

**National Center for Injury Prevention
and Control Kick-Off Meeting**

Firearm-Related Violence and Injury Prevention Research Grants

February 16, 2021

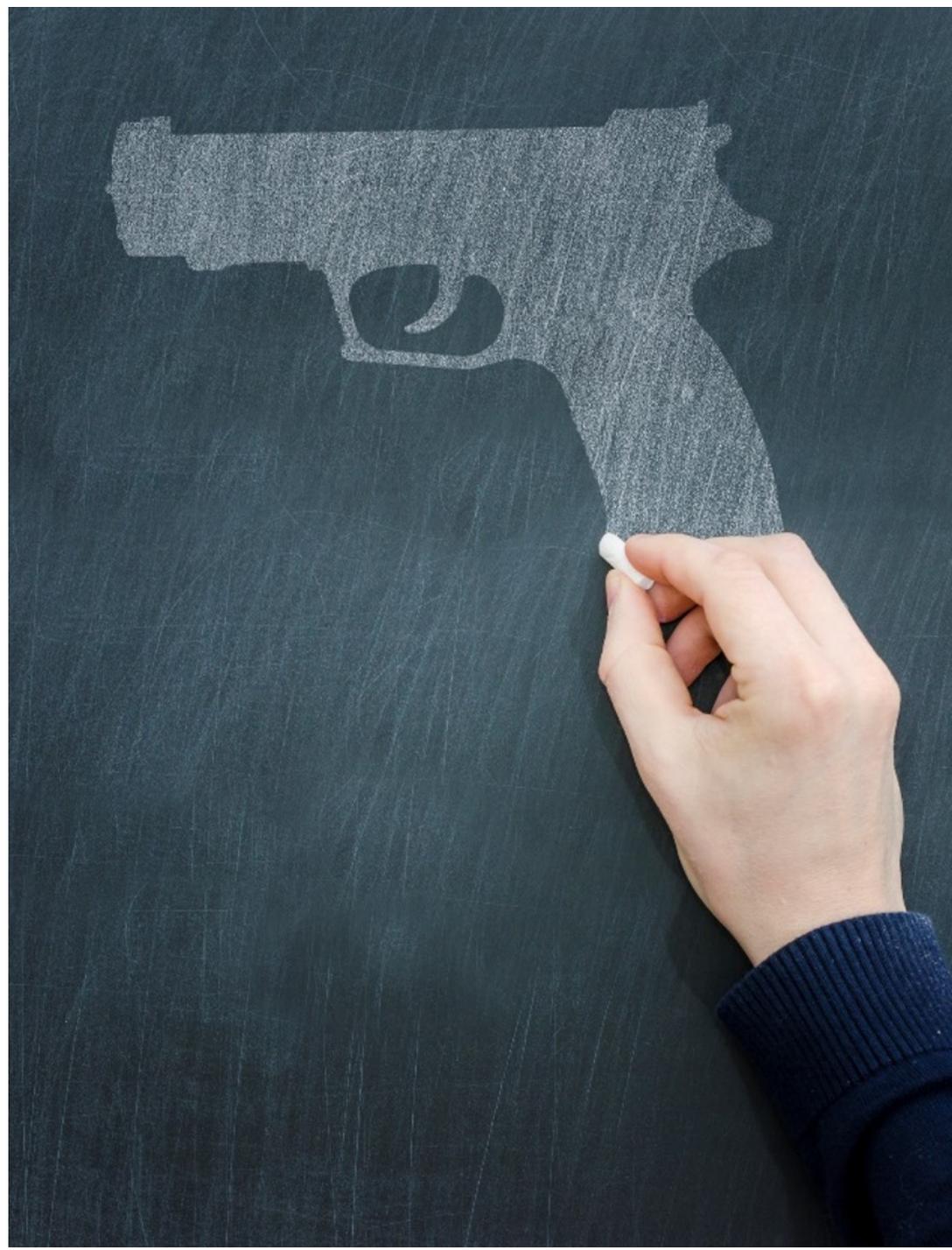
Board of Scientific Counselors



