Introduction

Communities Partnering 4 Peace (CP4P) is an innovative consortium of Chicago community violence intervention (CVI) organizations coordinating their activities towards a common goal: reducing gunshot victimization among individuals who are most likely to be involved in gun violence, neighborhood disputes, and group conflicts. CP4P launched in 2017 after a severe uptick in homicides in 2016. Since then, the collaboration has expanded to include 14 organizations covering 27 different community areas.

CP4P’s model relies on street outreach workers to strengthen relationships throughout their respective communities and serve as front-line violence preventionists who mediate gang and interpersonal conflicts, monitor emergent activities and areas for community violence, and mentor those at highest risk of violence involvement. CP4P partner organizations also provide participants with direct services including legal advocacy, employment support, educational opportunities, housing assistance, and trauma-informed behavioral health counseling.

Although CVI initiatives such as CP4P direct much of their programmatic efforts toward individuals, CVI organizations also intend to impact neighborhood levels of gun violence by penetrating social networks and group conflicts most involved [1], [2]. The need for both individual and neighborhood-level violence reduction efforts only increased during the startling surge in gun violence that emerged alongside the COVID-19 pandemic. CP4P’s innovative model was developed prior to these dual pandemics and was able to quickly respond and adapt its existing infrastructure in response to increased demand [3].

This research brief summarizes the results of a quasi-experimental evaluation of CP4P’s impact on neighborhood-level rates of homicides and nonfatal shootings from the start of the program to December 2021.¹

Corners (The Center for Neighborhood Engaged Research and Science)² has served as CP4P’s research partner since 2018 and co-designed a research strategy that captures the efficacy of CP4P’s efforts to combat community violence in target areas while also offering a generalizable framework for modeling the impact of similar CVI programs at the neighborhood level.

¹ These results will be updated to include 2022 in the coming months.
² Corners originated as the Northwestern Neighborhood & Network Initiative (N3), which was established in 2018 by Faculty Director Dr. Andrew Papachristos. The research center, while maintaining its core ethos and activities, rebranded in 2022 to reflect its distinctive “neighborhood science” approach.
Methodology

Incidents of gun violence, like the programs established to mitigate them, do not arise randomly. Evaluating such non-randomness generally requires a quasi-experimental research design. Our evaluation relies on the quasi-experimental “synthetic control method” to generate controls using statistical modeling of real communities in Chicago that do not receive the “treatment” of a program like CP4P.

In this synthetic modeling approach, non-CP4P candidate areas are weighted based on their similarity to the demographic, economic, and violence characteristics of CP4P target areas. When summed, these weights create a synthetic control unit for each treated CP4P unit, allowing us to conduct a comparative interrupted time series (CITS) and estimate the causal effect of CP4P neighborhood interventions on our outcome of interest—rates of non-fatal shootings and homicides—across time.3

The CITS uses data starting from January 2014 to establish a considerable pre-intervention period. The results highlighted in this brief include the statistically significant immediate (“level”) and longer-term trend (“slope”) differences in quarterly rates of shooting incidents between CP4P and control areas.

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3 Demographic and economic data are taken from the 2017 American Community Survey (five-year estimates) at the Census-tract-level and translated to CP4P target areas using area-weighted interpolation. These include age and gender composition, education, employment, poverty and public assistance, race and ethnicity, household structure, housing rental levels, and residential turnover. Homicide and non-fatal shooting data are obtained from the Chicago Police Department.
Findings

Over the course of the evaluation period (January 2014 – December 2021), 30% of the CP4P areas had significant favorable changes in non-fatal shooting and homicide rates relative to their comparison areas after the introduction of CP4P programming. These statistically significant results include three areas estimated to have prevented 355 non-fatal shooting victimizations and homicides from the start of CP4P through the end of the study period relative to their controls (i.e., they experienced significant “slope” changes) and one area estimated to have prevented 28 non-fatal shooting victimizations and homicides in the quarter immediately following the start of CP4P relative to its control (i.e., a significant “level” change).4

In total, this represents an estimated 383 non-fatal shooting victimizations and homicides that were potentially prevented by CP4P’s efforts (see figure below).

Of course, not every neighborhood had statistically significant immediate or longer-term changes in post-intervention non-fatal shooting and homicide rates. This is not to say that CP4P did not have an impact in these areas, but we cannot statistically attribute any differences between target and control areas, favorable or otherwise, to the efforts of CP4P.

Importantly, none of the CP4P areas experienced a significant unfavorable change in incident rates relative to their comparison areas—i.e., none of the CP4P areas experienced statistically significant increases in shootings relative to their comparison areas.

4 Since only one CP4P area had a statistically significant immediate (“level”) change as a result of programming, that singular area’s results are included in the inset box in Figure 1.
% confidence intervals for the pre-post intervention slope changes for CP4P areas relative to controls, demonstrating the effect of CP4P in each area (anonymized and represented by letters along the x-axis). The mean pre-post slope changes of CP4P areas that were statistically significant relative to their synthetic controls are visualized in green. Across 18 post-intervention quarters and adjusted for the areas' populations, these three areas are estimated to have had 355 fewer homicides and non-fatal victimizations than they would have had without the CP4P program. Coupled with the statistically significant immediate intervention effect observed in a fourth area resulting in an estimated 28 fewer homicides and non-fatal victimizations (seen by the inset box in the top left of the figure), the overall impact of CP4P programming is approximately 383 saved lives and victimizations.

**Discussion**

Efforts like CP4P offer important opportunities to reduce gun violence while building collaborations and much needed CVI infrastructure across cities. Quasi-experimental research and evaluation designs such as the one presented here are often difficult to conduct given the non-random nature of gun violence and the way that CVI programs operate. Still, research can—and should—adapt alongside the evolving field of community violence intervention to ensure that important and practical questions can be answered with the utmost scientific rigor.

Our results found evidence of favorable treatment effects in 30% of CP4P treatment areas, indicating that rates of homicide and non-fatal shooting victimizations experienced either larger decreases or smaller increases as compared to their synthetically created controls. In total, we estimate that this
resulted in 383 fewer non-fatal shootings and homicides from the start of the program until December of 2021, thus averting considerable human death, injury, and suffering, as well as concomitant financial expenditures for administrative, police, and medical efforts. Importantly, such programmatic success occurred during the COVID-19 pandemic and a national increase in gun homicide. While future research and programmatic efforts will need to parse out the different intervention strategies most related to impact, these findings present an encouraging outlook for the viability of CVI programs like CP4P.

References


The Center for Neighborhood Engaged Research & Science (Corners) is housed at Northwestern University’s Institute for Policy Research. We develop transformative research projects with community and civic partners aimed at improving health and safety for more equitable neighborhoods.

2040 Sheridan Road
Evanston IL 60208
1 (847) 491-7471
Cornersresearch.org