### Preventing Firearm Injury The Role of Evidence-Based Research

Dr. Rebecca Cunningham, The University of Michigan





#### **Diverse Perspectives, Common Goals**

To decrease injuries and deaths by firearm



















Teacher



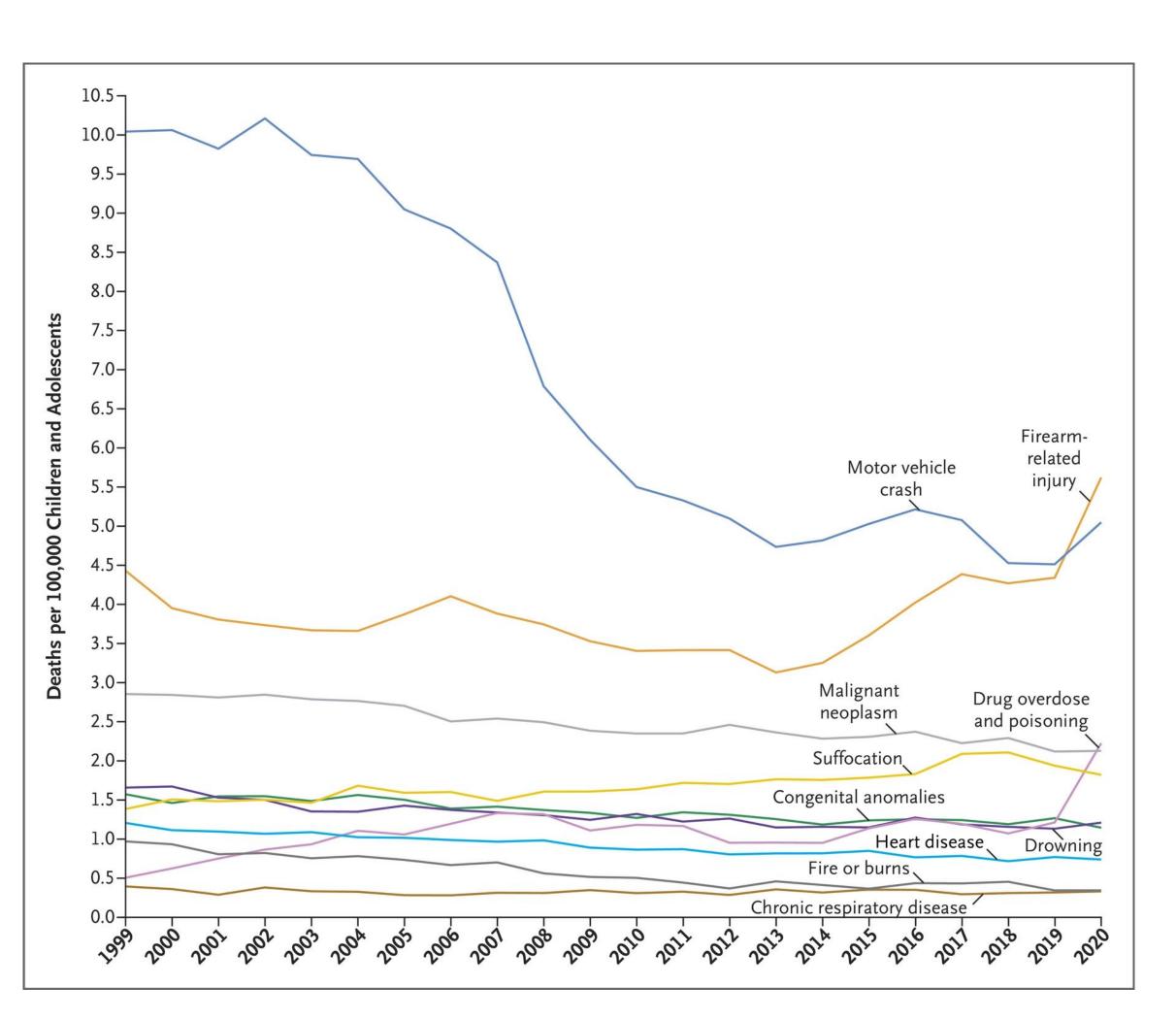


STORE

Business Owner

#### What We Know





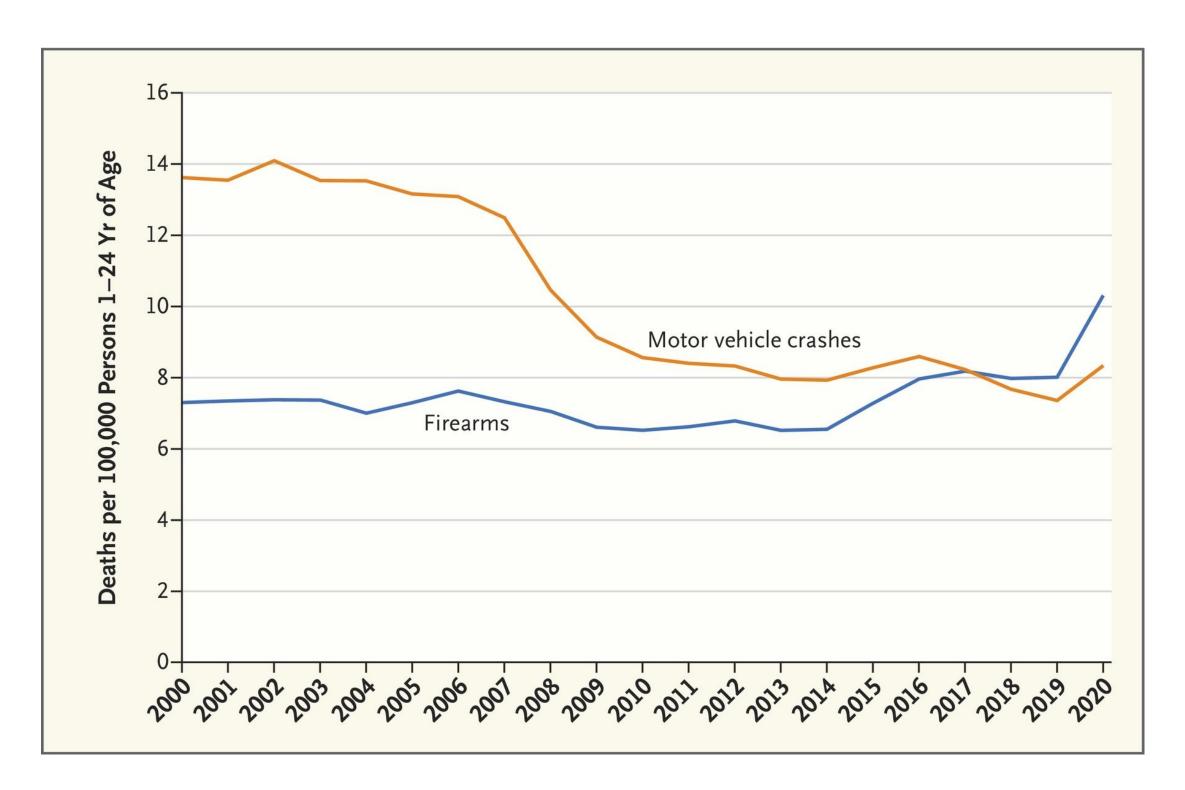
## Leading Causes of Death in Children and Adolescents in the U.S.

1999-2020

New England Journal of Medicine Goldstick, Cunningham, Carter



#### A National Public Health Problem



#### 48,830 U.S. fatalities in 2021

54% Suicide / 44% Homicide ↑ 30% since 2014 2017: Firearms > MVC

#### **Suicides**

65-70% suicides military / veterans (50% higher overall suicide rate)