CDC's History of Addressing Firearm Injury

Overview

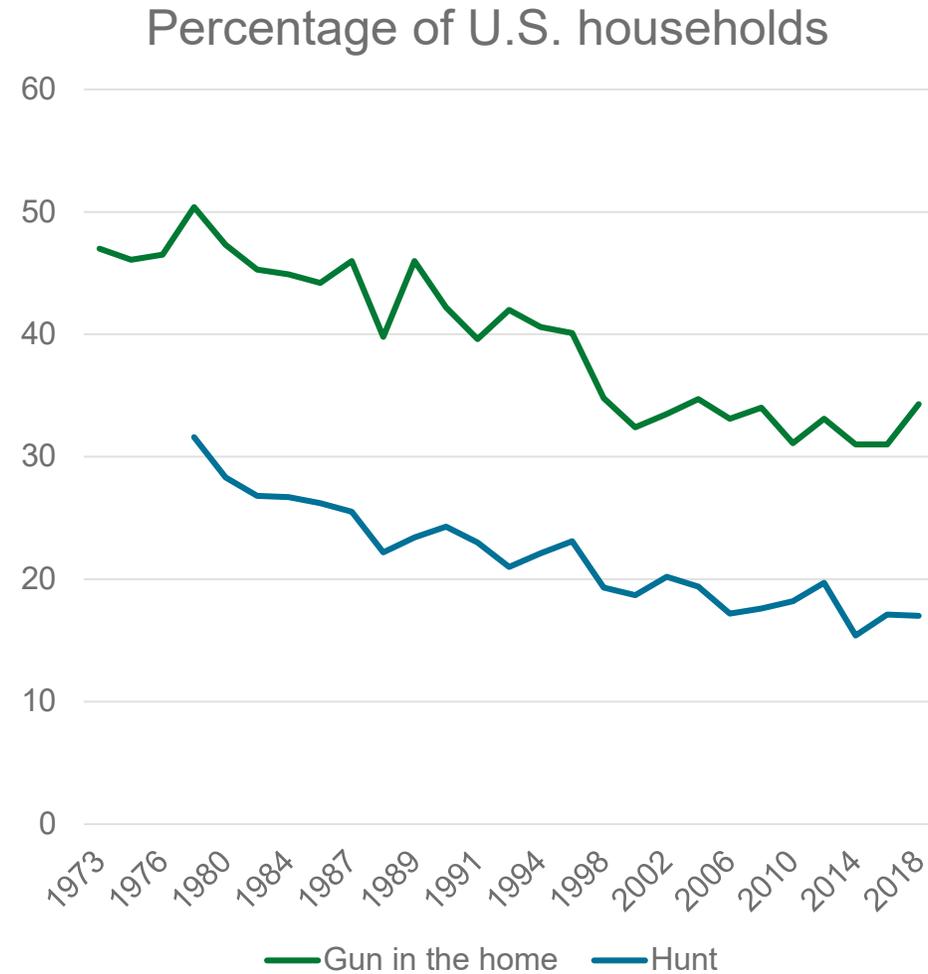
- Historical context of gun ownership
- History of CDC's surveillance and research activities
- Challenges and opportunities



