

A Public Health Approach to Firearms Policy

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An American who dies before the age of forty is more likely to succumb to an injury rather than a disease. The leading cause of injury death in the United States is motor vehicles. The second leading cause of injury death is firearms. In 2001 some 29,500 Americans were killed with firearms in non-war-related events, and about three times that number were wounded seriously enough to be hospitalized. Gun shot injuries are one of the leading causes of both traumatic brain injury and spinal cord injury.

The United States has more firearms in civilian hands than any other high-income nation. About 25 percent of adults in the United States personally own a firearm. Many gun owners have more than one firearm; some 10 percent of adults own over 75 percent of all firearms in the country. The percentage of households with a firearm has declined in the past two decades; about one in three households now contains a firearm.

Among the two dozen or so high-income countries (as classified by the World Bank), the United States is exceptional not only because of the number of firearms in civilian hands but also because so many of our guns are handguns. Our firearm regulations are also relatively permissive. For example, unlike most other industrialized countries, the United States does not have a national firearm licensing or registration system, or laws mandating that all gun owners receive firearm training.

U.S. crime and violence rates—including burglary, robbery, car theft, and assault rates, as assessed in victimization surveys—are comparable to those of other industrialized nations. What is not comparable is our rate of *lethal* violence, and the majority of our homicides are firearm homicides. Studies show that high-income nations that have more guns have more homicides because of higher rates of firearm homicide (Hemenway and Miller 2000; Hepburn and Hemenway 2004).

Studies comparing U.S. regions, states, or cities also find that areas with more firearms have more homicides, primarily because of higher rates of firearm homicide. The association between guns and homicide holds even after controlling for levels of violent crime, unemployment, poverty, urbanization, and alcohol

consumption (Miller, Azrael, and Hemenway 2002c). Case-control studies find that a gun in the home is a risk factor for committing a murder and for being murdered (Hepburn and Hemenway 2004). The large majority of perpetrators and victims of lethal violence are male. Few male-on-male homicides appear to be the carefully planned actions of individuals with a single-minded intention to kill. More people are murdered during arguments with someone they know than during the commission of a robbery.

Strong evidence also shows that guns raise the likelihood of suicide in the United States. Nine case-control studies have all found that a gun in the home is a risk factor for completed suicide, and cross-sectional studies find that regions, states, and cities with more guns have more suicides per capita, owing to higher rates of firearm suicide (Miller and Hemenway 1999; Brent 2001; Hemenway 2004). The gun-suicide connection holds even after controlling for poverty, urbanization, divorce, unemployment, education, alcohol consumption, major depression, and suicidal thoughts (Miller, Azrael, and Hemenway 2002d; Hemenway and Miller 2002). A recent study finds that the rate of death from suicide attempts is over 90 percent for firearms, compared with only 2–3 percent for drug overdoses and cutting and piercing, the most common forms of suicide attempts (Miller, Azrael, and Hemenway 2004).

Unintentional firearm injuries are also a problem in the United States. In the 1990s, some fifty people a day were shot unintentionally and about four died. From 1965 to 2000 more Americans were killed in gun accidents than were killed in wars. The majority of Americans who die unintentionally from firearms are under twenty-five years of age. Not surprisingly, in states with more guns, many more youth as well as adults die from firearm accidents (Miller, Azrael, and Hemenway 2001).

TABLE 6.1 *Homicide, Suicide, and Unintentional Firearm Death Rates among 5-to-14-Year-Olds (rates per 100,000, early 1990s)*

	United States	Other countries ^a	Mortality rate ratio
Homicide rates			
Gun homicides	1.22	0.07	17.4
Non-gun homicides	0.53	0.23	2.3
Total	1.75	0.30	5.8
Suicide rates			
Gun suicides	0.49	0.05	9.8
Non-gun suicides	0.35	0.35	1.0
Total	0.84	0.40	2.1
Unintentional firearm death rates	0.46	0.05	9.2

Source: Centers for Disease Control and Prevention 1997, 101–105.

^aTwenty-five other high-income, populous countries.

