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TESTING A PUBLIC HEALTH APPROACH TO GUN VIOLENCE

An Evaluation of Crown Heights Save Our Streets,
a Replication of the Cure Violence Model

Written by

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This report presents a comprehensive process and impact evaluation of the Save Our Streets (SOS) gun violence prevention program, launched by the Crown Heights Community Mediation Center and the Center for Court Innovation in January 2010. The authors thank the Save Our Streets staff for their contributions to the evaluation, including participation in one-on-one interviews and administration of the community survey. We also thank Benjamin Smith for his assistance with the process evaluation. We are particularly grateful to the SOS project director, Amy Ellenbogen, for her commitment to the evaluation process and comments on the report. We would also like to thank Michael Rempel and Greg Berman for their contributions to the analysis and comments on earlier drafts of this report.

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EXECUTIVE SUMMARY

Save Our Streets (SOS) is a community-based project established to address the problem of gun violence in Crown Heights, a neighborhood in central Brooklyn, New York. SOS is a replication of Chicago Ceasefire, a public health model for gun violence prevention founded in Chicago in 1999. The primary components of the Chicago Ceasefire model are outreach and conflict mediation directed towards individuals at high risk for future gun violence, as well as broader community mobilization and public education efforts throughout the target community.

In 2008, using a quasi-experimental comparison neighborhood design, researchers with Northwestern University found that the original Chicago Ceasefire project had a statistically significant impact on the incidence and density of gun violence in three of five intervention neighborhoods (Skogan et al. 2008). A subsequent evaluation of a replication effort in Baltimore found that it too reduced gun violence in three of four intervention neighborhoods (Webster et al. 2009). However, an evaluation of a Pittsburgh replication that opted to omit several of the original program elements did not detect positive results (Wilson et al., 2010).

The SOS project sought to implement the original Chicago model with high fidelity--with the help of technical assistance from the Chicago-based founders. Accordingly, this process and impact evaluation provides an important opportunity to determine whether Chicago Ceasefire can be effectively exported to other communities (the City of New York, for example, currently has Ceasefire replications in the works in several neighborhoods including Harlem, Jamaica, East New York, and the South Bronx).

About the Save Our Streets (SOS) Project

Save Our Streets (SOS) was implemented by the Crown Heights Community Mediation Center, a project of the Center for Court Innovation in New York. The planning process began in 2009 and involved Crown Heights staff working in collaboration with local stakeholders and staff of the Chicago Project on Violence Prevention, which founded Chicago Ceasefire.

With funding from the US Department of Justice's Bureau of Justice Assistance, SOS began outreach and community mobilization activities in early 2010. This report evaluates the project from January 2010 through May 2012. The key program elements were as follows:

- **Target Population:** The Chicago Ceasefire Model is a data-driven model based on evidence that a relatively small group of high-risk individuals is responsible for perpetrating a majority of violent crimes.
- **Public Health Perspective:** Similar to previous public health strategies for addressing problems such as smoking or seatbelt use, the Ceasefire model attempts to modify community norms regarding gun violence.
- **Street Outreach and Conflict Mediation:** The Ceasefire model seeks to identify and engage individuals deemed to be at a high risk for future violence through street outreach by "credible messengers," with experience in the target neighborhood and knowledge of local gang or street conflicts.

- **Public Education and Community Mobilization:** The Ceasefire model seeks to mobilize community leaders, clergy, residents, and law enforcement to change community-wide norms and perceptions related to gun violence. The model includes planned community events as well as “shooting responses” (vigils held within 72 hours of a shooting at or close to the shooting location with the purpose of sending a message that violence will not be tolerated).

In both initial design and implementation, SOS sought to adhere closely to the Chicago model. However, one substantive alteration was made to the SOS project design: The four staff members hired to conduct outreach activities were also tasked with conducting conflict mediation (“violence interruption”), whereas in the current Chicago Ceasefire model they are conceived to be distinct roles filled by separate staff members. This alteration does not appear to have had a significant impact on the ability of the team to conduct conflict mediation activities.

Outreach and Conflict Mediation Activities

The research team documented the following activities in Crown Heights:

- **SOS Client Characteristics:** Over the 29-month period studied, four SOS outreach workers recruited 96 participants. The majority of SOS participants were assessed as high risk (68%) or medium risk (18%), based on age, educational or employment problems, prior involvement with the justice system and gang activity. Demographically, most participants were male, black or West Indian, and between the ages of 15 and 26.
- **Outreach Content:** Outreach program participants were retained in the program on average for one year. Outreach workers carried caseloads of 5-15 participants and reported spending approximately 20 one-on-one hours with each participant over the course of their participation. Interviews with outreach workers suggest that time with participants was spent finding nonviolent alternatives to conflict, helping them understand the risks of gun violence, and acting as “a father-figure, friend, or spiritual advisor.”
- **Violence Interruption:** Outreach workers also worked as “violence interrupters” by identifying and mediating street conflicts that were likely to erupt into gun violence. The staff reported mediating more than 100 potentially violent street conflicts involving more than 1,000 individuals over the 29-month study period.

Impact on Gun Violence

An interrupted time series method was used to analyze the impact of the SOS project on gun violence. The analysis compared Crown Heights to a matched comparison group of three adjacent police precincts with similar demographic and baseline violent crime rates. (The comparison precincts approximately correspond to the neighborhoods of Brownsville, East Flatbush, and parts of Bedford-Stuyvesant). The analysis spanned 18 months prior to SOS implementation (pre period) and 21 months following implementation (post period).

- Changes in Gun Violence: Results showed that average monthly shooting rates in Crown Heights decreased by 6% from the pre to the post periods, while increasing in the three comparison areas between 18% and 28%.
- Relative Reduction in Gun Violence: The 6% decline in gun violence in Crown Heights after SOS was not statistically significant in and of itself, but when compared with the upward trend in the comparison precincts, the relative difference between Crown Heights and the other neighborhoods was significant. This analysis suggests that gun violence in Crown Heights was 20% lower than what it would have been had gun violence trends mirrored those of similar, adjacent precincts.

During the post-implementation period, monthly shooting rates increased in Brooklyn as a whole by nearly 20%, mirroring the average increase in the three comparison neighborhoods and suggesting that the comparison neighborhoods were broadly representative of borough-wide trends. Additionally, preliminary research suggests that there were no new violence prevention or special policing initiatives in Crown Heights during the implementation period other than SOS. These factors suggest that the decrease in Crown Heights may be attributable to the SOS program, rather than displacement of violent crime to neighboring precincts.

Impact on Community Norms Regarding Gun Violence

Over the 29-month study period, SOS organized 43 community events and 50 targeted shooting responses that were estimated to have attracted more than 6,000 participants. Additionally, the staff distributed over 5,000 flyers, educational materials, and posters regarding gun violence to stores, community centers and individuals across Crown Heights.