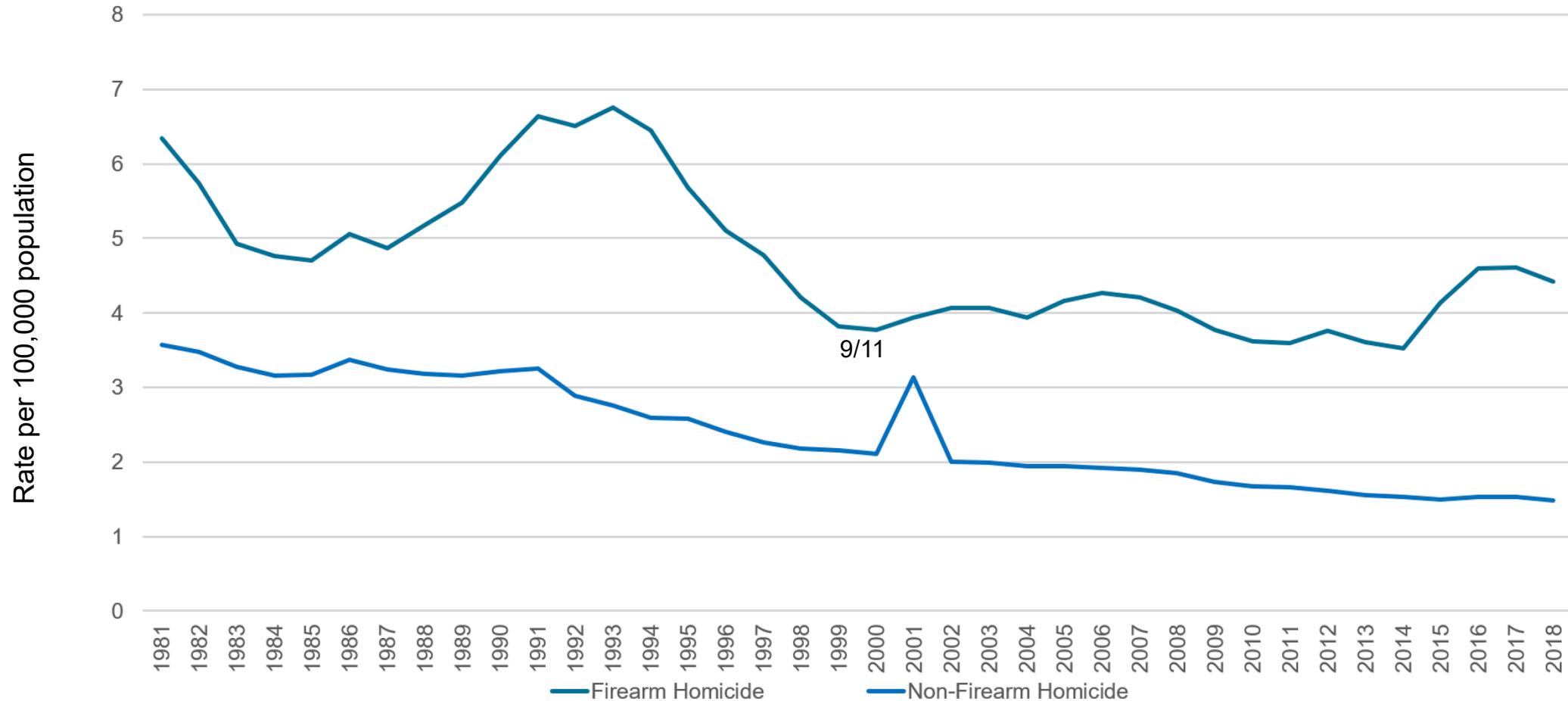
Historical Context of Gun Ownership

Trends – 1970's to 2018

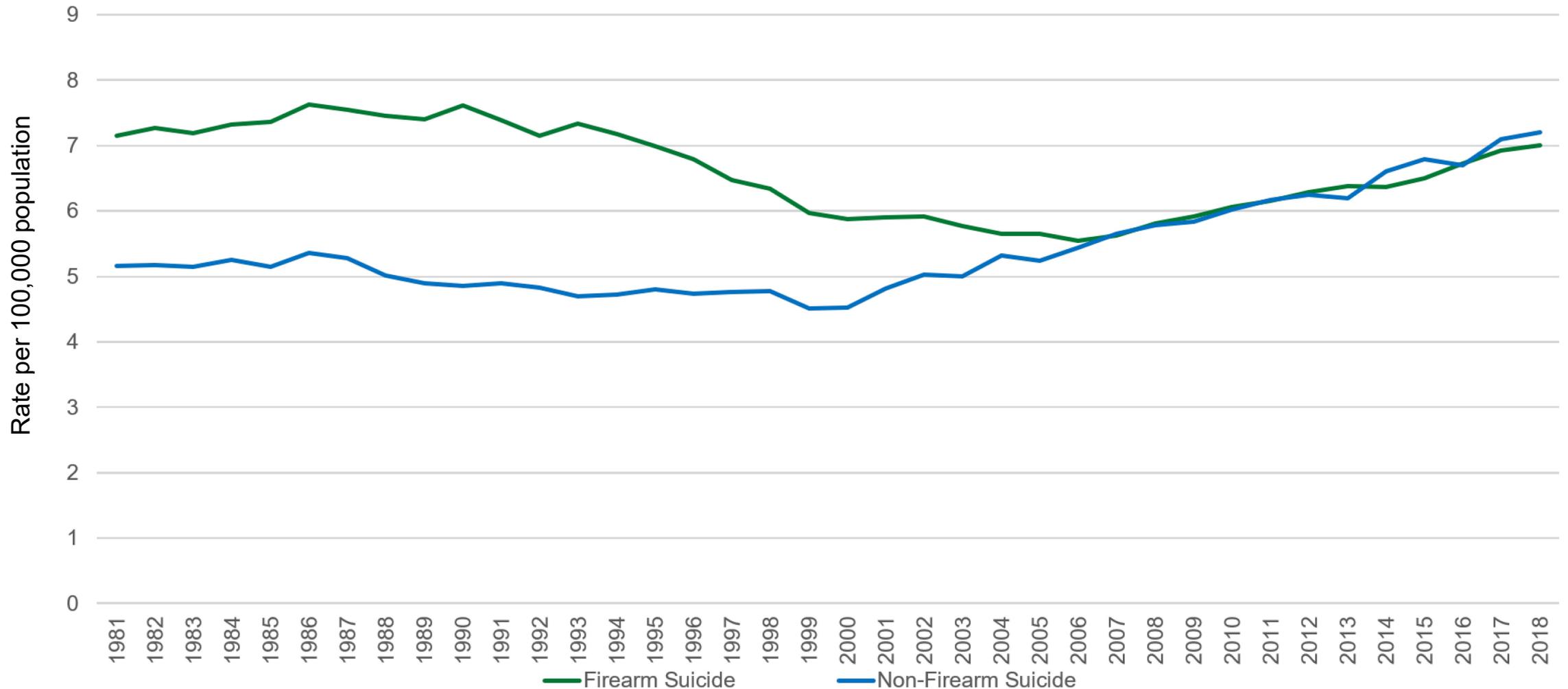
- American households containing at least 1 gun declined from 47% to 34%
- Population movement from rural to urban
- Use of guns for recreational purposes declined substantially



Age-adjusted Rates of Firearm and Non-firearm Homicide, United States – 1981 - 2018



Age-adjusted Rates of Firearm and Non-firearm Suicide, United States – 1981 - 2018



History of CDC's Firearm Surveillance and Research Activities

CDC's Strategy to Prevent Firearm Injuries in 1980s and 1990s

- + Reframe the public debate on firearms
- + Establish a national firearm injury surveillance system
- + Develop a sound scientific basis for preventing firearm injuries:
 - Undertake research to better understand patterns of firearm acquisition/use and injury causes
 - Evaluate policies and interventions
 - Assess technological innovations

Source: Mercy JA, Houk V. Firearm injuries: A call for science. NEJM 1988; 319(19):1283-1284

Firearm Injury Surveillance Data

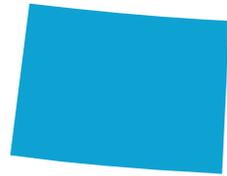
- + Youth Risk Behavior Survey (YRBS): weapon and gun carrying questions – 1990 to present
- + Nonfatal Firearm Injury Surveillance Study (NFISS- NEISS): first time visits to ED for nonfatal firearm injuries – 1993 to present
- + Injury Control and Risk Survey (ICARIS): items on firearm access, storage, carriage, and protective use – 1994, 2001-2003, and 2007-2008

Firearm Injury Surveillance Data

+ Behavioral Risk Factor Surveillance System (BRFSS)

- Firearm-related questions on access, storage, defensive use – 1995-1998
- Core questions on firearm safety practices – 2001, 2002 and 2004
- Optional module on firearm safety practices available to states in 2017, 2021

State Firearm Injury Surveillance Projects (1994-1998)



Colorado



Maryland



Massachusetts



Missouri



Oklahoma



Wisconsin



Washington

Risks versus Benefits

Does having a gun increase the risk of injury?