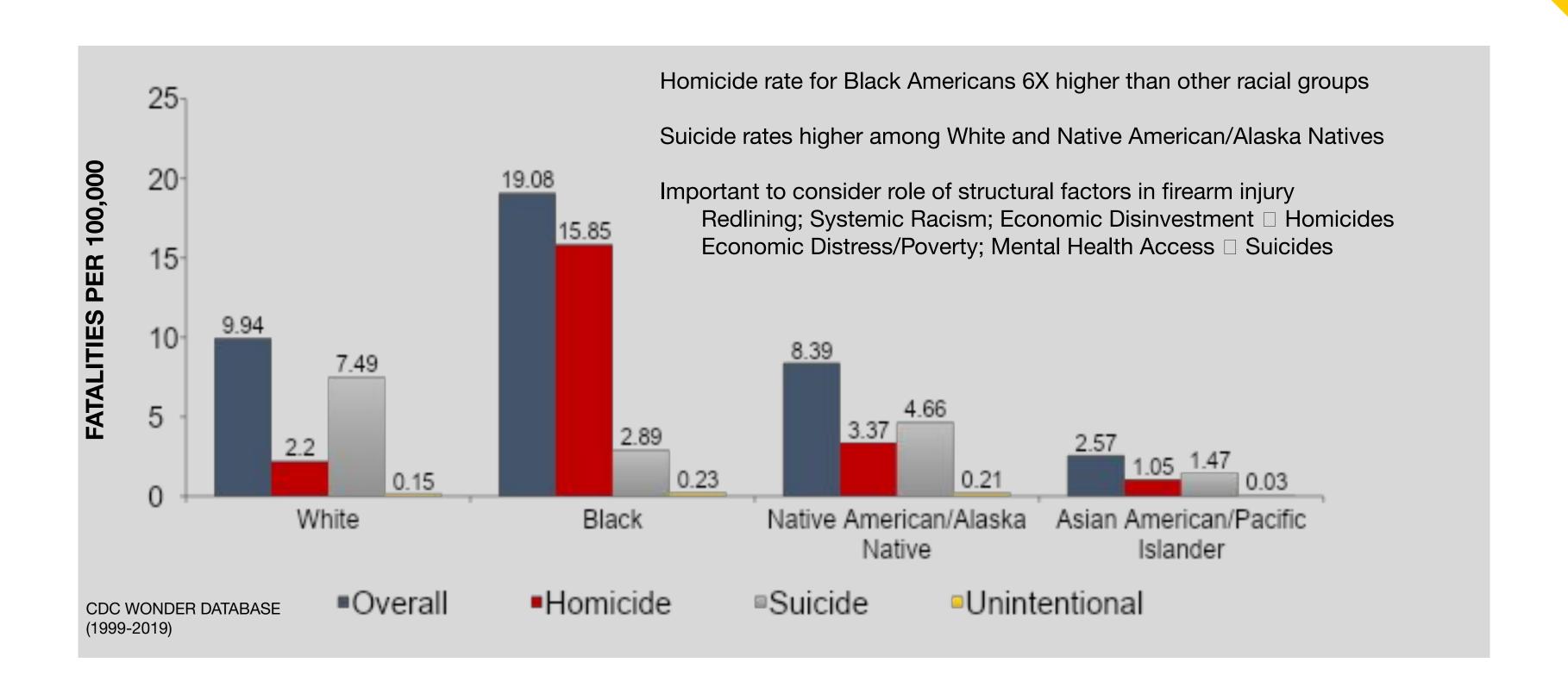
#### Mass shootings

2000 – 2009: 8.6 incidents/year (mean) 2010 – 2019: 21.9 incidents/year (mean) Increasing fatalities