To measure the impact of the SOS community mobilization campaign, the research team conducted an anonymous pre/post survey of Crown Heights residents regarding perceptions of community safety and exposure to gun violence and the community mobilization campaign. The pre-SOS survey was conducted in July 2010, approximately three months after full SOS implementation, and the post-SOS survey was conducted 16 months later in November 2011. A convenience sample of approximately 100 residents recruited from public spaces participated in each wave of the survey.

- Resident Exposure to the Community Mobilization Campaign: Results from the community survey suggested that a high percentage of the community was exposed to the mobilization campaign. Specifically, at Wave I, only 27% of respondents were aware of a violence prevention campaign in the neighborhood, compared with 73% of survey respondents at Wave II.
- Perceptions of Campaign Effectiveness: Survey results suggested that exposure to SOS increased residents' confidence in the potential of a mobilization campaign to decrease gun violence in the community. Specifically, only 29% of Wave I respondents felt that a campaign such as SOS would be "very likely" to reduce gun violence as compared with 55% of respondents in Wave II. Respondents who personally participated in one or more community events or targeted shooting responses were significantly more likely than others to believe in the efficacy of the community mobilization campaign.

- Perceptions of Safety and Norms Related to Gun Possession: According to the survey results, the SOS program did not have a significant impact on residents' sense of safety in the neighborhood or opinions of the legitimacy of carrying guns or joining a gang for self-protection.
- Relationship of Violence Exposure and Normative Perceptions: One unanticipated survey finding was that opinions of the legitimacy of gun ownership and gang membership was significantly correlated with levels of exposure to gun violence in both survey waves. Among respondents who had ever seen someone threatened or shot with a gun, 56% supported the legitimacy of carrying a gun for self-protection, compared with only 35% of those who had not witnessed violence. Respondents who had witnessed violence were also more likely to support joining a gang for self-protection (31%) when compared with those who had not witnessed violence (23%).

This report is divided into six chapters: Chapter One provides an overview of the Chicago Ceasefire Model and background on the Save Our Streets project. Chapter Two is a review of the current academic literature on the problem of gun violence and the evaluation literature of Chicago Ceasefire and similar multi-component models for violence reduction (i.e., Project Safe Neighborhoods, Boston Gun Project). Chapter Three presents program data regarding the number and profile of clients as well as types of outreach, violence interruption, and community mobilization activities conducted by the SOS project. Chapter Four presents findings on the impact of SOS on gun violence in the target neighborhood of Crown Heights, when compared with three similar precincts (all shown in Figure 1.2) that did not have an intervention. Chapter Five examines the impact of the community mobilization component on experiences and perceptions of gun violence among residents of Crown Heights. Finally, Chapter Six discusses the implications of the study findings for policy, practice and future research in the field of violence prevention.

CHAPTER 1

INTRODUCTION

Despite a significant decline in violent crime nationally over the last 15 years, gun violence remains high in many urban communities across the country (Children’s Defense Fund, 2012). In 2007, there were more than 17,000 gun homicides in major metropolitan areas and gun violence remains the leading cause of death for black males aged 15-24 (Centers for Disease Control, 2012).

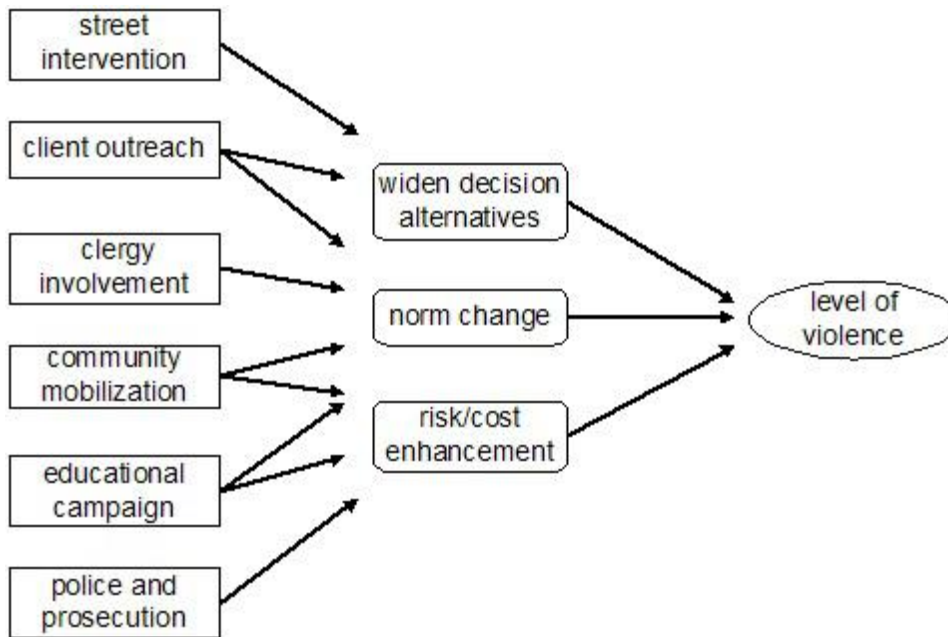
In response to this persistent problem, a range of policies have been developed, including programs targeted toward reducing gun availability, breaking up gang activity, interrupting firearm supply, and improving police relations in high crime urban areas. A recent meta-analysis published in the journal *Crime and Delinquency* suggests that comprehensive strategies that blend enforcement with community mobilization and services for high-risk groups are the most successful at reducing gun violence overall (Makarios and Pratt, 2008). Examples of comprehensive strategies include Boston Ceasefire (1996), Chicago Ceasefire (1999), and Project Safe Neighborhoods-Chicago (2003), each of which has inspired replications efforts in cities across the country.

This report is a comprehensive impact and process evaluation of the Save Our Streets (SOS) project, a replication of the Chicago Ceasefire model established in the neighborhood of Crown Heights, Brooklyn in 2010.

Background: The Chicago Ceasefire Model

The Chicago Ceasefire model (hereafter referred to as the “Chicago Model”), which inspired Save Our Streets, is unique from other targeted community interventions in that it takes a public health, rather than crime control, approach to gun violence. Additionally, the model is theory-driven. It is shaped by theories of collective efficacy and risk enhancement (Glanz and Bishop, 2010; Sampson et al. 1997). These underlying theories produced the short-term goals of the Ceasefire logic model (depicted in figure 1.1. below), which include widening decision alternatives and enhancing the perceived costs of risky behavior for the high-risk target group, while also modifying norms regarding gun violence at the community level. The theoretical approach used in Chicago Ceasefire has been previously employed by public health campaigns to modify other risky behaviors such as smoking and seatbelt use (Skogan et al. 2008).

