

# INJURY UPDATE

A Report to Oklahoma Injury Surveillance Participants\*

March 23, 2012

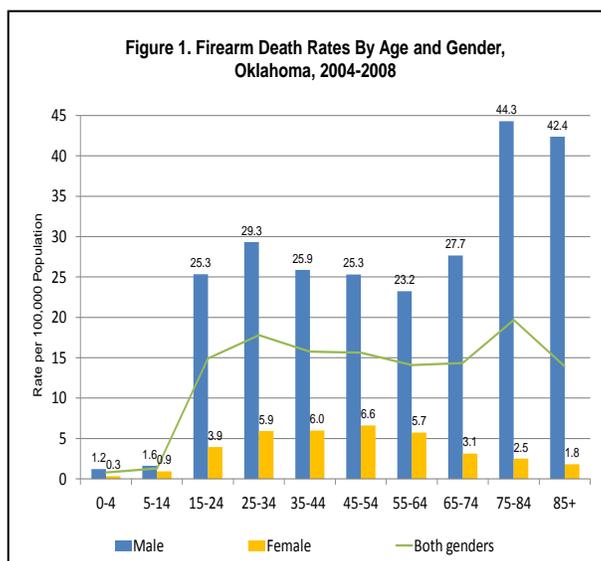
## Firearm-related Deaths in Oklahoma

Worldwide, violence claims more than 1.6 million lives each year. In the United States (U.S.), approximately 51,000 persons die each year as a result of violence. More than half (58%) of these violent deaths in the U.S. are due to firearms. Firearms claim the lives of about 3 persons every hour. In addition to the human and social burden, firearm injuries cost \$27.7 billion per year in the U.S. From 2004-2008, there were 153,976 firearm-related deaths among U.S. residents (10.1 per 100,000 population). Suicide accounted for the majority (56%) of these deaths and homicide accounted for 40%. Firearm-related deaths that were unintentional or of undetermined intent accounted for the remaining 4%. Suicide by firearm and homicide by firearm were respectively the fourth and fifth leading causes of injury death in the U.S. between 2004 and 2008. However, for persons 15-24 years of age, homicide by firearm was the second leading cause of injury death after motor vehicle crashes, and for youth 10-19 years of age, homicide by firearm and suicide by firearm were respectively the second and fifth leading causes of injury death.

In Oklahoma, firearm-related death was the third leading cause of injury death from 2004-2008. During the same time period, firearm deaths accounted for 55,651 (6%) years of potential life lost before the age of 65.

The Injury Prevention Service collects data on all firearm-related deaths as part of the National Violent Death Reporting System of Oklahoma (NVDRS-OK). NVDRS-OK data are collected from death certificates, medical examiner reports and police reports. Data from 2004-2008 were analyzed to assess the characteristics of firearm-related deaths resulting from homicide, suicide, unintentional injury and undetermined intent. Firearm-related deaths from legal intervention (i.e., person killed by a police officer or peace officer acting in the line of duty) were excluded from the analysis.

There were 2,296 firearm-related deaths in Oklahoma during 2004-2008. Eighty-three percent of firearm victims were male and 17% were female. The mean age of victims was 43 years. Victims ranged in age from 1 year to 101 years. The overall rate of firearm death was 12.7 per 100,000 population, and the rate of firearm death among males was more than 5 times the rate among females (21.7 and 4.2, respectively). The rate of firearm death was highest among males 75 years of age and older (43.9) and males 25-34 years of age (29.3) (Figure 1). The rate of firearm-related death among blacks (21.1) was 1.8 times the rate among whites (11.8) and nearly twice the rate among Native Americans (10.6). Blacks 15-44 years of age had the highest rate of firearm death (39.2), followed by Hispanics 15-24 years of age (21.9), Native Americans 25-34 years (21.7) and whites 75-84 years (20.7) (Table 1).



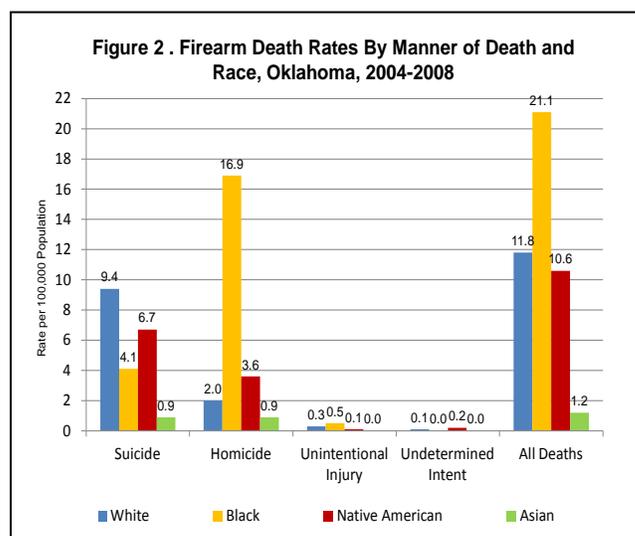
\*The INJURY UPDATE is a publication of the Injury Prevention Service, Oklahoma State Department of Health. This and other IPS information may be obtained from the Injury Prevention Service, Oklahoma State Department of Health, 1000 N.E. 10th Street, Oklahoma City, OK 73117, 405-271-3430 or 1-800-522-0204 (in Oklahoma). IPS publications are also available at <http://ips.health.ok.gov>

