technical Notes for calculating rates.

**Table 1.5: Victim Count of Violent Death by Month and Intent of Injury, Massachusetts, 2003**

	All Violent Death	Suicide	Homicide	Undetermined Intent
January	97	34	12	50
February	85	34	9	42
March	110	40	7	63
April	112	36	15	61
May	113	40	7	65
June	110	29	18	63
July	88	22	14	52
August	99	28	16	55
September	99	39	8	52
October	90	33	12	45
November	88	25	8	55
December	111	43	8	60
<b>Total<sup>1</sup></b>	<b>1,202</b>	<b>403</b>	<b>134</b>	<b>663</b>

<sup>1</sup> There were 124 victims where month of injury was not available. These are primarily poisonings.

## **Section 2: Suicide**

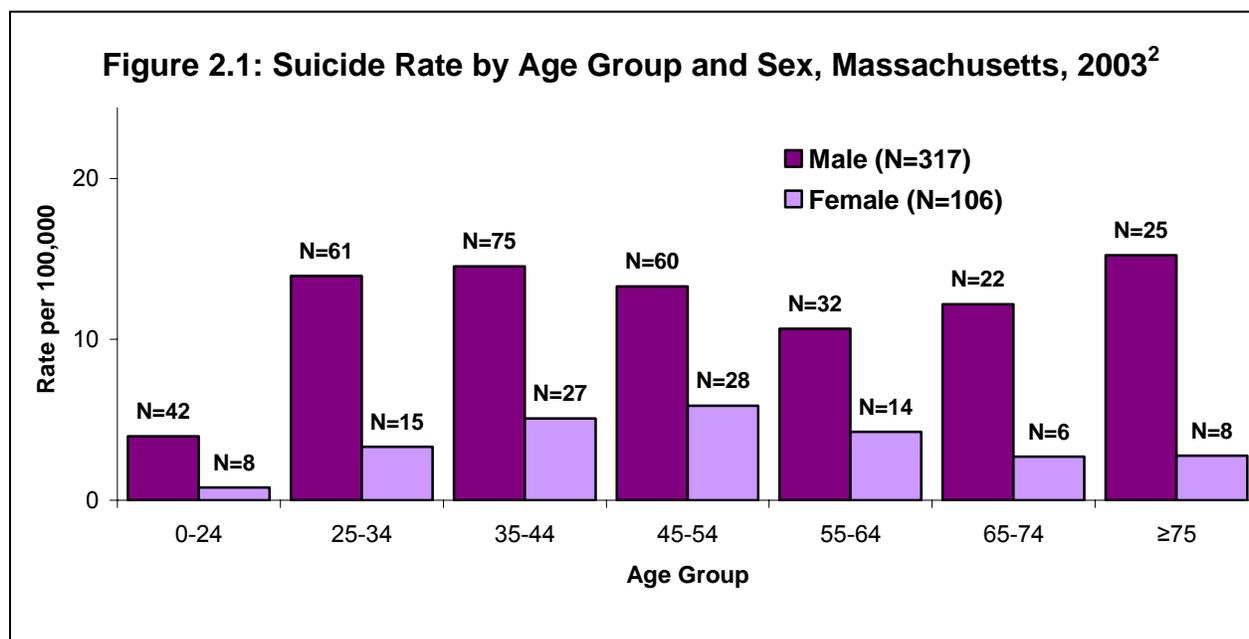
<b>Table 2.1: Victim Count, Percent, and Rate of Suicide by Demographics, Massachusetts, 2003</b>			
	Victim Count	Percent	Rate per 100,000 <sup>1</sup>
<b>Sex</b>			
Male	317	74.9	10.2
Female	106	25.1	3.2
<b>Race/Ethnicity</b>			
White, Non-Hispanic	371	87.7	7.1
Black, Non-Hispanic	16	3.8	4.2
Asian, Non-Hispanic	13	3.1	4.4
Hispanic	17	4.0	3.5
Other, Non-Hispanic/Unspecified <sup>2</sup>	6	1.4	---
<b>Age Group</b>			
0-14	5	1.2	0.4
15-24	45	10.6	5.3
25-34	76	18.0	8.6
35-44	102	24.1	9.7
45-54	88	20.8	9.5
55-64	46	10.9	7.3
65-74	28	6.6	7.0
75-84	21	5.0	6.5
85+	12	2.8	9.1
<b>Years of Education<sup>2</sup></b>			
Less than 9 years	16	3.8	---
9-12 years	259	61.2	---
> 12 years	143	33.8	---
Unknown	5	1.2	---
<b>Total</b>	<b>423</b>	<b>100</b>	<b>6.6</b>

<sup>1</sup> Rates were not calculated for counts less than 5 and are considered unstable for counts less than 20. Rates were not age-adjusted. See Technical Notes for calculating rates.

<sup>2</sup> Rates were not calculated due to lack of denominator information.

## Key Findings: Demographics of Suicides, Massachusetts, 2003

- ❑ The 423 suicides occurring in MA in 2003 represented an average of 8 suicides a week.
- ❑ The suicide rate for MA (6.6/100,000) was lower than the U.S. rate (11.0/100,000)<sup>1</sup>.
- ❑ The suicide rate for males (10.2/100,000) was more than three times higher than the female rate (3.2/100,000).
- ❑ White, Non-Hispanics had the highest rate (7.1/100,000); lower rates were recorded by Black, Non-Hispanics (4.2/100,000), and Hispanics (3.5/100,000).
- ❑ Among women, Asian, Non-Hispanics had the highest suicide rate (4.0/100,000).  
White, Non-Hispanic males had the highest suicide rate overall (10.9/100,000).
- ❑ The highest suicide rate for all victims was among 35-44 year olds (9.7/100,000).
- ❑ Men 75 years or older had the highest suicide rate (15.2/100,000).
- ❑ The highest proportion of suicides was among victims with 9-12 years of education.



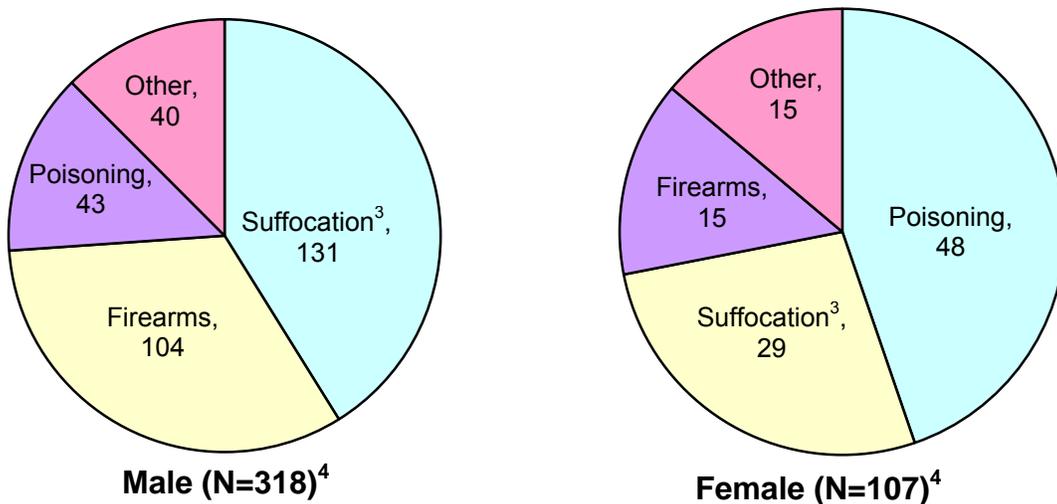
<sup>1</sup> Minino AM, Anderson RN, Fingerhut LA, Boudreault MA, Warner M. Deaths: Injuries, 2002. National vital statistics report; vol 54 no 10. Hyattsville, Maryland: National Center for Health Statistics. 2006.

<sup>2</sup> Rates were not calculated for counts less than 5 and are considered unstable for counts less than 20. Rates were not age-adjusted. See Technical Notes for calculating rates.

**Table 2.2: Victim Count, Percent, and Rate of Suicide by Race/Ethnicity and Sex, Massachusetts, 2003**

	Male			Female		
	Victim Count	Percent	Rate per 100,000 <sup>1</sup>	Victim Count	Percent	Rate per 100,000 <sup>1</sup>
White, Non-Hispanic	275	86.8	10.9	96	90.6	3.5
Black, Non-Hispanic	15	4.7	8.2	1	0.9	---
Asian, Non-Hispanic	7	2.2	4.9	6	5.7	4.0
Hispanic	15	4.7	6.3	2	1.9	---
Other, Non-Hispanic/ Unspecified	5	1.6	--- <sup>2</sup>	1	0.9	--- <sup>2</sup>
<b>Total</b>	<b>317</b>	<b>100</b>	<b>10.2</b>	<b>106</b>	<b>100</b>	<b>3.2</b>

**Figure 2.2: Method of Suicide by Sex, Massachusetts, 2003**



<sup>1</sup> Rates were not calculated for counts less than 5 and are considered unstable for counts less than 20. Rates were not age-adjusted. See Technical Notes for calculating rates.

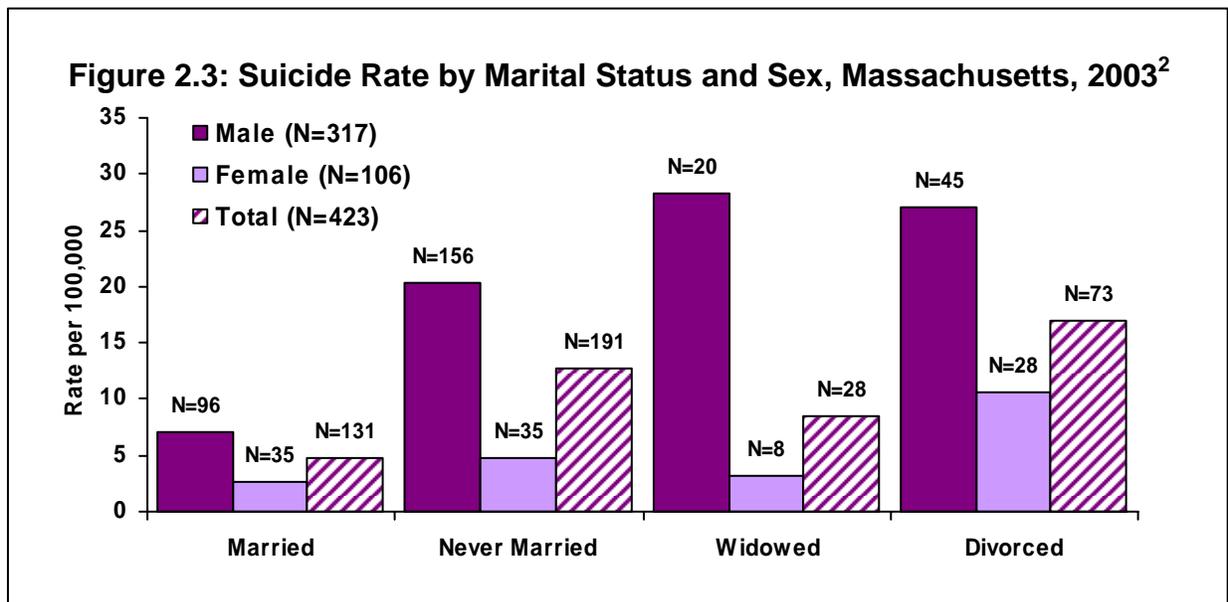
<sup>2</sup> Rates were not calculated due to lack of denominator information.

