



Decisions to be made on US gun violence research funds

The National Institutes of Health and the Centers for Disease Control and Prevention will decide how to spend new federal funds later this year. Susan Jaffe reports from Washington, DC.

After a hiatus of more than two decades, Congress and President Donald Trump agreed to add funding for gun violence research to the federal budget in December. With grants expected to be awarded in September, the priorities for research and its potential impact are crucial for halting the US's record-breaking gun-related death toll.

The National Institutes of Health (NIH) and the Centers for Disease Control and Prevention (CDC) will equally share US\$25 million for 1 year. The CDC issued a "grant opportunity forecast" on Jan 22, entitled *Research Grants to Prevent Firearm-Related Violence and Injuries*, which previews the timeline and other details for awarding grants. Rebecca Cunningham, interim vice president for research at the University of Michigan and director of its Injury Prevention Center, said the announcement "is completely historic and changes the climate dramatically for researchers around the country".

The CDC estimates it will spend \$24 million over 3 years, based on expectations that additional money will be available. About 20 grants, of no more than \$650 000 each, are thought to be available. Grant applications are expected to be due in May, and awards should be announced in September. Finalised details of how the grants will work will be published later this month.

Research priorities

The CDC grants will be administered by its National Center for Injury Prevention and Control, according to its funding announcement. It is seeking "investigator-initiated research to understand and prevent firearm-related injuries, deaths, and crime [including] mass shooting

incidents, other firearm homicides/assaults, firearm suicides/self-harm, unintentional firearm deaths and injuries, and firearm-related crime".

In addition, the CDC grants will "support research to help inform the development of innovative and promising opportunities to enhance

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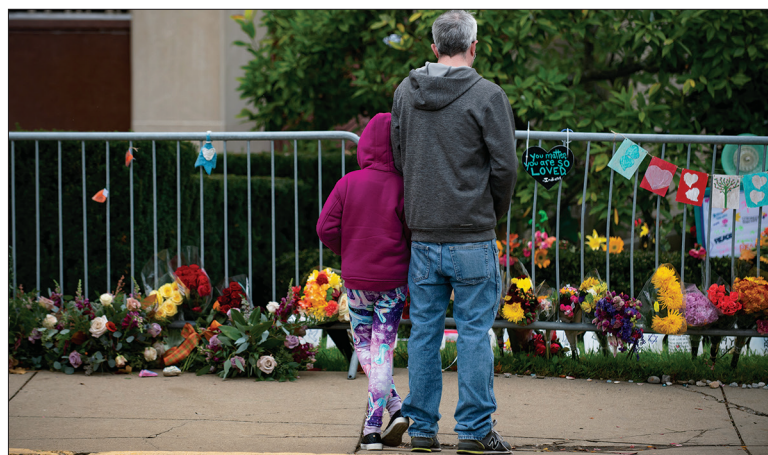
safety and prevent firearm-related injuries, deaths, and crime, and rigorously evaluate the effectiveness of innovative and promising strategies to keep individuals, families, schools, and communities safe from firearm-related injuries, deaths, and crime".

The NIH is in the process of assessing and identifying "scientific opportunities not addressed by the current portfolio", said a spokeswoman. "We are coordinating with [the] CDC to ensure that our research efforts are complimentary, and we anticipate issuing funding announcements in the near future."

Gun-related injuries are the second leading cause of death among children, said Cunningham, who

also leads the NIH-funded Firearm Safety Among Children and Teens Consortium, involving 25 researchers at 12 universities. In a study published in *JAMA Pediatrics* last year, the consortium identified 26 areas of research aimed at reducing these fatalities. Their questions were divided into five categories: epidemiology and risk and protective factors; primary prevention, including safe storage; secondary prevention; efficacy of gun safety policies and laws; and improving data collection and access.

