

# The Intersection of Structural Racism and Firearm Injury

## *Epidemiology/Loss of Life*

Cunningham RM, Walton MA, and Carter PM. “**The Major Causes of Death in Children and Adolescents in the United States.**” *New England Journal of Medicine* (December 19, 2018): 379, 2468-2474. <https://doi.org/10.1056/NEJMs1804754>.

**FACTS Summary:** Firearm injuries are the second leading cause of death for children 1-19 years, accounting for 15% of all deaths. Cunningham et al. (2018) examine the leading causes of death by age group, rurality, sex, and race, elucidating the pronounced disparities in firearm-related deaths among black youth.

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Kalesan B, Vyliparambil MA, Zuo Y, Siracuse JJ, Fagan JA, Branans CC, and Galea S. “**Cross-Sectional Study of Loss of Life Expectancy at Different Ages Related to Firearm Deaths among Black and White Americans.**” *BMJ Evidence-Based Medicine* (April 1, 2019): 24(2), 55–58. <https://doi.org/10.1136/bmjebm-2018-111103>.

**FACTS Summary:** On average, Americans lose over 2 years of life from firearm injuries. But how does this picture change when we examine these numbers by race, age and injury intent? Kalesan et al. (2019) report the loss of life for Blacks vs. Whites at ages 20, 40, 60 due to firearm assault, suicide, and all firearm-causes to illustrate the burden of firearm violence in the U.S and the significant racial disparities that remain, with important implications for prevention.

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Kalesan B, Vyliparambil MA, Bogue E, Villarreal MD, Vasan S, Fagan J, DiMaggio CJ, Stylianos S, and Galea S. “**Race and Ethnicity, Neighborhood Poverty and Pediatric Firearm Hospitalizations in the United States.**” *Annals of Epidemiology* (January 1, 2016): 26(1), 1-6.e2. <https://doi.org/10.1016/j.annepidem.2015.10.009>.

**FACTS Summary:** How do race, ethnicity and neighborhood income affect the risk of hospitalization due to firearm injuries? Kalesan et al. (2016), used a matched case-case study of children hospitalized from firearm injuries versus pedestrian motor vehicle crashes to highlight the racial disparities unique to firearm injuries, and the patterns that emerge by injury intent (e.g. homicide, unintentional injury), regardless of neighborhood income.

## *Secondary Prevention*

Jiang T, Webster JL., Robinson A, Kassam-Adams N, and Richmond TS. “**Emotional Responses to Unintentional and Intentional Traumatic Injuries among Urban Black Men: A Qualitative Study.**” *Injury* (May 1, 2018): 49(5), 983–989. <https://doi.org/10.1016/j.injury.2017.12.002>.

**FACTS Summary:** Black men in the United States experience a disproportionate burden of injuries. Yet little is understood about the emotional response to injury, or how mental health and recovery experiences vary by injury intent. Jiang et al. (2018), examined the experiences of black men who were victimized by intentional violence and the particular supports and resources needed to facilitate recovery and prevent re-traumatization.

Bor J, Venkataramani AS, Williams DR, and Tsai AC. **“Police killings and their spillover effects on the mental health of black Americans: A population-based, quasi-experimental study.”** *The Lancet* (June 21, 2018): 392(10144), 302–310. [https://doi.org/10.1016/S0140-6736\(18\)31130-9](https://doi.org/10.1016/S0140-6736(18)31130-9)

**FACTS Summary:** How does exposure to police killings of unarmed black Americans affect the self-reported mental health of American adults? Bor et al. (2018) used novel data on police killings to estimate these effects for black adults and other adults in the U.S, with important implications for mitigating the adverse mental health effects of these killings.

### ***Policy/Legislation***

Esposti MD, Wiebe DJ, Gravel J, and Humphreys DK. **“Increasing Adolescent Firearm Homicides and Racial Disparities Following Florida’s ‘Stand Your Ground’ Self-Defense Law.”** *Injury Prevention* (April 1, 2020): 26(2), 187–190. <https://doi.org/10.1136/injuryprev-2019-043530>.

**FACTS Summary:** Florida’s controversial Stand Your Ground Legislation (2005) enabled the discretionary use of deadly force for self-protection. Prior to the law’s passing, Black adolescents in Florida already experienced significant racial disparities for firearm injuries, making up more than 60% of all firearm homicides. Esposti et al. (2020) used an interrupted time series design over a 16 year period to understand the effect of Stand Your Ground on firearm homicide and racial disparities among blacks and whites.

### ***Racial Segregation & Firearm Violence***

Knopov A, Rothman EF, Cronin SW, Franklin L, Cansever A, Potter F, Mesic A, and et al. **“The Role of Racial Residential Segregation in Black-White Disparities in Firearm Homicide at the State Level in the United States, 1991-2015.”** *Journal of the National Medical Association*. (February 2019): 111(1), 62–75. <https://doi.org/10.1016/j.jnma.2018.06.002>.

**FACTS Summary:** Racial residential segregation is a persistent problem in the United States. But is racial segregation associated with firearm violence? Knopov et al. (2019), explored how the degree of racial segregation among blacks and whites was associated with racial disparities in firearm violence across 32 states over a more than 20 year period.

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Jacoby SF, Dong B, Beard JH, Wiebe DJ, and Morrison CN. **“The Enduring Impact of Historical and Structural Racism on Urban Violence in Philadelphia.”** *Social Science & Medicine, The role of Racism in Health Inequalities: Integrating Approaches from Across Disciplines* (February 1, 2018): 199, 87–95. <https://doi.org/10.1016/j.socscimed.2017.05.038>.

