

# FIREARM-RELATED INJURIES

An Ohio State basketball player was struck, but not killed by a bullet from a .380 caliber handgun. Another man was stabbed in the same incident. A Dayton police officer died of firearm injuries which had left her paralyzed two years prior. Finally, a man on a bicycle shot four pedestrians in two Cleveland suburbs, Beachwood and Cleveland Heights; two remain hospitalized.

Each day in Ohio, more than two people die from firearm-related injuries. In 1999, 916 Ohioans died from firearm-related injuries.

## Defining The Problem

The Centers for Disease Control defines firearm-related injury as a gunshot wound or penetrating injury from a weapon that uses a powder charge to fire a projectile. This definition includes gunshot injuries sustained from handguns, rifles, and shotguns but excludes gunshot wounds from air-powered BB and pellet firearms.

### Goals

#### Reduce firearm-related deaths to less than 11.6 per 100,000 people

HP 2010	11.6 per 100,000
Ohio 1995	9.33
U.S. 1995	13.9

Data Source: National Vital Statistics System (NVSS), CDC, NCHS

#### Reduce the proportion of people living in homes with firearms that are loaded and unlocked

HP 2010	16%
Ohio	Identify baseline
U.S. 1994	20%

Data Source: National Health Interview Survey (NHIS), CDC, NCCDPHP

#### Enact laws in 50 states and the District of Columbia requiring that firearms be properly stored to minimize access and the likelihood of discharge by minors

HP 2010	All 50 states
Ohio	No law
U.S. 1996	15 states with laws

Data Source: National Conference of State Legislatures

### Data

Firearms continue to be a major cause of injuries in Ohio and the United States. They account for 57% of all homicides and suicides in Ohio and were responsible for 34 unintentional deaths in 1999. As a cause of injury, firearms are unique because a firearm injury usually results in either death or hospitalization. The ratio of fatalities to hospitalizations for firearm-related injuries is 1:1.2, compared to a ratio is 1:9 for other injuries. The ratio of hospitalizations to people treated and released for firearm-related injuries is actually the reverse of other injury causes. For firearms, the ratio is 1.2:1 and for other causes, the ratio is 1:21.

One reason for the high incidence of firearm injuries in the United States may be the large number of firearms and people who have them. According to government and industry estimates, there are nearly enough firearms in the U.S. to arm every adult and half the children (over 200,000,000). The rates of firearm deaths in the U.S. dwarf those of other industrialized nations.<sup>1</sup> The annual firearm death toll in the U.S. consistently exceeded 30,000 per year between 1979 and 1998. In 1999 firearm deaths declined by 5.7 percent to 28,874.

## Children and Firearms

Firearms are also a significant cause of injury and death to children younger than 20 years. In 1999, firearms accounted for 78 deaths to Ohio children in this age group (38 homicides, 30 suicides, and 10 unintentional). Sixty-seven (86%) were males.

The American Academy of Pediatrics (AAP) 2000 Policy entitled "Firearm-Related Injuries Affecting the Pediatric Population" concludes that the most effective measure to prevent these injuries to children and adolescents is the absence of guns in homes and communities ([www.aap.org](http://www.aap.org)).

According to PAX-USA, 40% of homes with children have a handgun and half of these guns are loaded and accessible to children. This accessibility has consequences for young children who may unintentionally discharge a firearm and for adolescents who are at risk for suicide and violence.

## Costs & Consequences

A 1997 study of firearm hospitalizations nationwide indicated that firearm-related injuries result in \$802 million a year in hospital charges, not including physician fees or follow-up care. Nearly one third of victims are uninsured.<sup>4</sup> Gunshot wounds are the leading cause of uninsured hospital days in the country. The average costs are \$24,000 for assault cases and \$30,000 for unintentional (accidental) cases.