<sup>3</sup> NVDRS defines the weapon as Hanging, Strangulation, and Suffocation.

<sup>4</sup> Some deaths resulted from the use of multiple weapons so totals are higher than victim totals.

## Additional Key Findings

- ❑ The most common suicide method was hanging/strangulation/suffocation, accounting for 38% of deaths, followed by firearm (28%) and poisoning (22%). Nationally, the most common method is firearm<sup>1</sup>.
- ❑ The majority (81%) of hanging/strangulation/suffocation suicides were hangings.
- ❑ Among males, hanging/strangulation/suffocation was the most common method (41%), followed by firearm (33%) and poisoning (14%).
- ❑ In contrast, nearly half of female suicides (45%) were due to poisoning, followed by hanging/strangulation/suffocation (27%) and firearm (14%).
- ❑ Widowed males and divorced women had the highest suicide rates of 28.3/100,000 and 10.6/100,000, respectively. Married persons had the lowest rate (4.8/100,000).
- ❑ Of the suicide victims tested, 32% were positive for alcohol (110 of the 342 tested), 19% for antidepressants (45 of the 241 tested), 12% for opiates (39 of 335 tested) and 9% for cocaine (32 of the 339 tested).
- ❑ The counties with the highest suicide rates were dispersed throughout the state, indicating no geographical trend by region.



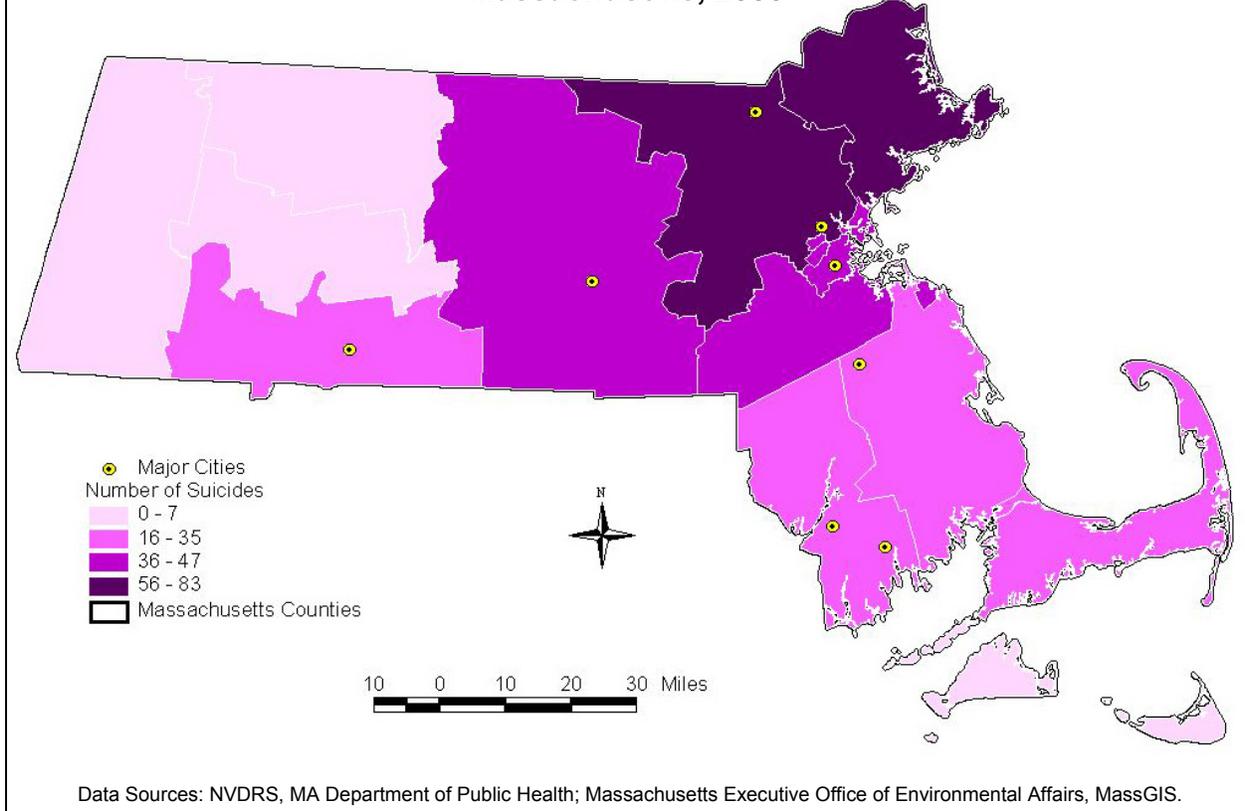
<sup>1</sup> Minino AM, Anderson RN, Fingerhut LA, Boudreault MA, Warner M. Deaths: Injuries, 2002. National vital statistics report; vol 54 no 10. Hyattsville, Maryland: National Center for Health Statistics. 2006.

<sup>2</sup> Rates were not calculated for counts less than 5 and are considered unstable for counts less than 20. Rates were not age-adjusted. See Technical Notes for calculating rates.

**Table 2.3: Victim Count, Percent, and Rate of Suicide by County where Injury Occurred, Massachusetts, 2003**

	Victim Count	Percent	Rate per 100,000 <sup>1</sup>		Victim Count	Percent	Rate per 100,000 <sup>1</sup>
Barnstable	16	4.2	7.0	Hampshire	6	1.6	3.9
Berkshire	4	1.1	---	Middlesex	77	20.4	5.3
Bristol	26	6.9	4.8	Nantucket	0	0	---
Dukes	5	1.3	32.1	Norfolk	35	9.3	5.4
Essex	56	14.8	7.6	Plymouth	24	6.3	4.9
Franklin	2	0.8	---	Suffolk	44	11.6	6.5
Hampden	35	9.3	7.6	Worcester	47	12.4	6.1
<b>Total<sup>2</sup></b>		<b>Victim Count 378</b>		<b>Rate per 100,000<sup>1</sup></b>		<b>6.0</b>	

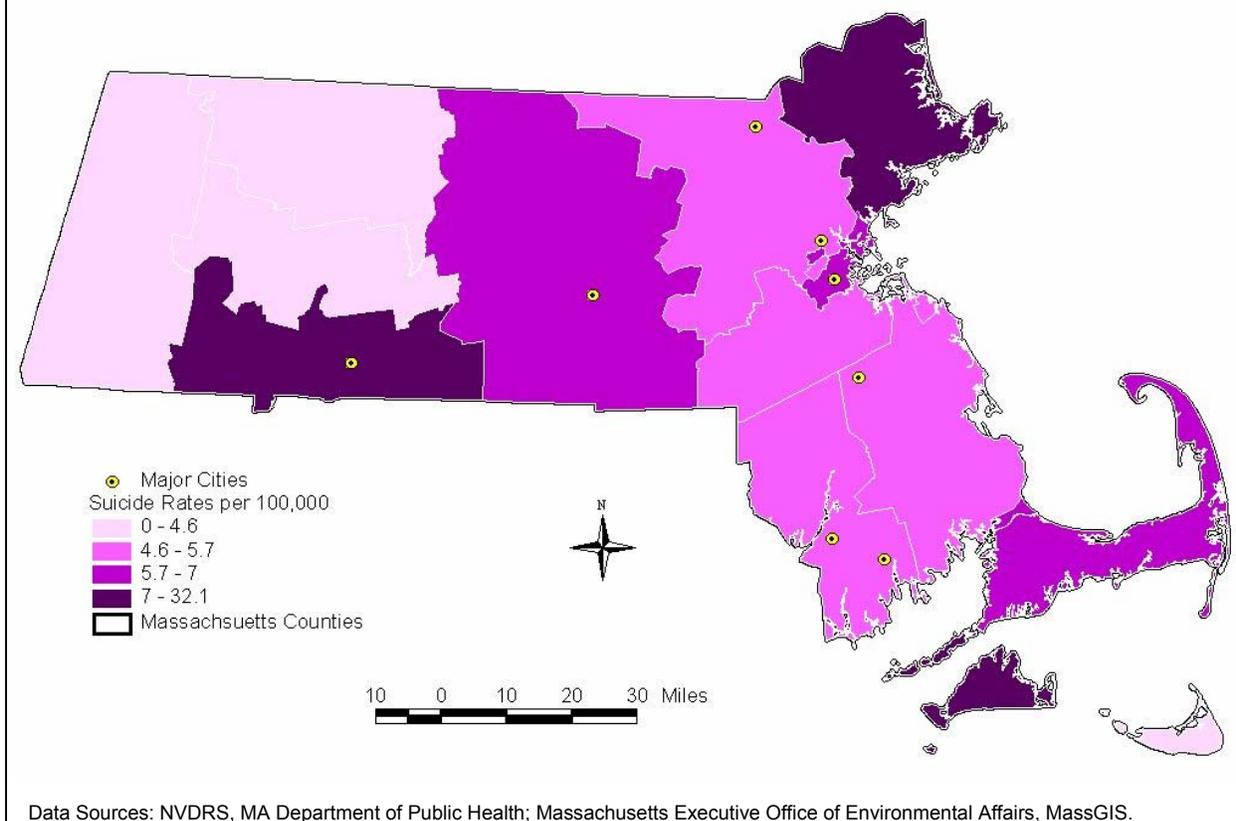
**Figure 2.4: Victim Count of Suicide by County where Injury Occurred, Massachusetts, 2003**



<sup>1</sup> Rates were not calculated for counts less than 5 and are considered unstable for counts less than 20. Rates were not age-adjusted. See Technical Notes for calculating rates.

<sup>2</sup> There were 518 victims whose data element for county where injury occurred was unknown. As a result, the total rate differs from the state rate. The majority of victims with unknown county where injury occurred were poisoning deaths.

**Figure 2.5: Suicide Rate by County where Injury Occurred, Massachusetts, 2003**



**Table 2.4: Victim Count, Percent, and Rate of Suicide by City where Injury Occurred<sup>1</sup> with Population Greater than 90,000, Massachusetts, 2003**

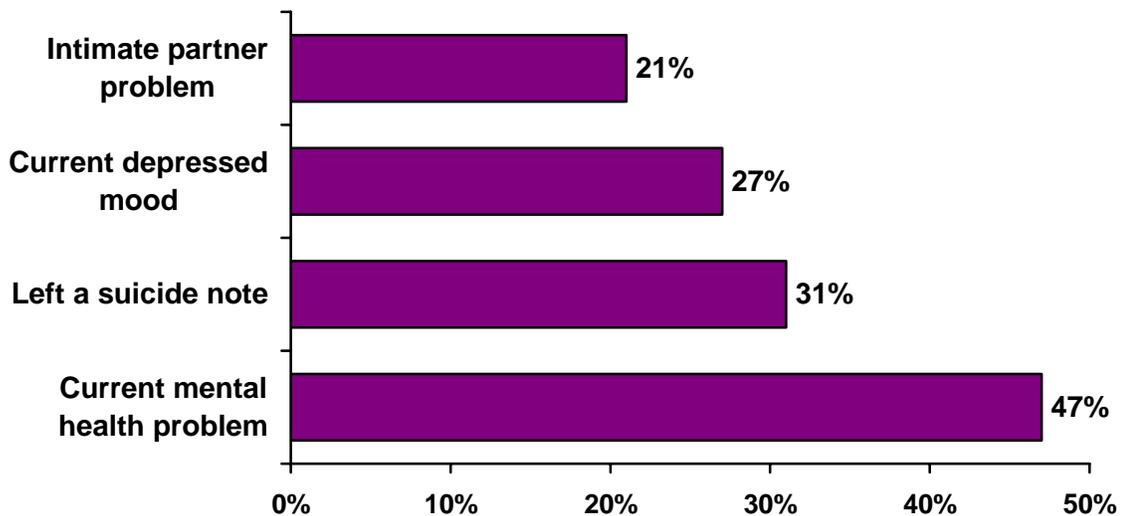
	Victim Count	Percent <sup>2</sup>	Rate per 100,000 <sup>3</sup>
Boston	39	9.4	6.7
Brockton	7	1.7	7.4
Cambridge	4	1.0	---
Fall River	5	1.2	5.4
Lowell	8	1.9	7.7
New Bedford	8	1.9	8.5
Springfield	11	2.7	7.2
Worcester	9	2.2	5.1

<sup>1</sup> City where injury occurred was provided by the data element for FIPS55 city codes from death certificates.