per incident 2021-61 incidents-52.5% increase in incidents from 2020 to 2021

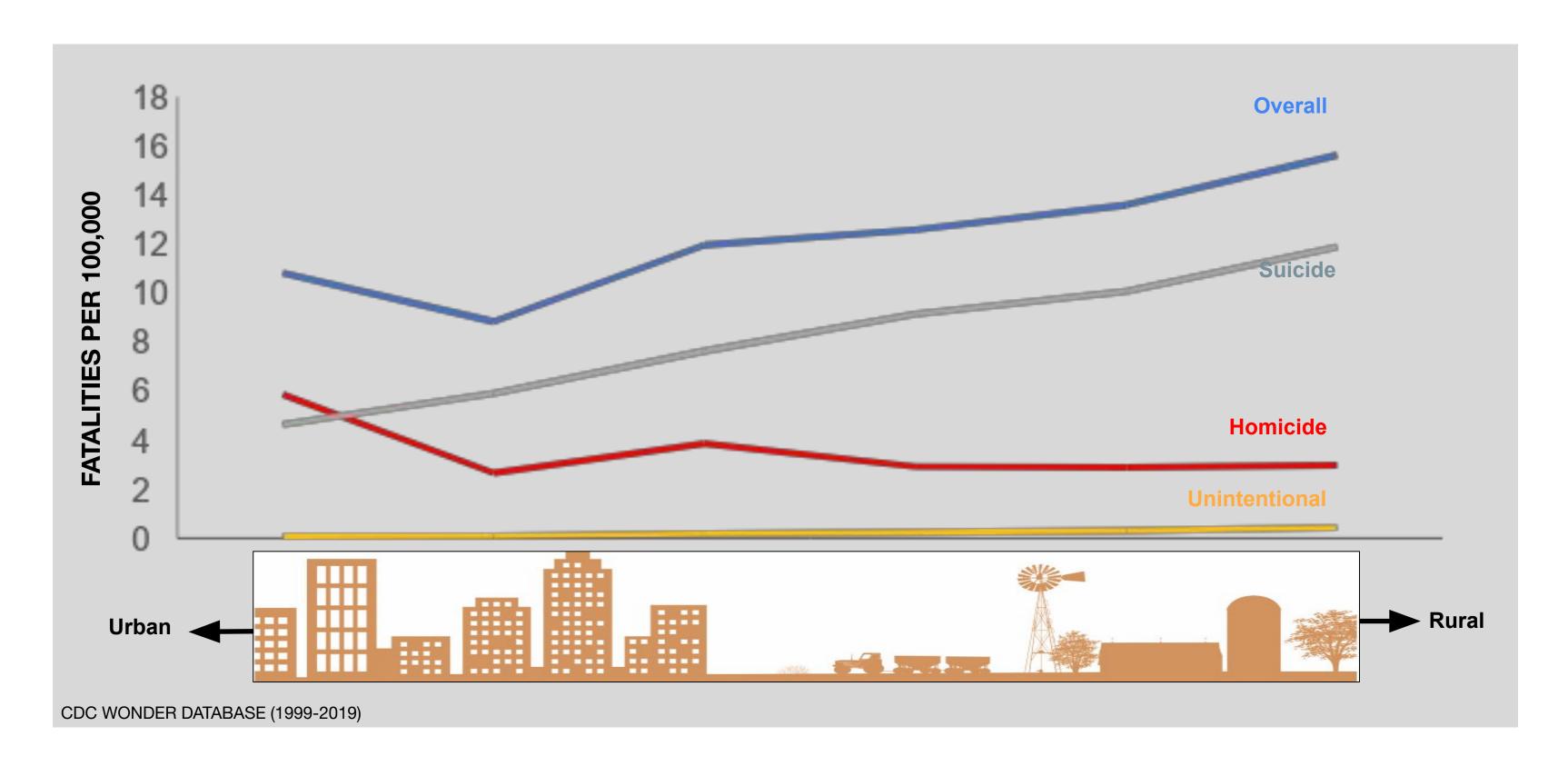
#### \$229 Billion Societal Cost/Annually