**FACTS Summary:** How do historic, place-based discriminatory practices like red-lining influence present-day firearm injury rates? Jacoby et al. (2018) illustrate the enduring effects of red-lining practices captured in the 1937 Home Owners Loan Corporation (HOLC) map of Philadelphia on contemporary firearm injury rates across the city.

Krieger N, Feldman JM, Waterman PD, Chen JT, Coull BA, and Hemenway D. “**Local Residential Segregation Matters: Stronger Association of Census Tract Compared to Conventional City-Level Measures with Fatal and Non-Fatal Assaults (Total and Firearm Related), Using the Index of Concentration at the Extremes (ICE) for Racial, Economic, and Racialized Economic Segregation, Massachusetts (US), 1995–2010.**” *Journal of Urban Health* (April 1, 2017): 94(2), 244–58. <https://doi.org/10.1007/s11524-016-0116-z>.

**FACTS Summary:** Racial segregation is a known predictor of violence and firearm injury. Yet existing measures of segregation have primarily focused on larger geographic areas like cities and regions, which may not provide an accurate picture of the effects of racial segregation on firearm violence. Krieger et al. (2017) tested more local measures of segregation (e.g. cities, census tracts) as a predictor of fatal and non-fatal assaults. Her findings suggest that the level of measurement matters for accurately reporting the effects of racial segregation on violence, including firearm injury.

### ***Risk and Protective Factors***

Lee DB, Hsieh H-F, Stoddard SA, Heinze JE, Carter PM, Goldstick JE, Cunningham MC, Cunningham RM, and Zimmerman MA. “**Longitudinal Pathway from Violence Exposure to Firearm Carriage among Adolescents: The Role of Future Expectation.**” *Journal of Adolescence* (June 1, 2020): 81, 101–113. <https://doi.org/10.1016/j.adolescence.2020.03.009>.

**FACTS Summary:** Hope for a positive future and academic success is a key protective factor for youth, yet exposure to violence may disrupt the sense that a positive future is possible and increase risk factors for firearm injury. Lee et al. (2020) explored how the amount and timing of exposure to violence influenced youths’ expectations for the future and firearm carrying behaviors by 9<sup>th</sup> grade.

### ***Policing***

Hemenway D, Berrigan J, Azrael D, Barber C, and Miller M. “**Fatal Police Shootings of Civilians, by Rurality**” *Preventive Medicine* (May 1, 2020): 134, 106046. <https://doi.org/10.1016/j.ypmed.2020.106046>.

**FACTS Summary:** Firearm homicides in the U.S. are disproportionately concentrated in urban areas. But what about fatal police shootings? Hemenway et al. (2020) examined data from nearly 1,000 fatal police shootings across urban, suburban, and rural areas, stratified by race (Black, White and Hispanic victims). Their results reveal some surprising trends and persistent racial disparities.

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Sadler MS, Correll J, Park B, and Judd CM. “**The World Is Not Black and White: Racial Bias in the Decision to Shoot in a Multiethnic Context.**” *Journal of Social Issues* (June 25, 2012): 68(2), 286–313. <https://doi.org/10.1111/j.1540-4560.2012.01749.x>.

**FACTS Summary:** How do implicit biases influence the decision to shoot for police officers? Sadler et al. (2012), highlight the role of attitudes, stereotypes, and the overestimation of community violent crime in the speed and accuracy of the decision to shoot or de-escalate when presented with potentially threatening Latino, White, Black, or Asian individuals in a video game simulation.

Wertz J, Azrael D, Berrigan J, Barber C, Nelson E, Hemenway D, Salhi C, and Miller, M. **“A Typology of Civilians Shot and Killed by US Police: A Latent Class Analysis of Firearm Legal Intervention Homicide in the 2014–2015 National Violent Death Reporting System.”** *Journal of Urban Health* (March 24, 2020): 97, 317–328.  
<https://doi.org/10.1007/s11524-020-00430-0>.

**FACTS Summary:** What can we learn from the more than 600 lethal police shootings of civilians captured in the National Violent Death Reporting System from 2014–2015? Wertz et al. (2020) examined incidents by event and victim characteristics to identify latent classes of incidents with common features. The results reveal the disproportionate killing of black victims across all event classes, and further disparities in the amount of threat black victims posed to police before they were killed, as compared to whites.

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Paoline III EA, Gau J, and Terrill WW. **“Race and the Police Use of Force Encounter in the United States.”** *The British Journal of Criminology* (January 2018): 58(1), 54–74.  
<https://doi.org/10.1093/bjc/azw089>.

**FACTS Summary:** How does the race of police officers and suspects influence police use of force? Paoline et al. (2018) used data from 8 police agencies across the U.S to examine the relationship between the race of police officer and suspect and the amount and severity of police use of force, with implications for police hiring.

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Edwards F, Lee H, and Esposito M. **“Risk of being killed by police use of force in the United States by age, race–ethnicity, and sex.”** *Proceedings of the National Academy of Sciences of the United States of America* (August 5, 2019): 116(34), 16793–16798.  
<https://doi.org/10.1073/pnas.1821204116>.

**FACTS Summary:** How does the risk of being killed by police use of force differ by age, race-ethnicity and sex? Edwards et al. (2019), use novel data sources to shed light on the lifetime and age-specific risks for Asian, Latino, Black, and White men and women.