Gun-related deaths "are just the tip of the iceberg", said David Hemenway, a professor of health policy at the Harvard T H Chan School of Public Health, and director of the Harvard Injury Control Research Center. "We still don't have data about non-fatal gun injuries." Other questions researchers can pursue include how guns get into the wrong hands, how exposure to violence affects subsequent mental and physical health, and how street violence destroys neighbourhoods. "We know very little about gun [safety] training... or gun theft", he said.



Funding barriers

Until this year, the CDC had not received any direct funding for firearms-related research, a spokeswoman said. The agency's activities in this area had been limited to collecting and analysing data. In the 1990s, a bipartisan group of senators threatened to cut all funding for the CDC's National Center for Injury Prevention and Control, which they contended was pursuing a gun control agenda. The ensuing debate led to passage of the Dickey Amendment, a 1996 law that prevents federal gun research funds to be used to advocate for gun control measures. But it also had a chilling effect that led to a virtual ban on such funding, said Cunningham. "This is the first time there has been dedicated funding."

"This breaks a log jam that was standing in the way of learning what we need to know about gun violence", said Andrew Morral, director of the National Collaborative on Gun Violence, which is supported by the RAND Corporation. Its 2018 *Gun Policy in America* report concluded that the US Government spends less on gun policy research than it does on research involving causes of similar rates of mortality, such as traffic accidents or sepsis. Even though the new funding is an "enormous percentage increase", it's still too little compared to the size of the

problem, said Hemenway. "It's a drop in the bucket."

In a study published last year in *Health Affairs*, Cunningham and colleagues compared the federal grants committed to investigating the leading causes of death among

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children under 18 years of age from 2008 to 2017. Their analysis showed that at least \$37 million annually was needed for firearm injury research solely for this segment of the US population "to be commensurate with the mortality burden".

The Democratic majority in the US House of Representatives, which assumed control last year, initially wanted \$50 million for gun violence research, but Republicans in the Senate would only agree to half. "That's still \$25 million we haven't had", said Representative Rosa DeLauro, the Connecticut Democrat who chairs the House Appropriations Subcommittee on Labor, Health and Human Services and Education, which oversees the CDC and the NIH. "And when we take back the Senate, we will get more and go from there."

In 2018, 39 741 Americans died in homicides, suicides, and accidents involving firearms—a daily average of 109 deaths, with an age-adjusted rate of 11.9 per 100 000 people. That total is about the same as in 2017, when fatalities reached the highest number since the CDC began recording gun-related deaths in 1981, a CDC spokesperson said. The American Medical Association (AMA) has called the increasing death toll a public health crisis. "Getting the \$25 million is a good first step", said Patrice Harris, president of the AMA. "Physicians are on the front lines", she said, and are "laser-focused" on reducing gun-related deaths and injuries.

Private funding

During the federal funding drought, some foundations and philanthropic organisations stepped in to help researchers. Morral said that there has recently been significant private philanthropic support for research on gun violence. The private National Collaborative on Gun Violence Research was established with a \$20 million commitment from Arnold Ventures, and has raised almost \$5 million more from other donors. Last year, it distributed \$10 million in grants for gun violence research, and plans to award an additional \$9.5 million this year. Such support may diminish as the federal government's role expands

"If the federal government does manage to conduct a sustained and well resourced programme of research on gun violence, that could reduce the need for private support", he said. "Even though that might jeopardise private funding in this area, I don't necessarily think that would be a bad outcome. The Feds can support work that private funders would be unable to support, such as large-scale national data collection over time."

Policy impacts

Cunningham and other researchers would not speculate on how—or if—the results of the new research will affect lawmakers or policy. "Our job is to produce the general knowledge about how communities can be safe", she said.

But Eve Levenson, federal affairs director for the activist group March for Our Lives, has great hopes for the government's gun violence research projects, comparing them to the studies on motor vehicle accidents that led to seat belt rules. "We believe this is really going to be a game changer for the gun violence prevention movement and for being able to save lives."

Susan Jaffe



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