"Gun Violence" as a Public Health Issue: a Physician's Response

Jane M. Orient, M.D.

ABSTRACT

Organized medicine is joining with the Obama Administration to demand restoration of funding to the Centers for Disease Control and Prevention (CDC) for research on "gun violence" and to work for legislation that includes universal background checks, on the rationale of improving public safety.

Firearm-related fatalities, which combine gun suicides and gun homicides, are shown to correlate with the "legislative strength score," defined by gun control advocates. This association holds only for gun suicide, not for homicide, and depends on selection of jurisdictions. Reliance on flawed public opinion surveys, misstatements about the current background check system, and use of emotional, inflammatory rhetoric belie the claim that the case for gun control is supported by "evidence-based medicine."

The Campaign for a Public Health Approach to Gun Violence

In 2013 organized medicine, especially the American Medical Association (AMA) and the American College of Physicians (ACP), is renewing its advocacy campaign for treating "gun violence" as a public health problem, rather than a criminal justice problem, citing recent mass shootings including the slaughter of schoolchildren in Newtown, Conn.

According to an article in the AMA's newsletter *AM News*, a "prevention-based," "proactive," "evidence-based" approach to decrease shootings nationwide "has been slow to get started due to limited federal funding for firearms research." While acknowledging that "some worry that firearms research by health organizations would lead to campaigns to ban guns," the article notes that "public health experts say preventing unnecessary deaths and injuries from guns is their only goal." It cites Mark Rosenberg, M.D., president and CEO of the Task Force for Global Health and former director of the CDC's National Center for Injury Prevention and Control (NCIPC), who states that safety research on motor-vehicle crashes, as well as research on smoking, AIDS, and cancer is a model for firearms research.1

The Obama Administration has included \$10 million for gun-related research in the 2014 budget, based on priorities recommended by a panel that the Institute of Medicine (IOM) and National Research Council (NRC) assembled at Obama's request. These experts concluded that "basic information about gun possession, distribution, ownership, acquisition

and storage is lacking."² A major gap is "the number of guns in private hands throughout the country—legally and illegally."³

Opponents note that this looks a lot like data needed for a national gun registry and ultimate confiscation, but Alan Leshner, who chaired the IOM panel and is also CEO of the American Association for the Advancement of Science, states, "We have no political agenda."

While advocacy for renewed federal research funding in prestigious medical journals is expressed in terms such as "physician engagement," "normalizing the dialogue," and physicians "managing fear" (specifically, fear of "victimization and an overreaching government"),⁵ there is clearly a political agenda. The public health approach is "broad and inclusive," and "examines all possible interventions, including changing social norms and passing new laws."⁶

Universal background checks are a consistent feature of the proposals, and are said to be the rule in virtually every other developed nation.⁶ Most people (90%), regardless of political affiliation or gun ownership status, are claimed to favor this,⁵ based on a public opinion survey taken soon after the Newtown shootings.⁷

A major fallacy in the analogy between motor-vehicle crashes and shootings is that crashes are almost always accidental, and shootings almost always intentional. Thus, in the former the safety characteristics of cars and roads are highly pertinent, whereas in the latter the main issue is why a shooter decides to pull the trigger. Traffic safety experts appropriately focus on things related to crashes, such as the center of gravity in sport-utility vehicles, but don't concern themselves with how many cars there are, who owns them, or where they are kept. Gun violence researchers place a lot of emphasis on the guns and apparently have limited interest in factors related to violent behavior, aside from mental illness.

The role of television violence and video games was rejected as a research priority after the IOM panel "looked deeply" into the question, according to Ronald Kessler of Harvard Medical School.² Apparently it didn't even look at the contribution of drugs, both illicit and prescribed, despite reports that many shooters were taking psychoactive drugs such as selective serotonin reuptake inhibitors (SSRIs).⁸ Government policy in the most lawless cities is not on the list of research priorities either. Yet Walter Williams points out that all 10 of the most violent cities, in which the population is predominantly black, have an enormous rate of out-of-wedlock births and illiteracy—and decades of rule by Democrats, often black and presumably always liberal.⁹ Is the liberal welfare state partly to blame for

lawlessness and violence?

Why was funding for CDC gun research cut in 1996? Many credit the National Rifle Association (NRA). In her account of the funding freeze, Christine Jamieson of the American Psychological Association's (APA) Science Directorate writes, "The science community has been terrorized by the NRA," quoting Rosenberg. In fact, major credit is due to physicians' groups, especially Doctors for Integrity in Policy Research (DIPR) and Doctors for Responsible Gun Ownership (DRGO), for exposing the flaws in the CDC's "result-oriented" research and its use of taxpayer funds for political advocacy. In, 12

