

## Firearm Injury and Mortality Prevention Research

### Background and Purpose:

The FY2020 Further Consolidated Appropriations Act (H.R. 1865) provided funding to the NIH to conduct research on firearm injury and mortality prevention and recommended that NIH take a comprehensive approach to studying the underlying causes and evidence-based methods of prevention of firearm injury, including crime prevention. This funding announcement is intended to build upon the existing NIH research portfolio and address emerging opportunities to understand and prevent firearm violence injury and mortality.

Nearly 40,000 people in the U.S. die from firearm-related deaths each year, primarily from suicide (60%) or homicide (37%), and many more have experienced non-fatal firearm injuries, both intentional and nonintentional. When firearms are involved with violent events (including suicide, intimate partner violence, child or elder maltreatment, youth and gang related violence, sexual assault), the risk for injury and mortality increases. In addition to physical injury, chronic health impacts, and potential mortality, witnessing or experiencing violent victimization increases the risk of acute and chronic mental and behavioral health conditions. Firearm injury and mortality also contribute to health disparities - among males aged 20-24, the firearm homicide rate is more than 10 times higher for black men than for white men.

Research encouraged by this FOA is consistent with a broad public health approach to firearm injury and mortality prevention. In addition to interventions delivered by healthcare providers and systems, this initiative encourages research delivered in community settings, and that integrates individual, family, interpersonal, community, and structural or system (e.g., criminal or juvenile justice, child welfare, drug courts) approaches to firearm injury and mortality prevention. As a trans-NIH initiative, this FOA is comprehensive in its consideration of risk for victimization and/or perpetration across age/developmental period, gender, health disparity population, comorbid conditions (e.g., psychiatric or substance use disorders, progressive cognitive impairment or dementia), or other populations such as pregnant and post-partum women, justice system involved, veterans, and military.

Priority research topics within the scope of this FOA may include but are not limited to:

- Improve the ability to identify individuals at risk for firearm injury and mortality, including suicide, homicide, and accidental injury and mortality, such as development/validation of screening tools/technologies, use of predictive analytics (informed by an understanding of the limits of these approaches) and development of social contagion models.
- Develop, validate, and study implementation procedures, particularly for healthcare systems (including emergency departments and primary care) to determine who should be screened and how to screen accurately and efficiently for risk of firearm injury and mortality.
- Improve understanding of developmental and contextual factors associated with firearm injury and mortality that extends individual risk assessment to include situational factors as well as multiple levels of influence.
- Understand potential factors that could be enhanced to reduce the negative effects of risk exposure (e.g., resilience).
- Develop and pilot test innovative and culturally competent (multilevel) interventions delivered online, in healthcare, and/or community settings (e.g., schools/childcare, workplaces, justice settings, social service or public health agencies, assisted living facilities) to prevent injury and mortality and revictimization/repeat injury or retaliatory firearm violence among those at risk.
- Conduct implementation research with existing evidence-based interventions to assess barriers at multiple levels and improve fidelity, adherence, and adoption of these programs.
- Study precision public health questions to determine for whom various firearm injury and mortality prevention programs are likely to be most effective.
- Assess the impact of combining public health and criminal justice approaches to reduce firearm injury and mortality. This includes the evaluation of changes in various laws and policies that may influence the impact of firearm injury and mortality prevention efforts.

### Mechanisms:

- R61 Clinical Trial Optional (400K Direct costs per year; 2 year maximum)
- NOSI: Competitive Revisions (parent R01 and R21: clinical trial required, not allowed, and Basic Experimental Studies with Humans Required). To expand the scope of existing R01 or R21 to include firearms research. One-year supplements with budget of up to 200K direct costs. Active grants not in a no-cost extension status are eligible.

### Notes:

- Research proposed in applications must be ideologically and politically unbiased.
- NIH funds may not be used, in whole or in part, to advocate or promote gun control or to support lobbying activities, as outlined in [Section 4](#) of the NIH Grants Policy Statement (GPS).
- All applications submitted under the R61 or the NOSI will be reviewed together in a SEP convened by CSR.