Will a gun protect me?

Violent Death in the Home in Relation to Gun Ownership

Guns Kept in the Home	Adjusted Odds Ratio	95% Confidence Interval
Suicide risk	4.8	(2.7, 8.5)
Homicide risk	2.7	(1.6, 4.4)

Vol. 327 No. 7 SUICIDE IN THE HOME IN RELATION TO GUN OWNERSHIP — KELLERMANN ET AL. 467

SPECIAL ARTICLE

SUICIDE IN THE HOME IN RELATION TO GUN OWNERSHIP

ARTHUR L. KELLERMANN, M.D., M.P.H., FREDERICK P. RIVARA, M.D., M.P.H., GRANT SOMES, PH.D., DONALD T. REAY, M.D., JERRY FRANCISCO, M.D., JOYCE GILLENLINE BANTON, M.S., JANICE PRODZINSKI, B.A., CORINNE FLIGNER, M.D., AND BELA B. HACKMAN, M.D.

1084 THE NEW ENGLAND JOURNAL OF MEDICINE Oct. 7, 1993

SPECIAL ARTICLE

GUN OWNERSHIP AS A RISK FACTOR FOR HOMICIDE IN THE HOME

ARTHUR L. KELLERMANN, M.D., M.P.H., FREDERICK P. RIVARA, M.D., M.P.H., NORMAN B. RUSHFORTH, PH.D., JOYCE G. BANTON, M.S., DONALD T. REAY, M.D., JERRY T. FRANCISCO, M.D., ANA B. LOCCHI, PH.D., JANICE PRODZINSKI, B.A., BELA B. HACKMAN, M.D., AND GRANT SOMES, PH.D.

Sources:

Kellermann AL et al. Suicide in the home in relation to gun ownership. N Engl J Med 1992; 327:467-472.
 Kellermann AL et al. Gun ownership as a risk factor for homicide in the home. N Engl J Med 1993; 329:1064-1091.

Intramural Firearm Prevention Research

A broad range of studies using secondary data sources examining:

- epidemiology of firearm injuries
- lethality of firearm injuries
- international comparisons
- defensive gun use
- firearm storage practices

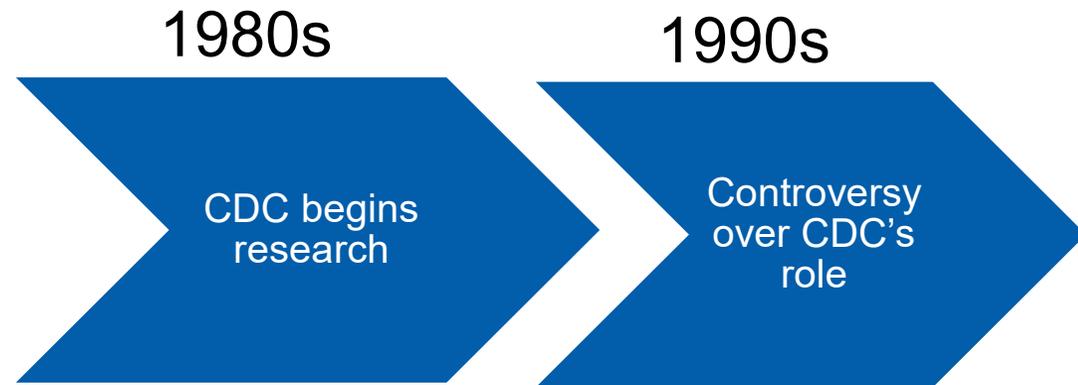


Challenges and Opportunities

CDC Research Faces Challenges

Claims made against CDC research:

- CDC is biased against personal firearms ownership
- Duplication of effort within federal government
- CDC funds are being used for political advocacy
- CDC is engaging in junk science
- CDC's leadership in injury is politically motivated