For example, NCIPC researchers and staff were faculty for a "strategy conference" in 1993, and again in 1995, in which the goal was to "use a public health model to work toward changing society's attitude so that it becomes socially unacceptable for private citizens to have guns."¹¹ One of the conference's founders, Dr. Katherine Christoffel, said, in an interview with *AM News*: "Guns are a virus that must be eradicated. We need to immunize ourselves against them." Also, she stated, "Get rid of the cigarettes, get rid of the secondhand smoke, and you get rid of lung disease. It's the same with guns. Get rid of the guns, get rid of the bullets, and you get rid of deaths."¹³

CDC grant money was used to fund pamphlets and newsletters urging political activism, pickets, and boycotts of publications that accept advertising from gun manufacturers or gun rights groups.¹¹

NCIPC research has been criticized for use of skewed study populations, fallacious logic, and misrepresentation of both data and methodology. Researchers, in breach of accepted scientific practice, refused to release original data for critical analysis by others. Prestigious medical publications such as *JAMA* and the *New England Journal of Medicine* routinely released studies with great fanfare, while excluding articles that disagree with gun control advocacy. The studies rarely even cited reports that did not advocate strict gun control, or articles from the criminological or sociological literature.

The pro-gun control conclusions reached by virtually all CDC-funded studies should not be surprising, writes Larry Bell. Since 1979, the goal of the CDC's parent agency, the U.S. Public Health Service, has been to reduce the number of handguns in private ownership, starting with a 25% reduction by the turn of the century.¹⁴

NCIPC's self-described agenda is to "find a socially acceptable form of gun control." As its former director Mark Rosenberg stated, he envisioned a "long-term campaign...to convince Americans that guns are, first and foremost, a public health menace." The end goal was not to find truth or to reduce injury and death, but to disarm civilians, and research was simply a tool to support political advocacy.

By 1997, the AMA had already directed its lobbyists to "strongly advocate" to restore funding for gun research to NPIPC.¹¹

The "43 times" fallacy derived from this CDC-funded research is still being cited by organized medicine. In 2011, David Hemenway writes: "For every self-defense homicide

[emphasis added] involving a firearm kept in the house, there were 1.3 accidental deaths, 4.6 criminal homicides and 37 firearm suicides," ¹⁵ quoting a 1986 article by Kellermann and Reay. ¹⁶ In the same article, Hemenway also quotes the "22 times" fallacy from a 1998 article by Kellermann et al.: "Home guns were 4 times more likely to be involved in an accident, 7 times more likely to be used in a criminal assault or homicide, and 11 times more likely to be used in an attempted or completed suicide than to be used to *injure or kill in self-defense* [emphasis added]." ¹⁷ The purpose of the defensive use of firearms is to stop a criminal, not to shoot him. In most cases, it is not necessary to fire the weapon. Using only the body count underestimates the protective effects of firearms by a factor of 500 to 1,000. ¹⁸

Despite the devastating critiques of his work, Kellermann is still in favor with organized medicine, with the AMA publishing his article "Silencing the Science on Gun Research" soon after Newtown, calling for restoration of CDC funding for work like his.¹⁹

Is There an Epidemic of Gun Violence?

The U.S. firearm death rate (including homicide, suicide, and accident) has been stable since 1999.20 Moreover, compared with a peak in 1993, U.S. gun homicides were down 49% in 2010, and nonfatal crime victimization with a firearm is down 75%.21 According to U.S. Department of Justice figures, the total U.S. homicide rate is at its lowest level in 50 years, and the percentage of homicides committed with a gun has declined from a peak of more than 70% in 1993 to just under 50% in 2010, despite a large increase in gun ownership.²² Nevertheless, JAMA Internal Medicine has a recent article, "Responding to the Crisis of Firearm Violence in the United States," claiming that "the United States has belatedly awakened to the knowledge that it is, in effect, under armed attack." 23 This has nothing to do with billions of rounds of hollow-point ammunition reportedly being stockpiled by the Department of Homeland Security, but rather to the fact that "30,000 people are deliberately shot to death each year." About 60% of these are suicides. The author calls this a "public health emergency."

Even if gun control advocates admit that the U.S. gun homicide rate has decreased, they claim that the U.S. has the highest gun homicide rate of 34 "industrialized countries." ²⁴ The Protect Children, Not Guns 2012 campaign of the Children's Defense Fund seems to attribute the U.S. position as the "world leader in gun violence" to a high rate of gun ownership: "The United States accounts for less than five percent of the world's population, yet Americans own an estimated 35 to 50 percent of all civilian-owned guns in the world." ²⁵ This table omits most of the world, including Russia, which is surely industrialized. U.S. gun homicide and total homicide rates are indeed higher than those of Western Europe, China, Japan, or Korea, but on a worldwide basis, the U.S. is far from the most violent nation. David Stolinsky, M.D., examined worldwide rates and pointed out that, according to 1996 UN figures, Russia had 3.25 times as

many homicides per capita as the U.S. (30.6 per 100,000 vs. 9.4 per 100,000), and Brazil (with 19.0 per 100,000) twice as many.²⁶

Data from the same source used by the Children's Defense Fund (UN Office on Drugs and Crime) show that the U.S., while in the top ranking for gun ownership (>75 per 100 persons), is currently in the lowest band for homicides (0-5 per 100,000), along with Canada, Western Europe, China, Japan, and Australia. Moreover, if gang murders are excluded, the U.S. homicide rate is much lower.²⁷

Do Restrictive Gun Laws Prevent Violence?