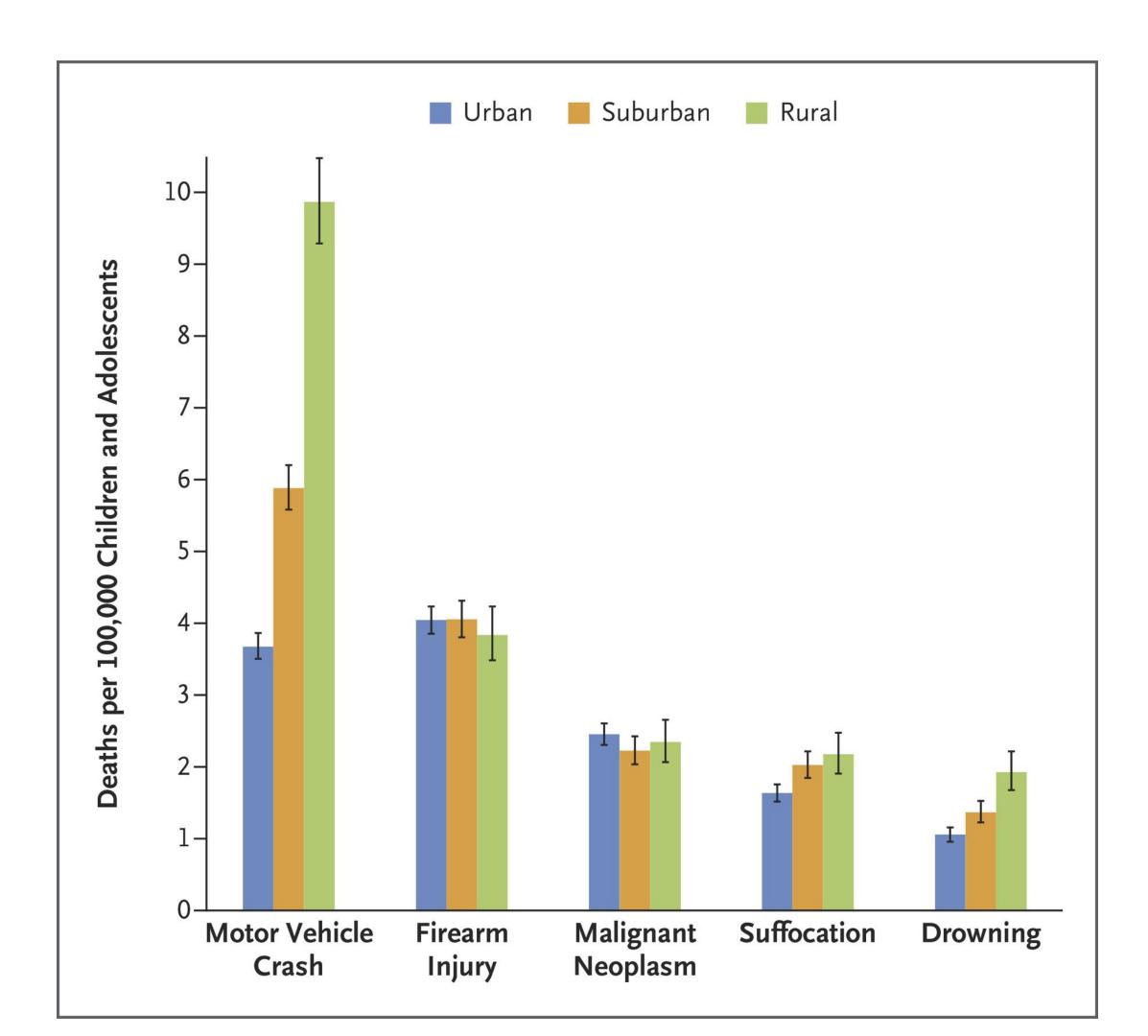
\$8.6 Billion/annually direct medical costs