Figure 1.1. Chicago Ceasefire Logic Model¹



¹ Originally developed by Skogan et al.(2008) for the Chicago Ceasefire Evaluation

As depicted in the model, street intervention and client outreach are at the heart of the Chicago model, and to a large extent distinguish it from other prominent approaches, such as Boston Ceasefire and Project Safe Neighborhoods (“PSN”). Under the Chicago model, outreach workers deliver the message that gun violence is a high-risk solution to personal conflict and offer alternative dispute resolution strategies and services to people at high risk of becoming perpetrators or victims of violence. Separately, a staff of “violence interrupters” uses knowledge of the neighborhood and previous gang contacts to identify and attempt to resolve brewing conflicts before they result in gun violence. Anti-violence messages are delivered by outreach workers familiar with the target neighborhood who are often ex-gang members with experience in the criminal justice system. In theory, these “credible messengers” have some legitimacy in the eyes of high-risk youth. Further, outreach workers work to establish relationships with high-risk youth and modify norms regarding violence toward a less tolerant view of guns.

The second core component to the Chicago model is a community-wide educational and mobilization campaign which aims to modify norms that are tolerant of violence and to increase the sense of collective efficacy among residents in neighborhoods heavily affected by gun violence. Outreach workers, clergy and Ceasefire staff typically work together on the community-level components. The public education component involves canvassing and delivering written materials about Ceasefire and the problem of gun violence as widely as possible throughout the intervention community. Other key ingredients in the community mobilization campaign are community events and “shooting responses” (vigils held within 72-hours of a shooting at with the purpose of sending a message that violence will not be tolerated).

As shown in the logic model, other primary inputs in the Chicago model include the involvement of local clergy in delivering anti-violence messages community wide and to the high-risk target group where possible, and the involvement of police in program development and data-sharing.

Law enforcement shares intelligence with Ceasefire program staff regarding violent incidents and may play a role in community mobilization, while Ceasefire staff assume responsibility for direct outreach to individuals. Importantly, outreach staff maintains a deliberate separation between their outreach and violence interruption work in order to maintain the safety of outreach workers and participants.

To avoid confusion with the Boston Ceasefire model, which predated the Chicago model and contains some overlapping program components, the originators of the Chicago Ceasefire project recently changed the name of their model to Cure Violence. This report, which was already in its final draft, uses the preexisting and more widely known designation.

Nationally, replication of the Chicago Ceasefire model began several years prior to the release of the final evaluation demonstrating the success of the Chicago model in 2008 (Skogan et al., 2008). Specifically, in 2005, Johns Hopkins University successfully solicited federal funding to follow the Chicago model in four of Baltimore's most violent neighborhoods. A comprehensive evaluation of this replication found that, like Chicago, the Baltimore program appears to have significantly reduced gun violence in three of four intervention neighborhoods and had a positive effect in reducing support for the use of guns among youths (Webster et al., 2009). Evaluations are still forthcoming on later replication sites including New Orleans, Philadelphia, Oakland, Niagara Falls, NY and other parts of New York City. Some cities, notably Pittsburgh, have also selectively replicated components of the Ceasefire model with much less success, suggesting that model fidelity may be critical. Indeed, in the Baltimore site, quality of implementation and fidelity to the Chicago model were cited as pivotal to the greater success of some target neighborhoods compared with others (Webster et al., 2009). The challenge of model fidelity given differences among local sites remains an issue for all comprehensive community approaches.

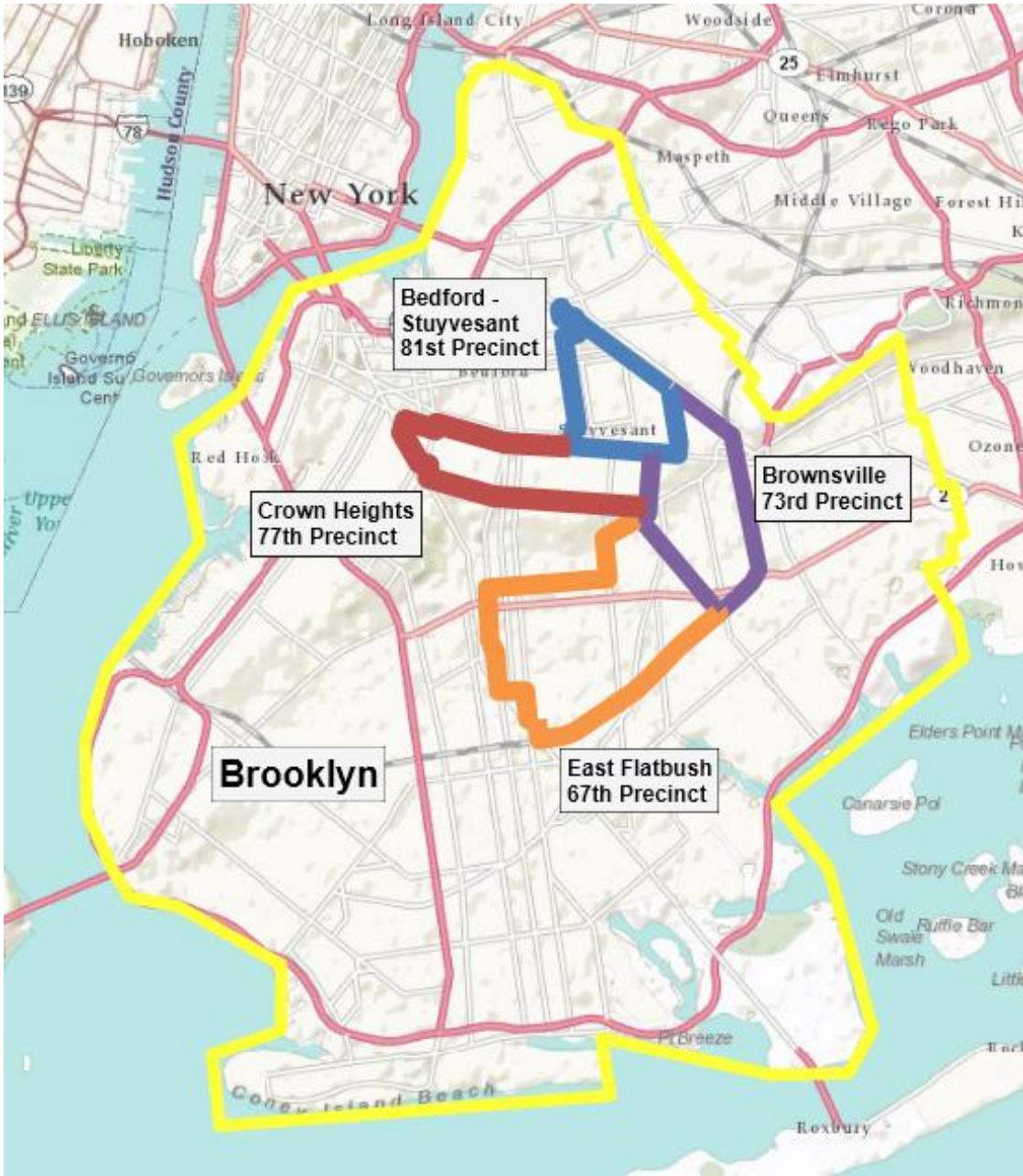
The Chicago model is not without its critics. The reliance on staffers with criminal backgrounds, the complicated relationship with law enforcement, and the confusion with the Boston model have all attracted negative commentary, as have specific implementation problems in selected locations. This study, one of the first to look at a replication of the Chicago model, seeks to contribute to the conversation by documenting implementation and impacts of the model in central Brooklyn.

