

THE GUN FIGHTER

A man in blue scrubs with a stethoscope, standing in a hospital hallway with his arms crossed. He is wearing glasses and has a watch on his left wrist. The background shows a long hospital corridor with white walls and a row of hospital beds on the right side.

BY MEREDITH WADMAN

THERE ARE ALMOST AS MANY
FIREARMS IN THE UNITED STATES
AS THERE ARE CITIZENS.
GAREN WINTEMUTE IS ONE OF
FEW PEOPLE STUDYING THE
CONSEQUENCES.

With his crisp blue suit and wire-framed spectacles, Garen Wintemute hardly looked frightening as he stepped to the podium last month to address a conference on paediatric emergency medicine in San Francisco, California. But his presence there made the organizers nervous.

Wintemute, an emergency-department doctor, is better known as the director of the Violence Prevention Research Program at the University of California (UC), Davis. As such, he has published dozens of papers on the effects of guns in the United States, where widespread gun ownership and loose laws make it easy for criminals and potentially violent people to obtain firearms. Wintemute has pushed the bounds of research, going undercover into gun shows with a hidden camera to document how people often sidestep the law when purchasing weapons. He has also worked with California lawmakers on crafting gun policy and helped to drive a group of gun-making companies out of business.

All this made Wintemute a potentially risky speaker for the conference funder, a branch of the US Department of Health and Human Services, which is barred by law from funding any activities that advocate or promote gun control. The meeting organizers had told Wintemute to stick to facts and avoid any mention of policies. But with the nation still reeling from the murder of 20 children and 6 educators, who were shot in their school in Newtown, Connecticut, in December, the conference organizers were not sure what Wintemute would say.

He stuck to the facts, but also managed to make clear how he feels about the funding prohibition, which has effectively killed off most research on gun violence. "We don't have a labour force," Wintemute told the assembled doctors.

That has led to a striking imbalance in US medical research. Firearms accounted for more than 31,000 deaths in the United States in 2011 (see 'Gun deaths'). But fewer than 20 academics in the country study gun violence, and most of them are economists, criminologists or sociologists. Wintemute is one of just a few public-health experts devoted to this research, which he has funded through a mixture of grants and nearly US\$1 million of personal money.

His undercover gun-show tactics have led him into situations where he feared for his safety, and they have also raised protests from some gun-rights advocates, who charge that Wintemute is more a biased campaigner than a researcher.

But even a few of his ideological opponents praise Wintemute's work. "Garen is one of the very best in terms of his research skills," says David Kopel, the research director at the Independence Institute in Denver, Colorado, a think tank that supports gun-owners' rights.

And Wintemute, who is 61, makes no apologies for his passion or his methods. "I believe

just as strongly as I can articulate in the value of free inquiry," he says, "especially when the stakes are so high — when so many people are dying through no fault of their own; when so much of the country simply turns its back on this problem."

AIMING TRUE

Wintemute grew up in a home in Long Beach, California, where his father, a decorated veteran of the Second World War, kept a Japanese officer's sabre and infantry rifle, a Winchester carbine and a Marlin .22 calibre rifle in a bedroom cupboard. Wintemute learned to shoot, and begged to go hunting. That chance came when he was around 12, and his father asked him to help clear out sparrows from the rafters of his company's warehouse.

Wintemute's aim was good, he recalls. "But I held those birds and looked at the finality of it all and felt them turn cold in my hands and decided this was not for me."

As an undergraduate at Yale University in New Haven, Connecticut, Wintemute flirted with oceanography and neuroscience, but eventually decided that he wanted to be a physician. After completing medical school and a residency in family practice, both at UC Davis, Wintemute went to work in 1981 as medical coordinator at the Nong Samet Refugee Camp, just inside Cambodia's border with Thailand. The camp was in an area that had only recently been liberated from the Khmer Rouge dictator Pol Pot, and Wintemute took care of gunshot wounds on a daily basis. Even more common were shrapnel injuries from land mines. There was no electricity, and amputations were done under local anaesthetic.

"I never once met an intact family," Wintemute recalls. "Everybody had lost somebody. There came a point where I said: 'I need to pick up a rifle. I can't be on the sidelines.'"

