

Roundtable on the Future of Justice Policy

Examining Violence in the United States: Implications for Justice Policy and Practice

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Public Health Approaches to Reducing Community Gun Violence

Daniel W. Webster, ScD, MPH¹ - Johns Hopkins Center for Gun Policy and Research

Gun Violence and Its Impact on Public Safety in Cities

Gun violence is the number one public safety priority for many U.S. cities. It extracts extraordinary human and economic costs: firearms were used in 14,542 homicides committed in the United States in 2017, accounting for 75% of all homicides.² There were 318,000 nonfatal crimes of violence committed with firearms reported to the police,³ and many more gun crimes go unreported. Firearm homicides are the third leading cause of death for persons ages 25 to 34 years and the leading cause of death for Black males ages 15-34 years.⁴ One study estimated that costs related to medical treatment, disability, lost productivity, and criminal justice responses totaled \$229 billion annually.⁵ The impacts and costs of gun violence go well beyond the people most directly involved in it. Fear of gun violence and the things we do to respond to that fear result in enormous costs to individuals and local governments. Economists at the Urban Institute found that surges in gun violence slowed neighborhood home values by 4 percent, and decreased credit scores and home ownership in affected communities. A single gun homicide in a census tract in a year resulted in decreases in home values the following year of \$22,000 in Minneapolis and \$24,621 in Oakland, and decreases in home ownership by 3 percent in Washington, DC and 1 percent in Baton Rouge.⁶

PUBLIC HEALTH APPROACHES FOR REDUCING GUN VIOLENCE

Decker and colleagues offer a useful framework for addressing violence from a public health lens that includes efforts to address policies that create environments that are conducive to violence or that

¹ Daniel Webster is Bloomberg Professor of American Health and director of the Johns Hopkins Center for Gun Policy and Research at the Johns Hopkins Bloomberg School of Public Health.

² National Center for Injury Control and Prevention. Web-based Injury Statistics Query Reporting System: Fatal Injury Data, 1999-2017." Centers for Disease Control and Prevention. <https://www.cdc.gov/injury/wisqars/fatal.html>

³ Federal Bureau of Investigation. Crime in the United States, 2017. Table 15. Washington, DC: US Department of Justice. <https://ucr.fbi.gov/crime-in-the-u.s/2017/crime-in-the-u.s.-2017/tables/table-15>

⁴ National Center for Injury Prevention and Control. Web-based Injury Statistics Query and Reporting System: Ten Leading Cause of Death, 2017. Centers for Disease Control and Prevention, U.S. Department of Health and Humans Services. Accessed July 29, 2019. <https://www.cdc.gov/injury/wisqars/LeadingCauses.html>

⁵ Follman M, Lurie J, Lee J, West J. The True Cost of Gun Violence in America. *Mother Jones Magazine* 2015 April. <https://www.motherjones.com/politics/2015/04/true-cost-of-gun-violence-in-america/>

⁶ Irwin-Erickson Y, Lynch M, Gurriss A, Mohr E, Bai B. Gun Violence Affects the Economic Health of Communities. The Urban Institute, Washington, DC, June 2017. https://www.urban.org/sites/default/files/publication/90666/eigv_brief_3.pdf

impede social conditions that constrain violence.⁷ Because of wide availability of firearms and alcohol as well as blight characterized by many vacant buildings and pervasive signs of physical decay and social disorder, public health scholars and advocates have sought to reduce community violence through policies that impact these conditions. Ineffective and unjust policing practices harm black and brown individuals and communities not only with respect to over-incarceration and police violence, but also by creating environments where violence too often goes unchecked. I contend that efforts to empower impacted communities to successfully advocate for needed reforms in policing and prosecution to promote more focused and balanced approaches to violence prevention – highly focused criminal justice deterrence coupled with services and supports for individuals most at risk for gun violence – is wholly in keeping with the public health tradition of improving the health and safety of communities by promoting systemic changes to correct prior injustices.^{8,9} Successful public health models for violence prevention also seek to support those at greatest risk of violence by addressing factors that elevate risk of violence.