#### Racial/Ethnic Disparities



#### **Rural/Urban Differences**





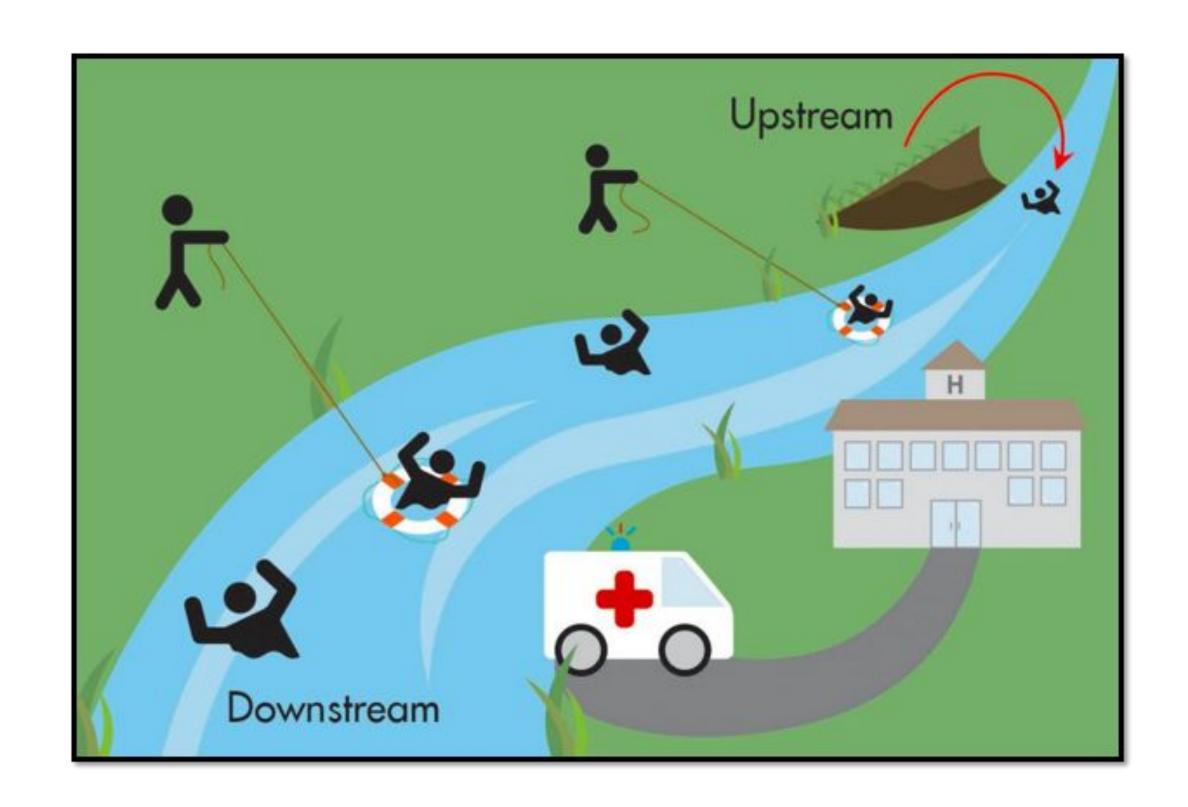
# Mortality for the Five Leading Causes of Child and Adolescent Death in 2016