**Table 1. Age, Race, and Ethnicity-Specific Firearm Death Rates, Oklahoma, 2004-2008**

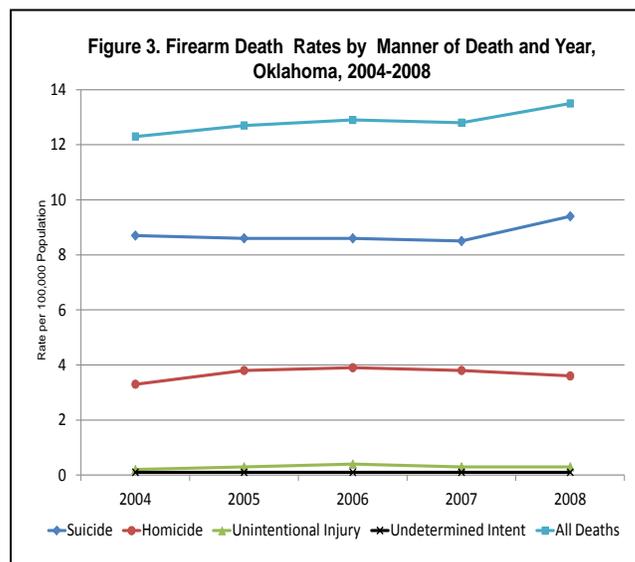
Age Group	White		Black		Native American		Asian		Hispanic*	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
0-4	8	0.8	1	0.7	0	0.0	0	0.0	1	0.5
5-14	17	0.9	7	2.6	6	2.1	0	0.0	2	0.8
15-24	205	10.0	122	43.0	36	11.8	2	3.3	52	21.9
25-34	237	12.8	104	48.2	48	21.7	2	3.3	36	15.5
35-44	280	14.8	46	23.8	33	16.4	1	1.9	12	7.1
45-54	337	16.2	19	10.5	31	16.0	1	2.5	7	6.5
55-64	251	15.2	12	11.1	4	3.0	0	0.0	2	3.7
65-74	164	15.0	3	5.0	10	13.4	0	0.0	2	7.9
75-84	153	20.7	2	5.8	5	12.4	0	0.0	0	0.0
85+	43	14.9	1	8.3	0	0.0	0	0.0	0	0.0
All Ages	1695	11.8	317	21.1	173	10.6	6	1.8	114	8.9

\* Hispanic is not a race category

Sixty-eight percent (1,570) of firearm-related deaths were suicide, 29% (660) were homicide, 2% (50) were from unintentional injuries and for less than 1% (16) the intent could not be determined. The rate of firearm-related suicide among whites (9.4) was 40% higher than among Native Americans (6.7), and 2.3 times higher than among blacks (4.1). The rate of firearm-related homicide among blacks (16.9) was 8 times higher than the rate among whites (2.0), and 4.7 times higher than the rate among Native Americans (3.6). The rate of firearm-related homicide among persons identified as Hispanic ethnicity (5.3) was 1.5 times higher than the rate among non-Hispanics (3.5) (Figure 2).



Among youth less than 25 years of age, the rate of firearm-related homicide (3.4) was slightly higher (13%) than the rate of firearm-related suicide (3.0). However, among persons 25 years and older, the rate of firearm-related suicide (12.0) was more than 3 times higher than the rate of firearm-related homicide (3.8).



The overall firearm injury death rate increased by 10% from 2004 to 2008. During the same time period, the firearm-related suicide rate increased 8% while the rate of firearm-related homicide increased 9% (Figure 3).

The majority of firearm-related deaths (74%) occurred in a residence; 8% occurred in a motor vehicle; 4% occurred on a street/road; 4% occurred in a parking lot, park, or other public use area; and 10% occurred in other or unknown locations.