Firearm Policies that Reduce Gun Violence

Most U.S. firearm policies are designed to reduce the availability of firearms to individuals who have been convicted of serious crimes or who courts have deemed dangerous through the issuance of restraining orders or involuntary commitments for mental health treatment. The type of gun policy that is most strongly and consistently associated with reductions in homicides is mandatory licensing of handgun purchasers.^{10,11,12} Handgun purchaser licensing typically involves more robust systems for screening out prohibited purchasers and studies indicate that the laws deter the diversion of guns for criminal use.^{13,14,15} Connecticut's adoption of

⁷ Decker MR, Wilcox HC, Holliday CN, Webster DW. An Integrated Public Health Approach to Interpersonal Violence and Suicide Prevention and Response. *Public Health Rep.* 2018 Nov/Dec;133(1_suppl):65S-79S. doi: 10.1177/0033354918800019. PMID: 30426878

⁸ Amnesty International. *In the Line of Fire: Human Rights and the U.S. Gun Violence Crisis.* 2018. https://www.amnestyusa.org/wp-content/uploads/2018/09/Gun-Report-Full_10.pdf

⁹ Israel BA, Schulz AJ, Estrada-Martinez L, Zenk SN, Viruell-Fuentes E, Villarruel AM, Stokes C. Engaging Urban Residents in Assessing Neighborhood Environments and their Implications for Health. *Journal of Urban Health* 2006; 523-539.

¹⁰ Crifasi CK, McCourt AD, Booty MD, Webster DW. Policies to Prevent Illegal Acquisition of Firearms: Impacts on Diversions of Gun for Criminal Use, Violence, and Suicide. *Current Epidemiology Reports* 2019; 6:238–247.

¹¹ Crifasi CK, Merrill-Francis M, McCourt A, Vernick JS, Wintemute GJ, Webster DW. Association between Firearm Laws and Homicide in Large, Urban U.S. Counties. *Journal of Urban Health* 2018; 95(3):383-390. doi: 10.1007/s11524-018-0273-3.

¹² Crifasi CK, McCourt AD, Webster DW. The Impact of Handgun Purchaser Licensing on Gun Violence. Johns Hopkins Center for Gun Policy and Research, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, 2019.

https://www.jhsph.edu/research/centers-and-institutes/johns-hopkins-center-for-gun-policy-and-research/_docs/impact-of-handgun-purchaser-licensing.pdf

¹³ Webster DW, Vernick JS, Bulzacchelli MT. Effects of State-level Firearm Seller Accountability Policies on Firearms Trafficking. *Journal of Urban Health* 2009; 86:525-537. doi: 10.1007/s11524-009-9351-x.

¹⁴ Webster D, Vernick J, McGinty E, Alcorn T. Preventing the Diversion of Guns to Criminals through Effective Firearm Sales Laws. In: Webster D, Vernick J, eds. *Reducing Gun Violence in America: Informing Policy with Evidence and Analysis.* Baltimore, MD: The Johns Hopkins University Press; 2013:109-122.

¹⁵ Crifasi CK, Choksey S, Buggs S, Webster DW. The Initial Impact of Maryland's Firearm Safety Act of 2013 on the Supply of Crime Guns in Baltimore. *The Russel Sage Foundation Journal for the Social Sciences* 2017; 3(5):128-140. <https://www.jstor.org/stable/10.7758/rsf.2017.3.5.06>

handgun purchaser licensing and Missouri's repeal of its licensing law resulted in substantial changes in firearm homicide rates relative to forecasted counterfactuals.^{16,17}

Restrictive licensing laws for the concealed carry of firearms, typically requiring applicants to have special reasons to justify the need to carry a firearm and no evidence of violence or law-breaking by the applicant, is also protective against violent crime including homicides with firearms. The evidence of the protective effects comes from studies of laws that remove restrictions on the issuance of licenses to carry concealed guns showing subsequent increases in violent crime relative to counterfactuals.^{18,19,10}

Promoting Effective and Equitable Prevention of Gun Violence

In his new book, *Bleeding Out*,²⁰ Thomas Abt provides sage advice for tackling urban gun violence with evidence-based solutions and the keys to the most efficacious interventions. Abt underscores that approaches to urban gun violence should be focused, balanced, and fair. Focus is necessary because gun violence is highly concentrated among a very small percentage of the population and highly concentrated spatially even within neighborhoods with high rates of shootings. Balance refers to the use of social services and job opportunities (the carrot) along with effective enforcement that can deter gun violence (the stick). Fairness is important not only as a matter of justice, but research shows that compliance with laws and cooperation with law enforcement is highly dependent upon whether communities view police and prosecutors as legitimate and fair.