Firearm-related fatalities are more costly. The direct (medical, legal, and administrative costs) and indirect (productivity and work loss) costs in Ohio in 1996 were over \$800,000 per incident, which translates to \$732,800,000 per year.<sup>5</sup>

**According to government and industry estimates, there are 200,000,000 firearms in the U.S. - nearly enough to arm every adult and half the children.**

**Table 1. Firearm Related Fatalities, Males, Ohio, 1999, by Age and Race  
Number and Rate per 100,000 Population**

Age Group	Homicide			Suicide			Unintentional			Total #
	White # (rate)	Af.Am # (rate)	Other # (rate)	White # (rate)	Af.Am # (rate)	Other # (rate)	White #	Af.Am #	Other #	
0-9	1(.3)	0	0	0	0	0	1	0	0	2
10-19	7(1.0)	24(20.8)	1*	24(3.7)	3(2.6)	1*	5	0	0	65
20-29	17(2.7)	53(58.9)	1*	72(11.5)	11(12.2)	1*	3	1	0	159
30-39	18(2.5)	35(39.3)	0	87(11.9)	9(10.1)	1*	7	0	0	157
40-49	6(0.8)	17(20.4)	0	95(12.6)	5(5.8)	0	4	0	0	127
50-59	9(1.7)	4(8.4)	0	65(12.2)	2(4.2)	1*	2	0	0	83
60-69	2(0.6)	2(5.8)	0	51(14.3)	5(13.8)	1*	0	0	0	61
70-84	4(1.1)	0	0	96(27.8)	5(15.8)	0	4	1	0	110
85+	1(2.2)	0	0	22(48.6)	1(27.8)	0	0	0	0	24
All	65(1.4)	135(21.2)	2*(2.7)	512(10.8)	41(7.5)	5**	26	2	0	788
*Asian Pacific Islander										
**Asian Pacific Isl. (4- 7.4 per 100,000); Amer. Indian (1- 7.9 per 100,000)										

**Table 2. Firearm Related Fatalities, Females, Ohio, 1999, by Age and Race  
Number and Rate per 100,000 Population**

Age Group	Homicide			Suicide			Unintentional			Total #
	White # (rate)	Af.-Am # (rate)	Other # (rate)	White # (rate)	Af-Am # (rate)	Other # (rate)	White # (rate)	Af-Am # (rate)	Other # (rate)	
0-9	0	0	0	0	0	0	0	1	0	1
10-19	2(0.3)	3(2.7)	0	2(0.3)	0	0	2	1	0	10
20-29	5(0.8)	8(8.2)	0	8(1.3)	1(1.1)	0	0	0	0	22
30-39	7(1.0)	9(8.8)	1*	12(1.6)	1(1.0)	1*	0	0	0	31
40-49	4(0.5)	2(2.0)	0	16(2.1)	1(1.0)	0	0	0	0	23
50-59	4(0.7)	1(1.6)	0	15(2.6)	0	0	1	0	0	21
60-69	2(0.5)	1(2.0)	0	1(0.2)	1(2.0)	0	0	1	0	6
70-84	3(0.6)	1(2.3)	0	8(1.6)	0	0	0	0	0	12
85+	1(0.8)	0	0	1(0.8)	0	0	0	0	0	2
All	28(0.6)	25(3.6)	1	63(1.3)	4(0.6)	1	3(0.1)	3(0.4)	0	128

\* Asian American, rate 0.1 per 100,000

**Table 3. Firearm Fatalities, 1999, Ohio, Age 60 and Older, Number and Rate per 100,000**

	Homicide	Suicide	Unintentional	Total
<b>Number</b>	17	192	6	216
<b>Rate</b>	0.9	9.8	0.3	11.0
<b>Ohio Total</b>	256 (2.3)	626 (5.5)	34 (0.3)	939 (8.3)
<b>US Total</b>	10,828 (3.9)	16,599 (6.1)	824 (0.3)	28,874 (10.6)