Crown Heights Save Our Streets

Located in central Brooklyn, New York (see Figure 1.2), Crown Heights is an ethnically, racially, and religiously diverse community with large Caribbean, African-American and Hasidic Jewish populations. The neighborhood struggles economically, with a relatively high unemployment rate (10%) and a large percentage of families living below the poverty line (26%) (Been et al, 2011).

Gun violence in Crown Heights is serious and persistent. In 2009, the year prior to initiation of SOS, there were more than 49 nonfatal shootings and more than 50 arrests for illegal gun possession in the 77th precinct, which encompasses the primarily black and Caribbean neighborhood of North Crown Heights.

**Figure 1.2 Crown Heights, Brooklyn and Comparison Neighborhoods
(Bedford-Stuyvesant, East Flatbush, Brownsville)**



The SOS project was initiated by the Crown Heights Community Mediation Center, a storefront mediation center launched by Center for Court Innovation in 1998. With financial support from the US Department of Justice's Bureau of Justice Assistance, and technical assistance from the originators of the Chicago Ceasefire model, the Crown Heights Community Mediation Center began a planning process to replicate Chicago Ceasefire in Crown Heights. As part of the planning process, the mediation center's director met with a variety of local stakeholders, including:

- Richard Green of the Crown Heights Youth Collective
- Community affairs officers and the precinct commanders of the 77th and 71st Precincts
- Director of the Criminal Justice Coordinator's Office
- Lance Ogiste, Saadia Adossa, Mary Hughes, and Ann Swern from the Brooklyn District Attorney's Office
- Community leader and activist Desmond Atkins
- Community leader and activist Shalawn Langhorne
- Community leader and mother of a gun violence victim Robin Lyde
- Community leader and President of the 77th Community Precinct Council James Caldwell
- Reverend Jerry B. West of Mt. Moriah Church of God in Christ

From planning stages through implementation, the Save Our Streets project sought to adhere closely to the Chicago model. In order to track the activities and referrals of the SOS outreach staff, the project made use of web-based data tracking system used by Chicago Project on Violence Prevention for Chicago Ceasefire and other replication sites. Both management and outreach staff of SOS were trained according to the same curricula as Chicago staff.

During an interview with the SOS project director in May, 2012, several questions regarding the particular characteristics of the Crown Heights neighborhood and model fidelity were discussed, in particular whether any characteristics of the Crown Heights neighborhood presented obstacles to fidelity to the Chicago Ceasefire model. For the most part, the project director felt that the model was adaptable to the Crown Heights community without making major changes. However, she did note intra-community racial tensions and a different relationship between the New York City police department and the community as factors to be considered in program design.

Ultimately, two substantive changes were made to the model in Crown Heights. First, based on neighborhood and financial considerations, the decision was made by the SOS planning committee to hire a core staff of four to act as both outreach workers and violence interrupters, while in the current Chicago model these are conceived as two distinct roles. Given this dual role, it was crucial that the outreach workers hired had not only street credibility but pre-existing knowledge of the Crown Heights neighborhood including the places where gun violence might arise. Save Our Streets began seeking outreach workers in January 2010 and had hired and trained four outreach workers and a coordinator by April 2010. The hiring panel included local clergy, a 77th precinct police officer and community leaders in addition to the project director and deputy project director. Second, as a result of clustering of gun violence in certain areas of Crown Heights, in March 2011 the staff made a data-driven decision to focus the efforts of

outreach workers on certain specific areas in the community.¹ Both of these decisions had the potential to affect program outcomes, and so are considered throughout the analysis of findings in this report.

This report is divided into six chapters: Chapter Two is a review of the current academic literature on the problem of gun violence and the evaluation literature of Chicago Ceasefire and similar multi-component models for violence reduction (i.e., Project Safe Neighborhoods, Boston Gun Project). Chapter Three presents program data regarding the number and profile of participants as well as types of outreach, violence interruption, and community mobilization activities conducted by the SOS project. Chapter Four presents findings on the impact of SOS on gun violence in the target neighborhood of Crown Heights, when compared with three similar precincts (all shown in Figure 1.2) that did not have an intervention. Chapter Five examines the impact of the community mobilization component on experiences and perceptions of gun violence among residents of Crown Heights. Finally, Chapter Six discusses the implications of the study findings for policy, practice and future research in the field of violence prevention.

¹ The focused target area that was selected in March 2011 was based on incident- and address-level New York City Police Department (NYPD) data provided to the SOS management staff by the NYPD.

CHAPTER 2

LITERATURE REVIEW

Although gun violence has been a persistent crime and public health issue in the United States since the early 1970s (Zimring, 1975), the problem took a distinct turn for the worse beginning in the late 1980s, when a large increase in gun violence was documented, concentrated almost entirely among urban youth between the ages of 15-25 (Cook and Laub, 2002; Reich et al, 2002). The peak of this epidemic arrived in 1994, with over 6,000 firearm-related deaths among youth under age 20. While the national incidence of gun violence has decreased precipitously over the past 15 years, this decline has not occurred uniformly across geographic regions, and it has been argued that the epidemic never fully abated for many inner-city, minority neighborhoods (Children's Defense Fund, 2011; Kirk and Papachristos, 2011; Reich et al., 2002).

Competing hypotheses regarding the underlying causes of the '80s gun violence epidemic revolve primarily around cohort and period theories. Cohort theories argue that the generation of youth who came of age in the 1980s is somehow uniquely disposed to violence when compared with previous generations (Cook and Laub, 2002). "Period" theories attribute the increase in violence to social and environmental factors, including the introduction of crack-cocaine the diffusion of high-powered semi-automatic hand guns. Additionally, some theorists have claimed that these same period factors may explain the ensuing decline in violence (1996-current), in particular the decline in the open air crack market (Ransford et al., 2010). However, there is little to no empirical evidence that a significant number of handguns were removed from the illegal gun market prior to the decline, and this may be a persistent factor in ongoing gun violence among youth in inner-city neighborhoods (Kirk and Papachristos, 2011).

Policy and Public Education Remedies

Since the mid-1990s, there have been multiple efforts by state and local policymakers to prevent gun violence through legislation, suppression programs, and public education. State legislation has included bills on encouraging firearm registration through enhanced penalties for illegal gun possession and "shall issue" laws (Cook, Braga and Moore, 2000). Results of a crackdown on illegal gun carrying in Kansas City showed it successfully reduced gun violence by 49% (Sherman, Shaw, and Rogan 1995) while multiple studies of "shall issue" legislation have been equivocal in terms of their success in preventing gun violence (Braga et al., 2000). Firearm suppression (e.g., gun buyback programs or voluntary search and seizure programs) have also been widespread despite little empirical support for their efficacy (Makarios et al., 2008). Finally, early public education campaigns have focused on teaching safety techniques for the use and storage of firearms and educating children regarding the consequences of gun violence or accidents involving firearms. Unfortunately, although attitudes may change as a result of such campaigns, there is little empirical evidence that these campaigns change gun use behavior or prevent gun violence (Makarios et al., 2008).