Abt's emphasis on strategies being highly-focused, fair, and balanced should be applied to the enforcement of laws restricting gun possession and carrying. Enforcement of laws against carrying concealed firearms without a license and possession by a prohibited person pose challenges for balancing the desire to prevent the harms associated with unchecked concealed gun carrying – loss of life, serious injuries, and psychological trauma – against the harms resulting from often racially biased stop and search practices, arrests, and incarceration for illegal gun possession. The frequency and manner with which stop and search is used by police determines whether the tactic results in fewer shootings or promotes racially biased policing that threatens the safety of black and brown people directly and indirectly through reducing residents' trust in the police. Broadscale stop and search practices by the New York Police Department were found to be unconstitutional²¹ and detrimental to police-community relations while having questionable impact on gun violence.²² But in cities with much higher rates of gun violence, there is some evidence that arrests for illegal

¹⁶ Rudolph KE, Stuart EA, Vernick JS, Webster DW. Association between Connecticut's Permit-to-purchase Handgun Law and Homicides. *American Journal of Public Health*, 105(8):e49-54. doi:10.2105/AJPH.2015.302703.

¹⁷ Hasegawa RB, Webster DW, Small DS. Bracketing in the Comparative Interrupted Time-Series Design to Address Concerns about History Interacting with Group: Evaluating Missouri's Handgun Purchaser Law. *Epidemiology* 2019 May; 30(3):371-379. doi: 10.1097/EDE.0000000000000989.

¹⁸ Donohue JJ, Aneja A, Weber KD. Right-to-Carry Laws and Violent Crime: A Comprehensive Assessment Using Panel Data and a State-Level Synthetic Control Analysis. *Journal of Empirical Legal Studies* 2019; 16:198-247.

¹⁹ Siegel M, Xuan Z, Ross CS, Galea S, Kalesan B, Fleegler E, Goss KA. Easiness of Legal Access to Concealed Firearm Permits and Homicide Rates in the United States. *American Journal of Public Health*. 2017 Oct 19:e1-e7. doi: 10.2105/AJPH.2017.30405

²⁰ Abt T. *Bleeding Out: The Devastating Consequences of Urban Violence – and a Bold New Plan for Peace in the Streets*. New York: Basic Books, 2019.

²¹ *Floyd v. City of New York*, 2013.

²² Rosenfeld R, Fornango R. The Impact of Police Stops on Precinct Robbery and Burglary Rates in New York City, 2003-2010. *Justice Quarterly*. 2014; 31(1):96-122.

gun possession can reduce shootings.^{23,24} Evaluations of specialized police units focused on deterring illegal gun possession in hot spots for shootings in cities have consistently shown that such efforts significantly reduce shootings, at least in the short term.^{25,26,27} Units that focused more on the small number of high-risk individuals than on high-risk places generally were most effective. To minimize harms and achieve public safety benefits of proactive gun law enforcement, it must be highly focused, not only with respect to place (“hot spots”), but with respect to individuals for whom there is good evidence indicating illegal gun possession by an individual with a history of violence.

Given the potential for abuse in proactive gun law enforcement, police must have strong systems of accountability to ensure that practices are not only legal, but practices minimize harms and are acceptable to community members. Officers must be properly trained and incentivized to only make clearly justifiable stops and searches. Systems of accountability should be in place to identify and deter unconstitutional or otherwise unprofessional practices that can harm those who are subjected to the searches. Law enforcement leaders should track officers’ patterns for stopping and searching individuals, complaints, cases dismissed due to illegal searches, and whether evidence from gun-related arrests leads to convictions or guilty pleas. Aggregate data on these metrics should be shared with the public to promote accountability. Finally, there is great need to develop and evaluate alternatives to incarceration for those who are arrested for illegal gun possession programs that offer social supports to reduce subsequent gun offending and have components similar to some of the successful interventions described below.