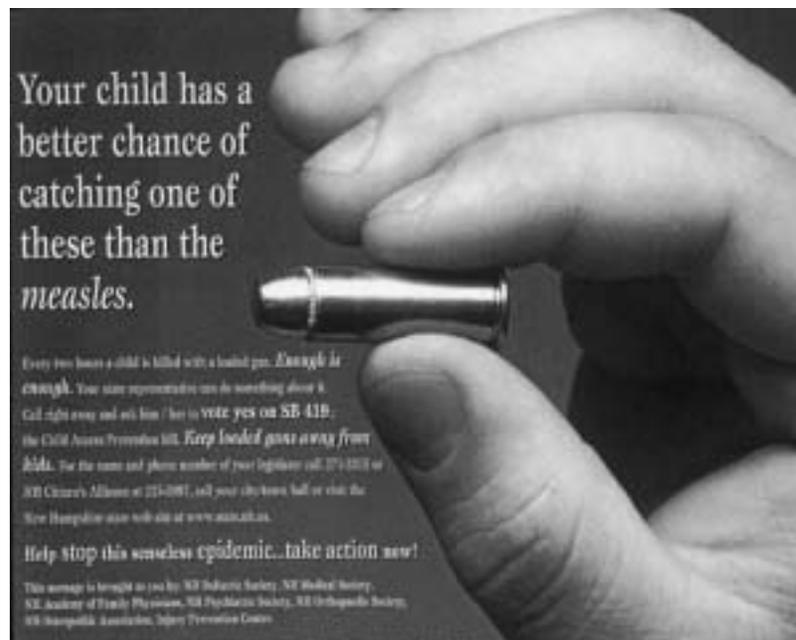
**Table 4. Firearms Fatalities, 1999, Age 0-14, Number, % of Total Fatalities, and Rate per 100,000.**

	Homicide		Suicide		Unintent.		Unknown		Total	
	Ohio	US	Ohio	US	Ohio	US	Ohio	US	Ohio	US
<b>Number</b>	2(18%)	282(58%)	4(36%)	103(21%)	0	88(18%)	5 (45%)	15(3%)	11	488
<b>Rate</b>	0.08	0.49	0.16	0.18	0	0.15	0.20	0.02	0.46	0.84

## Risk Factors

Firearm-related injuries and deaths have complex risk associations that vary according to age, intentionality, socio-economics, gender, and ethnicity as the preceding tables demonstrate.

- In Ohio, males have more than 7 times the risk for firearm-related injuries and death as females.
- For firearm-related homicide, males ages 20-29 years have the highest rate. For firearm-related suicide, males ages 85 and older have the highest rate.
- African American males and females have the highest homicide rates, however studies have shown that when economic status is controlled for, the white and African-American rates are similar for similar age groups.<sup>3</sup>
- Living in poverty is a risk factor for firearm-related injury and death.
- Living in an urban area increases one's risk of death due to firearm-related homicide. Ohio's largest urban areas, Cuyahoga (4.3 homicides per 100,000 people), Franklin (4.9), Hamilton (2.4), and Montgomery (5.3) counties have higher firearm-related homicide rates than the state as a whole (2.3).
- Having a gun in the home is a risk factor for firearm-related homicide, suicide, and unintentional deaths. A gun in the home is 22 times more likely to kill a family member than it is to be used in self defense.<sup>2</sup>
- Firearm-related suicide rates are highest among white and African-American males.



## Policy Issues

Information in this section is referenced from the Firearms Law Center Web Site, [www.firearmslawcenter.org](http://www.firearmslawcenter.org)

### National Legislation

Federal law requires that firearms dealers, manufacturers, and importers, as well as ammunition manufacturers and importers, obtain federal licenses to engage in these businesses. 18 U.S.C. § 923(a).

**The Brady Handgun Violence Prevention Act** requires licensed firearms dealers to conduct background checks on prospective purchasers to ensure that the purchaser's receipt of the firearm would not violate applicable state or federal law because the person is underage, or a "prohibited person." 18 U.S.C. § 922(t)(1).

