









# **The Opportunity**

Gun violence is surging in the United States. 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 both the brunt of gun violence — more young Black men die of gun homicide than the next nine leading causes combined<sup>1</sup> — and society's main response to it: aggressive policing and long prison sentences. To address this public health crisis, cities need solutions that reduce gun violence without exacerbating the harms of the criminal legal system.

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 cognitive-behavioral interventions can significantly reduce violence involvement. Evidence also shows that these effects may be magnified when combined with a job.<sup>2</sup> Yet there is no rigorous evidence on whether the people at the highest risk can be found and engaged. Nor is there evidence on whether cognitivebehavioral 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 fills these important gaps and shows that the combination of cognitivebehavioral programming and jobs cost-effectively lowers involvement in shootings and homicides.

### **READI's Approach**

READI starts by identifying men 18 and older in five of Chicago's highest violence neighborhoods. Recruitment focuses on those at the highest risk of shooting or being shot. READI engages them through relentless street outreach efforts, then offers these men 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 cognitivebehavioral 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 given the many barriers they face.

# The Study

Researchers at the **University of Chicago Crime Lab**, the University of Chicago Inclusive Economy Lab, the University of Michigan, and Cornell University 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.<sup>4</sup>

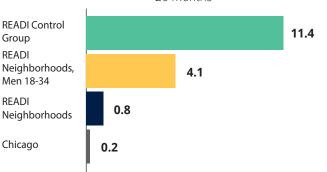
Almost 2,500 men in Chicago were identified as being at very high risk of gun violence involvement using three different referral mechanisms: a predictive algorithm, community outreach workers, and staff at prisons and the local jail. There were not enough program spots for all candidates to be served, 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 the highest 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 54 times more often than the average Chicagoan—a rate of over 11 shootings and homicides per 100 people—and 2.8 times more often than even other young men in the neighborhoods where READI operates (Figure 1).

Figure 1: **Shot or Killed** 

Shooting and homicide victimizations per 100 people over 20 months

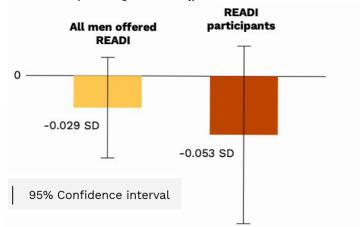


**READI** participants stay engaged. Despite facing considerable barriers to participating, 55% of men offered READI attended at least one day of programming. Conditional on attending at least one day of programming, READI participants also remained highly engaged, working 75% of the weeks available to them during in-person programming.5

### **Findings After 20 Months**

READI participants were not substantially less likely to be involved in serious violence. Prior to READI's launch, the researchers committed to assess its impact on the combination of three outcomes, weighing each equally: (1) shooting and homicide victimizations; (2) shooting and homicide arrests; and (3) other serious violent-crime arrests.<sup>6</sup> READI participants were slightly less involved in serious violence on this measure than their peers in the control group,<sup>7</sup> but the difference is not statistically significant (Figure 2).

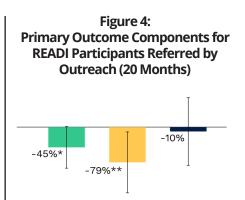
Figure 2: **Serious Violence Involvement** (Primary Outcome), 20 Months



# READI participants were arrested for shootings and homicides 64% less often than their peers (Figure 3).

This very large decline in arrests for the most severe and socially costly forms of violence —2.1 fewer shooting and **READI Identified Men at Tragically High Risk of Being** homicide arrests for every 100 participants — and is statistically significant on its own. It is only one of three components of the index, however. If we adjust our statistical threshold to account for the risk of a "false positive" result, this 64% decline is no longer considered statistically significant. As for the other two components, READI participants were also victims of shooting and homicide 18% less often than their peers, but were arrested for other serious violent crimes 13% more often. Neither of these impacts is statistically significant. These estimates suggest READI may affect different forms of violence involvement in different ways. They are also why we do not observe a significant reduction in the overall measure of serious violence involvement.

Figure 3:
Primary Outcome Components for All READI Participants (20 Months)



- Victimizations: Shootings and homicides
- Arrests: Shootings and homicides
- Arrests: Other serious violence<sup>1</sup>
- I 95% Confidence interval<sup>2</sup>
- \* Statistically significant at the 90% level
- \*\* Statistically significant at the 95% level

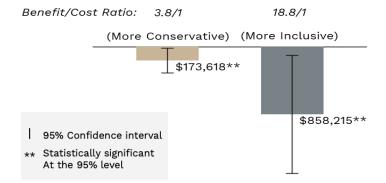
<sup>1</sup>Includes arrests for sexual assault, robbery, and nonshooting aggravated assault and battery

<sup>2</sup>Adjusted for multiple comparisons to control the familywise error rate

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 community partners saw large reductions in both arrests (79%, or 3.3 fewer per 100 participants) and victimizations (45%, or 6.0 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 by the costs they impose on society for all READI participants, 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 \$174,000 to \$858,000 per participant, depending on whether we use more conservative or inclusive estimates of the social costs of crime and violence. This represents a statistically significant reduction of almost 50%. These reductions imply that

Figure 5: Social Savings per Participant



READI's benefit-cost ratio from reducing crime and violence alone—not counting any other benefits to READI communities or participants—is at least 3.8 to 1, and perhaps as much as 18.8 to 1.

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 subset of 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 identifying the men who were most responsive to READI.

The combination of CBT 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 is known about non-criminal legal responses to gun violence, 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. Because no single study should determine policy, 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.

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.

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

# **Endnotes**

- 1 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.
- For more information on the study design and results please refer to the working paper found at <a href="https://www.nber.org/papers/w30852">https://www.nber.org/papers/w30852</a>.

- 5 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: <a href="https://osf.io/ap8fj/">https://osf.io/ap8fj/</a>. Note that the study's primary outcome, analysis of its associated components and social costs, and adjustments for multiple testing are all prespecified 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. To estimate an impact on READI participants, the researchers adjust the difference in outcomes between men with and without a READI offer 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.