In 2000–2002, the Task Force on Community Preventive Services, an independent nonfederal entity, reviewed evidence on the effectiveness of various firearms laws and combinations of laws in preventing violence, including violent crime, suicide, and unintentional injury. The Task Force found 51 pre-2001 studies that met the criteria for their review. They were focused narrowly on firearms laws.²⁸ John Lott points out that studies have neglected many other factors relevant to crime rate including policing strategies, arrest and conviction rates, and number of police.²⁹

The Task Force found "insufficient evidence" of the effectiveness of any of the firearms laws or combinations of laws that they reviewed on violent outcomes, but cautioned that "insufficient evidence to determine effectiveness should not be interpreted as evidence of ineffectiveness." More research was called for. In particular, the Task Force dismisses John Lott's finding that concealed-carry laws decrease crime, while acknowledging his to be the "landmark" study; other studies either derive from or respond to Lott. The Task Force²⁸ references methodologic critiques of Lott by criminologist Michael Maltz and Joseph Targonski, to whom Lott responds in the third edition of his book *More Guns, Less Crime*.³⁰

The first edition of Lott's book³¹ represented the most extensive study ever done on gun control, examining data from all 3,140 counties in the U.S. by year from 1977–1994, which was extended to 1996 in the second edition. Previously, the largest study had looked at only 32 counties or cities in just one year, 1980. Lott's was also the most comprehensive in terms of laws and other factors, including the most extensive set of demographic factors.²⁹

Lott found that the introduction of concealed-carry laws reduced murder rates by about 8%, rapes by about 5%, and aggravated assaults by about 7%. There was a substitution effect, with an increase in property crimes. Using 1992 data, Lott estimated that if counties without discretionary handgun laws had been required to issue permits that year, there would have been 1,400 fewer murders, 4,200 fewer rapes, 60,000 fewer aggravated assaults, and 12,000 fewer robberies.

Academics and other gun-control proponents have extensively attacked Lott, but have not refuted him. He responds to his critics on his website www.johnlott.org, which also contains links through which one may download his raw data.

International comparisons—to nations with restrictive gun laws and low homicide rates—are frequently cited by guncontrol proponents. A more careful scrutiny does not, however, support the view that imitating their laws would lead to a similar homicide rate in the U.S.; on the contrary, their laws may actually be harmful to their citizens.

England has historically enjoyed a low rate of violent crime, but this is not because it has the most stringent gun laws of any democratic country. Recently, the crime rate has been spiraling upward, and by 2000, England had overtaken the U.S. in every category of violent crime except murder and rape. Joyce Malcolm also notes that crime in England, especially homicide, is seriously underreported.³²

In Canada, handguns have been strictly regulated for more than a century, and registration of all handguns has been required by law since 1934. U.S states adjoining Canadian provinces have a three- to ten-fold higher prevalence of handgun ownership. Nevertheless, no consistent differences were observed in criminal homicide rates. For the years 1976 to 1980, the mean annual rates of criminal homicide in Canada ranged from 1.1 per 100,000 in Newfoundland to 16.9 in the Yukon; in the U.S. they ranged from 1.2 in North Dakota to 16.1 in Nevada. Judging by the rates of aggravated assaults, Canadians are no more or no less prone to violent behavior than Americans. While the rate of handgun homicide in the two countries was proportional to the number of handguns, the total homicide rate was proportional to the number of aggravated assaults. Such assaults are the "final common pathway of the multifactorial processes leading to dangerous violence."33

"In the relative absence of handguns, dangerously violent Canadians commit their assaults using other means which are, on average, as lethal as handguns," Centerwall concludes.³³

The ACP praises an Australian law in a 2013 article that includes statistics only through 2005.³⁴ The National Firearms Agreement (NFA) was passed in 1996 after a mass shooting of 35 people at the Port Arthur historical site. The NFA ends civilian ownership of semiautomatic long guns and pump-action shotguns; requires registration of all firearms; and formally repudiates self-defense as a legally acknowledged reason to own a gun. The rate of firearm homicide, which was decreasing by 3% per year before the NFA, decreased 7.5% per year after the new laws, a change that failed to reach statistical significance. Firearm suicide in Australian men declined at a rate of 59.9% between 1997 and 2005, while the rate of all other suicides only declined 24.5%.³⁴

Gun-rights advocates Baker and McPhedran argue that the homicide and suicide rate had been declining before the NFA, and the decline afterward was no more rapid than it would have been otherwise.³⁵ It is, of course, always problematic to compare what did happen with what might have happened, and Hemenway³⁶ argues that the methodology of Baker and McPhedran was flawed. Failure to reject the null hypothesis, he writes, does not mean that the null hypothesis is true.