On November 30, 1998, the maximum five-day waiting period originally called for in the Act was replaced with the National Instant Check System (NICS). Under NICS, the dealer contacts the FBI or federally approved state agency which conducts the "instant" background check using a computerized database. However, the individual states are permitted to establish their own "waiting periods" before which the transfer is approved and some states, such as California, have waiting periods substantially longer than the "instant" check.

In Ohio, all firearms transfers by licensed dealers are processed directly through the FBI, which enforces the federal purchaser prohibitions referenced above. In addition, Ohio has added classes of prohibited persons, and incorporated some of the federal prohibitions as state offenses. Ohio Rev. Code § 2923.13 states that no person shall acquire, have, carry, or use any firearm if any of the following apply:

- The person is a fugitive from justice;
- The person is under indictment for or has been convicted of any felony offense of violence, or has been adjudicated a delinquent child for the commission of an offense that, if committed by an adult, would have been a felony offense of violence;
- The person is under indictment for, or has been convicted of, a drug offense (or has been adjudicated a delinquent child for the commission of an offense that, if committed by an adult, would have been a drug offense);

- The person is "drug dependent, in danger of drug dependence, or a chronic alcoholic;" or
- The person has been adjudicated mentally incompetent.

Also, no person under 18 years of age shall purchase or attempt to purchase a firearm, and no person under 21 years of age shall purchase or attempt to purchase a handgun (excepting trained law enforcement officers). Section 2923.21.1(A), (B).

Firearms transfers by private sellers (non-firearms dealers) are not subject to background checks under Ohio law, although federal and state purchaser prohibitions still apply. (See Private/Secondary Sales section.)

**Ballistic Fingerprinting**- No relevant statutes currently exist.

**Carrying Concealed Weapons** - Carrying concealed weapons is prohibited in Ohio. Ohio Rev. Code § 2923.12(A) states that "[n]o person shall knowingly carry or have, concealed on his or her person or concealed ready at hand, any deadly weapon" (including firearms; see section 2923.11). An individual who is arrested and prosecuted for possessing a concealed firearm, and is not otherwise prohibited by law from owning or possessing such a weapon, may raise certain affirmative defenses under section 2923.12(C).

**Child Access Prevention** - No relevant statutes currently exist.

**Dealer Regulations** - Ohio does not license firearms dealers. However, pursuant to the federal Brady Act, 18 U.S.C. § 921 et seq., federally licensed firearms dealers must conduct background checks on prospective purchasers each time the dealer transfers a firearm.

**Gun Shows** - No relevant statutes currently exist.

**Immunity Statutes/Manufacturer Litigation**- No relevant statutes currently exist

**Junk Guns/Saturday Night Specials** - No relevant statutes currently exist.

**Large Capacity Ammunition Magazines** -No relevant statutes currently exist.

**Licensing of Gun Purchasers/Owners** - No relevant statutes currently exist.

**Locking Devices** - No relevant statutes currently exist.

**Minimum Age to Purchase/Possess** - No person under 18 years of age shall purchase or attempt to purchase a firearm, and no person under 21 years of age shall purchase or attempt to purchase a handgun (excepting trained law enforcement officers). Ohio Rev. Code 2923.21.1(A), (B).

**One Gun-A-Month** - No relevant statutes currently exist.

**Personalized/Smart Guns** - No relevant statutes currently exist.

**Private/Secondary Sales** - Private firearms transfers (i.e., transfers by non-firearms dealers) are not subject to a background check requirement in Ohio (although federal and state purchaser prohibitions still apply; see Ohio Background Checks section).