Abt’s ingredients of successful gun violence prevention can be seen in Oakland, California’s successful efforts to reduce gun violence in a manner that promotes safety and justice. A cornerstone of Oakland’s strategy is its Ceasefire program that applies an approach known as Group Violence Intervention (GVI) -- championed by the National Network for Safer Communities (NNSC) -- that has an impressive track record of success.²⁸ GVI begins with an extensive data collection process by law enforcement to identify the small number of individuals and groups within a community that are most at risk for involvement in gun violence, and to track ongoing conflicts and other activities involving these individuals that are contributing to the violence. In group meetings known as “call ins” with these high-risk individuals, law enforcement officials, community members, and social service providers communicate that gun violence must stop. While early iterations of the program model focused on law enforcement leaders’ warning individuals about the prospect of harsh sanctions gun crime, the current program model focuses on “the moral voice of the community” to persuade those engaged in gun violence to turn away from it and fairness in the application of the law. City officials make promises to provide immediate assistance to those individuals who need help

²³ Wyant B, Taylor R, Ratcliffe J, Wood J. Deterrence, Firearm Arrests, and Subsequent Shootings: A Micro-level Spatio-temporal Analysis. *Justice Quarterly*. 2012; 29:524-545.

²⁴ Cassel P, Fowles R. What Caused the 2016 Chicago Homicide Spike? An Empirical Examination of the 'ACLU Effect' and the Role of Stop and Frisks in Preventing Gun Violence *University of Illinois Law Review*. 2018 University of Utah College of Law Research Paper No. 252.

²⁵ Koper C, Mayo-Wilson E. Police Strategies to Reduce Illegal Possession and Carrying of Firearms: Effects on Gun Crime. *Campbell Systematic Reviews*. 2012; 8.
<https://www.campbellcollaboration.org/library/police-strategies-for-reducing-illegal-firearms.html>

²⁶ Wells W, Zhang Y, Zhao J. The Effects of Gun Possession Arrests Made by a Proactive Police Patrol Unit. *Policing: An International Journal of Police Strategies and Management*. 2012; 35:253-271.

²⁷ Webster D, Crifasi C, Buggs S. *Estimating the Effects of Law Enforcement and Public Health Interventions Intended to Reduce Gun Violence in Baltimore*. Center for Gun Policy and Research, Johns Hopkins Bloomberg School of Public Health, 2018.

²⁸ <https://nnscommunities.org/strategies/group-violence-intervention>

turning away from violence (e.g., intensive mentoring, employment and training services, housing, and drug treatment). Street outreach workers engage those who are the focus of the intervention to support them in their efforts to turn away from violence. Law enforcement leaders promise to bring to justice those who perpetrate gun violence, dedicating a special unit to carry out this task. Importantly, the GVI approach that is promoted through the NNSC and has been embraced by Oakland also involves considerable engagement by police with the impacted communities, reconciliation for past injustices, and a commitment to police reforms demanded by the communities. This generally results in fewer arrests for minor infractions and greater police focus on gun violence and the individuals perpetrating it.

The legitimacy of the effort to promote positive change is evidenced by swift and relevant assistance to address key determinants of violence, including lack of jobs and insecurity about immediate needs for housing and food. The outreach and case management challenges are considerable but manageable under a city agency responsible for violence prevention within a mayor's office or health department. Researchers have estimated that Oakland's Ceasefire has contributed to a citywide 31 percent drop in gun homicides and a 20 percent drop in nonfatal shootings.²⁹ These findings are consistent with those from other studies of GVIs across a broad range of cities.³⁰

The New York City's Mayor's Office for Gun Violence Prevention (MOGVP) builds upon the Cure Violence model that attempts to prevent gun violence without the direct involvement of law enforcement. Violence interrupters and outreach workers who are credible messengers are hired by community-based organizations from impacted communities to build trust with those at highest risk, mediate disputes, promote nonviolent alternatives to conflicts, and facilitate connections to social services and job opportunities. New York's MOGVP established the Crisis Management System to ensure that necessary resources and services are delivered to high-risk individuals in a timely and supportive manner. Research that contrasted trends in gun violence in NYC's intervention neighborhoods with those of similar comparison neighborhoods indicates that New York's program has reduced gun violence in the neighborhoods where it has been implemented.³¹ The program was also associated with a significant reduction in the degree to which youth report that gun violence is justified under various scenarios.³² Cure Violence interventions have also yielded some success in reducing gun violence in selected neighborhoods in Chicago³³ and in Philadelphia.³⁴ In Baltimore,³⁵ program effects on gun violence have been inconsistent with most sites failing to reduce gun violence.

²⁹ <https://www.eastbayexpress.com/SevenDays/archives/2018/08/22/study-finds-significant-reduction-in-gun-homicides-in-oakland-via-ceasefire-strategy>

³⁰ Braga A, Weisburd D, Turchan B. Focused Deterrence Strategies and Crime Control. *Criminology & Public Policy*. 2018; 17(1):205-250.