<sup>2</sup> Percents were calculated using the 414 victims with known city where injury occurred.

<sup>3</sup> Rates were not calculated for counts less than 5 and are considered unstable for counts less than 20. Rates were not age-adjusted. See Technical Notes for calculating rates.

**Figure 2.6: Frequent Suicide Characteristics, Massachusetts, 2003<sup>1</sup>**



- ❑ Almost half of the suicide victims had a mental health problem. This includes victims who have ever been diagnosed with a mental disorder or syndrome, or if the narrative includes mention of a mental health problem. Also, victims who were prescribed psychiatric medication were considered to have a mental health problem.
- ❑ Twenty-seven percent of suicide victims were reported as being depressed by a family member or other witness. This does not necessarily indicate that there was a clinical diagnosis of depression.
- ❑ A suicide note indicating the victim's intention to commit suicide was left by 31% of the suicide victims.
- ❑ In 21% of the suicides, victims were reported to be having problems including divorce, jealousy, argument, or other conflict with a current or former intimate partner.

<sup>1</sup> Victims may have multiple circumstances noted so percent totals will not sum to 100%. Percents were calculated using the 327 victims with known circumstance information.

## **Section 3: Homicide**

**Table 3.1: Victim Count, Percent, and Rate of Homicide by Demographics, Massachusetts, 2003**

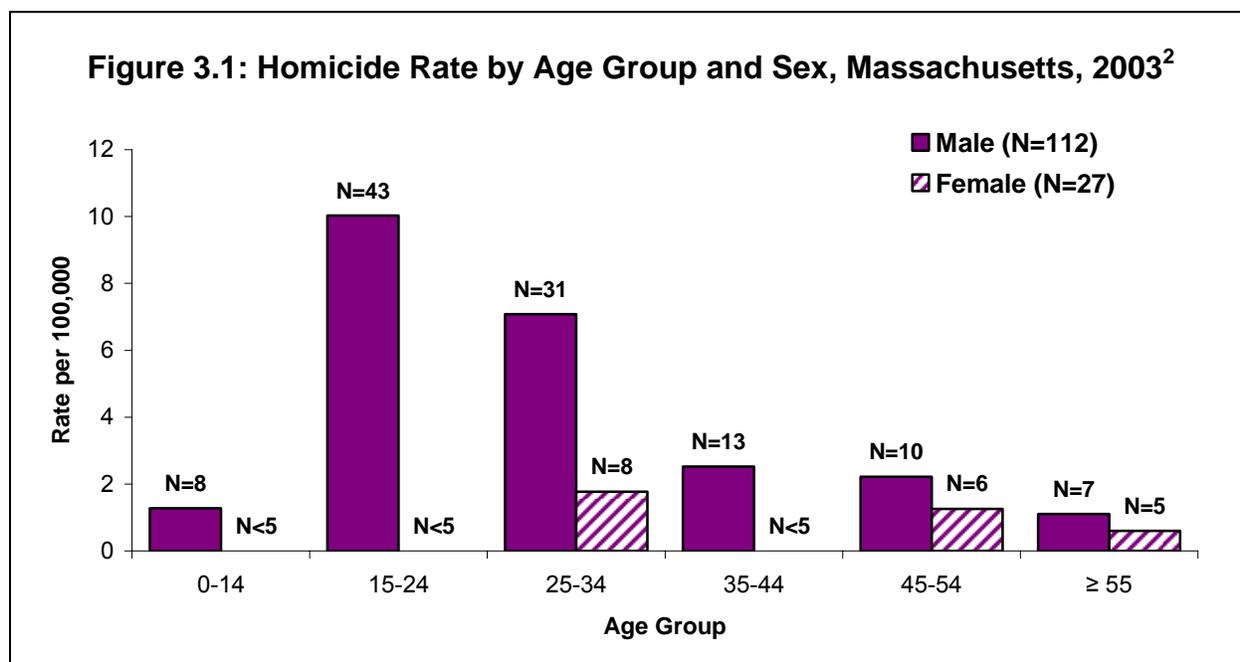
	Victim Count	Percent	Rate per 100,000 <sup>1</sup>
<b>Sex</b>			
Male	112	80.6	3.6
Female	27	19.4	0.8
<b>Race/Ethnicity</b>			
White, Non-Hispanic	46	33.1	0.9
Black, Non-Hispanic	40	28.8	10.5
Asian, Non-Hispanic	6	4.3	2.0
Hispanic	37	26.6	7.7
Other, Non-Hispanic/Unspecified <sup>2</sup>	10	7.2	---
<b>Age Group</b>			
0-14	11	7.9	0.9
15-24	45	32.4	5.3
25-34	39	28.1	4.4
35-44	16	11.5	1.5
45-54	16	11.5	1.7
55-64	2	1.4	---
65-74	5	3.6	1.2
75-84	3	2.2	---
85+	2	1.4	---
<b>Years of Education<sup>2</sup></b>			
Less than 9 years	18	12.9	---
9-12 years	99	71.2	---
> 12 years	19	13.7	---
Unknown	3	2.2	---
<b>Total</b>	<b>139</b>	<b>100</b>	<b>2.2</b>

<sup>1</sup> Rates were not calculated for counts less than 5 and are considered unstable for counts less than 20. Rates were not age-adjusted. See Technical Notes for calculating rates.

<sup>2</sup> Rates were not calculated due to lack of denominator information.

## Key Findings: Demographics of Homicides, Massachusetts, 2003

- ❑ The MA homicide rate (2.2/100,000) is lower than the U.S. rate (5.9/100,000)<sup>1</sup>.
- ❑ Of the 139 homicide victims, 8 were involved in multiple homicides, an incident where more than one person died.
- ❑ Males had a higher homicide rate (3.6/100,000) than females (0.8/100,000).
- ❑ Unlike suicide, Black, Non-Hispanics (10.5/100,000) had the highest homicide rate followed by Hispanics (7.7/100,000).
- ❑ Black, Non-Hispanic males were the most at risk for homicide (21.2/100,000).
- ❑ Higher rates were found in younger age groups than was the case with suicides, with 15-24 year olds (5.3/100,000) and 25-34 year olds (4.4/100,000) showing the highest rates. Rates in the remaining age groups were substantially lower than these two age groups.
- ❑ Males ages 15-24 and 25-34 years had the highest homicide rate (10.0/100,000 and 7.1/100,000, respectively), accounting for 60% of the homicide victims.
- ❑ The highest proportion of homicides was among victims with 9-12 years of education.



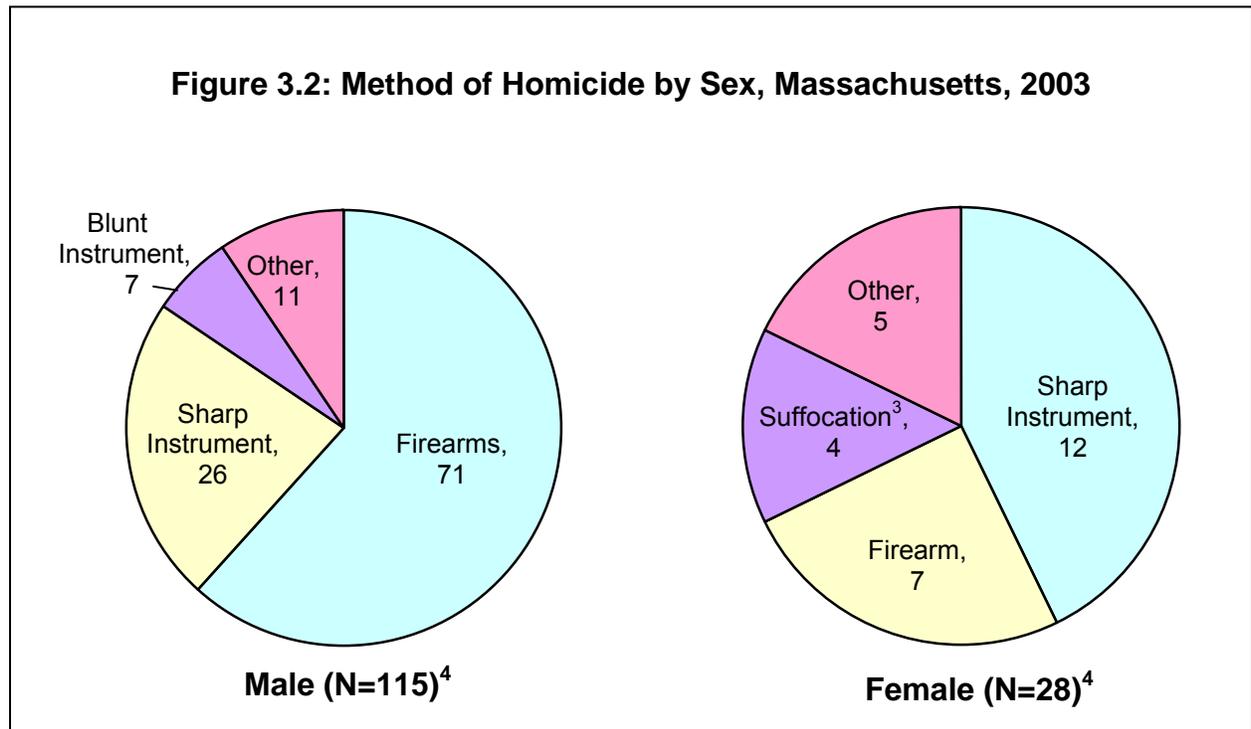
<sup>1</sup> Minino AM, Anderson RN, Fingerhut LA, Boudreault MA, Warner M. Deaths: Injuries, 2002. National vital statistics report; vol 54 no 10. Hyattsville, Maryland: National Center for Health Statistics. 2006.

<sup>2</sup> Rates were not calculated for counts less than 5 and are considered unstable for counts less than 20. Rates were not age-adjusted. See Technical Notes for calculating rates.