Ohio Rev. Code § 2923.20(A) states that no person may recklessly sell, lend, give, or furnish a firearm to any person prohibited by sections 2923.13 (disabilities for criminal, mental health or drug history) or 2923.15 (intoxication) from acquiring or using any firearm. Nor shall any person knowingly fail to report to law enforcement "forthwith" the loss or theft of any firearm in his or her possession or control. *Id.*

In addition, no person shall sell any firearm to anyone under 18 years of age, or any handgun to anyone under 21 years of age. Ohio Rev. Code § 2923.21(A)(1), (2). Furnishing (but not selling) a firearm to such a person is permissible for lawful hunting, sporting or educational purposes if that person is under the supervision or control of a responsible adult. Ohio Rev. Code § 2923.21(A)(1), (3). Participating in, or facilitating, a straw purchase to a person under 18 years of age is expressly prohibited by this section. Ohio Rev. Code § 2923.21(A)(4), (6). The seller or furnisher of the firearm is liable where he or she knows, or has reason to know, that such a straw purchase is occurring.

**Registration of Guns** - No relevant statutes currently exist.

**Waiting Periods** - No relevant statutes currently exist.

Ohio law currently says relatively little about guns; of the fourteen model state firearm

laws, Ohio has only passed five. The recommendation section discusses three particularly promising approaches for the state of Ohio.

## Recent Legislation

### House Bill 303 This bill died in committee in 2002

The Ohio legislature is currently considering a bill that, if enacted, would preempt almost all local regulation of firearms, firearms components, and ammunition. House Bill 303 (HB 303) would create Section 9.68 of the Ohio Revised Code. Proposed Section 9.68(A) states:

### House Bill 274 This bill died in committee in 2002

The Ohio House of Representatives is considering a bill that would legalize the carrying of concealed firearms. Carrying concealed weapons is currently prohibited in Ohio. Ohio Rev. Code § 2923.12 (A). (See the Ohio Carrying Concealed Weapons section for further discussion.) House Bill 274 (HB 274) would essentially rewrite Ohio Revised Code §§ 2923.12 and 2923.16 (state restrictions on handling, transporting and discharging firearms in a vehicle) to allow the liberal issuance of concealed carry licenses to the general public. HB 274 would effectively turn Ohio from a "may issue" firearms permitting state into a "shall issue" state.

## Hamilton County Litigation

On April 10, 2002, the Ohio First District Court of Appeals upheld a trial court ruling that declared Ohio's laws prohibiting the carrying of concealed firearms unconstitutional. A unanimous three-judge panel ruled in the case *Klein v. Leis*, Case Numbers C-020012, C-020013, C-020015, C-020021, that Ohio Revised Code §§ 2923.12 and 2923.16(B) and (C) (which relate to the carrying of concealed firearms generally and in a motor vehicle) violate Article I, § 4 of the Ohio Constitution. Article I, § 4 provides, *inter alia*, that "the people have the right to bear arms for their defense and security." The Court found that the code sections at issue infringed on this right by "not simply regulat[ing] but effectively prohibit[ing] law-abiding citizens from bearing weapons." This ruling only applies within Hamilton County.

**Assault Weapons** – no relevant statutes exist.

**Federally Licensed Firearms Dealers** - In 2001, there were 3,987 federally licensed firearms dealers in Ohio. Department of the Treasury, Bureau of Alcohol, Tobacco & Firearms, Firearms Commerce in the United States, 2001-2002, Exhibit 13 (2001).

**Machine Gun Permit Holders** - In 2000, 11,954 machine guns were registered in Ohio. Department of the Treasury, Bureau of Alcohol, Tobacco & Firearms, Firearms Commerce in the United States, 2001-2002, Exhibit 9 (2001).

### Local Ordinances

**Assault Weapons** – The following jurisdictions generally prohibit the sale, transfer, and possession of assault weapons: Cincinnati (§ 708-37), Columbus (§ 2323.31), Dayton (§ 138.25), Toledo (§ 549.23). Dublin (§ 137.08) prohibits the sale, loan, or transfer of assault weapons, but does not prohibit possession of assault weapons.