Leaving complex statistical argument aside, Figure 1 in Baker and McPhedran³⁵ shows that firearm suicides in Australia

did decline after 1996, but the decline started before 1990. The rate of firearm suicides was at a historical low point in 2005, but total suicides were still higher then than in most years between 1919 and 1990. Their Figure 2 shows that firearm homicides have been declining since around 1980, and the 2005 rate was still a bit higher than it was in the early 1940s and in 1950. The homicide rate fluctuates, and though there has been a recent downward trend, the total rate in 2005 was noticeably higher than the period between 1950 and 1970 and about the same as it was between the mid-1970s and mid-1980s.

Mass shootings are an important trigger for gun-control lobbying. Rigorous gun restrictions did not prevent incidents in Connecticut or Colorado, but Hemenway writes: "At first blush, the NFA seems to have been incredibly successful. Although 11 gun massacres occurred in Australia in the decade before the NFA, resulting in more than 100 deaths, in the decade following (and up to the present), there were no gun massacres."36 Chapman and Alpers also note that there has not been another mass shooting in Australia since 1996. They assert that "no factor other than the dramatic reduction in access to the semiautomatic weapons needed by those planning massacres has been advanced to plausibly explain the cessation of mass shootings in Australia."34 However, there have been no mass shootings in New Zealand during this period of time either, despite the fact that New Zealanders are still heavily armed and had experienced a comparable number of mass shootings before 1996.37

It has been pointed out that the rates of other crimes, particularly robbery and sexual assault, increased in the years after the NFA, with the rate of increase depending on the years chosen for the comparison. They have, however, diminished since.³⁸ From the Australian Institute of Criminology (AIC) online data tool, it is interesting to note that the percentage of homicides committed with a firearm was 18.38% in 1995 and 17.4% in 2011.

After the NFA, the illicit gun market appears to be thriving in Australia. The Australian Crime Commission conservatively estimates that there are about 250,000 long arms and 10,000 handguns in the illicit market, and states that illicit arms trafficking is a significant element of organized crime in Australia.³⁹

While Australia's homicide rate was declining by 31.9% between 1995 and 2007, after the NFA, the U.S. rate declined by 31.7% without a gun ban. 40

Apparently lacking evidence of a benefit of enacting gun control in a particular jurisdiction, advocates of U.S. gun control are touting an ecologic study by Fleegler et al.,⁴¹ which has been publicized by CNN, NBC News, *USA Today*, and many other media outlets.

The principal author, Eric W. Fleegler, M.D., an attending physician in pediatric emergency medicine at Boston Children's Hospital and an assistant professor of pediatrics at Harvard Medical School, told CNN: "States that have the most laws have a 42% decreased rate of firearm fatalities compared to those with the least laws.... Those states with the most gun laws

saw a 40% reduction in firearm-related homicides and a 37% reduction in firearm-related suicides." 42

Although this statement may suggest to the lay public that homicides and suicides could be slashed by passing more restrictive gun laws, Fleegler et al. concede that the study could not determine cause-and-effect relationships. They made no effort to determine what happened after a law was passed. Instead, they simply used statewide data for firearm-related mortality rates (gun homicides plus gun suicides) over the years 2007 through 2010. They examined the relationship with a "legislative strength score" based on how many laws, out of a list of 28, were enacted in each state. They analyzed the data separately using a scale developed by Brady Center that weighted various laws by perceived importance, but stated this did not change their conclusions.

The average state-based firearm fatality rates varied from high of 17.9 per 100,000 individuals per year in Louisiana to a low of 2.9 in Hawaii. Firearm legislative strength scores range from zero in Utah to 24 in Massachusetts, of 28 possible points. In the highest quartile of legislative strength, scores of greater than or equal to 9 had a lower firearm fatality rate than those in the lowest quartile (scores of less than or equal to 2). The absolute rate difference was 6.64 deaths per 100,000, with an age-adjusted incidence rate ratio (IRR) of 0.58, 95% confidence interval 0.37 to 0.92. Comparing the quartiles of states with the fewest laws with the quartiles with the most laws showed that the latter had a lower firearm suicide rate, with absolute rate difference of 6.25 deaths per 100,000 per year, IRR 0.63 (95% CI 0.48 to 0.83) and a lower firearm homicide rate, but the absolute difference for homicides was only 0.4 deaths per 100,000 per year, IRR 0.60 (95% confidence interval 0.38 to 0.95).

Fleegler et al. point out that the total number of annual firearm fatalities has been stable over the last decade, particularly between 2007 and 2010, the time period of the study. What they do not mention is that U.S. gun-related crimes have declined by 66% since 1993, and the total crime rate is down by 39% during that time period, according to the U.S. Justice Department. There were 3.6 gun homicides per 100,000 people in 2010, compared with 7.0 in 1993, according to CDC data.^{21,22}

The title of the article features "firearm-related fatalities," a conflation of suicides and homicides. Yet, as Stolinsky has pointed out,²⁶ suicide and homicide are not correlated, and it is difficult to see how a single factor, such as gun laws, could cause major reductions in both. Fleegler et al. do not even separate the two in performing the regression analyses presented in their Figure 2.