TABLE 6.2 *Homicide, Suicide, and Unintentional Firearm Deaths among 5-to-14-Year-Olds, 1996–2001*

	High-gun states	Low-gun states	Mortality rate ratio (high gun: low gun)
Total population, 5-to-14-year-olds	32.2 million	32.6 million	
Homicides			
Gun homicides	224	82	2.8
Non-gun homicides	152	114	1.4
Total	376	196	2.0
Suicides			
Gun suicides	172	17	10.3
Non-gun suicides	158	107	1.5
Total	330	124	2.7
Unintentional firearm deaths	159	12	13.5

Source: Centers for Disease Control and Prevention, National Center for Injury Prevention and Control, Web-based Injury Statistics Query and Reporting System (WISQARS) (online), 2003. Available at www.cdc.gov/ncipc/wisqars (accessed January 15, 2004).

Note: The fifteen states (included in this table) with the highest average levels of household gun ownership (based on the 2001 Behavioral Risk Factor Surveillance System) were Wyoming, Montana, Alaska, South Dakota, Arkansas, West Virginia, Alabama, Idaho, Mississippi, North Dakota, Kentucky, Wisconsin, South Carolina, Utah, and Louisiana. The six states (included in this table) with the lowest average levels of household gun ownership were Hawaii, Massachusetts, Rhode Island, New Jersey, Connecticut, and New York. Data exclude violent deaths caused by the terrorist attacks on September 11, 2001.

Guns are bad for the health of children. Children (aged five to fourteen) in the United States are far more likely than children in other high-income countries to be victims of homicide, suicide, and gun accidents (CDC 1997) (see table 6.1).

Children in states with more guns are also more likely to be murdered, to commit suicide, and to die from unintentional gunshot wounds (Miller, Azrael, and Hemenway 2002a). To illustrate, consider the states at the extremes in terms of gun ownership (see table 6.2). (Because some states with the fewest guns, such as New York and New Jersey, are quite populous, the table compares the fifteen highest-gun states with the six lowest-gun states to obtain equal populations at risk for death.) From 1996 to 2001, children in the high-gun states were far more likely to be victims of homicide, suicide, and gun accidents.

More women are also murdered in high-income countries with more guns, primarily because of higher rates of firearm homicide. Women in the United States are not more likely to commit suicide, but they are far more likely to be homicide victims than women in other industrialized countries. Indeed, over 70 percent of all women murdered in high-income countries are Americans (Hemenway, Shinoda-Tagawa, and Miller 2002).

In states with more guns, women are more likely to be murdered, to commit

TABLE 6.3 *Homicide, Suicide, and Unintentional Firearm Deaths among Women, 1996–2001*

	High-gun states	Low-gun states	Mortality rate ratio (high gun: low gun)
Total population, women	121.4 million	121.1 million	
Homicides			
Gun homicides	2372	709	3.3
Non-gun homicides	2117	2231	1.0
Total	4489	2940	1.5
Suicides			
Gun suicides	2860	461	6.2
Non-gun suicides	2832	2999	0.9
Total	5692	3460	1.6
Unintentional firearm deaths	221	26	8.5

Source: Centers for Disease Control and Prevention, National Center for Injury Prevention and Control, Web-based Injury Statistics Query and Reporting System (WISQARS) (online), 2003. Available at www.cdc.gov/ncipc/wisqars (accessed January 15, 2004).

Note: The fifteen states (included in this table) with the highest average levels of household gun ownership (based on the 2001 Behavioral Risk Factor Surveillance System) were Wyoming, Montana, Alaska, South Dakota, Arkansas, West Virginia, Alabama, Idaho, Mississippi, North Dakota, Kentucky, Wisconsin, South Carolina, Utah, and Louisiana. The six states (included in this table) with the lowest average levels of household gun ownership were Hawaii, Massachusetts, Rhode Island, New Jersey, Connecticut, and New York. Data exclude violent deaths caused by the terrorist attacks on September 11, 2001.

suicide, and to be accidentally killed with a firearm. This relationship holds even after accounting for other factors, including urbanization and poverty (Miller, Azrael, and Hemenway 2002b). For example, from 1996 to 2001 women in the fifteen states with the most firearms were over three times as likely to be murdered with a firearm as women in the six states with the fewest firearms. The former were also six times more likely to commit suicide with a firearm, and over eight times more likely to be killed in a firearm accident (see table 6.3).