³¹ Delgado SA, Alsabahi L, Wolffe K, Alexander N, Cobar P, Butts JA. *The Effects of Cure Violence in the South Bronx and East New York, Brooklyn*. New York: John Jay College; 2017.

³² Delgado S, Alsabahi L, Butts JA. *Young Men in Neighborhoods with Cure Violence Programs Adopt Attitudes Less Supportive of Violence*. New York: Research and Evaluation Center, John Jay School of Criminal Justice, CUNY; 2017.

³³ Henry DB, Knoblauch S, R. S. *The Effect of Intensive CeaseFire Intervention on Crime in Four Chicago Police Beats: Quantitative Assessment*. Chicago, IL: University of Chicago; 2015.

³⁴ Roman CG, Klein H, Wolff KT, Bellamy MD, Reeves K. Philadelphia's CeaseFire: Results from an Impact Evaluation. Temple University, January 2017. https://drive.google.com/file/d/16zQwyTiNe_IW32xEA9-WjCarw2dACs9/view

³⁵ Webster D, Crifasi C, Buggs S. *Estimating the Effects of Law Enforcement and Public Health Interventions Intended to Reduce Gun Violence in Baltimore*. Center for Gun Policy and Research, Johns Hopkins Bloomberg School of Public Health, 2018.

Other promising models for community gun violence prevention include Los Angeles' Gang Reduction and Youth Development (GRYD) program that invests in efforts to promote alternatives to gangs and established a system for coordinated and timely responses to prevent retaliatory gang violence by street outreach peacemakers and law enforcement. GRYD's Incident Response system has greatly reduced retaliatory shootings involving gang members.³⁶ Implementation of Operation Peacemaker Fellowship, (now known as Advance Peace), a highly-targeted program that invests in the health, well-being, and personal development of those involved in violence including modest stipends to participants who meet program objectives has contributed to a 55% decrease in gun violence in Richmond, California.³⁷

Regulating Alcohol Sales to Reduce Gun Violence

Alcohol abuse is an important contributor to interpersonal violence^{38,39,40} and specifically violence involving firearms.⁴¹ One study found that an individual's history of alcohol-related offenses predicted future crime committed with firearms as well as prior violent offending.⁴² Studies have consistently shown that the density of alcohol outlets is positively associated with violent crime after controlling for other neighborhood conditions.^{43,44,45} Thus alcohol abuse is an appropriate target for interventions to reduce gun violence. There is a robust research literature on the effects of alcohol-focused interventions on violence; unfortunately, these studies rarely isolate violent incidents involving firearms.

³⁶ Brantingham PJ, Sundback N, Yan B, Chan K. GRYD Intervention Incident Response & Gang Crime Evaluation 2017 Report. California State University Los Angeles. 2017.

<https://static1.squarespace.com/static/55b673c0e4b0cf84699bdfb/t/5a1865639140b7c306d73f65/1511548270788/GRYD+Intervention+Incident+Respose+2017.pdf>

³⁷ Matthey EC, Farkas K, Rudolph KE, Zimmerman S, Barragan M, Goin DE, Ahern J. Study of Unilateral Retinoblastoma With and Without Histopathologic High-Risk Features and the Role of Adjuvant Chemotherapy: A Children's Oncology Group Study. *Am J Public Health*. 2019 Sept :e1-e7. doi: 10.2105/AJPH.2019.305288.

³⁸ Choenni V, Hammink A, van de Mheen D. Association Between Substance Use and the Perpetration of Family Violence in Industrialized Countries: A Systematic Review. *Trauma Violence Abuse*. 2017; 18:37-50.

³⁹ Sharps PW, Campbell JC, Campbell D, Gary F, Webster D. The Role of Alcohol Use in Intimate Partner Femicide. *American Journal on Addictions*, 2001; 10:122-135.

⁴⁰ Swanson JW (1993). Alcohol Abuse, Mental Disorder, and Violent Behavior: An Epidemiologic Inquiry. *Alcohol Health and Research World*, 17(2), 123-132.

⁴¹ Branas CC, Han S, Wiebe DJ. Alcohol Use and Firearm Violence. *Epidemiologic Reviews*. 2016; 38:32-45.