Their graphs illustrate the conclusion that the total rate of firearm fatalities is inversely proportional to the number of gun laws (p < .001). A blogger commenting on a *Boston Globe* story about the article shows that this conclusion depends entirely on the suicide data. A simple linear regression on the homicide data showed no significant correlation (p = .39).⁴³ The interested reader can verify this for himself by entering the data in Fleegler's Table 2 into an Excel file (file available on

request). Figure 1 below is the regression I did on data from 50 states, supplying data on gun homicides (deaths per 100,000 population) from Vermont, New Hampshire, and North Dakota from an internet source since they were missing in the table. For this regression, p = .62 and $R^2 = .005$. (R^2 is a measure of the percentage of variability accounted for by the regression.)

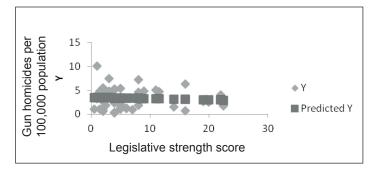


Figure 1. Gun Homicide Rate in 50 States vs. Legislative Strength Score

Just looking at the regression in Figure 2A of Fleegler et al., the left half, with legislative strength scores < 14, resembles a scattergram if one ignores the regression line and the confidence intervals. (The graph pictures the 90% confidence intervals rather than the customary 95%, so that many more the points fall inside.) The conclusions are heavily dependent on a few jurisdictions with heavy gun controls and low firearm fatalities: Rhode Island, Hawaii, Connecticut (pre-Newtown), Massachusetts, New Jersey, and New York. New England states have historically enjoyed a low homicide rate. Hawaii is unique in several ways, including a unique ethnic composition (39% Asian, the group with lowest propensity to shoot each other, and < 2% black). New York has a uniquely effective policing policy, which dropped the murder rate by 80% since 1990, the steepest decline in policing history. We may soon see the effect of changing this policy by court order.44

One can do an informal sensitivity analysis by testing the effect of adding jurisdictions that have very restrictive gun laws and high gun homicide rates. When I simply added points for Chicago and Washington, D.C., the R2 for the regressions on total firearm fatalities dropped from 0.41 to 0.17.

Lott⁴⁵ pointed out other flaws in Fleegler et al. They measure gun ownership by the looking at the share of suicides committed by firearm. They use only 50 data points although more than 80,000 are available. They neglect any before-and-after comparisons. For example, although the murder rate in Massachusetts is only 59% of the national average, it is 124% of the rate in neighboring states, and it soared after the adoption of gun licensing rules in 1998.

In an invited commentary, even Garen Wintemute, M.D., director of the Violence Prevention Research Center at the University of California at Davis, who was called "the Gun Fighter" in a Jul 24, 2013, article in *Nature*, acknowledged that suicide accounted for 94% of the decrease in firearm mortality in the Fleegler study. The study's conclusion that more laws on the books would diminish mortality would be important,

he states—if it were robust and its meaning were clear. He recommends more research.²³

In summary, this latest and purportedly best study provides no support to the call for more restrictive gun laws as a means to prevent homicide.

Why Are Gun Deaths Falling?

While laws that either liberalize or tighten restrictions on gun ownership may influence homicide rates, their effects must be evaluated against the background of a secular trend. A decrease in crime is also occurring in areas outside the U.S., and policies on gun ownership, policing, and imprisonment, which could contribute to the decline, vary widely. Some researchers suggest that crime may be down because of decreased exposure to lead. Or perhaps the reason is legalization of abortion. Unwanted babies, they suggest, may be more likely to become criminals.²¹

Since criminals are disproportionately young (the high-crime age group is 15 to 24), the aging of the population very likely contributes to a drop in the crime rate. The loss of about one-third of our younger generation to abortion contributes greatly to this demographic decline.

Robert Barro, professor of economics at Harvard University, writes that, in the view of some researchers, for every 1,000 additional abortions in 1973 to 1976, there were 380 fewer property crimes, 50 fewer violent crimes, and 0.6 fewer murders [not counting abortions] in 1997. The abortion effect is said to account for one-half the drop in the crime rate. Some believe that only 20% of the abortion-related crime drop is related to a reduction in the number of young people. Most of it, they think, is because abortion is likely to weed out potential criminals.

Barro believes that this argument will have little effect on those with strong pro-life or pro-choice views. "But for people with less extreme views, including me, the policy implications could be important. If abortion rights turn out to be a strong crime fighter, then opinion is likely to move in favor of these rights." 46

It thus appears that the eugenics movement is thriving. This is perhaps the endpoint of the public health goal of prevention through preemption. Frédéric Bastiat, famous for the reductio ad absurdum form of argument, might suggest that we could eventually reduce the murder rate to zero by increasing the abortion rate to 100%.