Policing Strategies

Several targeted policing strategies have been used in an effort to stem gun violence in large cities. These strategies have ranged from "zero-tolerance" policing in New York City to collaborations between police and communities to prevent violence ("reciprocal policing") in

Chicago and San Diego, and “soft policing” (e.g., alternatives to arrest for youth in possession of firearms) strategies in St. Louis and Detroit (Fagan, 2002). While punitive and reciprocal policing strategies have shown promise in actually reducing violence when compared to public education and suppression efforts described previously (Makarios et al., 2008), effect sizes are relatively small given the extent of the problem of youth gun violence.

Boston Ceasefire

The first effort at a comprehensive community approach to preventing gun violence began in 1996, with the founding of Boston Ceasefire (later dubbed the “Boston Gun Project” or the “Boston Miracle”). Although it had similarities to some previous community and targeted policing efforts, Boston Ceasefire was the first project documented to involve direct engagement between law enforcement and a pre-identified group of individuals at high-risk for becoming perpetrators of gun violence (Kennedy, 2011). Gang members and other violent criminals were “called-in” by probation officers and police to be warned of an impending crackdown on violence and gun crimes that would include federal and state level prosecution. Boston Ceasefire was also unique in that it was data-driven, informed by Boston homicide data which revealed that a relatively small number of high-risk “shooters” were responsible for a vast majority of the violent crimes in Boston (Braga et al., 2001; Kennedy, 2011). Identification of the target group relied on the expertise of longtime probation and police officers in Boston’s Anti-Gang Unit and the support of community outreach workers and local clergy to spread a message of zero tolerance for gun violence. Simultaneously, Ceasefire employed enhanced investigation and prosecution of gun trafficking with the purpose of stemming the flow of illegal guns into Boston.

The original evaluation of the Boston Ceasefire Model, published in 2001, showed a drastic decrease (63%) in gun homicides among young people, which the authors attributed to program effects based on a quasi-experimental, non-equivalent design comparing gun violence in Boston with other regions in Massachusetts and large cities nationally (Braga et al., 2001; Kennedy, 2011). Soon after the implementation in Boston, replication projects were established in Stockton, California, Lowell, Massachusetts and Cincinnati, Ohio, all showing similarly positive outcomes using similar evaluation designs (Braga and Weisburd, 2012). The Boston model continues to be emulated in cities nationally.² It should be noted that some Ceasefire evaluations have been criticized for methodological limitations and inherent “noise” in the data (e.g., concurrent gun violence initiatives in the same area and an overall decline in gun violence nationally) (Rosenfeld et al., 2005).

Project Safe Neighborhoods

Boston Ceasefire’s evaluation results helped give rise to Project Safe Neighborhoods (PSN) in 2001, a 1.1 billion dollar congressional allocation divided among 94 jurisdictions with the mandate to design and implement “context specific” strategies for reducing gun violence (Papachristos, Meares and Fagan, 2007; McGarrell et al., 2009). While the overall PSN model was one of “focused” deterrence using interagency collaborations, some local projects took a more community-oriented approach to implementing the model. In particular, Chicago’s PSN, initiated in 2003, utilized the call-in component of the Boston Ceasefire model, while also using normative strategies to increase the perceived legitimacy of the police in target neighborhoods.

² For information regarding ongoing violence prevention projects similar to Boston Ceasefire, see the Center for Crime Violence Prevention and Control at John Jay College at: <http://johnjayresearch.org/ccpc/category/projects/>.

Chicago's PSN also used the call-in forums as a springboard for the provision of social services to high-risk individuals (Papachristos et al., 2007).

Using a quasi-experimental comparison group design, a 2007 evaluation of Chicago's PSN found a 37% reduction in quarterly homicide in the community targeted by the program. Using a multi-level quantitative analysis, researchers attributed the largest effects on violence to the offender notification (i.e., "call-in") component of the project (Papachristos et al., 2007). A subsequent survey of gun offenders in 54 Chicago neighborhoods empirically demonstrated that offenders are more likely to obey the law when they perceive it as legitimate and in keeping with their "own moral schedule" (Meares, 2009, p.92).

Chicago Ceasefire

The Chicago Ceasefire model departs substantially from Boston Ceasefire and Project Safe Neighborhoods in that it is primarily a public health/prevention model. However, it is similar to these projects in that it is data-driven, maintaining a primary focus on the prevention of violence among a core group of high-risk individuals. The heart of the Chicago Ceasefire model is to send an anti-violence message to the high-risk group using "credible messengers." Additionally, Chicago Ceasefire includes community-wide rather than targeted norm change as a core component of the model (Skogan et al. 2008).

The original evaluation of Chicago Ceasefire was conducted by Wesley Skogan at Northwestern University in Chicago, and included an in-depth process analysis as well as an impact analysis examining program effects on gun violence in multiple Chicago intervention neighborhoods. The researchers employed a quasi-experimental, matched comparison group design and documented a statistically significant decrease in shooting incidence (17%-34%) and gun violence density in four of seven neighborhoods where Ceasefire was active. Additionally, in-depth interviews with staff and outreach clients suggested normative change regarding gun violence among the target group and high visibility of the Ceasefire project in the target communities as a whole (Skogan et al., 2008).

A 2009 evaluation of the first Chicago replication conducted in Baltimore showed a similarly positive impact on gun violence in multiple intervention neighborhoods and some impact on violence norms based on a quasi-experimental survey (Webster et al., 2009). It should be noted that both the Chicago and Baltimore evaluations have similar methodological limitations as earlier evaluations of Boston Ceasefire and Chicago PSN (i.e., non-randomized comparison groups and "noisy" data). Additionally, as noted by the authors of both studies, measuring the impact of the programs is also tricky due to potential displacement of both program activities and/or violence into comparison areas.