⁴² Wintemute GJ, Wright MA, Castillo-Carniglia A, Shev A, Cerda M. Firearms, Alcohol and Crime: Convictions for Driving under the Influence (DUI) and Other Alcohol-related Crimes and Risk for Future Criminal Activity among Authorized Purchasers of Handguns. *Injury Prevention* 2017 Jan 30. pii: injuryprev-2016-042181. doi: 10.1136/injuryprev-2016-042181.

⁴³ Trangenstein PJ, Curriero FC, Webster D, Jennings JM, Latkin C, Eck R, Jernigan DH. Outlet Type, Access to Alcohol, and Violent Crime. *Alcoholism: Clinical and Experimental Research* 2018 Nov; 42(11):2234-2245. doi: 10.1111/acer.13880. Epub 2018 Sep 26. PMID: 30256427

⁴⁴ Franklin FA II, Pan WK, Webster DW, LaVeist TA. Alcohol Outlets and Violent Crime in the Nation's Capital. *Western Journal of Emergency Medicine* 2010; 11:283-290.

⁴⁵ Jennings JM, Milam AJ, Greiner A, Furr-Holden CDM, Curriero FC, Thornton RJ. Neighborhood Alcohol Outlets and the Association with Violent Crime in One Mid-Atlantic City: The Implications for Zoning Policy. *Journal of Urban Health* 2013; doi:10.1007/s11524-013-9821-z

Local restrictions on the number and density of alcohol outlets in neighborhoods⁴⁶ as well as enhanced regulatory oversight of alcohol outlets⁴⁷ have been shown to reduce violence. Shootings sometimes occur in response to altercations at bars and nightclubs. Restrictions on alcohol serving hours have been shown to reduce violence,⁴⁸ including lethal gun violence.^{49 50} Increased taxes on alcohol reduce violence⁵¹ but must be substantial to achieve moderate protective effects on violence.⁵² There are, of course, considerable political challenges to enacting tighter regulation over alcohol sales, yet the public health benefits of these actions extend beyond violence into fewer injuries and fatalities due to motor vehicle injuries. Indeed, a community intervention based on successful advocacy for changing alcohol laws and enhanced enforcement of alcohol laws that was primarily aimed at preventing deaths and injuries from drunk driving also had a strong protective effect in reducing injuries from assaults.⁵³

Environmental Changes to Curb Gun Violence

Gun violence in cities is most common in areas with concentrated disadvantage, blight (vacant buildings and lots) and other signs of physical and social disorder. The connections between physical disorder, social disorder and gun violence are both direct and indirect. Vacant buildings and lots filled with trash and overgrown with weeds are used to stash illegal guns and drugs. More indirectly, physical and social disorder send signals that illegal behavior is tolerated and instills fear that prevents positive engagement to protect against violence.

Recent research using random assignment of dwellings and lots to treatment and control conditions has demonstrated that so-called “cleaning and greening” of lots in low-income urban areas and making modest investments to maintain the revamped lots leads to a variety of public health benefits, including reducing violent crime and gun violence without displacement of the crime.^{54 55 56 57} Philadelphia began enforcing a

⁴⁶ De Vocht F, Heron J, Campbell R, et al. Testing the Impact of Local Alcohol Licencing Policies on Reported Crime Rates in England. *Journal of Epidemiology and Community Health*. 2017; 71(2):137-145.

⁴⁷ Miller P, Curtis A, Palmer D, et al. Changes in Injury-related Hospital Emergency Department Presentations Associated with the Imposition of Regulatory Versus Voluntary Licensing Conditions on Licensed Venues in Two Cities. *Drug Alcohol Rev*. May 2014; 33(3):314-322.

⁴⁸ Rossow I, Norstrom T. The Impact of Small Changes in Bar Closing Hours on Violence. The Norwegian Experience from 18 Cities. *Addiction*. Mar 2012; 107(3):530-537.

⁴⁹ Duailibi S, Ponicki W, Grube J, Pinsky I, Laranjeira R, Raw M. The Effect of Restricting Opening Hours on Alcohol-related Violence. *American Journal of Public Health*. Dec 2007; 97(12):2276-2280.

⁵⁰ Sanchez AI, Villaveces A, Krafty RT, et al. Policies for Alcohol Restriction and Their Association with Interpersonal Violence: A Time-series Analysis of Homicides in Cali, Colombia. *International Journal of Epidemiology*. 2011; 40:1037-1046.