**Carrying Concealed Weapons** – In addition to state law prohibitions on the carrying of concealed weapons, the following jurisdictions generally prohibit persons from carrying concealed weapons and do not provide for permits to carry concealed weapons: Akron (§ 137.02), Cheviot (§ 137.02), Columbus (§ 2323.12), Dayton (§ 138.02), Dublin (§ 137.02), Forest Park (§ 132.02), Grove City (§ 549.02), Mt. Healthy (§ 137.02), North Royalton (§ 672.02), Piqua (§ 137.02), Sidney (§ 549.02), Springdale (§ 135.02), Toledo (§ 549.02), Waynesville (§ 137.02).

**Child Access Prevention** – The following jurisdictions prohibit any person from storing or leaving a loaded or unloaded firearm in any place where the person knows or reasonably should know that a person under the age of 18 is able to gain access to it: Akron (§ 137.291), Toledo (§ 549.22). Cincinnati (§ 708-3) makes it unlawful for a person to store firearms in such a manner that the person knows or should know that a minor is likely to gain possession of the firearm and the minor does gain possession. All firearms owners must obtain liability insurance for the negligent use of a firearm by a minor. A parent or guardian who knows that their minor child has been provided a firearm must remove the firearm or notify the police.

### Dealer Regulations

**Licenses** - The following jurisdictions require dealers to have licenses to sell firearms at retail: Akron (§137.22), Cincinnati (§ 708-9), Columbus (§ 545.02), Springdale (§ 117.01), Toledo (§ 549.12).

**Pawnbrokers and Secondhand Dealers** - Cincinnati (§ 708-11) prohibits pawnbrokers and secondhand dealers from selling any firearms except shotguns and rifles of regulation size manufactured for hunting and sporting purposes only. Dublin (§ 118.01) requires a person to have a license to sell a handgun, including pawnbrokers who sell or redeem handguns.

**Records and Reporting** - The following jurisdictions require dealers to record details of all firearm transactions and report them to the chief of police where the dealer is located: Dayton (§138.06 and § 138.11), Grove City (§ 549.06), Piqua (§ 137.07), Sidney (§ 549.07), Springdale (§ 135.09). Akron (§ 137.25) requires dealers to maintain records of firearms transactions and make daily reports to the chief of police for all firearm transfers. Toledo (§ 549.14) requires dealers to keep records of all handgun sales and provide monthly reports to the sheriff or police chief of the purchaser's place of residence.

**Junk Guns/Saturday Night Specials** - Akron (§ 137.10) makes it illegal to possess, sell, transfer, deliver, or furnish certain handguns having a retail value less than fifty dollars and made of certain metals. Toledo (§ 549.25) bans the sale and possession of handguns that fail to pass a safety test.

**Large- Capacity Ammunition Magazines** - The following jurisdictions prohibit the possession of certain high-capacity ammunition magazines: Cincinnati (§ 708-37), Columbus (§ 2323.32), and Toledo (§ 549.23).

**Licensing of Gun Purchasers/Owners** - Dayton (§ 138.11) prohibits any person from possessing a firearm unless he or she has obtained a firearm owner identification card from the chief of police. Toledo (§ 549.09) prohibits any person from acquiring, possessing, or having a handgun unless he or she has acquired a handgun owner's identification card from the chief of police.

**Locking Devices** - Akron (§137.241) prohibits manufacturers and dealers from selling handguns at retail unless the guns include trigger locks.

**Minimum Age to Purchase/Possess** - Akron (§§ 137.20, 137.21) requires a person to be 18 years old to possess or purchase a pistol (defined as any firearm with a barrel less than 12 inches in length). Cincinnati (§ 708-3) makes it illegal to provide a minor under 18 with a firearm. The following jurisdictions require a person to be 21 years old to purchase handguns and eighteen years old to purchase other firearms: Dublin (§ 137.07), Forest Park (§ 132.10), Grove City (§ 549.07), Mt. Healthy (§ 137.08), North Royalton (§ 672.085), Piqua (§ 137.08), Sidney (§ 549.085), Springdale (§ 135.10), Waynesville (§ 137.08). The following jurisdictions make it illegal to furnish a firearm to anyone under eighteen except for hunting, firearms safety instruction, and marksmanship under the supervision of a responsible adult: Columbus (§ 2323.21), Dayton (§ 138.07), Toledo (§ 549.07).