CHAPTER 3

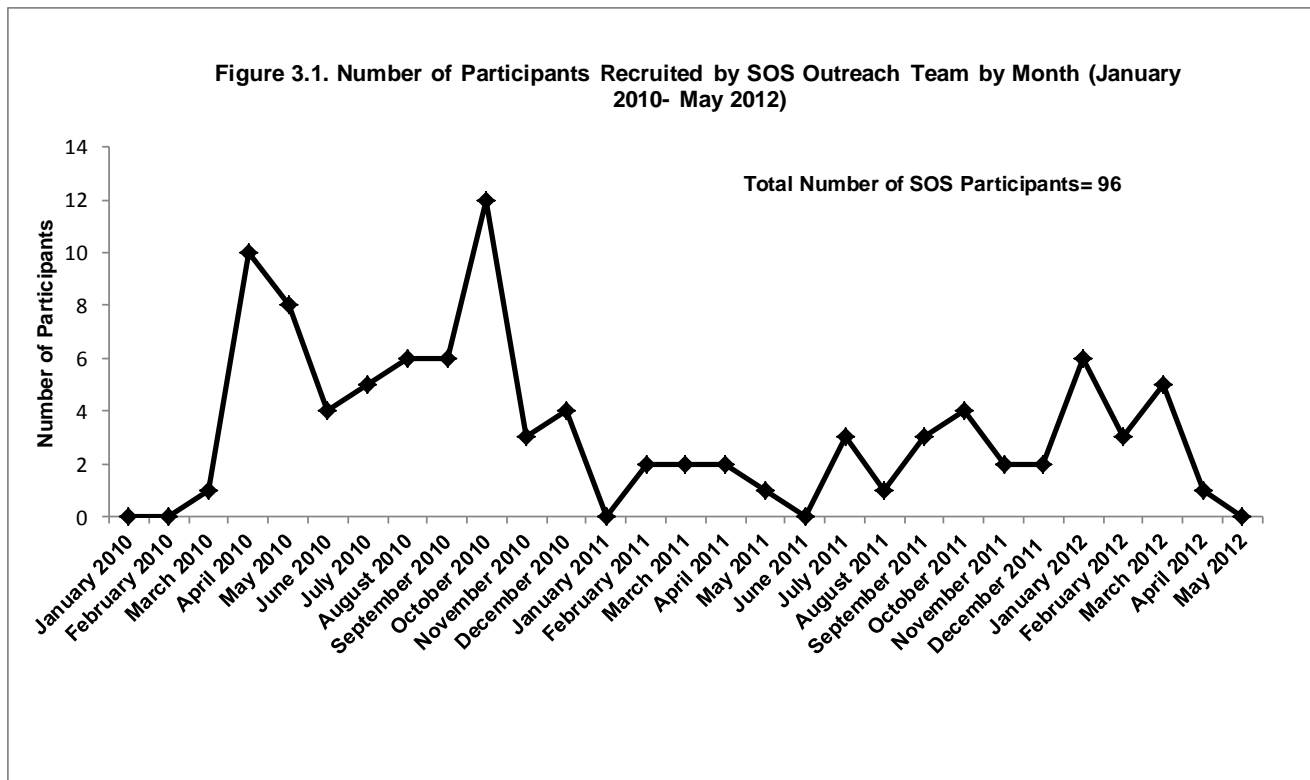
SOS OUTREACH OUTCOMES

Street-level outreach is a primary component of the original Chicago Ceasefire model and the Crown Heights Save Our Streets (SOS) project. The program sought to hire outreach workers who have a substantive connection to the target community and who are able to approach high-risk community members with a credible message regarding the risks and consequences of violence. As in Chicago Ceasefire, SOS outreach workers were typically men in their 30s and 40s who had been involved with street violence/gangs and had turned their lives around. These individuals were purposefully selected for the ability to command the respect of young men who are still in “the life” (i.e., a lifestyle involving high-risk behavior). Outreach workers are tasked with identifying and approaching community members who are at high risk for violence and enrolling them as SOS participants. Working with participants involves establishing trust, acting as a mentor, and potentially linking participants to social services such as job training and employment assistance, education, and substance abuse treatment.

Information on SOS outreach participants was entered by project staff into a comprehensive program database, created by the Chicago Project on Violence Prevention (CPVP) and used by Chicago Ceasefire and replication sites across the country. This database houses a wealth of participant and program related information, including individual demographic and risk assessment information for outreach participants, records of time spent conducting outreach by each outreach worker, service referrals made and number of conflicts mediated.

For this analysis, the research team produced aggregate results using the specialized database. For privacy and safety reasons, no individually identifying information is collected in the CPVP database. Thus, information regarding the status of individual participants in terms of program retention or outcomes beyond the outreach program (e.g., future involvement in violence or future arrests) was beyond the scope of the available data.

Figure 3.1, below, displays the monthly volume of participants recruited over the first 29 months of SOS (January 2010 -May 2012). In total, outreach workers recruited 96 participants, with recruitment at its highest in October 2010 (N=12). Outreach workers added an average of 3.3 participants per month. While new recruitment generally declined over the program period, outreach workers maintained active caseloads of anywhere from five to 15 participants each. Outreach workers reported spending approximately 2,879 hours between January 2010 and June 2012 with participants.



The core of the outreach workers’ role was to act as a role model, and deliver the message of nonviolence to high-risk participants. In practice, this was a multistep process that involved identifying individuals at high risk and establishing rapport with them, which could often take several attempts, before recruiting them for participation. Once an individual became an active participant, the work shifted toward being available and helping them think through the risks inherent in violence and the possible alternatives to resolving conflicts. Much of this work happened at night, in people’s homes and out on the streets. Because such complex work is difficult to quantify, the research team conducted individual interviews with each outreach worker in the fall of 2010, asking them specifically to describe their work with high-risk participants. Below are several excerpts:

[Outreach Worker 1, on recruiting participants]: *It’s most important to be visible. Build trust. Once they see us (SOS workers) multiple times they open up to us.... I look for people who are thinking about making positive changes, but need to be presented with a plan or alternative that makes sense, in a way that is understandable to them.*

[Outreach Worker 2, on mentoring]: *I [as an outreach worker] wear a lot of hats [depending on the person I’m working with] – spiritual advisor, counselor, friend, father figure, referee, leader, instructor. Must speak to people on their level...*

[Outreach Worker 3, on alternatives to violence]: *Only way is if you bring real things [to their attention]...seeing mothers who have lost children.*

[Then] *You want to show them [participants] a better way. They need to learn it's not what happens [in the streets], but how you react to it that is critical...I know we are dealing with a different kind of person here. They have no fear.*

Participant Characteristics

Tables 3.1 and 3.2 show the demographic and risk profiles, respectively, of the 96 SOS program participants. The vast majority of participants were black and male, with only one female and two Hispanic participants over the studied period. Because demographic characteristics such as employment, age and educational level also function as risk factors in the context of the Ceasefire program, they are displayed in figure 3.2. As shown, the participant risk profile is constructed from criminal history, employment, age and educational variables, as well as an overall risk designation.

	2010	2011	2012 (January-May)	Total
Race				
Black/African American	58	21	15	94
Hispanic/Latino	1	1	0	2
Sex				
Male	58	22	15	95
Female	1	0	0	1

Overall, most participants fell into the high (68%) or medium (18%) risk categories, an important performance measure for the program since the Ceasefire model intends outreach to be targeted toward the highest risk participants. More specifically, a high-risk designation was given to participants who met four or more of the following criteria: (1) 16-25 years old, (2) recently released from prison, (3) recent victim of a shooting, (4) major player in a street organization, (5) active in a violent street organization, (6) history of violence/crimes against persons, or (7) a weapons carrier. The majority of participants were also gang-involved (92%) and unemployed (90%). Approximately one-third of participants had completed high school or received a GED; almost 23% had been recently released from prison.