What about Universal Background Checks?

Universal background checks, also called "closing the gun-show loophole," are strongly advocated by organized medicine—as a "common sense" measure in the absence of evidence of effectiveness. They would not, of course, screen out sociopaths who have not been adjudicated with serious mental illness or convicted of a criminal offense.

In February 1994, the Brady Handgun Violence Prevention Act established a nationwide requirement that federally licensed firearms dealers impose a waiting period (later dropped) and initiate a background check for firearms sales. "Treatment" states, in which this was a new requirement, were compared with "control" states that already had equivalent state requirements. The only observed effect was a drop in suicide rates in persons over age 55, and this was most likely related to the waiting period. Projecting the results of a previous California study to the 44,000 applicants who were denied their application to purchase a handgun in the 22 treatment states in 1996, the authors predicted that nationwide there would have been just 8 fewer homicides.

In their call for universal background checks and licensure, Frattaroli et al.⁵ cite a public opinion survey.⁷ The survey involved 2,703 respondents, purportedly sampled from residential addresses covering 97% of U.S. households. The survey completion rate was 69%. The non-completion rate was thus 31%, but we do not know how many declined to participate altogether. The full-page tabulation of responses—"percent in favor" to the nearest tenth of a percent—does not provide any absolute numbers, so it is not possible to tell how many declined to answer a particular question, or stated that they had no opinion. Unlike in most published studies, this paper gives no information about the demographics of the study population. The only thing we know is that there were gun owners, nongun owners, non-gun owners who live in a household having a gun, and 169 NRA members. The rate of gun ownership, or admitted gun ownership, was 33% of respondents, which is somewhat lower than some 2013 polls have reported.

A footnote states: "The question [on universal background checks] informed respondents that under current federal law, most background checks for gun buyers are completed in just a few minutes. But if law enforcement needs additional time to determine whether a gun buyer is not legally allowed to have a gun, they may take only a maximum of three business days to complete the check." This is apparently the sum total of the information that respondents may have had about the purportedly popular proposal of universal background checks.

Robert B. Doherty, senior vice president for governmental affairs and public policy at ACP, asserts that the current background check system "stopped an estimated 1.5 million convicted felons from getting guns over the past 14 years." 48 Doherty refers to the "slick slippery slope argument" as "disgraceful discourse," stating that the firearms bill recently defeated in the Senate prohibited a national firearms registry, implying that this could therefore never happen.

Contrary to Doherty's assertion, the National Instant Criminal Background Check System (NICS) does not necessarily prevent convicted felons from obtaining a gun, even from a federally licensed firearms dealer, but it does deny many qualified Americans their right to purchase a gun, based on someone's reading of a computer screen in a call center. Persons so denied must prove their innocence.

The NICS processed 8.5 million background checks in 2002 and 2003, and denied about 130,000. A sampling of the denials showed that between 8% and 35% were actually not "prohibited persons." 49 Although it is a 5-year felony for a prohibited person to attempt to buy a firearm, only 154 cases were prosecuted. Prosecutors have been unsuccessful in achieving convictions in many cases and consequently have been unwilling to expend their limited resources on prosecuting most of them. An explanation for why these cases lack "jury appeal" is that the factors prohibiting someone from possessing a firearm may have been nonviolent or committed many years ago. The basis for the prohibition may have been non-criminal (e.g., a dishonorable discharge from the U.S. military). More than 7,000 prohibited persons obtained a firearm because the delayed response time ran out; the guns were retrieved only with up to a year's delay, if at all. 49,50

Forcing all private citizens to consult a federal agency before transferring a piece of property should face a much higher Constitutional barrier than requirements on those holding a privilege, such as a federal firearms license. It is claimed that this abridgement of liberty is needed for safety, as 40% of firearms purchases allegedly circumvent the NICS. Lott says that number is simply false. A number this high can be obtained only by counting within-family gifts and inheritances as sales, he writes. Moreover, "the 40 percent figure rounds up a claim that 36 percent of transfers were done without a background check, and that number came from a small, 251-person survey conducted two decades ago, from November 1991 to December 1994. That is the only study done, and most of the survey covered sales before the Brady Act instituted mandatory federal background checks, telling us nothing about background checks after the law."51

The common sense impression is that organized medicine is determined to achieve federal control of firearms, with the potential, even likely consequence of enabling eventual confiscation. There is no evidence that the laws restricting gun ownership have decreased crime; evidence that they actually increase crime is ignored or denied. Even more serious reasons for an armed citizenry—potential civil unrest, tyrannical government, or foreign invasion—are usually ignored. Doherty, however, accuses gun rights advocates of using "straw men, hyperbole and slippery-slope conjecture." 48

Conclusion

Organized medicine's decades-long campaign to have firearm-related fatalities considered as a public health rather than a criminal justice issue is not evidence-based. Its reliance on weak, even tainted evidence and spurious reasoning, and its attempts to suppress or discredit contrary evidence, is consistent with a political agenda of incremental civilian disarmament.