**Table 3.2: Victim Count, Percent, and Rate of Homicide by Race/Ethnicity and Sex, Massachusetts, 2003**

	Male			Female		
	Victim Count	Percent	Rate per 100,000 <sup>1</sup>	Victim Count	Percent	Rate per 100,000 <sup>1</sup>
White, Non-Hispanic	33	30.0	1.3	13	44.8	0.5
Black, Non-Hispanic	39	35.5	21.2	1	3.5	---
Asian, Non-Hispanic	5	4.5	3.5	1	3.5	---
Hispanic	30	27.3	12.6	7	24.1	2.9
Other, Non-Hispanic/ Unspecified	5	4.5	--- <sup>2</sup>	5	17.2	--- <sup>2</sup>
<b>Total</b>	<b>110</b>	<b>100</b>	<b>3.7</b>	<b>29</b>	<b>100</b>	<b>0.8</b>

**Figure 3.2: Method of Homicide by Sex, Massachusetts, 2003**



<sup>1</sup> Rates were not calculated for counts less than 5 and are considered unstable for counts less than 20. Rates were not age-adjusted. See Technical Notes for calculating rates.

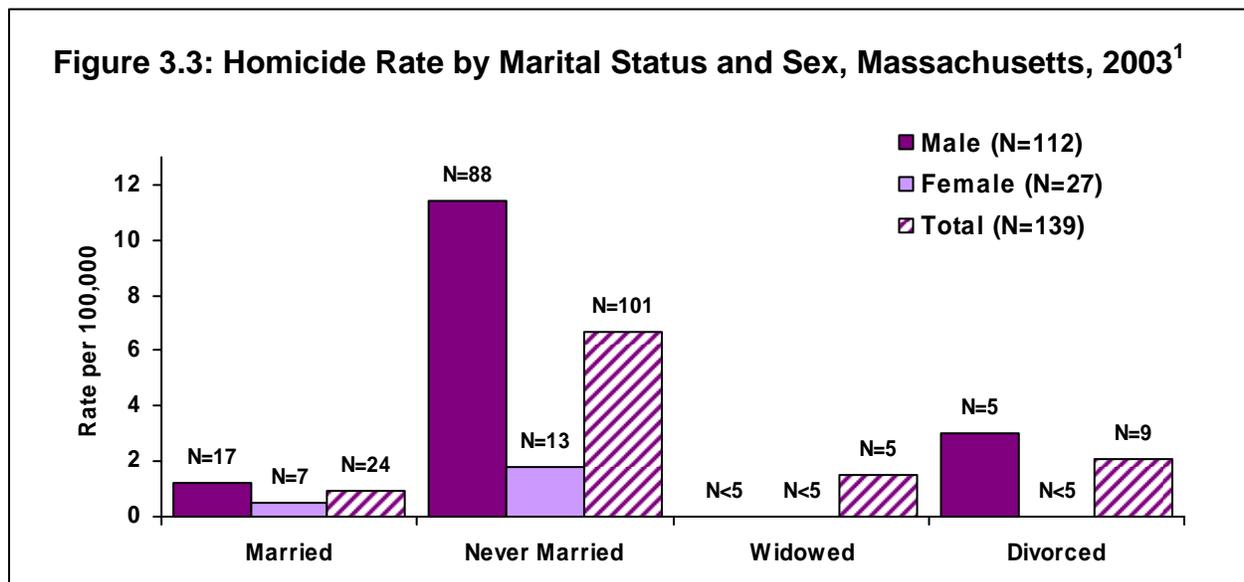
<sup>2</sup> Rates were not calculated due to lack of denominator information.

<sup>3</sup> NVDRS defines the weapon as Hanging, Strangulation, and Suffocation.

<sup>4</sup> Some deaths resulted from the use of multiple weapons so totals are higher than victim totals.

## Additional Key Findings

- ❑ Over half of Massachusetts homicides (56%) involved firearms, while sharp instruments accounted for 27% and blunt instruments for 6%.
- ❑ For males, firearms were the most common weapon used in homicides (65%), with sharp instruments accounting for 24%.
- ❑ The most common weapon used in female homicides was a sharp instrument (41%). Firearms were used in 24% of female homicides.
- ❑ The highest homicide rates were among males who never married (11.4/100,000).
- ❑ The majority of homicides occurred in the victim's home/apartment (40%) or on a street/sidewalk (38%).
- ❑ In 2003, 36% of homicides occurred during the summer months June-August while only 22% occurred during the winter months of December-February.
- ❑ Suffolk County, which includes Boston, had the highest number (40) and rate of homicides (5.9/100,000).
- ❑ The city of New Bedford had the highest homicide rate (11.7/100,000) among selected cities with population greater than 90,000.

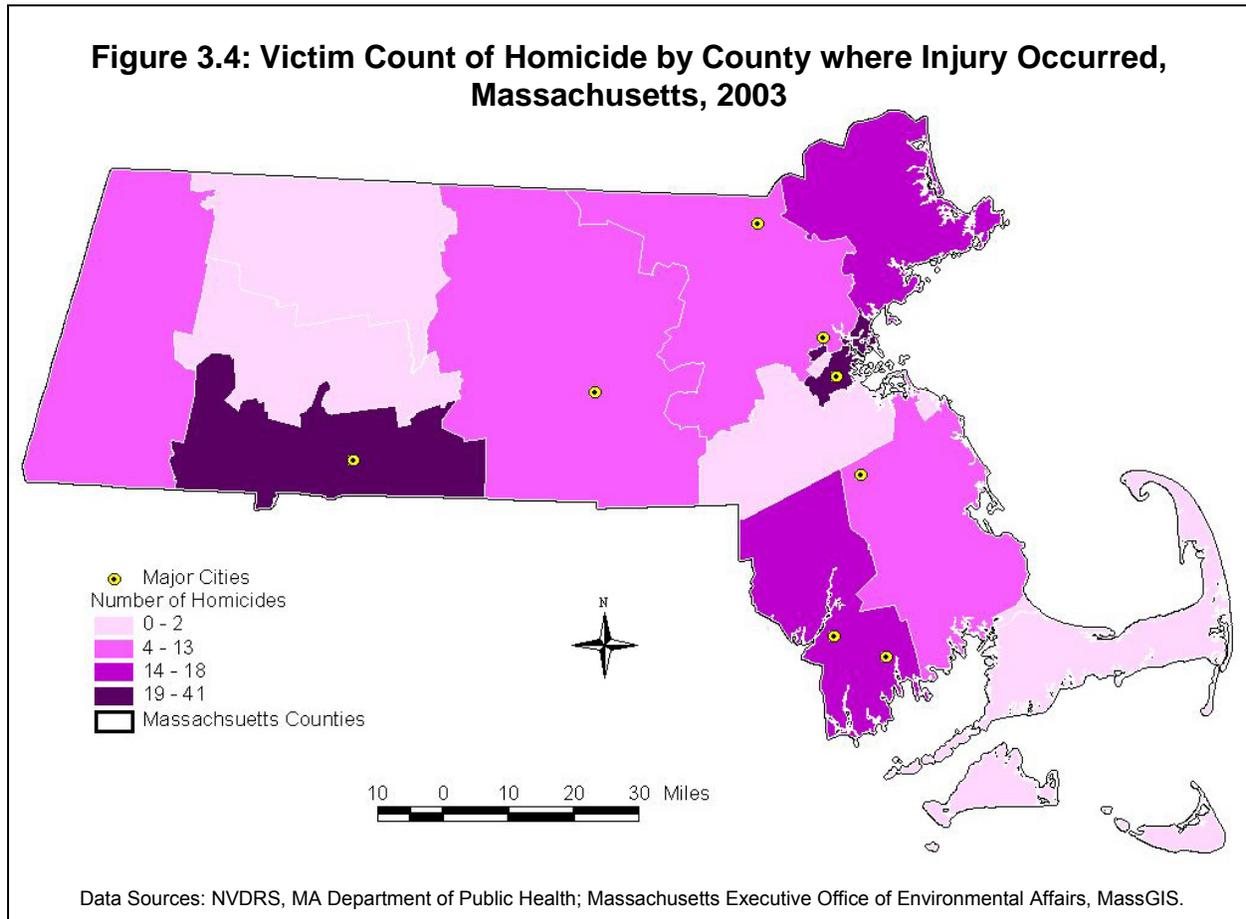


<sup>1</sup> Rates were not calculated for counts less than 5 and are considered unstable for counts less than 20. Rates were not age-adjusted. See Technical Notes for calculating rates.

**Table 3.3. Victim Count, Percent, and Rate of Homicide by County where Injury Occurred, Massachusetts, 2003**

	Victim Count	Percent	Rate per 100,000 <sup>1</sup>		Victim Count	Percent	Rate per 100,000 <sup>1</sup>
Barnstable	2	1.5	---	Hampshire	0	0.0	---
Berkshire	4	3.0	---	Middlesex	11	8.3	0.8
Bristol	18	13.6	3.3	Nantucket	0	0.0	---
Dukes	0	0.0	---	Norfolk	1	0.8	---
Essex	14	9.1	1.6	Plymouth	13	9.8	2.7
Franklin	0	0.0	---	Suffolk	40	30.3	5.9
Hampden	19	14.4	4.1	Worcester	12	9.1	1.5
<b>Total<sup>2</sup></b>		<b>Victim Count 132</b>		<b>Rate per 100,000<sup>1</sup></b>		<b>2.1</b>	

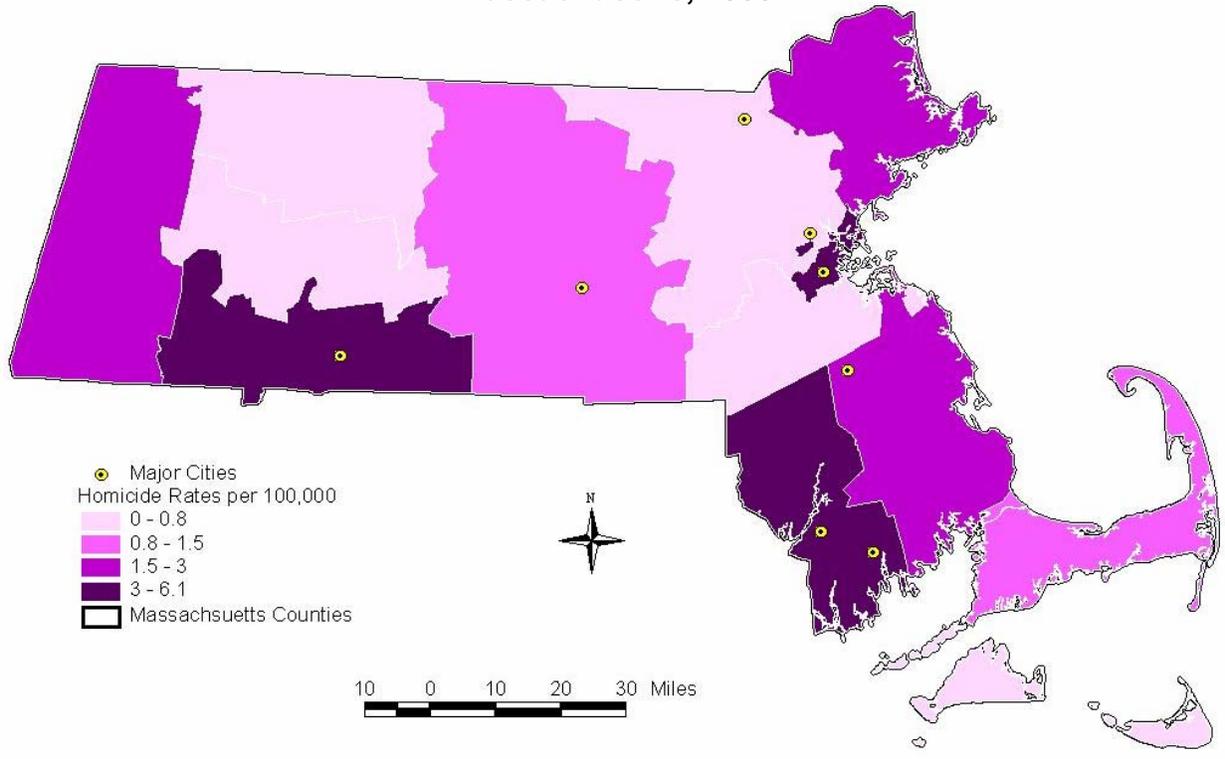
**Figure 3.4: Victim Count of Homicide by County where Injury Occurred, Massachusetts, 2003**



<sup>1</sup> Rates were not calculated for counts less than 5 and are considered unstable for counts less than 20. Rates were not age-adjusted. See Technical Notes for calculating rates.