But instead of grabbing a gun, Wintemute decided to pursue 'big-picture' international health. He left Cambodia and enrolled in a one-year master's programme in public health at Johns Hopkins University in Baltimore, Maryland. One of his first courses was taught by a former trial lawyer named Stephen Teret, who is now director of the Center for Law and the Public's Health at Johns Hopkins.

Teret remembers the day in September 1982 when the students of that class introduced themselves and Wintemute stunned him with his charisma and eloquence. "I said to myself: 'I'm going to get to know this guy,'" recalls Teret, and the two of them soon became friends and collaborators.

On a cold winter day several months later, some close friends of Teret's dropped their 21-month-old son off at the house of his caregiver. Around noon, the caregiver

laid him down for a nap and left the room, whereupon her four-year-old son took his father's loaded handgun from a nearby drawer, pointed it at the sleeping infant and shot him through the head.

Within weeks, Teret switched his main research focus from motor-vehicle injuries to gun injuries, an area in which public-health research was all but non-existent. Wintemute began assisting him, and their first project was a law-review article laying out a legal strategy for suing gun-makers who fail to use available safety technologies to prevent accidental gun deaths¹.

Wintemute returned to UC Davis, with the goal of focusing on gun injuries. In Cambodia and then in the Sacramento emergency department, Wintemute learned the hard lesson that, as a doctor, he had little chance of saving many people with gunshot wounds;

most of those who died did so before they even reached the hospital. He realized that if he wanted to reduce deaths from firearms, he needed to prevent shootings in the first place.

One day, he set himself a question as he left for a run in the foothills east of Sacramento. Looking to make an impact, he wondered: "What subset of firearm injuries can people simply not turn away from?" By the time he got back, he had decided to focus on the kind of shooting that had shattered the lives of Teret's friends.

In June 1987, Wintemute published a paper called 'When children shoot children: 88 unintended deaths in California'². He reported that in 36% of these cases, the shooters didn't think that the gun was loaded or was real, or they were too young to tell the difference. Forty per cent of the children's fatal injuries were self-inflicted, including separate incidents in which a 5-year-old boy and a 2-year-old boy, using .38-calibre revolvers — one found under a pillow, the other in his parents' bedroom — each shot himself in the head.

To illustrate one facet of the problem, Wintemute borrowed several of the guns used in the shootings from the Sacramento medical examiner. He then bought toy lookalikes, mounted the paired guns on a piece of plywood and, when the paper was published, called a press conference. Few of the reporters who attended could tell the toy guns from the real ones. His work and other events that year focused scrutiny on toy guns, and in December, toy retailers began to pull realistic-looking toy guns from their shelves. The next year, California banned their sale and manufacture.

Wintemute was increasingly convinced that gun manufacturing was a pressure point that could be turned to advantage, by tying the industry to the public-health consequences

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of its products. He was contemplating how to do that when the *Wall Street Journal* published an article about a group of companies in and around Los Angeles, California, owned by one extended family that made small-calibre, inexpensive handguns known as Saturday Night Specials. Poorly made and lacking some safety features, the guns were disproportionately used in crime, particularly by juveniles.

The article contained a trove of details about the family that ran the companies, and Wintemute decided to follow that trail. The result was *Ring of Fire*, a book published in 1994 that described the enterprise and impact of the six companies, which in 1992 produced 34% of the handguns made in the country.

Ring of Fire painted such a stark portrait of the problematic guns that “it became the focus of the rallying cry for local legislative action”, says Sayre Weaver, a lawyer who represented West Hollywood, the first of several Los Angeles communities to ban the sale of the Saturday Night Specials. In 1999, the California legislature followed by making it illegal to manufacture and sell the handguns. Within several years, 5 of the 6 companies were out of business.

BATTLE TO SURVIVE

Although his book had a big impact, Wintemute's research soon hit a snag. With grant support from the US Centers for Disease Control and Prevention (CDC) in Atlanta, Georgia, Wintemute had been conducting a retrospective cohort study looking at whether handgun buyers with prior misdemeanour convictions are more likely than those without a criminal history to be charged with new crimes, particularly those involving firearms and violence. (Many states allow purchases by criminals who have been convicted of misdemeanours, such as assault.)