Jane M. Orient, M.D., practices internal medicine in Tucson, Ariz., and serves as executive director of AAPS.

REFERENCES

- Moyer CS. Public health approach: physicians aim to prevent gun violence. *AM News*, Sep 10, 2012. Available at: http://www.amednews.com/ article/20120910/health/309109949/2/. Accessed Jul 4, 2013.
- Tavernise S. Panel says better data is needed on gun issues. NY Times, Jun 5, 2013. Available at: http://www.nytimes.com/2013/06/06/health/panelurges-better-gathering-of-gun-violence-data.html?_r=0. Accessed Jul 4, 2013.
- Bohannon J. Bold plan, uncertain future for gun violence research. Science 2013;340:1273.
- Fox M. Experts lay out plan for comprehensive gun research. NBC News, Jun 5, 2013. Available at: http://www.nbcnews.com/health/experts-lay-outplan-comprehensive-gun-research-6C10208518. Accessed Jul 4, 2013.
- Frattaroli S, Webster DM, Wintemute GJ. Implementing a public health approach to gun violence prevention: the importance of physician engagement. Ann Intern Med 2013;158:697-699.
- Hemenway D, Miller M. Public health approach to the prevention of gun violence. N Engl J Med 2013; 368:2033-2035.
- Barry CL, McGinty EE, Vernick JS, Webster DW. After Newtown—public opinion on gun policy and mental illness. N Engl J Med 2013;368:1077-1081.
- 8. Kauffman JM. Selective serotonin reuptake inhibitor (SSRI) drugs: more risks than benefits? *J Am Phys Surg* 2009;14:7-12.
- 9. Williams W. Honest examination of race. Townhall.com, May 8, 2013.
- Jamieson C. Gun violence research: history of the federal funding freeze. News, American Psychological Association; February 2013. Available at: http://www.apa.org/science/about/psa/2013/02/gun-violence.aspx. Accessed Jul 4, 2013.
- 11. Faria MA Jr. The perversion of science and medicine (Part IV): the battle continues. *Med Sentinel* 1997;2:83-86. Available at: http://www.jpands.org/hacienda/article9.html. Accessed Jul 4, 2013.
- Faria MA Jr. The tainted public health model of gun control. Freeman, Apr 1, 2001. Available at: http://www.fee.org/the_freeman/detail/the-tainted-public-health-model-of-gun-control#axzz2Y7sxLzNE. Accessed Jul 4, 2013.
- 13. Somerville J. Gun control as immunization. AM News, Jan 1, 1994.
- 14. Bell L. Why the Centers for Disease Control should not receive gun research funding. Forbes, Feb 12, 2013. Available at: www.forbes.com/sites/larrybell/2013/02/12/why-the-centers-for-disease-control-should-not-receive-gun-research-funding/. Accessed Jul 4, 2013.
- 15. Hemenway D. Risks and benefits of a gun in the home. Am J Lifestyle Med 2011;5: 502-511.
- 16. Kellermann AL, Reay DT. Protection or peril? An analysis of firearm related deaths in the home. *N Engl J Med* 1986;314:1557-1560.
- 17. Kellermann AL, Somes G, Rivara FP, Lee RK, Banton JG. Injuries and deaths due to firearms in the home. *J Trauma* 1998;45:263-267.
- Faria MA Jr. Public health and gun control—a review (Part I: the benefits of firearms). Med Sentinel 2001;6:11-13.
- 19. Kellermann AL, Rivara FP. Silencing the science on gun research. *JAMA* 2013;309:549-550.
- CDC WONDER. Firearm Deaths and Death Rates, 1999-2010. Available at: htttp://wonder.cdc.gov. Accessed Jul 5, 2013.
- Cohn D, Taylor P, Lopez MH, et al. Gun homicide rate down 49% since 1993 peak; public unaware. *PewResearch Social & Demographic Trends*, May 7, 2013. Available at: www.pewsocialtrends.org/2013/05/07/gun-homiciderate-down-49-since-1993-peak-public-unaware/. Accessed Jul 5, 2013.
- Ford MW. US homicide rates. Mind & Market, Dec 16, 2012. Available at: http://mindandmarket.blogspot.com/2012/12/us-homicide-rates.html. Accessed Jul 6, 2013.
- 23. Wintemute GJ. Responding to the crisis of firearm violence in the United States: comment on "Firearm legislation and firearm-related fatalities in the United States." *JAMA Intern Med* 2013:173:740. doi: 10.1001/jamainternmed.2013.1292.
- 24. Fisher M. Chart: the U.S. has far more gun-related killings than any other developed country. *Washington Post*, Dec 14, 2012.
- 25. Children's Defense Fund. International gun comparison. *Protect Children, Not Guns* 2012.
- Stolinsky DC. America: the most violent nation? Med Sentinel 2000;5:199-201. Available at: www.jpands.org/hacienda/stolinsky.html. Accessed Jul 6, 2013.
- 27. Cook C. United Nations data show America has high gun ownership, but a low murder rate. *Westernfreepress.com*, Feb 16, 2013.
- 28. Hahn RA, Bilukha OO, Crosby A, et al. First reports evaluating the