	2010	2011	January- May 2012	Total
Total Participants	59	22	15	96
Risk Level				
High Risk ¹	64%	64%	87%	68%
Medium Risk	20%	14%	13%	18%
Low Risk	15%	23%	0%	15%
Risk Characteristics				
Gang Involved	92%	86%	100%	92%
Between Age 16 to 25	88%	86%	100%	90%
Recently Released from Prison	31%	9%	13%	23%
On Probation	17%	5%	0%	11%
On Parole	9%	0%	13%	7%
Completed High school/GED	34%	23%	27%	30%
Unemployed	88%	86%	100%	90%

¹ Must have four or more of the following characteristics: 16-25 years old, recently released from prison, recent shooting victim, major player in a street organization, active in a violent street organization, history of violence/crimes against persons, or a weapons carrier.

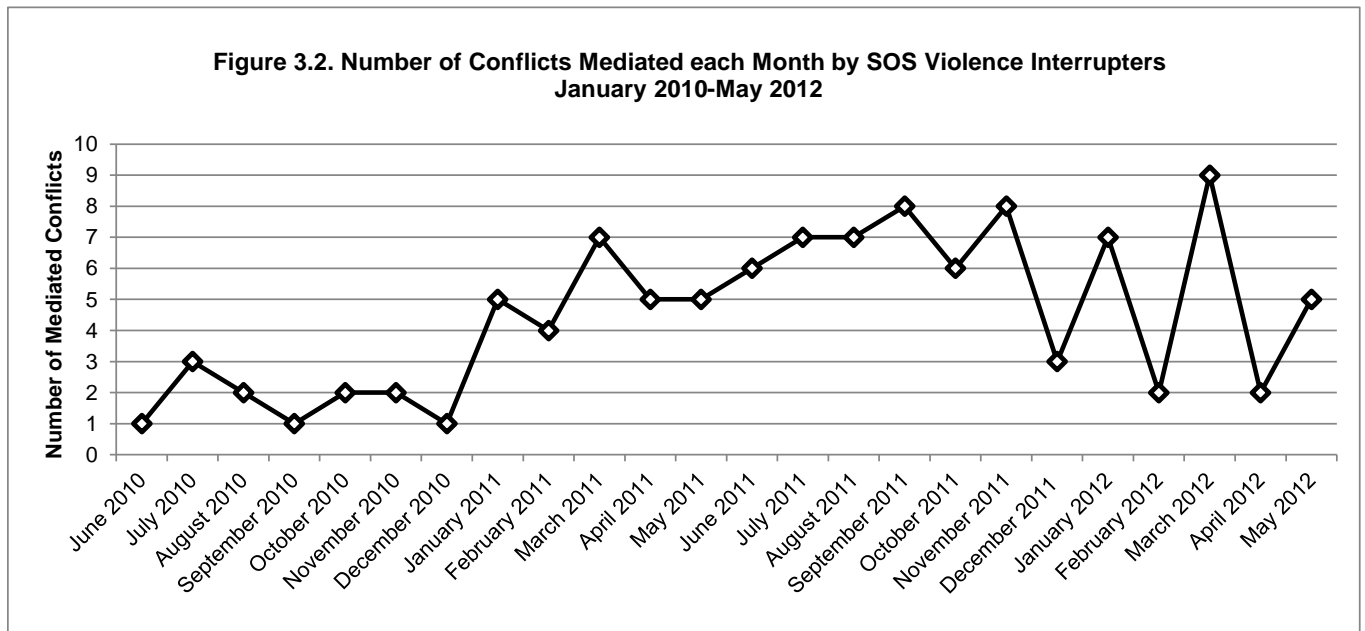
In addition to assisting program participants with conflict resolution and other life skills, outreach workers assessed service needs (i.e., employment, substance abuse, anger management) and made referrals where appropriate. As displayed in Table 3.3, outreach workers made a total of 187 referrals to services. More than half (65%) were referrals to employment assistance. This finding dovetails with findings from outreach worker interviews, wherein three out of four workers identified employment assistance as the most pressing need for the target population. Referrals to education were the second most common type of referral, constituting 17% of referrals made over the study period.

	2010	2011	January-May 2012	Total
Referrals to Employment	26 (63%)	67 (61%)	27 (75%)	120 (64%)
Referrals to Education	10 (24%)	16 (15%)	6 (17%)	32 (17%)
Referrals to Substance Abuse	1 (2%)	0 (0%)	0 (0%)	1 (1%)
Other Referral Types	4 (10%)	3 (8%)	3 (8%)	34 (18%)
Total Referrals	41 (100%)	110 (100%)	36 (100%)	187 (100%)

Street Conflict Mediation

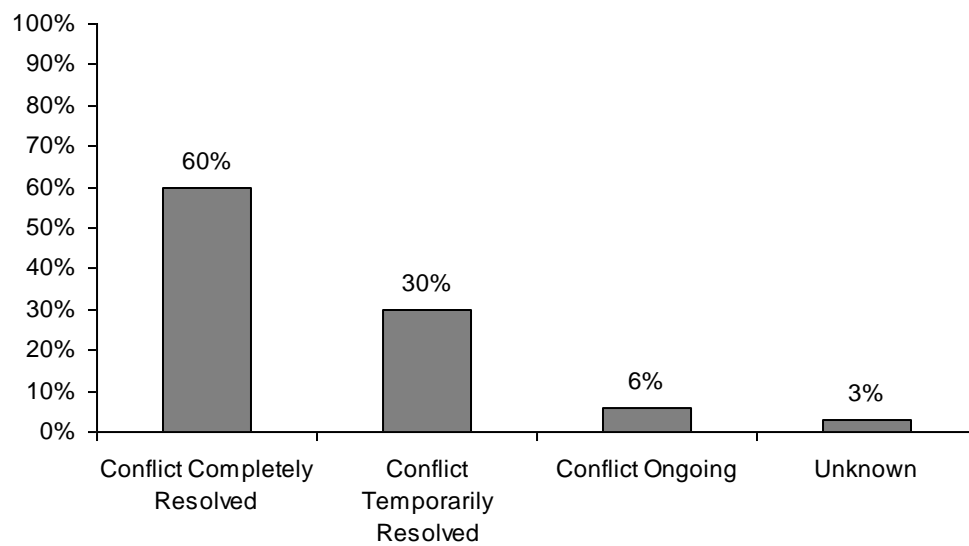
In the SOS program, the outreach staff also took on the role of violence interrupters during the period under study, using their knowledge of the neighborhood to identify potential violent

conflicts and mediate these situations to prevent shootings. In some cases, outreach program participants were also first contacted by the staff in their role as violence interrupters, so conflict mediation also served as a venue for participant recruitment (i.e., participants could be a part of both the mediation and outreach components of the SOS program). Figure 3.2 shows the number of conflicts that outreach workers reported mediating during the study period. Over the 29-month period, there were a total of 108 conflicts mediated. As shown, the number of conflicts mediated per month remained mostly steady, increasing slightly over time. Based on estimates by outreach workers, the average conflict mediated involved 12 people.