Male homicide victims are usually shot outside the home, by strangers or acquaintances, while women are more often shot in their own homes, by intimates. Indeed, more than twice as many women are killed with a gun used by their husbands or intimates than are murdered by strangers using guns, knives, or any other means (Kellermann and Mercy 1992). Gun threats in the home against women by intimates appear to be more common than home self-defense uses of guns by women (Azrael and Hemenway 2000). A gun in the home raises the risk to women for homicide, suicide, and gun accidents (Bailey et al. 1997). No study has found that a gun in the home reduces the risk of burglary, robbery, home invasion, spousal abuse, or any crime against women.

Although evidence linking firearm prevalence and violent death is both strong and compelling, firearm issues are among the most contentious in U.S. poli-

tics (Hemenway 2004). The gun lobby and other pro-gun advocates continually cite two firearm researchers (and many polemicists) who claim that firearms make us safer, or at least no less safe (Lott 2003; Kleck 1997). Most Internet sites that discuss firearms make repeated claims concerning their benefits for reducing crime and death. Yet the large majority of studies—and all credible studies—show no net benefit from firearms, and usually large social costs.

The gun lobby and pro-gun advocates present a bipolar view of the world: for example, you are either pro-gun or anti-gun. More important, these advocates generally depict people as either violent criminals or decent, law-abiding citizens. According to that worldview, criminals obey no laws and can always obtain firearms whenever they desire. Any firearm law will thus inconvenience only decent, law-abiding citizens, or worse, prevent them from obtaining the firearms they need for protection against violent sociopathic predators. Even with suicide, only two types of people exist: normal people and those who really want to kill themselves and will stop at nothing until they succeed. Firearm laws thus cannot have any effect. Rational firearm policy cannot even reduce accidents, as these are caused by “self-destructive individuals...without guns they would likely find some other way to kill themselves accidentally” (Kopel 1992, 415).

The real world is, of course, much more complex, with many shades of gray. For example, policies that raise the costs of obtaining firearms for criminals, depressed people, and adolescents reduce the likelihood that they will obtain and use them (Hemenway 2004).

The gun lobby claims that an armed citizenry deters crime and that regular citizens are continually protecting themselves with guns and shooting criminals. Yet no credible evidence exists that more guns deter crime. The evidence actually shows the opposite: in all surveys respondents report far more criminal gun uses against them than self-defense uses (Hemenway, Miller, and Azrael 2000; Hemenway 2004).

Some private citizens have undoubtedly benefited by defending themselves with a firearm. Yet most self-defense gun uses reported on private surveys appear to occur during escalating arguments rather than in self-defense against a clear criminal act, and most of these uses appear to be illegal and threaten public safety (Hemenway, Miller, and Azrael 2000). Most gun-owning Americans will never have the opportunity to use their guns against actual robbers or burglars. Untrained in dispute resolution, however, they will have plenty of opportunity to use their guns inappropriately when they are angry, annoyed, tired, drunk, or afraid.

Implicit in the claims of the gun lobby is that people without guns are unarmed and incapable of defending themselves and their property. Yet the large majority of weapon self-defenses occur with weapons other than a firearm. Indeed, homeowners may defend themselves more often with a baseball bat than with a firearm (Hemenway, Miller, and Azrael 2000). Evidence from the National Crime Victimization Surveys indicates that self-defense with any weapon is as likely to prevent an injury as self-defense with a firearm (Kleck and Kates 2001). In any case, the policies suggested by a public health approach to firearms will have little effect on people’s ability to protect their homes with a firearm.

The Public Health Approach to Firearms

A public health approach has reduced the burden of infectious disease, tobacco-related illness, and motor vehicle injury, and can also be successful in reducing gun violence. This approach emphasizes prevention, focuses on the community rather than the individual, and encourages collaboration, research, and policies involving many sectors. An important public health insight is that opportunities abound for preventing injuries.

The sharp reduction in motor vehicle injuries over the past fifty years is a public health success story (Hemenway 2001). In the 1950s the traffic safety community focused on the driver. Statistics supposedly showed that driver error caused almost all motor vehicle injuries. Policymakers thus emphasized education and enforcement—training motorists to drive better and fining them when they drove unsafely. Despite these efforts, significant success did not occur until the advent of a more comprehensive approach that did not solely target individual behavior.