- effectiveness of strategies for preventing violence: firearms laws. *MMWR* 2003;52(RR14):11-20.
- Chapin B. The end of myth: an interview with John Lott. Strike the Root, Jun 10, 2003. Available at: www.strike-the-root.com/3/chapin/chapin10.html. Accessed Jul 6, 2013.
- Lott JR Jr. More Guns, Less Crime: Understanding Crime and Gun Control Laws.
 3rd ed. University of Chicago Press; 2010.
- 31. Lott JR Jr. More Guns, Less Crime: Understanding Crime and Gun Control Laws. 1st ed. University of Chicago Press; 1998.
- 32. Malcolm JL. *Guns and Violence: the English Experience*. Cambridge, Mass.: Harvard University Press; 2002.
- 33. Centerwall BS. Homicide and the prevalence of handguns: Canada and the United States, 1976 to 1980. *Am J Epidemiol* 1991;134:1245-1260.
- Chapman S, Alpers P. Gun-related deaths: how Australia stepped off "The American Path." Ann Intern Med 20134;158:770-771.
- 35. Baker J, McPhedran S. Gun laws and sudden death: did the Australian firearm legislation of 1996 make a difference? *Brit J Criminol* 2007;47:455-469. doi:10.1093/bjc/azl084.
- Hemenway D. How to find nothing. J Public Health Policy 2009;30:260-268. doi9:10.1057/jphp.2009.26.
- Coulter A. Doing the research *The New York Times* won't do. *Universal Uclick*, Jan 9, 2013. Available at: http://www.anncoulter.com/columns/2013-01-09. html. Accessed Jul 7, 2013.
- 38. Australian Institute of Criminology. *Australian Crime: Facts & Figures* 2012. Available at: www.aic.gov.au. Accessed Jul 7, 2013.
- 39. ACC. Illicit Firearms. Australian Crime Commission.
- NCPA. Australia: more violent crime despite gun ban. *Ideas Changing the World*, National Center for Policy Analysis, Apr 13, 2009. Available at: www. ncpa.org. Accessed Jul 7, 2013.
- Fleegler EW, Lee LK, Monuteaux MC, Hemenway D, Mannix R. Firearm legislation and firearm-related fatalities in the United States. *JAMA Intern Med*. 2013;173(9):732-740. doi:10.1001/jamainternmed.2013.1286. Available at: http://archinte.jamanetwork.com/article.aspx?articleid=1661390. Accessed Jul 7, 2013.
- 42. Watkins T. Study links gun laws and lower gun mortality. CNN, Mar 7, 2013. Available at: www.cnn.com/2013/03/06/us/guns-laws-mortality. Accessed Jul 7, 2013.
- 43. "Agrippa." Does gun control legislation reduce gun homicides? *Agrippa's Take*, Mar 24, 2013. Available at: http://agrippastake.blogspot.com/2013/03/does-gun-control-legislation-reduce-gun.html. Accessed Jul 7, 2013.
- MacDonald H. How to increase the crime rate nationwide. Wall St J, Jun 11, 2013. Available at: http://online.wsj.com/article/SB1000142412788732406 3304578525850909628878.html. Accessed Jul 7, 2013.
- 45. Lott JR Jr. Media play up faulty study suggesting link between guns, death rates. *Investor's Business Daily*, Mar 21, 2013.
- Barro R. Does abortion lower the crime rate? *Business Week*, Sep 27, 1999.
 Available at: scholar.harvard.edu/barro/files/99_0927_crimerate_bw.pdf.
 Accessed Jul 7, 2013.
- 47. Ludwig J, Cook PJ. Homicide and suicide rates associated with implementation of the Brady Handgun Violence Prevention Act. *JAMA* 2000;284:585-591.
- 48. Doherty RB Firearms vote shows worst of Washington politics. *ACP Internist*, June 2013.
- 49. U.S. Department of Justice. Review of the Bureau of Alcohol, Tobacco, Firearms, and Explosives' Enforcement of Brady Act Violations Identified through the National Instant Criminal Background Check System, Report #l-2004-006, July 2004. Available at: www.justice.gov/oig/reports/ATF/e0406/exec.htm. Accessed Jul 8, 2013.
- Korwin A. NICS operations stats too horrible to believe. *Page Nine*, Jun 2, 2013. Available at: http://pagenine.typepad.com/page_nine/. Accessed Jul 8. 2013.
- 51. Lott JR Jr. A couple pieces that I have in the *Columbus Dispatch* and the *New Hampshire Union Leader* on Gabrielle Giffords and Mark Kelly's gun control campaign. John Lott's Website, Jul 5, 2013. Available at: http://johnrlott.blogspot.com/search/label/background%20checks. Accessed Jul 8, 2013.