⁵¹ Cook PJ, Durrance CP. The Virtuous Tax: Lifesaving and Crime-prevention Effects of the 1991 Federal Alcohol-tax Increase. *Journal of Health Economics*. 2013; 32(1):261-267.

⁵² Wagenaar AC, Tobler AL, Komro KA. Effects of Alcohol Tax and Price Policies on Morbidity and Mortality: A Systematic Review. *American Journal of Public Health*. Nov 2010; 100(11):2270-2278.

⁵³ Holder HD, Gruenewald PJ, Ponicki WR, et al. Effect of Community-based Interventions on High-risk Drinking and Alcohol-related Injuries. *Jama*. Nov 8 2000; 284(18):2341-2347.

⁵⁴ Kondo MC, Andreyeva E, South EC, MacDonald JM, Branas CC. Neighborhood Interventions to Reduce Violence. *Annual Reviews in Public Health* 2018; 39:253-271. doi:10.1146/annurev-publhealth-040617-014600

⁵⁵ Moyer R, MacDonald JM, Ridgeway G, Branas CC. Effect of Remediating Blighted Vacant Land on Shootings: A Citywide Cluster Randomized Trial. *Am J Public Health*. 2018 Nov 29:e1-e5. doi: 10.2105/AJPH.2018.304752.

⁵⁶ Branas CC, South E, Kondo MC, Hohl BC, Bourgois P, Wiebe DJ, MacDonald JM. Citywide Cluster Randomized Trial to Restore Blighted Vacant Land and its Effects on Violence, Crime, and Fear. *Proceedings of the National Academy of Sciences U S A*. 2018 Mar 20; 115(12):2946-2951. doi: 10.1073/pnas.1718503115. Epub 2018 Feb 26.

“Doors and Windows Ordinance” in 2011 that required property owners of abandoned buildings to install working doors and windows in all structural openings. Noncompliant owners could face significant fines. Researchers estimated the impact of this ordinance enforcement by comparing crime trends around buildings that were remediated as a result of the ordinance (n = 676 or 29% of cited buildings) and randomly-matched control buildings that were not remediated (n = 676) or permitted for renovation (n = 964). Building remediations were associated with a 39% reduction in assaults with guns and a 13% reduction in non-firearm assaults.⁵⁸ This same study also assessed the effects of cleaning and greening vacant lots and estimated that those activities were associated with a 4.5% reduction in gun violence. Because the costs of gun violence to taxpayers and to society at large are substantial, these interventions in Philadelphia had impressive return on investment. Researchers estimated that over a 46-month follow-up period, each dollar devoted to remediating an abandoned building yielded a \$20 return to taxpayers due to lower rates of violence and a \$256 savings from a societal perspective. For every \$1 spent on vacant lot cleaning and greening, over a 46-month follow-up there were \$77 returns to taxpayers and \$968 returns from a societal perspective. Importantly, these blight abatement interventions have been shown to have benefits beyond reducing gun violence,⁵⁹ including increased perceptions of safety, greater use of outdoor space for socializing, and reduced stress.

Summary

Successful public health efforts are data-driven, focused on unhealthy or unsafe environments as well as risky behaviors, and often intentional about reforming systems that are unjust and harm public safety. While laws and their enforcement can be important to advance public health and safety, including reducing gun violence, minimizing harms of exposure to the criminal justice system is also important. Research demonstrates that appropriately targeted efforts that invest in and support individuals and neighborhoods at greatest risk for involvement in gun violence can be successful in saving lives and reaping impressive return on investment.

⁵⁷ Garvin EC, Cannuscio CC, Branas CC. Greening Vacant Lots to Reduce Violent Crime: A Randomised Controlled Trial. *Injury Prevention*. 2013 Jun; 19(3):198-203. doi: 10.1136/injuryprev-2012-040439. Epub 2012 Aug 7.

⁵⁸ Branas CC, Kondo MC, Murphy SM, South EC, Polsky D, MacDonald JM. Urban Blight Remediation as a Cost-Beneficial Solution to Firearm Violence. *Am J Public Health*. 2016; 106(12):2158-2164.

⁵⁹ South EC, Hohl BC, Kondo MC, et al. Effect of Greening Vacant Land on Mental Health of Community-dwelling Adults. A Cluster Randomized Trial. *JAMA Network Open*. 2018; e180298; doi:10.1001/jamanetworkopen.2018.0298.