For public health experts in the 1950s, the key issue was not which individuals would die in a motor vehicle collision but why over thirty-five thousand fatalities occurred year after year, why some cities and states had higher rates, and why some car makes presented the highest risk. These experts recognized that improving the vehicle and the highway environment would reduce the likelihood of collision more than an exclusive focus on the driver. Over the past forty years cars and roads have become much safer. For example, automobiles now have better braking and a third brake light, roads have better lighting and signage, and interstate highways have been built as limited-access roads with median dividers.

Of prime importance was reducing the likelihood of serious injury once a crash occurred. People are sometimes careless, and they can behave recklessly. But when they do, should they or others die? The goal was to create a system that not only made motorist error less likely, but was also more forgiving when motorists made errors or behaved unlawfully or inappropriately.

The most important traffic safety advances over the past forty years have entailed making motor vehicles safer for human occupants in crashes. For example, we now have collapsible steering columns, airbags, shatterproof windshields, lap and shoulder belts, and non-rupture gas tanks. Roads are also much safer and more forgiving when accidents occur. Many roadside hazards have been eliminated or modified, telephone poles have been removed from the sides of highways, and signs often break away on impact. And improvements in emergency medical services have reduced disabilities caused by crashes. Helicopters now fly the seriously injured to designated trauma centers to receive immediate, high-quality care.

Today's drivers are no better than those of the 1950s—indeed, many believe that road rage has grown along with traffic. Yet motor vehicle fatalities per mile driven have fallen by more than 80 percent. The United States has one of the lowest rates of death per vehicle-mile in the world. The key was reframing the policy question from the fatalistic, “How can we change human nature?” to the realistic, “What are the most cost-effective ways to reduce injury?” (Hemenway 1995). Similarly, while the gun lobby tries to focus exclusively on education and enforcement,

injury control practitioners emphasize that directing policy solely to individual users is not cost-effective.

Of course, people should be held accountable for their actions. However, such responsibility pertains not only to gun users but also to gun owners, gun manufacturers, gun distributors, and public officials and other decision makers. The goal of public health is not to find fault. The goal is to prevent mortality and morbidity, and to promote healthy lives.

Only in the mid-1980s did policymakers recognize violence as an important public health issue. In the past twenty years, the public health approach to firearms policy has broadened the discussion from an exclusive criminal justice orientation to one concerned with all firearm injuries, including suicides and unintentional gun deaths. The entry of public health practitioners into the field of firearm injury control has provided new sources of information (including hospital data), new types of statistical analyses (such as odds ratios), new research designs (case-control studies), and many important scientific studies. The public health approach has also attracted new organizations to violence prevention, including the American Academy of Pediatrics. Most important, public health advocates promote science, pragmatism, and optimism in an area long beset by stale polemical debates.

Policy Recommendations

Like the approach to reducing motor vehicle injuries, a public health approach to curtailing problems caused by firearms suggests pursuing a wide variety of policies while maintaining the ability of law-abiding Americans to use guns responsibly. This approach emphasizes the importance of obtaining accurate, detailed, and comparable information each year on the extent and nature of the problem. For each motor vehicle death in the United States, the Fatality Analysis Reporting System collects data on more than one hundred variables, including the make, model, and year of vehicles, speed and speed limit, the location of passengers and whether they were wearing seatbelts, and whether airbags deployed. This information suggests interventions and permits evaluation of which policies are effective and which are not.

A major problem is that detailed national information about firearm injuries does not exist. For example, whether most unintentional firearm injuries occur at home or away from home, or with long guns or handguns, is unknown. Whether adolescents preferentially use certain types of firearms to commit suicide, and whether the percentage of homicides due to inexpensive firearms or assault weapons has been rising or falling, is also unknown.

Many groups have backed the creation of a national violent death reporting system to provide detailed information on all homicides, suicides, and unintentional firearm deaths. The Harvard Injury Control Research Center, working with the Medical College of Wisconsin and others, is coordinating a pilot of this system. Death certificates and reports by medical examiners, police, and crime labs already include this information; it just needs to be assembled consistently. The

Centers for Disease Control and Prevention have funded more than a dozen state health departments to test such a reporting system and are now working to create a comprehensive national system. This is the first step in the public health approach to reducing firearm injuries.