But as he was digging into the study, his source of funding came under attack from the National Rifle Association (NRA), a powerful lobbying group based in Fairfax, Virginia, that supports gun ownership. NRA leaders were upset with the CDC for funding work by another researcher who had found that people with a gun in their home were 2.7 times more likely than those without to be murdered³, and 4.8 times more likely to commit suicide⁴.

In 1996, the NRA persuaded congressman Jay Dickey (Republican, Arkansas) to insert language into a budget bill to prohibit the CDC from advocating or promoting gun control. (That ban has been renewed every year since then.) Dickey's amendment also stripped \$2.6 million from the agency's 1997 funding — the exact amount that the CDC had spent on firearm research the previous year.

In 1996, Wintemute had received \$292,000 from the CDC for the misdemeanour study, but after the change, the agency provided just \$50,000 to close down the programme.

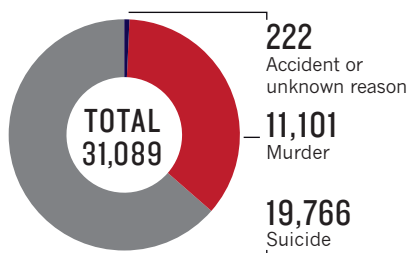
The research restrictions were extended in 2012 to encompass all of the CDC's parent

agency, the Department of Health and Human Services. And they have had a measurable effect. According to an analysis of Elsevier's Scopus database by the group Mayors Against Illegal Guns, the proportion of all publications dealing with US firearms and their impacts declined by 60% between 1996 and 2010.

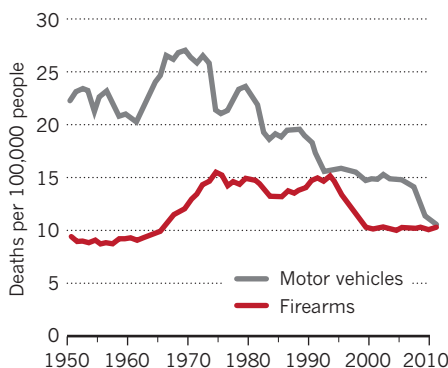
US researchers still produce more papers per capita on the topic than do investigators from other countries. But the subject may not

GUN DEATHS

Firearms accounted for 1.2% of US deaths in 2011, with suicides being the largest fraction.



Unlike deaths from car accidents, the rate of gun fatalities has flattened out. Research restrictions have hampered efforts to explain the gun trend.



be as high on other countries' research agendas because gun ownership is so much lower in most developed nations (see “Top gun”). The United Kingdom, for example, banned private possession of handguns in 1998 after a gunman shot and killed 16 children and their teacher in a school in Dunblane, Scotland¹.

Wintemute was rare in staying devoted to gun research after the restrictions were imposed. He turned to the California Wellness Foundation, a large private charity based in Woodland Hills that focuses on health care and health education, and the foundation provided the funds to complete his study. Wintemute followed up nearly 6,000 authorized handgun purchasers, most of them for 15 years. He found that men who had had two or more convictions for misdemeanour violence were 15 times as likely as those with no criminal history to be charged with the most violent crimes⁵.

Today, Wintemute runs the four-person Violence Prevention Research Program at UC Davis, on about \$300,000 a year, none of which

comes from the federal government. Of this, \$50,000 is from the California Wellness Foundation. Until last year, Wintemute also received substantial funding from both the California and US departments of justice. Since 2005, he has donated \$945,000 from his own savings and stock sales to the programme.

In July, the university announced that it would endow two professor slots to support Wintemute's programme, each of which comes with \$75,000 a year. Wintemute has assumed one and is looking to fill the other one, a position in violence epidemiology.

The hiring comes at a time of renewed activity in the field. After the December school shooting, President Barack Obama ordered the CDC to resume research into the causes of gun violence and the ways to prevent it; his 2014 budget request, released on 10 April, asks Congress to provide \$10 million for the research. This week in Washington DC, Wintemute spoke to an Institute of Medicine panel that has been formed to advise the CDC on which research questions are most pressing.