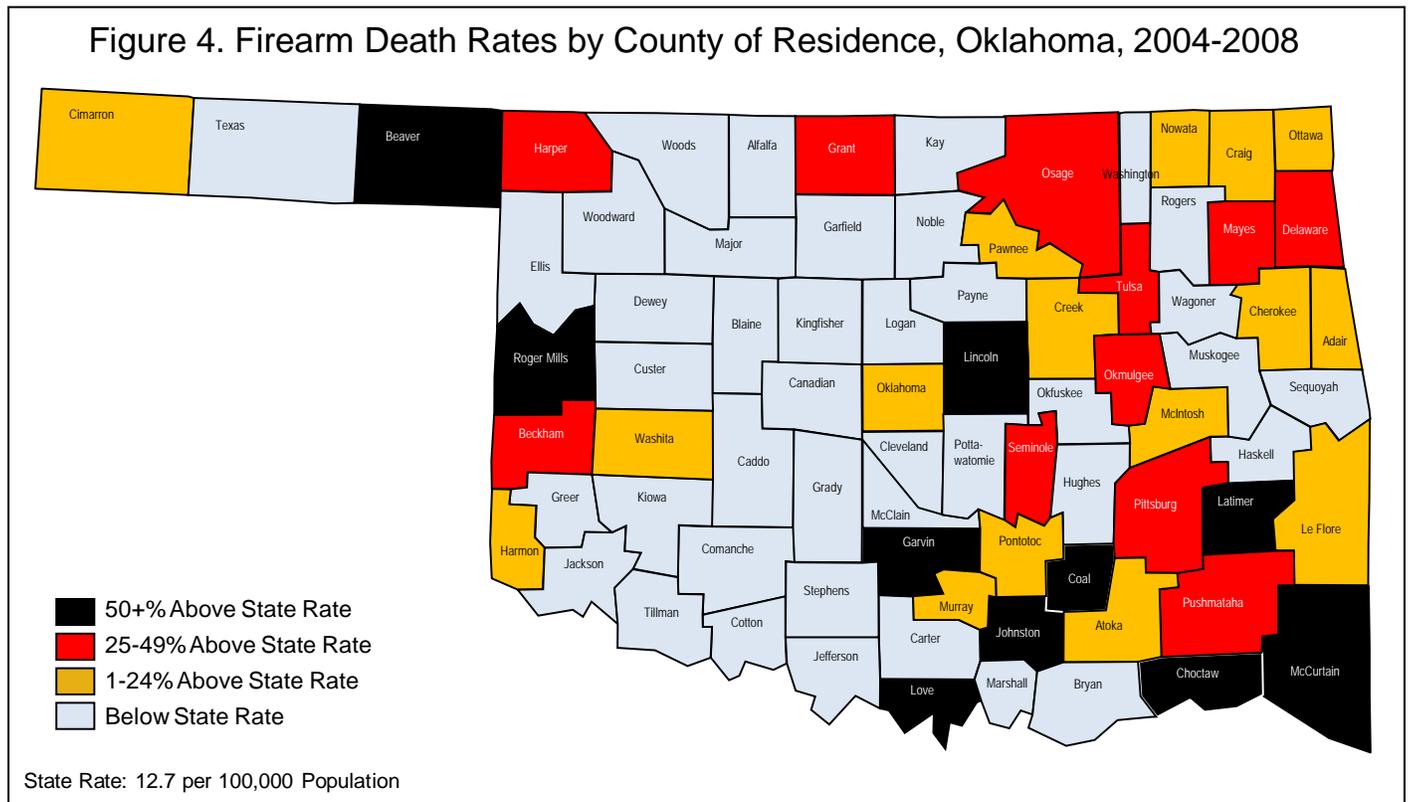
Sixty-six percent of the firearms used to kill were handguns, 14% were shotguns, and 11% were rifles. In three of the deaths, other types of firearms were used (one was a submachine gun), and for 8% of deaths the

type of firearm was unknown. Forty-seven percent of handguns were semi-automatic pistols, 41% were revolvers, 1% were other handguns, and for 11% the handgun type was unknown.

Thirty percent (667) of persons 15 years and older who died from a firearm injury tested positive for alcohol, and 9% (192) tested positive for drugs. Among the persons who tested positive for alcohol, almost half (43%) were 15-34 years of age. More than two-thirds (68%) of persons who tested positive for drugs were 15-34 years of age.