Many other policies directed at gun manufacturers and sellers, firearm owners, and other interested parties could also help reduce firearm injuries.

Manufacturers and Distributors

Although firearms are among the most lethal consumer products, killing tens of thousands of civilians each year, firearm manufacturing is one of the least-regulated industries in the United States. No federal regulatory body has specific authority over firearm manufacturing, which is exempt even from regulation by the Consumer Product Safety Commission. The industry has also escaped any comprehensive examination by Congress. Instead, Congress is considering giving the industry immunity from tort liability for negligence.

A public health approach would create incentives for firearm manufacturers to make products that reduce rather than increase the burden on law enforcement. Rather than producing and promoting firearms that appear primarily designed for criminal use, such as those that do not retain fingerprints, manufacturers could produce guns with unique, tamper-resistant serial numbers. They could also make guns that “fingerprint” each bullet to permit authorities to match bullet and firearm with a high degree of accuracy.

Manufacturers could also improve the safety of their firearms. Unintentional firearm injuries appear to stem partly from a lack of federal safety standards. All firearms could be manufactured so they do not fire when bumped or dropped. Like aspirin bottles, new guns could also readily be made childproof, with minimum trigger pull standards to prevent very young children from shooting them. Since many firearm accidents occur when individuals do not realize a gun is loaded, indicators could alert the user when the gun’s chamber contains a bullet, and disconnect devices could prevent a pistol from firing once the user has removed the ammunition magazine, even though a bullet still remains in the firing chamber. The industry could adopt uniform standards for trigger safety mechanisms: the action on some handguns now locks when the manual thumb safety is down, while on others it locks when the thumb safety is up. A lesson from motor vehicles is the key role that can be played by a regulatory agency—with the authority to recall products with hazardous designs and to promote personalized, or smart, guns that only the authorized user can fire.

Gun-making technology is constantly changing. A small but deadly nubun gun manufactured in the 1990s looks like a key chain. At the other extreme, recoil compensation mechanisms are making larger-caliber handguns more manageable. Sniper rifles available to civilians can shoot .50-caliber rounds capable of downing helicopters. Caseless ammunition reduces the ability of law enforcement officials to identify a crime weapon by the cartridge left at the scene. Various types of ammunition, such as Glaser safety slugs and flechettes, may create more tissue damage and thus make it more likely that a shooting will result in

a death. While Israeli tanks have occasionally fired flechettes—clusters of nail-like projectiles used as anti-personnel weapons—they are controversial because of the danger they pose to civilians. Flechette ammunition can also be used in shotguns and may extend their range and penetrate body armor better than conventional ball shot loads. A regulatory structure could deal quickly and definitively with these and other new technologies that could pose a threat to public safety and health.

The firearm distribution system could also improve. Police stings demonstrate the ease with which felons can obtain firearms directly from licensed dealers. For example, in the Detroit area in 1999, undercover officers acting as prohibited buyers purchased firearms from almost all the dealers they approached. The Bureau of Alcohol, Tobacco, and Firearms, which regulates licensed dealers, could do its job more effectively if given more enforcement authority. For example, ATF agents cannot now pose as felons in sting operations, and serious dealer misconduct is a misdemeanor rather than a felony.

The private sale of firearms is a major loophole in the chain of distribution. Some 40 percent of retail gun sales occur without the involvement of a licensed dealer—at flea markets and gun shows, from car trunks and over the Internet. These sales can occur without background checks, record keeping, or government oversight, making it easy for criminals and terrorists to obtain firearms. Requiring all firearm transfers to pass through licensed dealers, with the required background checks and paper trail, would reduce the enormous flow of firearms to the illegal market.

Investigations of criminal gun use show that adolescents living in states with strict gun-control laws obtain their illegal firearms from states with less restrictive laws. Evidence also shows that a state one-gun-per-month law, which prevents any individual from buying more than one gun each month from any particular dealer, reduces gun running from that state. A national one-gun-per-month law could reduce gun-running across state lines, especially combined with background checks and waiting periods for all sales as well as strong enforcement against scofflaw dealers. Such supply-side restrictions could have an immediate impact on adolescent gun crime; a third of guns used by youth in crime are less than three years old.