INSIDE OUT

As Wintemute delved into gun research in the 1980s, he decided to immerse himself in the gun culture. He joined the NRA and the rifle and pistol club in Davis, where he practised shooting at an indoor range. In 1999, he started to visit gun shows, good opportunities to observe firearm purchases. “Gun shows are sort of like zoos,” he says. “You can easily see a wide range of behaviours.”

At his first show in Milwaukee, Wisconsin, the signs used to advertise guns caught his attention. One licensed retailer displayed a Mossberg Model 500 shotgun with a pistol grip next to a poster that read “Great for Urban Hunting”. Another sign, beside a Savage rifle, read: “Great for Getto [sic] Cruisers”.

Wintemute says that he was astonished by the blatant promotion of guns as murder weapons. “It was clearly a story that had to be told — bearing witness is part of the job — but I wanted to figure out a way to tell the story quantitatively, scientifically.”

It took several years of trial and error at shows before he was confident enough of his methods to begin collecting data. He cut off his waist-length ponytail so he would not stand out in the crowds, bought a small camera and placed it in a bag of Panda licorice with a lens-sized hole cut in the side. A pen and notepad would attract too much notice, so he set up his office voicemail so that he could call it from his mobile phone and record long messages. He later added a video camera disguised to look like a button on his shirt.

Several times, Wintemute was accused of taking unauthorized photos, and his phone was temporarily confiscated by security personnel, who examined it and found no pictures. After one such episode, he says, a colleague overheard a group of men planning to

attack Wintemute outside the show, but Wintemute successfully avoided them.

Altogether, he attended 78 gun shows in 19 states, strolling the aisles while apparently deep in a phone conversation. A paper on the findings showed, among other things, that the restrictive policies regulating gun shows in California resulted in fewer illegal 'straw' purchases — in which someone buys a gun on behalf of a person legally barred from doing so — than in other states⁶.

That publication, and Wintemute's statements in the media, prompted a backlash from proponents of gun ownership. In June 2007, David Codrea, the author of a blog called WarOnGuns, posted Wintemute's photo online with the note: "WARNING! IF YOU SEE THIS MAN, NOTIFY SECURITY IMMEDIATELY." The post identified Wintemute by name and called him an "anti-gun 'researcher'" who stalked gun shows with hidden cameras and recorders.

But by that point, Wintemute says, he had learned all he could and stopped going to shows.

CRITICAL APPROACH

Last month, on the day after Wintemute spoke to the emergency researchers in San Francisco, the NRA posted a critique slamming a study⁷ that reported that states with more firearm laws had lower rates of firearm fatalities.