<sup>2</sup> There were 518 victims whose data element for county where injury occurred was unknown. As a result, the total rate differs from the state rate. The majority of victims with unknown county where injury occurred were poisoning deaths.

**Figure 3.5: Homicide Rate by County where Injury Occurred, Massachusetts, 2003**



Data Sources: NVDRS, MA Department of Public Health; Massachusetts Executive Office of Environmental Affairs, MassGIS.

**Table 3.4: Victim Count, Percent, and Rate of Homicide by City where Injury Occurred<sup>1</sup> with Population Greater than 90,000, Massachusetts, 2003**

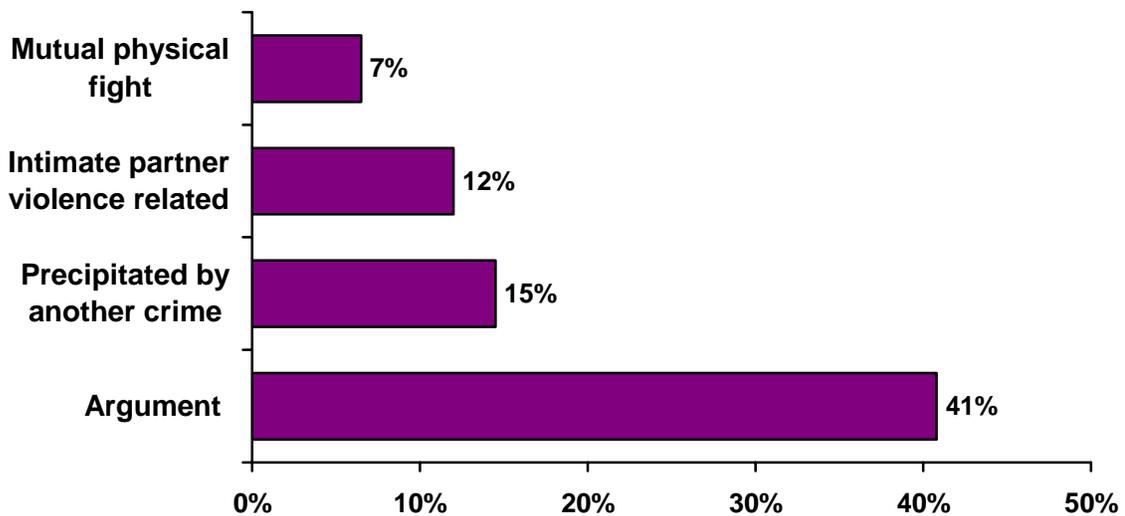
	Victim Count	Percent <sup>2</sup>	Rate per 100,000 <sup>3</sup>
Boston	40	29.2	6.9
Brockton	9	6.6	9.5
Cambridge	3	2.2	---
Fall River	3	2.2	---
Lowell	2	1.5	---
New Bedford	11	8.0	11.7
Springfield	13	9.5	8.5
Worcester	6	4.4	3.4

<sup>1</sup> City where injury occurred was provided by the data element for FIPS55 city codes from death certificates.

<sup>2</sup> Percents were calculated using the 137 victims with known city where injury occurred.

<sup>3</sup> Rates were not calculated for counts less than 5 and are considered unstable for counts less than 20. Rates were not age-adjusted. See Technical Notes for calculating rates.

**Figure 3.6: Frequent Homicide Circumstances, Massachusetts, 2003 <sup>1</sup>**



- ❑ An argument, insult, grudge, or personal revenge was reported to have precipitated 41% of the homicides. This does not include intimate partner violence, which was involved in 12% of the homicides.
- ❑ Fifteen percent of homicides were precipitated by another serious crime, such as robbery or drug trafficking.
- ❑ Mutual physical fight was reported in 7% of the homicides.

<sup>1</sup> Victims may have multiple circumstances noted so percent totals will not sum to 100%. Percents were calculated using the 76 victims with known circumstance information.

## **Section 4: Violent Death of Undetermined Intent**

**Table 4.1: Victim Count, Percent, and Rate of Violent Death of Undetermined Intent by Demographics, Massachusetts, 2003**

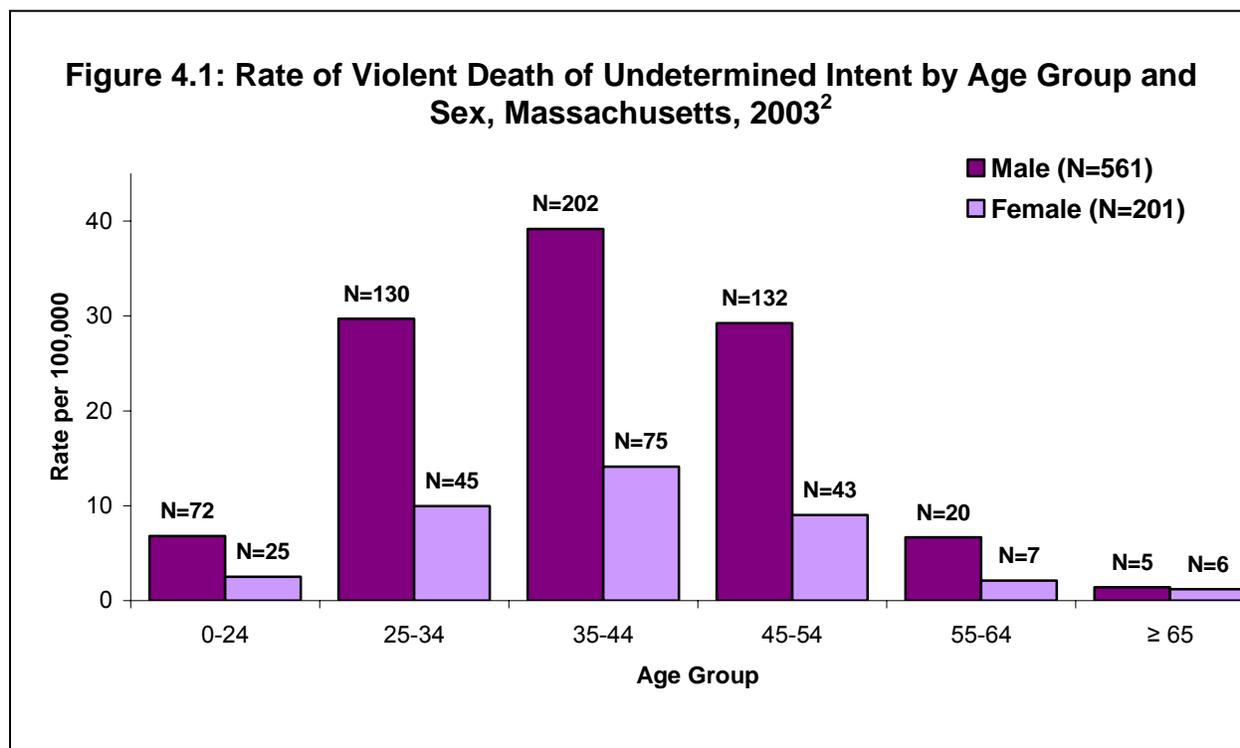
	Victim Count	Percent	Rate per 100,000 <sup>1</sup>
<b>Sex</b>			
Male	561	73.6	18.1
Female	201	26.4	6.1
<b>Race/Ethnicity</b>			
White, Non-Hispanic	626	82.2	11.9
Black, Non-Hispanic	52	6.8	13.6
Asian, Non-Hispanic	4	0.5	---
Hispanic	69	9.1	14.4
Other, Non-Hispanic/Unspecified <sup>2</sup>	11	1.4	---
<b>Age Group</b>			
0-14	3	0.4	---
15-24	94	12.3	11.1
25-34	175	23.0	19.7
35-44	277	36.4	26.4
45-54	175	23.0	18.9
55-64	27	3.5	4.3
65-74	7	0.9	1.7
75-84	0	0.0	---
85+	4	0.5	---
<b>Years of Education<sup>2</sup></b>			
Less than 9 years	40	5.2	---
9-12 years	560	73.5	---
> 12 years	154	20.2	---
Unknown	8	1.0	---
<b>Total</b>	<b>762</b>	<b>100</b>	<b>11.9</b>

<sup>1</sup> Rates were not calculated for counts less than 5 and are considered unstable for counts less than 20. Rates were not age-adjusted. See Technical Notes for calculating rates.

<sup>2</sup> Rates were not calculated due to lack of denominator information.

## Key Findings: Demographics of Violent Deaths of Undetermined Intent

- ❑ Deaths are classified as undetermined when the medical examiner, based on the available evidence, cannot establish whether a death was unintentional, deliberately self-inflicted, or caused by assault.
- ❑ Historically, Massachusetts has had a higher proportion of deaths in this category compared to the national average. In 2003, the MA undetermined death rate (11.9/100,000) was seven times higher than the U.S. rate (1.7/100,000)<sup>1</sup>.
- ❑ The undetermined death rate for males (18.1/100,000) was three times higher than females (6.1/100,000) and was highest for Hispanics (14.4/100,000) and Black, Non-Hispanics (13.6/100,000).
- ❑ Deaths of undetermined intent were clustered in middle-age groups: 36% of victims were between the ages of 35 and 44, 23% between 25 and 34, and another 23% between 45 and 54. The highest rate (26.4/100,000) for undetermined death was also in the 35-44 year age group.