According to Rurality

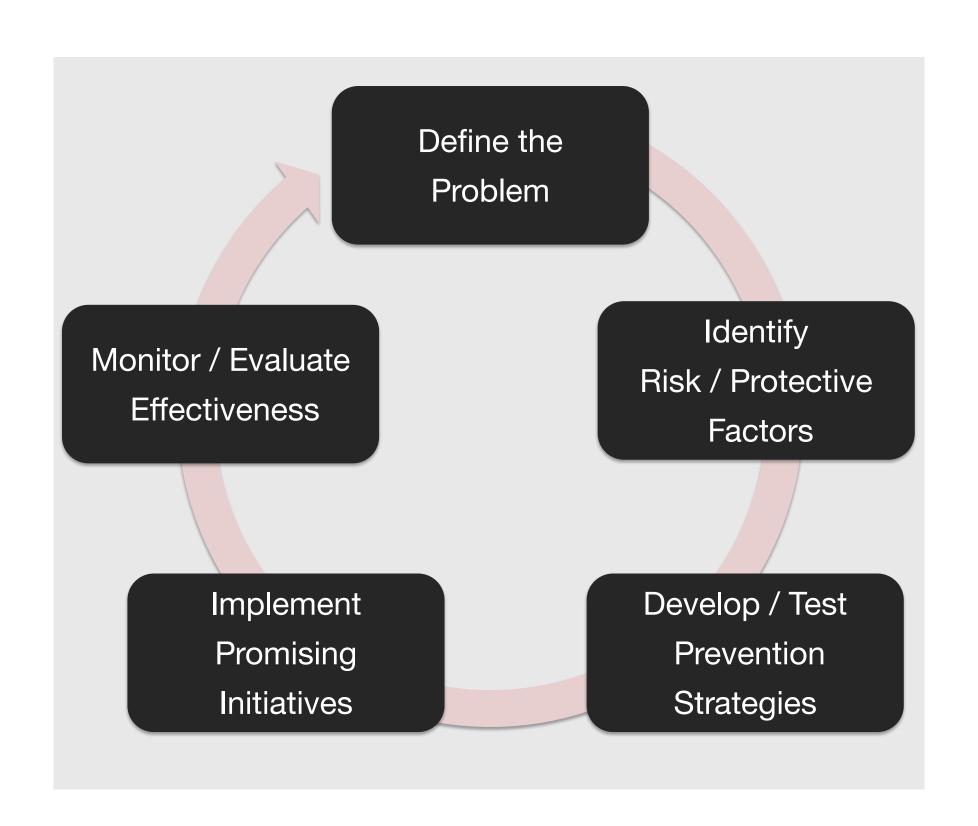
1999-2020

New England Journal of Medicine

Cunningham, Carter



#### Framework for Developing Solutions





#### Where Did We Get Off Track?

1996

Dickey
Amendment
passed

2010

Total federal research on gun deaths among children was \$135K for the entire nation

2011

Only a handful of firearm injury researchers in the U.S.