**Private/Secondary Sales** - Toledo (§ 549.11) prohibits the transfer of a handgun unless both the transferor and transferee exhibit valid local handgun owner identification cards.

**Waiting Periods** - The following jurisdictions impose waiting periods for firearm transfers: Cincinnati (§ 708-33) (15 days) and Dublin (§ 137.06) (7 days).

## Existing Programs

Several hospitals in Ohio provide firearm injury prevention as a component of their injury prevention programming.

**Rainbow Pediatric Trauma Center- Cleveland**

**Children's Hospital Medical Center- Akron**

**Good Samaritan Hospital- Toledo**

**St. Elizabeth Health Center- Youngstown**

**Mercy Hospital of Tiffin**

**The Tuscarawas County Safe Kids Coalition**  
has a firearm injury prevention component.

## Discussion of Prevention Strategies

PAX USA has developed a model program called ASK (Asking Saves Kids) to try to impact firearm deaths and injuries. The program urges parents to ASK other parents and caregivers about the presence and availability of guns where their children play or hang-out ([www.AskingSavesKids.com](http://www.AskingSavesKids.com)) ([www.paxusa.com](http://www.paxusa.com)).

Programs such as the NRA's Eddie Eagle Program designed to train children and adolescents to stay away from guns, or behave responsibly around guns have been studied and found to be ineffective. This is detailed in a recent report from the David and Lucile Packard Foundation entitled "Children, Youth, and Gun Violence" and can be found on the web site [www.futureofchildren.org](http://www.futureofchildren.org).

According to PAX-USA,  
40% of homes with  
children have a handgun  
and half of these guns  
are left loaded or  
unlocked.



Gunlock

## Recommendations to Prevent Firearm-Related Injuries

### Improve Injury Surveillance

1. Create a permanent and stable funding mechanism for a firearm-related injury surveillance system, including injuries treated in emergency departments. This database should collect demographic information on the injured, information on the type and ownership of the firearm, and severity and outcome of the injuries.
2. Support Ohio's participation in the CDC's National Violent Death Reporting System, which includes statewide coroner's data, crime laboratory data, vital statistics data, and law enforcement data.

### Expand training

3. Incorporate age-appropriate education on life skills, conflict resolution, parenting skills, bullying and other related issues into school curricula. Provide standardized training materials for school staff and teach use. Evaluate these programs for effectiveness.

### Empower Communities

4. Recognize firearm-related injuries as a public health concern.
5. Implement a statewide awareness and education program targeting parents. The program should address the following issues:
  - risks of having a firearm in the home
  - necessity of safe storage
  - importance of asking other parents about the availability of firearms in the home

6. Enact state legislation addressing the following firearm-related issues.

- **A Juvenile Possession Law** would expressly forbid any juvenile from possessing a firearm. Exceptions could be made for young people engaged in legal activities such as hunting or sports under the supervision of an adult. Thirty states have such a law including all of Ohio's surrounding states.
- **Child Access Prevention (CAP) Laws**, or "safe storage" laws require adults to store unloaded guns in a place that is inaccessible to children or to use a device such as a trigger lock, to keep children from unintentionally discharging a gun.
- **"Safe Gun" Standards**- Firearms are possibly the least regulated products on the market today. The Consumer Product Safety Commission is specifically prohibited from setting design or safety standards for firearms. Ohio can enact its own set of reasonable safety standards, Massachusetts and California have done this. These laws require firearm manufacturers to design their products so that a small child cannot pull the trigger or remove the gun's safety device.

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4. Coben J and Steiner C. *American Journal of Preventive Medicine*, 2002, Dec. 29.
5. "Injuries in Franklin County, 1994-1996. The Columbus Health Department, Columbus Ohio. 1999.