Gun Owners

Policies common in other developed countries—registration of handguns, licensing of owners, and background checks for all gun transfers—could reduce the U.S. homicide rate substantially by making it harder for adolescents and criminals to obtain handguns. Such policies would probably have little effect on U.S. rates of assaults, burglary, or robbery, since those crimes usually do not involve guns. Guns are not necessary for most crimes, except perhaps some bank robberies and assassinations. But guns do make crime more lethal.

Illegal and irresponsible gun-carrying is a major problem in the United States; most gun robberies and gun homicides—particularly of men—occur away from home. Polls show that the majority of Americans do not favor allowing regular citizens to carry firearms. And by more than a ten-to-one margin, Americans do

not think regular citizens should be allowed to bring their guns into restaurants, bars, college campuses, hospitals, sports stadiums, or government buildings (Hemenway, Azrael, and Miller 2001). Nonetheless, in the past decade, many states have required police to issue gun-carrying permits to anyone who is not expressly prohibited by statute, even if police have reason to believe that individual may misuse the firearm. Proponents of these policies claim that more gun-carrying by law-abiding citizens will thwart and deter criminals and thus reduce crime. While evidence regarding the effects of these more permissive gun-carrying policies is not conclusive, the best scientific studies suggest that they may increase rather than reduce crime overall (Ayres and Donohue 2003). It is not clear why allowing individuals whom the police want to prohibit from carrying guns to do so should boost public safety.

Parents, Physicians, and Teachers

Although firearm safety experts urge owners to store guns appropriately, many leave their guns loaded even when they are not intended for protection. Many individuals, such as concerned parents, could become more assertive in this arena. Asking about guns and gun storage in the homes that children visit could become as commonplace as ensuring that a child's seatbelt is securely fastened. Women could also become better informed about their own homes. Many women appear to believe—incorrectly—that there are no guns in the house or, if there are, that they are unloaded and locked up (Azrael, Miller, and Hemenway 2000).

Clergy, teachers, labor leaders, and physicians could also take active steps to help reduce our gun problem. For example, psychologists and psychiatrists often treat depressed and manic adolescents, yet many do not even discuss firearms or firearm storage with their parents, even though most adolescents who commit suicide do so with firearms.

The Power of the Gun Lobby

The policies discussed in this chapter should not face Second Amendment barriers. Although the gun lobby claims an individual right to gun ownership, most U.S. courts have found no such right in the U.S. Constitution. For example, the Supreme Court let stand a decision upholding an ordinance in Morton Grove, Illinois, that banned the possession of handguns within its borders. A policy statement of the American Civil Liberties Union, proud defender of the Bill of Rights, states, "The ACLU agrees with the Supreme Court's long-standing interpretation of the Second Amendment that the individual's right to bear arms applies only to the preservation or efficiency of a well-regulated militia.... There is no constitutional impediment to the regulation of firearms" (quoted in Hemenway 2004, 159). While many state constitutions provide special protections for gun ownership, the federal constitution provides little more protection for firearms than it does for the ownership of cars, chain saws, or swimming pools, none of which the public health community has a desire to ban.

Polls consistently show that the overwhelming majority of the U.S. public

wants reasonable firearm policies. They want tamper-resistant serial numbers for guns, childproof firearms, magazine safeties, background checks for gun sales between private individuals, personalized guns, registration of hand guns, and licensing of gun owners. A solid majority even favors prohibiting citizens from carrying guns. These results are not a passing fancy spurred by school shootings or terrorist bombings, nor are they rigged results that reflect unclear wording of survey questions. Every independent poll, year after year, shows the same results (Smith 2001). The vast majority of the population—and even a majority of gun owners and NRA (National Rifle Association) members—want more government action to make guns safer and keep them out of the wrong hands.