Appropriations Language

+ **Beginning in FY1997**

- “None of the funds made available for injury prevention and control at the Centers for Disease Control and Prevention, may be used to advocate or promote gun control”

+ **FY 2012 – extended to HHS**

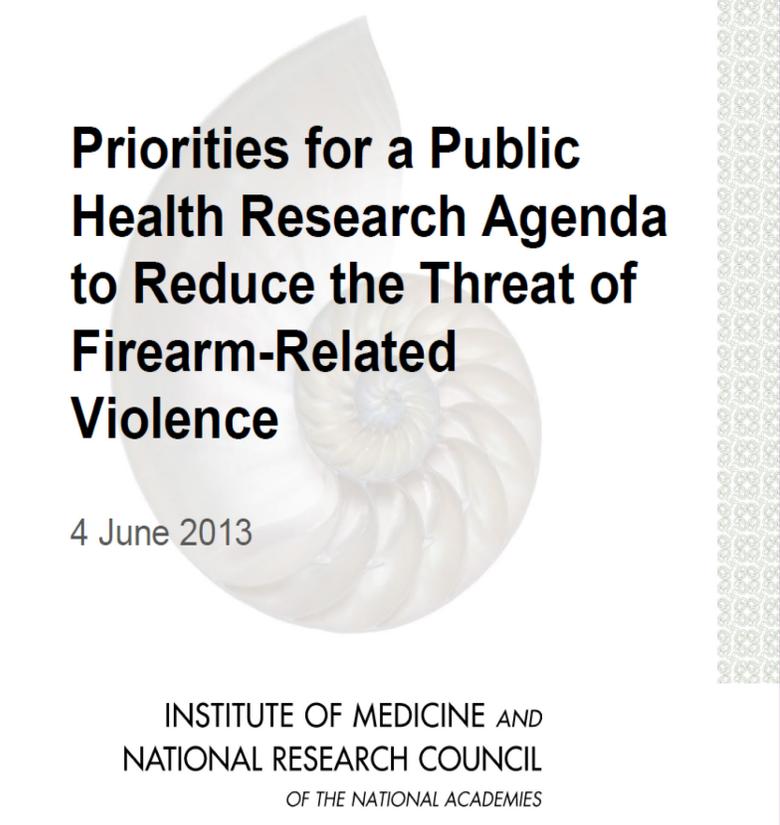
- Additional language regarding policy (503)

+ **Does not prohibit CDC or other HHS agencies from collecting data or conducting public health research**



NOW IS THE TIME

Research Priorities to Advance Prevention Efforts



Priorities for a Public Health Research Agenda to Reduce the Threat of Firearm-Related Violence