Among persons who committed suicide by a firearm, the leading circumstances were depression (44%), intimate partner problems (33%), and physical health problems (31%). Twenty-nine percent of persons who committed suicide left a suicide note and 29% disclosed their intent to commit suicide before the event. Forty percent of firearm-related homicide victims were killed during an argument, 27% were killed during the commission of a crime and 21% were killed during an intimate partner violence related incident. In the incidents where victims were killed during the commission of a crime, 46% (81) involved robbery, 21% (37) involved drug trade, 16% (28) involved assault, 15% (26) involved burglary and 11% (19) involved other crimes. Intimate partner problems (31%) and substance abuse problems (19%) were the leading circumstances in firearm-related deaths where the intent could not be determined. Playing with a gun (44%) was the leading circumstance among persons who died from an unintentional firearm injury. Thirty percent of unintentional firearm-related injury deaths occurred while unloading a gun and 22% occurred while showing off a gun.

Firearm-related deaths occurred in all Oklahoma counties during 2004-2008, but were more prevalent in southeastern Oklahoma. Choctaw County had the highest firearm-related death rate at 27.9 which was 2.3 times higher than the state rate. Ten counties had firearm-related death rates that were 50% or more above the state rate. In 27 counties, the firearm-related death rate was 1% to 49% above the state rate. In 40 counties, the rate was lower than the state rate (Figure 4).



## Case Briefs

- A teenage boy was killed while playing with guns with 4 other boys at a friend's house. They apparently obtained the guns from another friend at school. He reportedly pointed a BB gun at one of the friends who in turn pointed a pistol at him and fired. The friend stated that he did not know that there was a bullet in the chamber but admitted to firing the gun.
- A middle-aged man shot his girlfriend multiple times before killing himself. They reportedly had been having problems and the girlfriend was thinking of getting a restraining order against him. She had begun seeing other people.
- An elder male shot himself in the head. He had a history of depression since his wife passed away a few years before. He had recently increased his alcohol consumption and had reportedly discussed suicide several times. He left a suicide note.
- A young adult male shot himself in the head with a rifle after he barricaded himself in his residence. He called a family member and said he was going to kill himself because he had recently separated from his wife.
- A young male was shot at a party and later died at a hospital. He had argued with the shooter who was not allowed into the party. The shooter took a handgun from another individual and fired into the crowd killing the decedent and injuring other people. The shooter was reportedly intoxicated and a known gang member.
- An adult male was involved in an argument with an acquaintance for the past few years. Each of them had threatened to kill the other. On the date of the incident, the decedent loaded a gun and drove to the acquaintance's house. An argument ensued and when the decedent was driving away, the acquaintance shot him in the head with a handgun.
- An elder male was found dead with a gunshot wound to the head in his residence. The front door of the residence was unlocked. All other doors in the house were locked and there was no sign of forced entry. There was no weapon found at the scene. An opened bottle of whiskey was found. It could not be determined if the injury was self-inflicted or inflicted by another person.
- A preschool boy and his toddler brother were at their grandmother's house. They were caught playing with a BB gun that they found. The gun was taken away and placed in the same location they had found it. Later, while their mother and grandmother were sleeping, the boys went to the location and took out a handgun that was kept in the same place. They were playing with it when it discharged killing one of the boys.

## Prevention

Violence and firearm-related deaths are preventable. In Oklahoma it is estimated that more than 50% of households own a firearm. Studies have indicated that individual and societal factors contributing to firearm-related deaths include mental health problems, alcohol and substance abuse, poverty, low educational attainment and lack of employment opportunities. Addressing these issues may help to reduce firearm injuries. Strategies to prevent firearm-related injuries include:

### *Firearm Safety:*

- Before buying a gun, take a class on gun safety.
- Keep firearms away from children and unauthorized access.
- Firearms should be stored unloaded in a locked secured place.
- Bullets should be locked up in a separate place.
- Use a trigger lock or padlock to secure your firearm.
- Never assume that a firearm is not loaded.

***Individual and Community:***

- Increase awareness about the risks associated with owning a firearm and the need for responsible gun ownership.
- Increase awareness about alcohol, drugs and substance abuse, and prevention resources.
- Provide mental health and substance abuse treatment.
- Implement home, school and community-based programs to reduce violence including bullying prevention, gang prevention, and suicide prevention.
- Implement and/or increase law enforcement surveillance in high risk communities.

***More information on firearm-related injury prevention can be found at:***

- <http://www.uphs.upenn.edu/ficap/resourcebook/pdf/monograph.pdf>
- <http://www.tn.gov/safety/pubsafety/handgunsafety.shtml>
- [http://www.ok.gov/health/Disease,\\_Prevention,\\_Preparedness/Injury\\_Prevention\\_Service/Fact\\_Sheets/Firearm\\_Injuries\\_and\\_Gun\\_Safety/index.html](http://www.ok.gov/health/Disease,_Prevention,_Preparedness/Injury_Prevention_Service/Fact_Sheets/Firearm_Injuries_and_Gun_Safety/index.html)

Prepared by: H. Julien Kabore, MPH  
Injury Prevention Service