If such policy measures could make a difference and the large majority of Americans desire them, why haven't they been enacted? One reason is the power of special interests in U.S. politics; in this instance, that of the gun lobby. Interestingly, compared with industries such as alcohol and cigarettes, firearm manufacturing and distribution are quite small and employ relatively few people. The power of the gun lobby reflects not so much corporate money as the ability to mobilize grassroots support. Gun leaders do this partly by fomenting fear and anger among gun owners, portraying any minor gun policy initiative as a veiled attempt to confiscate everyone's guns. To prevent this catastrophe, people rally with funds and commitment, preventing the enactment of many reasonable gun laws.

The gun lobby is filled with individuals who are knowledgeable and passionate about guns, and they share a common interest. While the lobby represents only a small minority of gun owners, it still totals some three million members. This lobby can readily mobilize groups of ten or more individuals to attend even the most local political events. By contrast, gun-control groups have smaller memberships, and many members have little knowledge of firearms; their common interest is often only that they or their loved ones were victims of firearm violence. Only a political commitment keeps them together. The rest of the American public—the large majority—hopes that reasonable gun policies are enacted but does not actively work to ensure that result.

Creating a Regulatory Firearm Agency

The public health approach to reducing gun violence emphasizes the need for prevention as well as punishment, recognizes that alterations in the product and the environment are more likely to be effective than attempts to change individual behavior, and urges the pursuit of multiple strategies to tackle the problem. The public health community understands the importance of involving the entire community and sees roles for many groups, including educational institutions, religious organizations, medical associations, and the media.

The concern of public health advocates regarding firearms is similar to its concern about stairs, swimming pools, and motor vehicles: the manufacture and use of such products can affect community safety and well-being. The goal of the public health community is to prevent violence and injury, not to ban swimming pools, motor vehicles, or guns.

Since guns move easily across state boundaries, federal rather than state and local policies will often be the most effective. A useful step might be to endow an agency with the power to regulate firearms as consumer products. The National Highway Traffic Safety Administration (NHTSA) mandates that automobiles have seatbelts and shoulder belts, collapsible steering columns, and shatterproof windshields; a firearm agency could similarly require that firearms are childproof, that pistols have magazine safeties, and that serial numbers are tamper resistant. Just as NHTSA bans unsafe products such as three-wheeled all-terrain vehicles, a firearm agency might ban regular civilian use of caseless ammunition and .50-caliber bullets. Certainly a federal firearm regulatory agency should have the power to require companies to recall defectively designed products. An effective agency would respond rapidly to changes in technology and the marketplace.

An effective agency would also have the ability to promote new technologies that could help make society safer. For example, personalized, or smart, guns that only authorized users can fire could limit criminal use of stolen guns and reduce the chance of unintentional injury to children and adolescents. Improvements in less-lethal firearms—such as tranquilizer and beanbag guns and electric stunphasers—could help prevent deaths and serious injuries in police, civilian, and even criminal shootings. All adults, including gun owners, should be responsible for their behavior. Motorists in the United States must obtain a driver's license and register their automobiles. Other industrialized nations commonly license gun owners and register all handguns. Their experience suggests that these measures may help reduce firearm violence.

Not only gun owners and users but also gun dealers and manufacturers have responsibilities. Some gun dealers do not act in a socially responsible way, and government regulators need to bring the dealers under greater scrutiny. To help ensure that inappropriate people cannot easily obtain firearms, every gun transfer should occur through a licensed dealer, after a background check.

The public health approach does not focus on finding fault; it emphasizes prevention. The threat of punishment can deter criminals, and incarceration can help prevent them from harming other members of society; criminal justice (like tort law) is part of the prevention package—but only one part. Instead of looking exclusively at the pathologies of hundreds of thousands of perpetrators and victims of firearm violence and injuries, public health advocates try to understand why these events occur year after year, and to determine how best to break the cycle.

The first step is to obtain detailed, consistent data each year on the extent of the problem. Like NHTSA's national data system, a national violent death reporting system could provide detailed information on the circumstances surrounding all fatal shootings, information that is crucial for evaluating regulations. Such data should be readily available to all, along with funds for scientific research.

Accurate data and good science are usually critical for ensuring success in public health; reliable information helps change social norms. For example, before science showed the dangers to public health, spitting on the subway was acceptable and smoking was sophisticated. It is time to change the norm that accepts

gun violence as a routine part of American life. Fortunately, more and more Americans are seeing firearm violence as a uniquely U.S. problem—and one that a public health approach can tackle.

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