









The Opportunity

In 2020, America's homicide rate rose by nearly 30%, the largest one-year increase in its history. The overwhelming majority of these were gun deaths. Communities of color bear the brunt of gun violence — more young Black men die of gun homicide than the next nine leading causes combined.¹ To address this public health crisis, cities need solutions that reduce gun violence without the harms of overly aggressive or unfocused law enforcement.

One potential solution is to provide people most at risk of gun violence—those most likely to shoot or be shot—with services to help keep themselves and others safe. Recent evidence shows that helping people learn new skills and norms to avoid conflict, including how to slow down and reflect on their own thinking in moments of crisis, can help them avoid violence. Other evidence suggests that combining such cognitive-behavioral interventions with a job or financial support may help solidify or even magnify these important changes in thinking and behavior.² However, there is far less research on how best to find and engage people at high enough risk of gun violence for there to be scope to reduce shootings. Nor is there evidence on whether cognitive-behavioral programming and a job reduces the deadliest forms of violence: shootings and homicides.

Here we describe the results of a large-scale randomized trial of the **Rapid Employment and Development Initiative (READI) Chicago**. The study shows that it is possible to find and engage men at extremely high risk of gun violence. It also shows that READI's combination of cognitive-behavioral programming and a job, while not lowering all forms of violence, may reduce shooting and homicide arrests. For men referred to the program by community outreach workers, READI clearly and substantially reduces arrests and victimizations for shootings and homicides. Overall, READI's benefits far outweigh its costs.

READI's Approach

READI starts by trying to identify men at the highest risk of gun violence involvement in five of Chicago's highest violence neighborhoods. READI engages these men through relentless street outreach efforts, then offers them two main sources of support:

- 1. An 18-month subsidized, supported job, including opportunities for increased responsibilities and wages over time. The job provides the chance to participate in the formal labor market as well as a place for participants to build and reinforce new skills and norms. It is also an incentive to engage in the second main program element: paid cognitive-behavioral programming.
- 2. Cognitive-behavioral programming, including group sessions that aim to help participants transition into new jobs and identify alternative choices that still work within the context of their lives. The curriculum teaches participants how to recognize patterns of thinking that can have fatal consequences. It also helps them build and strengthen skills to make different decisions and adapt their behavior to a legal workplace and identity.³

In addition to these two main components, READI also provides a secure place to spend time. This may further reduce violence by keeping participants away from dangerous encounters. READI also offers referrals to a range of legal, mental health, and substance use treatment services to ensure men can productively participate in the program given the many barriers they face.

The Study

Researchers at the <u>University of Chicago Crime Lab</u>, the <u>University of Chicago Inclusive Economy Lab</u>, the <u>University of Michigan</u>, and <u>Cornell University</u>

conducted a randomized controlled trial (RCT) of READI. This evaluation focused on READI's impact on participants' involvement in serious violence. This RCT is one of the largest and most rigorous studies to date of a community violence intervention (CVI) program in the United States.⁴

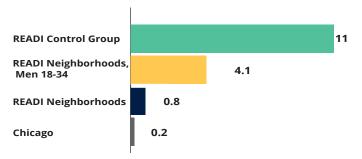
Almost 2,500 men in Chicago were identified as being at very high risk of gun violence involvement using three different referral mechanisms: a predictive algorithm, community outreach workers, and staff at prisons and the local jail. There were not enough program spots for all candidates to be served, so a lottery was used to determine who was offered READI versus services that are normally available. Since the only difference, on average, between the men with and without a READI offer is the READI offer, comparing the outcomes of men in both groups isolates the additional impact of READI.

Who READI Serves

READI successfully identified men at extremely high risk of gun violence involvement. Prior to being referred to READI, 35% of men in the study had previously been shot, and 98% had previously been arrested, with an average of 17 prior arrests. In the 20 months after being identified for the study, the men not offered READI were shot and killed 52 times more often than the average Chicagoan—a rate of 11 shootings and homicides per 100 people—and 2.7 times more often than even other young men in the neighborhoods where READI operates (Figure 1).

Figure 1: READI Identified Men at Tragically High Risk of Being Shot or Killed

Shooting and homicide victimizations per 100 people over 20 months

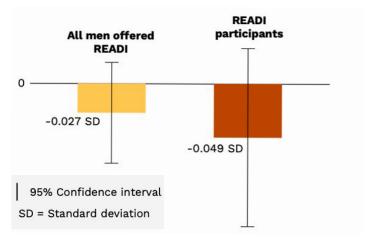


READI participants stay engaged. Despite facing considerable barriers to participating, 55% of men offered READI attended at least one day of programming. These participants are highly engaged: those who remain active in READI worked 75% of the weeks available to them during in-person programming.⁵

Findings After 20 Months

READI participants were not substantially less likely to be involved in our combined measure of serious violence. Prior to analyzing any results, the researchers committed to assess READI's impact on an index combining three outcomes, weighing each equally: (1) shooting and homicide victimizations; (2) shooting and homicide arrests; and (3) other serious violent-crime arrests.⁶ In the 20 months after they were referred to READI, participants were slightly less involved in serious violence on this measure than their peers in the control group,⁷ but the difference is not statistically significant (Figure 2).