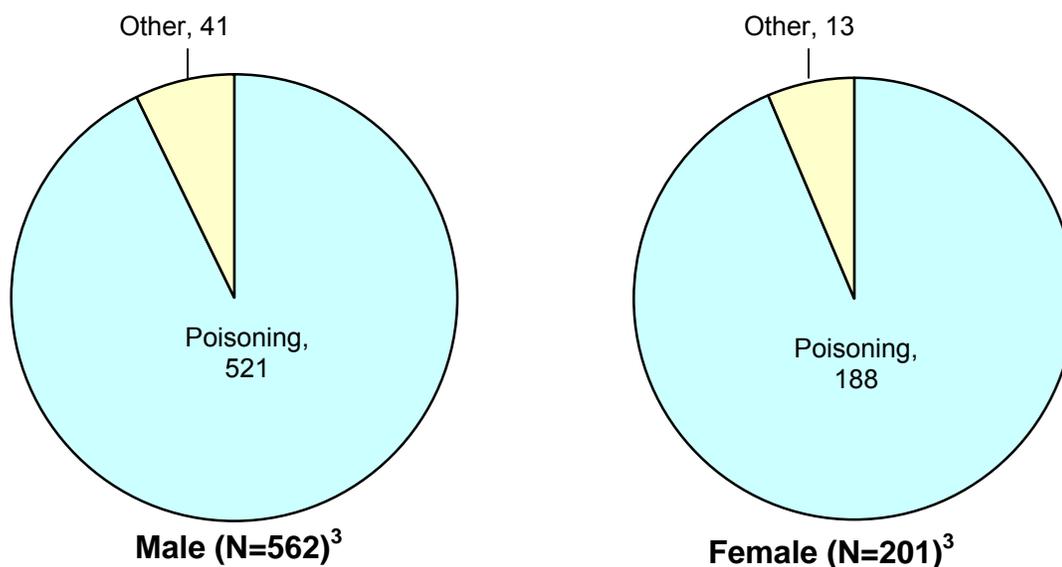
<sup>1</sup> Minino AM, Anderson RN, Fingerhut LA, Boudreault MA, Warner M. Deaths: Injuries, 2002. National vital statistics report; vol 54 no 10. Hyattsville, Maryland: National Center for Health Statistics. 2006.

<sup>2</sup> Rates were not calculated for counts less than 5 and are considered unstable for counts less than 20. Rates were not age-adjusted. See Technical Notes for calculating rates.

**Table 4.2: Victim Count, Percent, and Rate of Violent Death of Undetermined Intent by Race/Ethnicity and Sex, Massachusetts, 2003**

	Male			Female		
	Victim Count	Percent	Rate per 100,000 <sup>1</sup>	Victim Count	Percent	Rate per 100,000 <sup>1</sup>
White, Non-Hispanic	452	80.6	17.9	174	86.6	6.4
Black, Non-Hispanic	43	7.7	23.4	9	4.5	4.6
Asian, Non-Hispanic	2	0.4	---	2	1.0	---
Hispanic	59	10.5	24.7	10	5.0	4.1
Other, Non-Hispanic/Unspecified	5	0.9	--- <sup>2</sup>	6	3.0	--- <sup>2</sup>
<b>Total</b>	<b>561</b>	<b>100</b>	<b>17.8</b>	<b>201</b>	<b>100</b>	<b>6.1</b>

**Figure 4.2: Method of Violent Death of Undetermined Intent by Sex, Massachusetts, 2003**



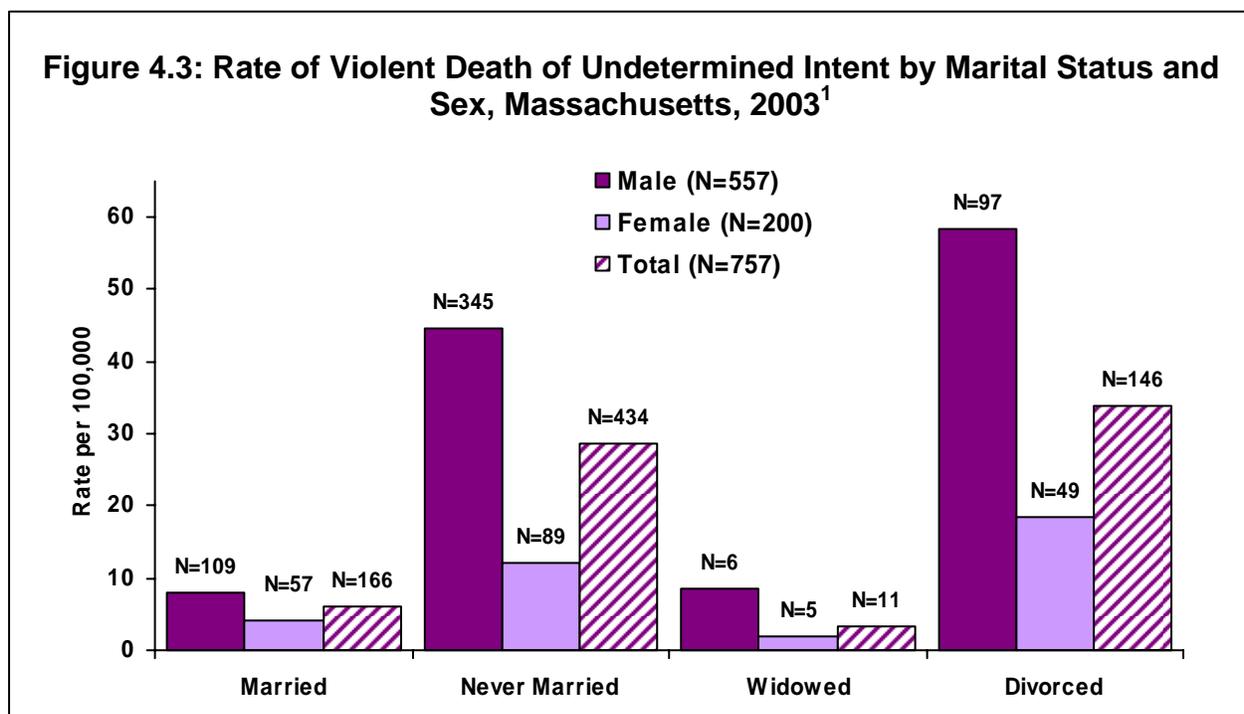
<sup>1</sup> Rates were not calculated for counts less than 5 and are considered unstable for counts less than 20. Rates were not age-adjusted. See technical Notes for calculating rates.

<sup>2</sup> Rates were not calculated due to lack of denominator information.

<sup>3</sup> Some deaths resulted from the use of multiple weapons so totals are higher than victim totals.

## Additional Key Findings

- ❑ The vast majority of violent deaths of undetermined intent (93%) were poisonings, mainly due to opioids. This was true for both males (93%) and females (94%). An additional 2% were due to drowning and 1% to falls.
- ❑ The highest rates of violent death of undetermined intent were among divorced males (58.3/100,000) and males who had never been married (44.5/100,000).
- ❑ The highest rate of violent death of undetermined intent was among victims with 9-12 years of education.
- ❑ Suffolk County had the highest number (67) and rate of violent deaths of undetermined intent (9.9/100,000).
- ❑ Of the victims of violent death of undetermined intent that were tested, 78% were positive for an opioid (570 of 730 tested). Cocaine was detected in 40% (294 of 732 tested) and antidepressants in 21% (129 of 619 tested).
- ❑ The rate of violent death of undetermined intent for MA (11.9/100,000) was five times higher than the U.S. (1.6/100,000) due to differences between medical examiner classification practices in 2003.

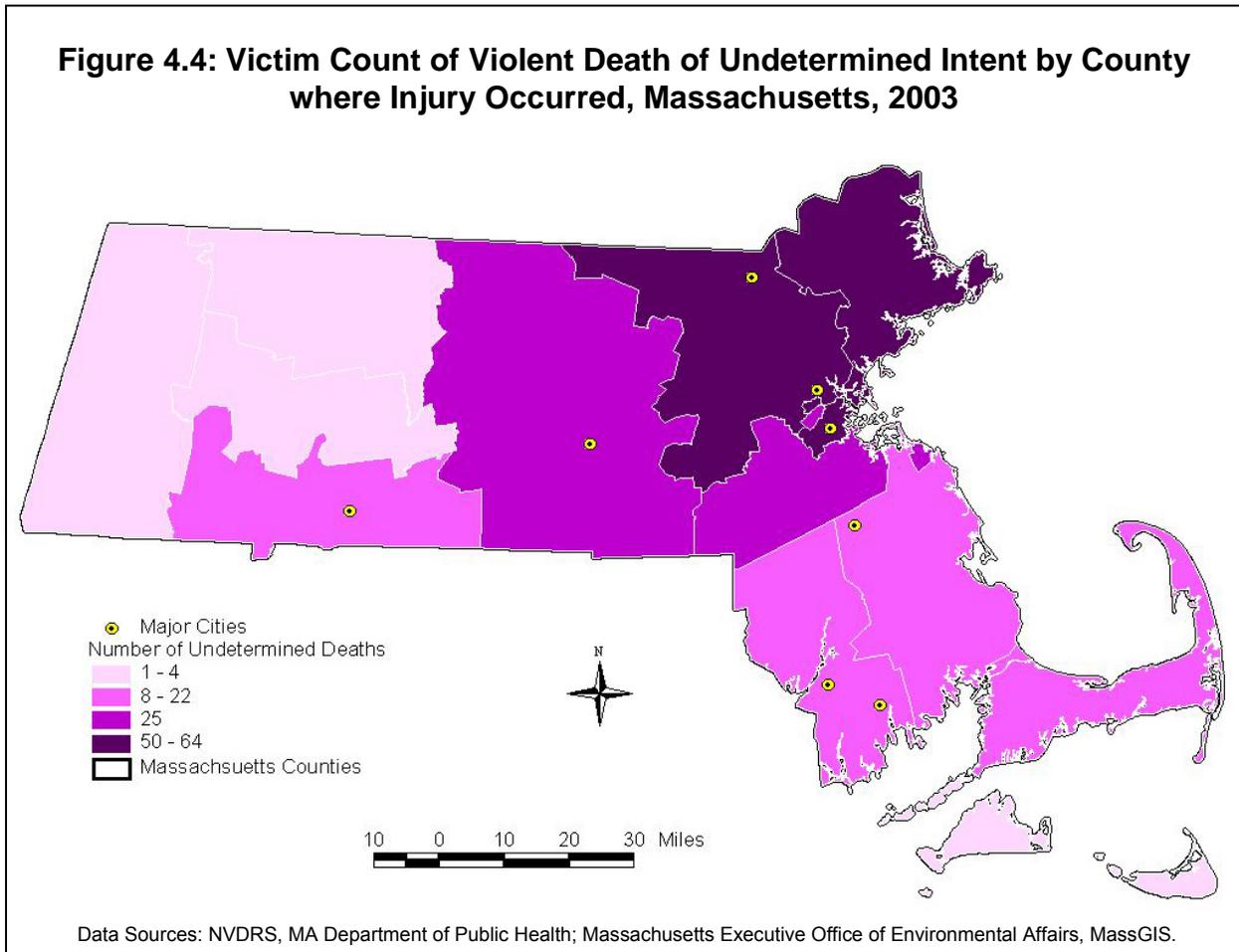


<sup>1</sup> Rates were not calculated for counts less than 5 and are considered unstable for counts less than 20. Rates were not age adjusted. See Technical Notes for calculating rates. Figure does not include unknown and single not specified status (N=5).