4 June 2013

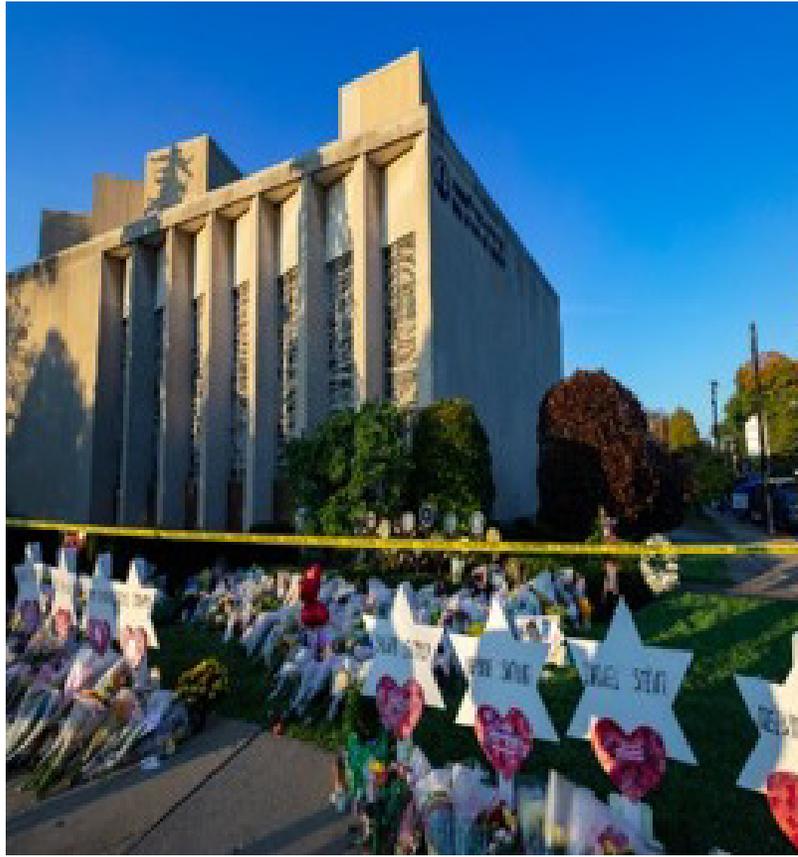
INSTITUTE OF MEDICINE *AND*
NATIONAL RESEARCH COUNCIL
OF THE NATIONAL ACADEMIES

+ **Pressing questions**

- Greatest public health impact
- Answered in short-term

+ **Research priorities**

- characteristics of gun violence
- risk and protective factors
- interventions and strategies
- technologies to reduce gun violence
- video games and other media



Need for Action Grows

Firearm-Related Violence and Injury Prevention Research Grants

Marcienne Wright, PhD
Grants Program Team Lead
Office of Science
Extramural Research Program Operations



Appropriation for Firearm Injury Research



“Conduct research on firearm injury and mortality prevention and take a comprehensive approach to studying the underlying causes and evidence-based methods of prevention of firearm injury, including crime prevention.”

FY 2020 Firearm Injury Research

R01 Investigator-Initiated Research to:

- Improve understanding of firearm injury and inform the development of interventions
- Identify effective strategies to keep individuals, families, schools, and communities safe from firearm-related injuries, deaths, and crime

Funding options:

- Two-year projects (\$350,000/year)
- Three-year projects (\$650,000/year)



Etiologic Research



- Risk and protective factors underlying gun-related attitudes, behaviors, access, and safety practices among youth and adults
- Risk and protective factors related to different forms of firearm-related injury
- Direct and indirect neighborhood-level exposures and related demographic, temporal, social, and economic risk factors

Efficacy/Effectiveness Research



- Hospital-based interventions
- Bystander approaches
- Crisis intervention approaches
- Firearm safety interventions to reduce unintentional firearm injuries among children

R01 Research Awards

RFA-CE-20-006: Research Grants to Prevent Firearm-Related Violence and Injuries (R01)

The National Center for Injury Prevention and Control, Division for Violence Prevention (DVP) is committing \$7,836,869 to fund sixteen research awards under RFA-CE-20-006: Research Grants to Prevent Firearm-Related Violence and Injuries.

- National, state, and local
- Urban and rural settings
- Range of populations
 - Children, youth, and adults
 - Active Duty/Veteran
 - Universal
 - Elevated risk

R01 Research Awards Addressing Health Disparities

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Health disparities (two awards):

- Impact of parental use of firearms on children's attitudes
- Efficacy of hospital-based intervention in reducing risky firearm behavior

Social determinants of health (one award):

- Population prevalence and consequences of youths' exposure to community gun violence

K01 Amendment

RFA-CE-20-002: Grants to Support New Investigators in Conducting Research Related to Preventing Interpersonal Violence Impacting Children and Youth (K01 Grants)

The purpose of this initiative is to provide support for an intensive, mentored career development experience in conducting violence prevention research. NCIPC supports K01 grants to help ensure the availability of an adequate number and diverse group of highly trained scientists to address critical public health research questions to prevent violence and injury.

- Examine firearm-related behavior, injuries, deaths, and crime among children and youth
- Two awards

Go to CDC's Firearm Injury Website for Further Information:

<https://www.cdc.gov/violenceprevention/firearms>

THANK YOU!

The findings and conclusions in this presentation are those of the presenter(s) and do not necessarily represent the official position of the Centers for Disease Control and Prevention/the Agency for Toxic Substances and Disease Registry.