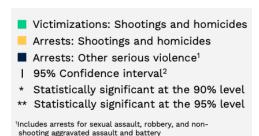
Figure 2: Impact on Serious Violence Involvement (Primary Outcome), 20 Months



READI may have reduced the most severe and socially costly form of violence: shootings and homicides (Figure 3). For every 100 READI participants, there were 2.2 fewer shooting and homicide arrests, a 65% reduction. This decline in one of the three index components is statistically significant on its own, but not once we adjust for the greater risk of a "false positive" result that comes from estimating impacts on each of the three index components (p=0.13). As for the other two components, READI participants were also victims of shooting and homicide 12% less often than their peers, but were arrested for other serious violent crimes 11% more often. Neither of these impacts is statistically significant. Together, these estimates suggest READI may affect different forms of violence involvement in different ways.

READI dramatically reduced serious violence involvement among the men referred by community outreach organizations (Figure 4). Participants could enter READI by referral from outreach partners, correctional institutions, or a data-driven algorithm. Those referred by READI's outreach partners saw large reductions in both arrests (79%, or 3.3 fewer per 100 participants) and victimizations (43%, or 5.6 fewer per 100 participants) for shootings and homicides. Both differences are statistically significant even after adjusting to reduce the risk of false positive results.

Altogether, when weighing acts of crime and violence involving READI participants by the costs they impose on society, READI's benefits far exceed the program's costs (Figure 5). Relative to their peers, we estimate that READI reduces harms to society from involvement in crime and violence by between \$182,000 to \$916,000 per



²Adjusted for multiple comparisons to control the family-

wise error rate

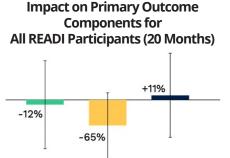
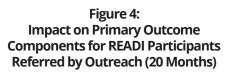
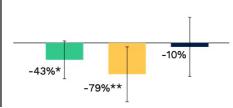


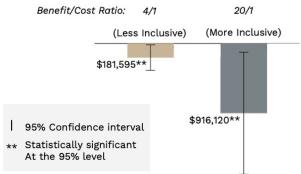
Figure 3:





participant, depending on whether we use more or less inclusive estimates of the social costs of crime and violence.⁸ This represents a statistically significant reduction of almost 50%. These reductions imply that READI's benefit-cost ratio from reducing crime and violence alone—not counting any other benefits to READI communities or participants—is at least 4 to 1, and perhaps as much as 20 to 1.

Figure 5: Social Savings per Participant



Combining referral by local experts with predictive analytics seems particularly promising for identifying men who could benefit from READI. Among those referred to READI by community outreach organizations, the largest declines in violence involvement were among the men also identified as highest risk by the prediction algorithm. Both referral mechanisms found men at high risk of gun violence. But the combination of humans (expertise and connections) and algorithms (predictions) was most successful at also identifying the men who were most responsive to READI.

The combination of cognitive-behavioral programming and employment remains a promising approach to reduce involvement in shootings and homicides for men at the highest risk of gun violence. Given how little evidence we have on effective gun violence prevention, and given the high costs this violence imposes on the most vulnerable communities, this study's results provide a clear rationale to continue refining and rigorously studying READI's approach.

Future work on the READI research study will incorporate additional data sources, as well as seek to understand the impact of the program after 40 months. The results of these efforts will continue to be released on an ongoing basis. Because no single study should determine policy; because the COVID-19 pandemic reduced the study's

sample size and disrupted programming; and because the results are mixed across different violence measures and different groups of participants, future research exploring replications and refinements to the program is needed.

For more information about the READI study, please contact Sarah Rand at **srand@uchicago.edu**.

Endnotes

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- Non-Hispanic Black men aged 15-24 (CDC WISQARS).
- 2 Heller et al. (2017); Heller (2014); Blattman et al. (2017); Redcross et al. (2016).
- The READI program model has evolved over time. While virtually all men in the study sample were offered the 18-month version of READI described above, on July 1, 2020, Heartland Alliance implemented changes to READI, most notably, shortening the program length to 12 months and front-loading the cognitive behavioral programming prior to job placements.
- 4 For more information on the study design and results, please see **Bhatt et al. (2023)**, forthcoming in the *Quarterly Journal of Economics*.
 - The study period ran from 2017 through 2021, so some programming was shifted online or temporarily suspended during the COVID-19 pandemic.
 - A more detailed discussion of the pre-specified research plan can be found at: https://osf.io/ap8fj/. Note that the study's primary outcome, analysis of its associated components and social costs, and adjustments for multiple testing are all pre-specified analyses. The last component includes arrests for the other violent offenses historically included in "Part I" of the Uniform Crime Reporting program (UCR): aggravated assault and aggravated battery (excluding homicide, manslaughter, and non-fatal shootings), robbery, and criminal sexual assault.
 - Outcomes are first compared between men with and without a READI offer, two groups that are similar by design in an RCT (the "intent-to-treat," or ITT, effects). To estimate impacts on READI participants (the "treatment-on-the-treated," or TOT, effects), the researchers use statistical methods called instrumental variables that rely on the fact that READI offers were randomly assigned. The estimated TOT effects are approximately equivalent to adjusting the estimated ITT effects by the share of men with an offer who took up READI (55%).
 - This range of estimates reflects both differences in the dollar values assigned to different acts of crime and violence, and differences in assumptions about the relationship between actual crime and what is reported in police records.