**Table 4.3. Victim Count, Percent, and Rate of Violent Death of Undetermined Intent in Massachusetts by County where Injury Occurred, 2003**

	Victim Count	Percent	Rate per 100,000 <sup>1</sup>		Victim Count	Percent	Rate per 100,000 <sup>1</sup>
Barnstable	8	2.7	3.5	Hampshire	5	1.7	3.3
Berkshire	1	0.3	---	Middlesex	57	19.3	3.9
Bristol	22	7.4	4.0	Nantucket	1	0.3	---
Dukes	1	0.3	---	Norfolk	26	8.8	4.0
Essex	53	17.9	7.2	Plymouth	11	3.7	2.3
Franklin	2	0.7	---	Suffolk	67	22.6	9.9
Hampden	17	5.7	3.7	Worcester	25	8.4	3.2
<b>Total<sup>2</sup></b>		<b>Victim Count 296</b>		<b>Rate per 100,000<sup>1</sup></b>		<b>4.4</b>	

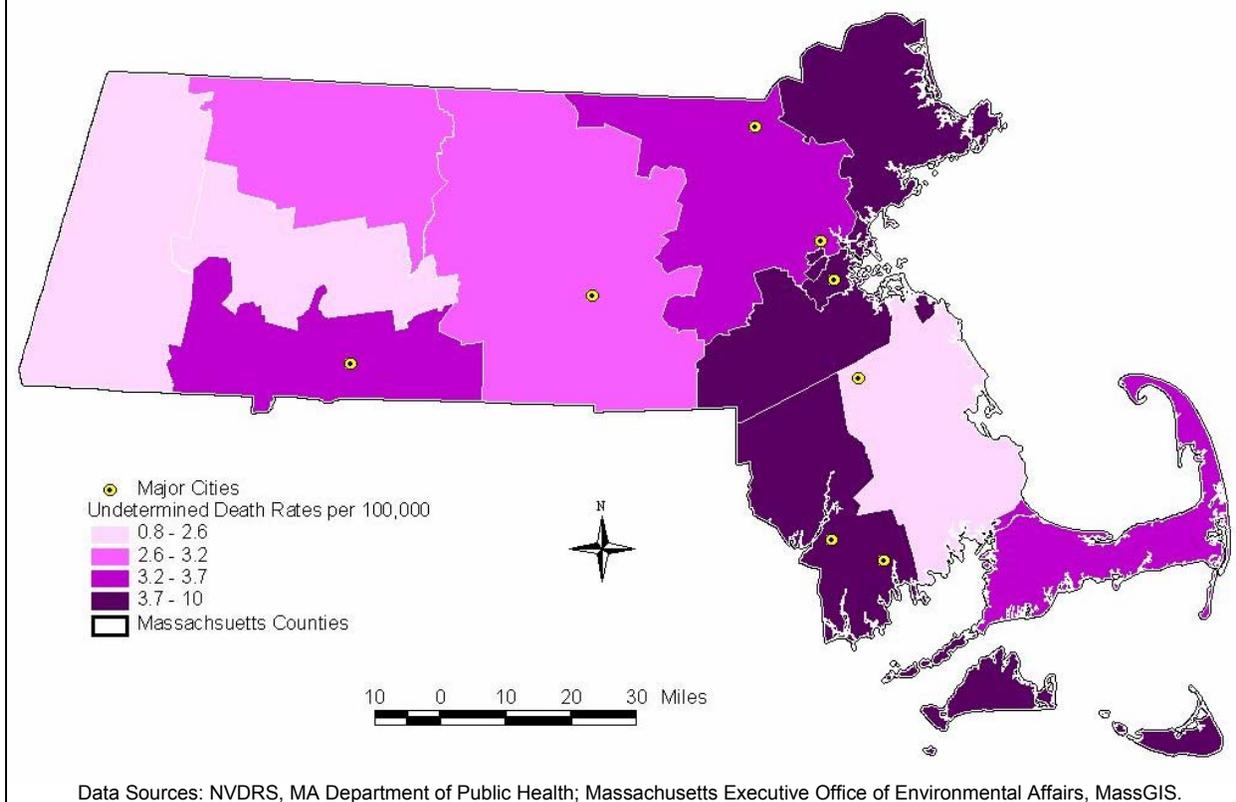
**Figure 4.4: Victim Count of Violent Death of Undetermined Intent by County where Injury Occurred, Massachusetts, 2003**



<sup>1</sup> Rates were not calculated for counts less than 5 and are considered unstable for counts less than 20. Rates were not age-adjusted. See Technical Notes for calculating rates.

<sup>2</sup> There were 518 victims whose data element for county where injury occurred was unknown. As a result, the total rate differs from the state rate. The majority of victims with unknown county where injury occurred were poisoning deaths.

**Figure 4.5: Rate of Violent Death of Undetermined Intent by County where Injury Occurred, Massachusetts, 2003**



**Table 4.4: Victim Count, Percent, and Rate of Violent Death of Undetermined Intent by City where Injury Occurred<sup>1</sup> with Population Greater than 90,000, Massachusetts, 2003**

	Victim Count	Percent <sup>2</sup>	Rate per 100,000 <sup>3</sup>
Boston	55	16.6	9.5
Brockton	5	1.5	5.3
Cambridge	9	2.7	8.9
Fall River	7	2.1	7.5
Lowell	8	2.4	7.7
New Bedford	8	2.4	8.5
Springfield	16	4.8	10.5
Worcester	6	1.8	3.4

<sup>1</sup> City where injury occurred was provided by the data element for FIPS55 city codes from death certificates.

<sup>2</sup> Percents were calculated using the 332 victims with known city where injury occurred.

<sup>3</sup> Rates were not calculated for counts less than 5 and are considered unstable for counts less than 20. Rates were not age-adjusted. See Technical Notes for calculating rates.

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# Appendix

## TECHNICAL NOTES

### Case Identification

Violent death cases in the NVDRS database are first identified by reviewing the “manner of death” field on death certificates maintained by the Massachusetts Department of Public Health’s Registry of Vital Records and Statistics (RVRS). A record is created in the NVDRS database for any death categorized as homicide, suicide, or could not be determined. These deaths represent a preliminary violent death data file. The final data file is determined on the basis of International Classification of Diseases, Tenth Revision (ICD-10) codes for the underlying cause of death field on death certificates, which are assigned at the RVRS later in the record keeping process.

The ICD-10 codes that determine cases to be included are listed below:

<u>Manner of Death</u>	<u>ICD-10 Code</u>	
	<u>Death &lt; 1 Year after the injury</u>	<u>Death &gt;1 year after the injury</u>
• Intentional Self-Harm	X60-X84	Y87.0
• Assault	X85-X99, Y00-Y09	Y87.1
• Undetermined Intent	Y10-Y34	Y87.2, Y89.9
• Unintentional Firearm	W32-W34	Y86
• Legal Intervention, excluding executions	Y35.0-Y-35.4, Y35.6-Y35.7	Y89.0
• Terrorism	U01, U03	U02

Before finalizing the database, a death file maintained by the RVRS is generated for all codes meeting the ICD-10 case definition. If discrepancies occur between the ICD-10 code and the manner of death field on the death certificate, i.e., the death certificate manner indicates suicide and the ICD-10 indicates undetermined intent, effort is made to resolve the discrepancy through follow up with the Office of Vital Records and Statistics and the Office of the Chief Medical Examiner (OCME). Cases are excluded in cases where the ICD-10 falls outside of NVDRS ICD-10 case definition. In addition, a case is deleted from the database if an Affidavit and Correction of Death is submitted to Vital Records from the OCME changing the manner from homicide, suicide, and undetermined to natural or accident (unless the accident is firearm-related).

In 2003, the proportion of deaths in the undetermined intent category was generally higher than that of other states due to the classification protocol utilized by the OCME. Most of these deaths were poisonings resulting from drug overdose, and Massachusetts was one of a very few states to classify these deaths (absent evidence of an alternative manner) as undetermined. Due to a protocol change in 2005, the majority of drug overdoses from 2005 forwards will be classified as accidental unless there is clear evidence of some other intent.

### Calculating Rates

The rates used in this report are based upon injuries per 100,000 population. In calculating rates for race, Hispanic origin, sex, marital status, age group, and county, population estimates were based upon 2003 MA resident population estimates produced by the National Center for Health Statistics Vintage 2004 postcensal series, in collaboration with the Census Bureau's Population Estimation Program, available on the Internet at: <http://www.cdc.gov/nchs/about/major/dvs/popbridge/popbridge.htm>. Each year, in addition to the most recent year's population estimates, the Census Bureau also revises the previous year's estimates. The 2004 population estimates file includes new estimates for 2003. City/town rates are calculated using 2003 population estimates from the U.S. Census Bureau's *Annual Estimates of the Population for Minor Civil Divisions in Massachusetts, Listed Alphabetically Within County: April 1, 2000 to July 1, 2004* (SUB-EST2004-05-25).

### **Data Elements and Sources**

Data sources utilized by NVDRS include death certificates, medical examiner records, police reports, Supplementary Homicide Reports (SHR), National Incident Based Reporting System (NIBRS) reports, emergency department records, and the Massachusetts State Police Crime Laboratory. Over 270 data elements may be collected for each incident in the data base, including information on: the incident, person or persons (victim and suspect), toxicology, weapon(s), circumstances associated with a homicide or suicide, relationship between a suspect and victim, and relationship between a person and weapon. More information on the NVDRS data elements and coding protocols is available at the NVDRS website: <http://www.cdc.gov/ncipc/pub-res/nvdrs-coding/VS2/default.htm>.

Death certificates serve as an important data source for the cause of death, place and date of death, and demographic information on the victim. Also on the death certificates are fields that include injury information, including date, time, location, address of injury, and if the injury occurred at work. It is the only source used for the assignment of the ICD- 10 code, as well as the official legal and public document of the death.

Medical examiner records include toxicology reports that typically test for alcohol, cocaine, and opiates, as well as other drugs. Records will also have details on wounds and other injury circumstances.

Data from law enforcement agencies include demographics of victims and suspects, relationships between victims and suspects, weapons, and circumstances from city and town police reports, SHR and NIBRS.

The SHR and NIBRS are incident-based reports voluntarily submitted by local law enforcement agencies to the Federal Bureau of Investigation as part of an aggregate crime reporting system. Massachusetts cities and towns participate either in NIBRS or SHR, and approximately half of the jurisdictions currently participate in each system. The NVDRS database includes data elements for SHR but not for NIBRS. In Massachusetts, NIBRS information is entered in police report data fields. For incidents where information is available from both police and NIBRS, information from the police takes precedence.

The Massachusetts State Police Crime Lab provides weapon and ballistics information for firearm-related deaths. Details of the Crime Lab report include make and model of the firearm, caliber or gauge, and other ballistics information.

Newspaper articles, when available, serve as a mechanism of identifying multiple victims and suspects. However, information from newspapers is not coded in NVDRS and cannot be used to identify theories or circumstances regarding the incident, even if the ME file doesn't have the information.

### **Primacy among Data Sources**

NVDRS has predetermined rules governing data source primacy when multiple sources are available for the same variable. Data sources have been ranked in terms of their likely accuracy for each data element. The source with first primacy is considered most reliable for a given variable and will be the source of choice. Lower primacy sources are used when a higher primacy source is not available. In the case of a victim's sex, for instance, primacy rules establish the death certificate as the preferred data source, CME records as the second choice, and police records as the third choice.