2017

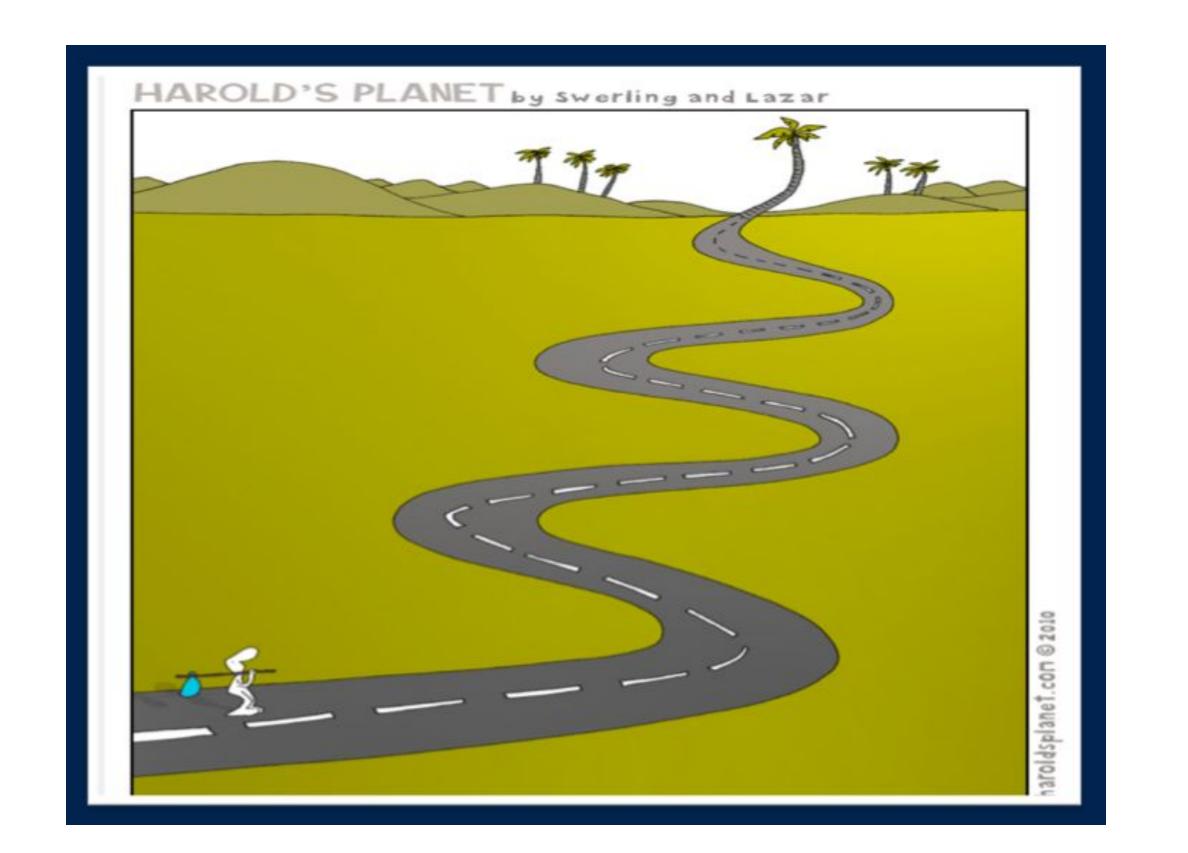
Gun deaths surpass car deaths for teenagers in many states, and most of us don't know because there are no scientists counting

## Federal Research Awards and Corresponding Peer-Reviewed Publications Focusing on Selected Causes of Mortality

Ages 1-18, 2008- 2017

Cause of mortality	Deaths	Research awards <sup>a</sup>	Funding for research (\$)	Mean funding per year (\$ millions)	Research dollars per death (\$)	Publications
Motor vehicle crash <sup>b</sup>	33,577	186ª	877,589,272	88	26,136	2,223
Firearm injury <sup>c</sup>	20,719	32	12,368,889	1	597	540
Cancer	17,111	5,168	3,345,352,670	335	195,508	50,235
Opioid overdose	3,385	234	114,354,067	11	33,782	2,193
Congenital abnormalities	9,627	759	357,597,201	36	37,145	7,716