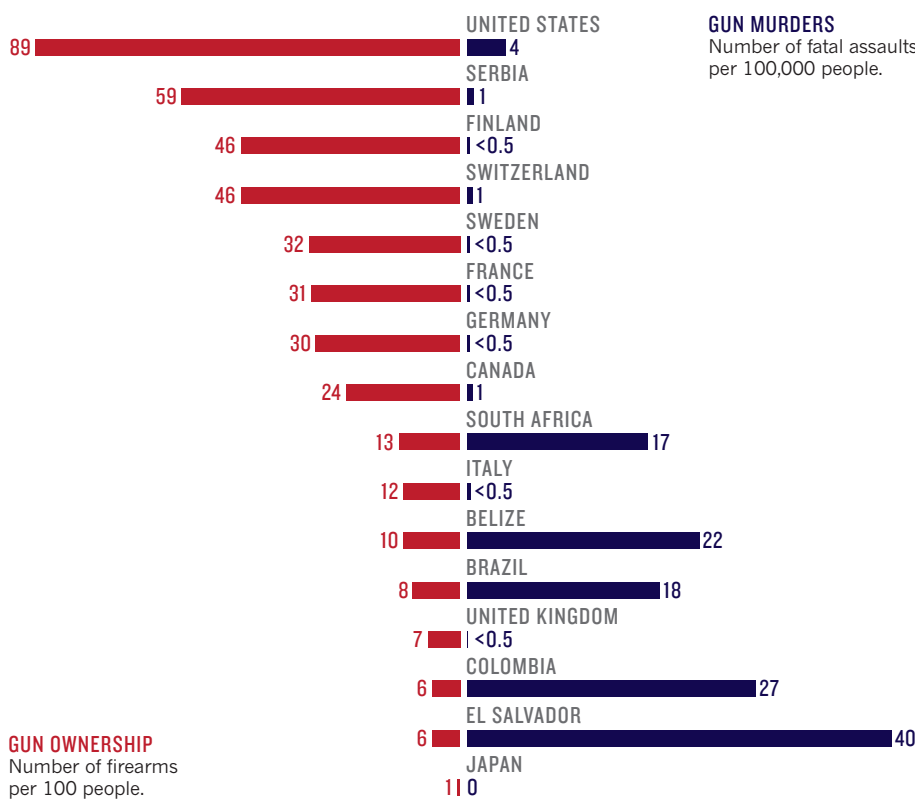
The NRA quoted from an unlikely source to attack the paper: Wintemute, who had published a sharp rebuttal to the paper in the same journal⁸. Wintemute had argued that the association between more laws and fewer deaths disappeared when the authors accounted for firearm ownership in a state — meaning that it is impossible to say whether the restrictive gun laws save lives by inhibiting gun ownership or whether laws are simply easier to enact in states in which ownership rates are already low. The latter is a more plausible explanation, he wrote.

One of the paper's authors, Eric Flegler, an emergency physician at Boston Children's Hospital in Massachusetts, responds that "when you look at firearm-related homicides, even controlling for firearm ownership, firearm-related homicides do decrease in states with more gun laws".

This is not the first time that Wintemute has attacked papers he perceives to be weak, even if they point towards policies he would like to see adopted. And he goes no easier on policies that he views as ineffective, even ones that seek to limit firearm ownership. He has, for instance, repeatedly criticized the assault-weapons ban enacted by Congress in 1994, in part because the ban was easily circumvented. Instead, he advocates three steps informed by research: requiring background checks for all US gun sales, forbidding alcohol abusers and those convicted of violent misdemeanours from buying guns and rewriting current federal restrictions on gun ownership to better capture people who are mentally ill and at risk

TOP GUN

The United States has the most firearms per capita and the greatest number of gun murders of any developed nation.



GUN OWNERSHIP

Number of firearms per 100 people.

of violence to themselves or others.

Wintemute's rigour has earned the respect of some ideological opponents, but others say that his work betrays anti-gun biases by, for instance, selectively citing the literature in a way that minimizes the value of firearms for self-defence.

"We have followed his research for many years. Pro-gun scholars have criticized it for just as long," says John Frazer, director of the Research and Information Division at the NRA's lobbying arm, the Institute for Legislative Action in Fairfax.

Wintemute's work at gun shows has also triggered complaints. Kopel, the Independence Institute's researcher, says that Wintemute's hidden-camera tactics were "sleazy". "I have a higher opinion of him as a guy who looks at the data and analyses them in a serious way," Kopel says.

Now, Wintemute is focusing on a new project. He is designing a randomized trial to study roughly 20,000 people who purchased guns legally in California but have since lost the right to own firearms because they committed a violent crime, were served with a domestic-violence restraining order or were judged mentally ill and potentially violent. Unlike in other states, authorities in California have begun to take guns away from those people. Wintemute is hoping to test the effectiveness of the policy by comparing re-offence rates among those whose guns are seized quickly versus those who keep them for longer.

The money for his own work, at least in the short term, will probably have to come from California or from private sources. Wintemute is not optimistic that funds for CDC firearm research will be forthcoming from Congress in the short term.

Whether or not the federal money materializes, Wintemute will continue the work he began 30 years ago. For him, it is part of his mission as a physician to relieve suffering. "Everything that was true of firearm violence in the early 1980s is still true today," he says. "There is a fundamental injustice in violence. People don't ask for it; it comes to them." ■

Meredith Wadman is a reporter for *Nature* in Washington DC.

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