Identity screen for victim, with variables from Death Certificate, Coroner/Medical Examiner, Police Report, and SHR

The screenshot displays the NVDRS - [Data Entry] application window. The title bar reads "NVDRS - [Data Entry]". The menu bar includes "Data Entry", "Restructure", "Reports", "User Tools", and "Help". The toolbar contains various icons for file operations and data management. The main window has a tabbed interface with tabs for "Incident - 144", "Documents", "Person 1" (selected), "Person 2", "V-S Relation", "Weapon 1", and "P-W Relation". Below the tabs is a section labeled "Identity" with a sub-tab "Identity". The form is organized into four columns: DC (Death Certificate), C/ME (Coroner/Medical Examiner), PR (Police Report), and SHR (State Health Registry). Each column contains a "Person type:" checkbox and a series of text input fields for personal information: Last name, First name, Middle name, Social Security #, Date of birth, Age, Age unit, Person's sex, Race (White, Black, Asian, Pacific Islander, American Indian, Other, Unspecified), Hispanic/Latino/Spanish, Address, City, County, State, ZIP code, Country, US Census tract, and US Census block group. The DC and C/ME columns are in red text, PR is in blue, and SHR is in dark blue.

Data Element screen for Death Certificate (wound information is no longer collected from death certificate)

DC Main Elements

Death Certificate number:  US Census block group of injury:

Birth place:  US Census tract of injury:

Country of birth if not listed:  Survival time no. of units:

Veteran status:  Unit of time used in survival time:

Marital status:  Education:

Place of death:  Number years education:

Place of death if other:  Usual occupation code:

Date of death:  Usual occupation text:

State of death:  Kind of business/industry code:

Immediate cause of death text:  Usual industry text:

Cause leading to immediate cause text:  Number of wounds:

Next antecedent cause of death text:  Number of bullets that hit victim:

Underlying cause of death text:  Wound to the head:

Underlying cause of death code:  Wound to the face:

Autopsy performed:  Wound to the neck:

Person was pregnant:  Wound to the upper extremity:

Manner of death, e.g., suicide, homicide, undetermined:  Wound to the spine:

Date of injury:  Wound to the thorax:

Time of injury:  Wound to the abdomen:

Type of location where injured:  Wound to the lower extremity:

Injured at work:

Street and number of injury site:

City of injury FIPS code:

State of injury FIPS code:

Switch to DC Mult 10

Data Element screen for C/ME document:

**NVDRS - [Data Entry]**  
 Data Entry Restructure Reports User Tools Help

Incident - 166 | Documents | **Person 1 (V)** | V-S Relation | Weapon 1 | P-W Relation

Identity | DC | Abstractor | **C/ME** | PR | SHR | Hosp | CFR

**C/ME Main Elements**

Person attempted suicide after incident

Date of death:

Manner of death, e.g., suicide, homicide, undetermined:

Place of death:

Place of death if other:

State of death:

Street and number of injury site:

City of injury FIPS code:

State of injury FIPS code:

ZIP code of injury:

County of injury:

At person's home:

Injured at work:

EMS at scene:

Type of location where injured:

Time of injury, date of injury:

Survival time no. of units:

Unit of time used in survival time:

Birth place:

Country of birth if not listed:

Marital status:

Person was pregnant:

Homeless status:

Education:

Current occupation:

Victim in custody when injured:

Autopsy performed:

Date specimens were collected:

Time specimens were collected:

Intoxication suspected:

Blood alcohol concentration results:

Testing for alcohol:  Test results:

Testing for amphetamines:  Test results:

Testing for antidepressants:  Test results:

Testing for cocaine:  Test results:

Testing for marijuana:  Test results:

Testing for opiate(s):  Test results:

Testing for other drugs:  Test results:

Type of other drug:

Number of wounds:

Number of bullets that hit victim:

Wound to the head:

Wound to the face:

Wound to the neck:

Wound to the upper extremity:

Wound to the spine:

Wound to the thorax:

Wound to the abdomen:

Wound to the lower extremity:

Switch to C/ME Circumstances

## Circumstances

NVDRS has separate screens for the C/ME and PR documents to choose as many circumstances as applicable to the incident. The list of circumstances is generated based on the manner of death assigned when the record is created. For instance, if the death certificate says “homicide”, then the person abstracting data (referred to as the Abstractor) would choose homicide. As a result, only homicide circumstances would be available. For suicide and undetermined, however, the same set of circumstances are generated. If a circumstance has been chosen, the details of that must be mentioned in the narrative or an error message will appear.

*Homicide Circumstances include the following:*

- Precipitated by another crime
- Argument over money/property/drugs
- Jealousy (lovers’ triangle)
- Intimate partner violence related
- Other argument, abuse, conflict
- Drug involvement
- Gang related
- Hate crime

*Suicide/Undetermined Circumstances include the following:*

- Current depressed mood
- Current mental health problem
- Type of mental health diagnosis
- Alcohol problem
- Other substance problem
- Person left suicide note
- Crisis in past 2 weeks
- Intimate partner problem
- Job problem
- School problem

*Unintentional Firearm Circumstances include the following:*

- Hunting
- Loading/unloading gun
- Playing with gun
- Showing gun to others
- Gun mistaken for toy
- Gun defect or malfunction

Victim-Suspect Relation screen:

NVDRS - [Data Entry]

Data Entry Restructure Reports User Tools Help

Incident - 41 | Documents | Person 1 (V) | Person 2 (S) | **V-S Relation** | Weapon 1 | Weapon 2 | P-W Relation

C/ME | PR | SHR

Victim	Suspect	Victim to Suspect Relation 1	Victim to Suspect Relation 2	Evidence of abuse	Caretaker of victim
1 - lastname	2 - lastname	45	88	No, n/a, unknown	Yes
<ul style="list-style-type: none"> <li>01 - Spouse</li> <li>02 - Ex-spouse</li> <li>03 - Girlfriend or boyfriend</li> <li>07 - Ex-girlfriend or ex-boyfriend</li> <li>08 - Girlfriend or boyfriend, unspecified whether current or ex</li> <li>10 - Parent</li> <li>11 - Child</li> <li>12 - Sibling</li> <li>13 - Grandchild</li> <li>14 - Grandparent</li> <li>15 - In-law</li> <li>16 - Stepparent</li> <li>17 - Stepchild</li> <li>18 - Child of suspect's boyfriend/girlfriend</li> <li>19 - Intimate partner of suspect's parent (e.g., teenager kills his mother's boyfriend)</li> <li>29 - Other family member (e.g. cousin, uncle, etc.)</li> <li>30 - Babysittee (e.g. child killed by babysitter)</li> <li>31 - Acquaintance</li> <li>32 - Friend</li> <li>33 - Roommate (not intimate partner)</li> <li>34 - Schoolmate</li> <li>35 - Current or former work relationship (e.g., co-worker, employee, employer)</li> <li>36 - Rival gang member</li> <li>44 - Other person, known to victim</li> <li><b>45 - Stranger</b></li> <li>50 - Victim was injured by law enforcement officer</li> <li>51 - Victim was law enforcement officer injured in the line of duty</li> <li>88 - Suspect is not a suspect for this victim; suspect</li> <li>99 - Relationship unknown</li> </ul>					

## GLOSSARY

**Asphyxiation:** condition of being deprived of oxygen and synonymous with suffocation

**Blunt instrument:** weapon such as clubs and bats

**Drowning:** weapon of submersion in water or other liquid

**Fall:** weapon resulting from a fall, push or jump from a high place

**Homicide:** death resulting from the intentional use of force or power, threatened or actual, against another person, group, or community

**Incident:** violent death incident can be made up of any of the following:

1. One isolated violent death
2. Two or more homicides, including legal interventions, when the deaths involve at least one person who is a suspect or victim in the first death and a suspect and victim in the second death or the fatal injuries are inflicted less than 24 hours apart
3. Two or more suicides or undetermined manner deaths, when: there is some evidence that the second or subsequent death was planned to coincide with and follow the preceding death or the fatal injuries are inflicted less than 24 hours apart
4. One or more homicides or unintentional firearm deaths combined with one or more suicides when: the suspect in the first death is the person who commits suicide, and the fatal injuries are inflicted less than 24 hours apart
5. Two or more unintentional firearm deaths when the same firearm inflicts two or more fatal injuries, and the fatal injuries are inflicted by one shot or burst of shots

**Legal Intervention Death:** death when the decedent was killed by a police officer or other peace officer (persons with specified legal authority to use deadly force), including military police, acting in the line of duty

**Personal weapons:** weapon using the body such as fists, feet, or hands

**Poisoning:** weapon including drugs (prescription, street, or alcohol), toxins, chemical substances, or gas (carbon monoxide)

**Suffocation:** condition of being deprived of oxygen and synonymous with asphyxiation.

**Sharp instrument:** weapons such as knives, razors, chisels, or broken glass

**Suicide:** death resulting from the intentional use of force against oneself; a preponderance of evidence should indicate that the use of force was intentional

**Terrorism-related death:** homicides or suicides that result from events that are labeled by the Federal Bureau of Investigation (FBI) as acts of terrorism, which is a mechanism of death rather than a manner of death, where the manner of such death is either homicide or suicide.

**Unintentional firearm death:** Deaths resulting from gunshot wounds inflicted by the victim or another person unintentionally.

**Undetermined manner of death:** A death resulting from the use of force or power against oneself or another person for which the evidence indicating one manner of death is no more compelling than the evidence indicating another manner of death.

**Violent Death:** A death that results from the intentional use of physical force or power, threatened or actual, against oneself, another person, or a group or community. The person using the force or power need only have intended to use force or power; they need not have intended to produce the consequence that actually occurred. “Physical force” should be interpreted broadly to include the use of poisons or drugs. The word “power” includes acts of neglect or omission by one person who has control over another. In addition, NVDRS captures unintentional firearm deaths.

**Weapon:** the following are the weapon choices for NVDRS:

- Firearm
- Non-powder gun
- Sharp instrument
- Blunt instrument
- Poisoning
- Hanging, strangulation, suffocation
- Personal weapons
- Fall
- Explosive
- Drowning
- Fire or burns
- Shaking, (e.g., shaken baby syndrome)
- Motor Vehicle, including buses, motorcycles
- Other transport vehicle, (e.g., trains, planes, boats)
- Intentional neglect, (e.g., starving a baby)
- Biological weapons
- Other
- Unknown

## ACRONYMS

BPD	Boston Police Department
CDC	Center for Disease Control and Prevention
CRU	Crime Reporting Unit
CFRT	Child Fatality Review Team
DC	Death Certificate
DPH	Department of Public Health
FARS	Fatality Analysis Reporting System
FBI	Federal Bureau of Investigation
FIPS	Federal Information Processing Standard
GIS	Geographic Information Systems
ICD	International Classification of Diseases
IPV	Intimate Partner Violence
ISP	Injury Surveillance Program
ME	Medical Examiner
MDPH	Massachusetts Department of Public Health
MMWR	Morbidity and Mortality Weekly Report
MSP	Massachusetts State Police
NCIPC	National Center for Injury Prevention and Control
NIBRS	National Incident-Based Reporting System
NVDRS-MA	National Violent Death Reporting System- Massachusetts
NVDRS	National Violent Death Reporting System
NVISS	National Violent Injury Statistics System
OCME	Office of the Chief Medical Examiner
PIC	Plug in Component
PR	Police Report
SAS	Statistical Analysis System
SHR	Supplemental Homicide Report
SPSS	Statistical Program for Social Sciences
STIPDA	State and Territorial Injury Prevention Directors Association
UCR	Uniform Crime Reporting
USGS	United States Geological Survey
WHO	World Health Organization
WRISS	Weapon-Related Injury Surveillance System