#### History as a Guide



#### Not an "Accident"

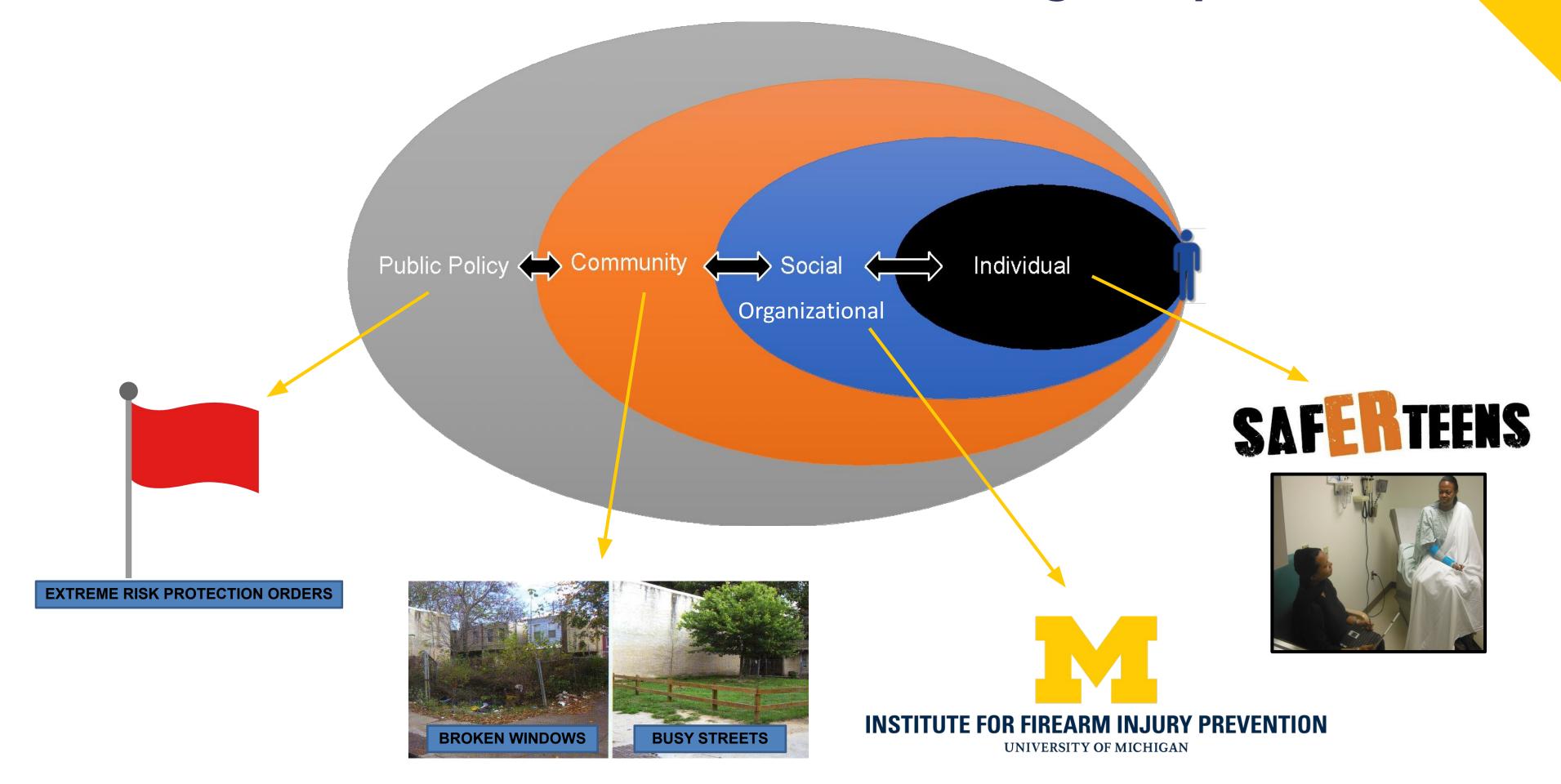
Motor Vehicle Crashes and Injury Prevention



#### An Evidence-Based Path Forward



#### Evidence-based Solutions: Socio-Ecological Spectrum



#### What Can We All Do As Individuals?

In your community, schools and workplace: the Basics

- Know the firearm facts and myths
- Know that gun deaths are preventable
- Support evidence-based prevention programs
  - Remember the DARE program?
- ·Start talking about firearm violence
- Silence solves nothing

#### Reframe: Gun Control Gun Safety

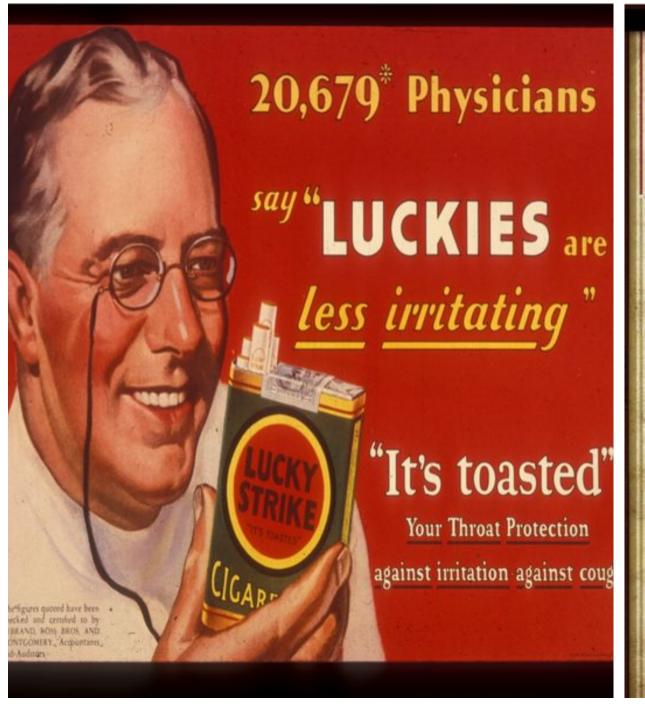
- Change the narrative
- Cars and pools are here to stay
- "The safest home is one without a pool?"
- Respect views and values on firearm ownership
- Focus on safety and harm reduction
- Meet people where they are
- Coalition Building



#### **Culture Change is Possible**

And hope is not a strategy ...

Research to Action is a strategy





#### SAVE THE DATE



November 1-3, 2023 Chicago, IL

Organized by:

The Research Society for the Prevention of Firearm-Related Harms



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SOCIAL

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