In addition to estimating the number of people involved in conflicts, the outreach staff made assessments regarding whether a given conflict was likely to have erupted into a shooting without mediation. A total of 55 out of the 108 conflicts mediated were judged by staff as “very likely” to have otherwise ended in gun violence. They also estimated the results of their mediation work for each conflict, rating it as “completely resolved,” “temporarily resolved,” “ongoing,” or “unknown.” These results are displayed in Figure 3.3. These results should be interpreted with caution, given that the research team had no empirical method for assessing the accuracy of the outreach workers’ judgments.

Figure 3.3. Outcomes of conflict resolution efforts for conflicts "very likely" to result in gun violence (N=55)



CHAPTER 4

SOS IMPACT ON GUN VIOLENCE

A quasi-experimental design was used to test the impact of the SOS program on gun violence rates in Crown Heights, Brooklyn. Specifically, a time-series technique was used to compare the pre-and post-SOS gun violence rates in the target neighborhood (Crown Heights, 77th Precinct) with three similar Brooklyn neighborhoods that did not receive the intervention (Bedford Stuyvesant, 81st precinct; East Flatbush, 67th Precinct; Brownsville, 73rd precinct). Comparison precincts were selected for their similarity to Crown Heights in terms of population demographics and violent crime trends during the year prior to SOS implementation (2009), as presented in Table 4.1. Because all three comparison precincts are adjacent to the Crown Heights precinct where the intervention occurred (see map in Figure 1.2), there was the possibility of displacement effects due to the enactment of the SOS program. To control for this possibility, the analysis also examined gun violence trends in the borough of Brooklyn as a whole, to determine if observed effects were specific to neighborhoods close to the target area.

Table 4.1. Demographics and Violent Crime Statistics in the SOS Target Area (Crown Heights) and the Three Comparison Neighborhoods¹

	Crown Heights (77th Precinct)	East Flatbush (67th Precinct)	Brownsville (73rd Precinct)	Bedford-Stuyvesant (81st Precinct)	Brooklyn Total
Population	96,309	155,252	86,468	62,722	2,504,695
Race					
White	20%	3%	6%	7%	43%
Black	69%	92%	82%	80%	34%
American Indian	0%	0%	1%	1%	1%
Asian	3%	1%	1%	2%	10%
Pacific Islander	0%	0%	0%	0%	0%
Other	4%	2%	8%	7%	9%
2 or More Races	4%	2%	3%	3%	3%
Ethnicity					
Hispanic	12%	7%	20%	17%	20%
Median Age					
Male	27.1	30.4	22.8	27.8	33.1
Female	32.5	35.4	30.2	32.5	34.8
Median Family Income	\$31,398	\$43,169	\$24,659	\$29,883	\$43,166
Violent Crime Statistics (total for 2009)²					
Shootings	51	67	69	43	377
Murder	13	20	21	13	208
Robbery	229	395	534	313	6,313
Felony Assault	210	467	565	237	5,757

¹Note: Precinct specific demographic data is a combination of NYPD precinct information and 2010 US Census data, combined and made public by John Keefe at <http://johnkeefe.net/nyc-police-precinct-and-census-data>. ² Note: Data taken from NYPD Compstat reports provided the New York City Criminal Justice Coordinator's Office.

For all impact analyses, trends in gun violence were measured using official New York City Police Department (NYPD) reports of shooting incidents. The original dataset included raw numbers of shooting incidents per week for each precinct. Data were abstracted from official COMPSTAT reports provided to the New York City Criminal Justice Coordinator's Office by the NYPD. Official police data is considered a highly reliable source of data for measuring gun violence, since both homicides and shooting incidents where the victim requires medical attention are routinely reported. However, it is possible that some shootings go unreported, in particular those that do not result in death or serious injury. The data does not account for these incidents.

In theory, other external events, most notably special police initiatives that occurred in any of the examined precincts or Brooklyn as a whole, could have influenced the data. In order to minimize this threat to validity, research was conducted prior to designing this analysis to investigate whether other police or violence prevention initiatives were in place concurrent to SOS in any potential comparison precincts. All the precincts considered for the design were subject to the NYPD's "Operation Impact" policing program which began in 2003 (Smith and Purtell, 2007), but this should not have had a differential impact on any one of the studied precincts. Additionally, another community-based gun violence prevention effort was being conducted in a nearby neighborhood, East New York (the 75th precinct), and thus this precinct was taken out of consideration for the study. No other initiatives were identified.

Analytical Procedures

An interrupted time series method was used to analyze the shooting incident data. Raw numbers of incidents from each precinct were translated into a rate per 1,000 people in order for comparisons to be made across precincts which differ in geographic size and population density. 2010 Census data were combined with COMPSTAT reports to compute the rates. Weekly rates were then combined into 4-week time periods to create "month" groupings for a total of 39 months from January 5, 2009 through December 31, 2011. The first 18 "months" of data constituted the pre-program (i.e., prior to SOS implementation) sample and the last 21 "months" made up the post-program sample.

In order to compare the SOS target area, Brooklyn, and the comparison precincts, the data were analyzed using monthly trend charts, ordinary-least-squares (OLS) regressions, and independent samples t-tests. First, the monthly charts illustrated gun violence trends within each precinct before and after the program began. OLS regressions were applied to the monthly data in order to reveal a statistically significant trend, if there was one, in the pre-intervention data. In the case where a statistically significant trend is identified, an equation can then be used to calculate predicted rates in each precinct and these can then be compared to the actual rates in the intervention and comparison groups. Because the regression did not reveal any significant trends in the pre-intervention data for any of the studied precincts, the research team used independent samples t-tests to compare the time periods of pre-SOS implementation and post-SOS implementation in each precinct. These tests allowed for the identification of statistically significant changes in gun violence trends *within* each precinct, and Brooklyn as a whole, after the SOS program was implemented.

In addition to detecting significant changes within the SOS and comparison precincts studied, the research team also sought to detect differences in the pre- to post-program trends between the target precinct and the pre- to post-program trends in the comparison precincts. To do this, a “difference-in-differences” (DiD) test was conducted. DiD is designed specifically for detecting differences in trends between two or more groups over two time periods, wherein one group is exposed to a treatment (e.g., SOS) in the second period but not in the first period, and the other groups are not exposed to the treatment during either period. The analysis compares the difference in upward or downward trends between the groups and assesses whether these differences achieve statistical significance. Results from the t-tests and DiD analyses are presented in detail below.

Findings

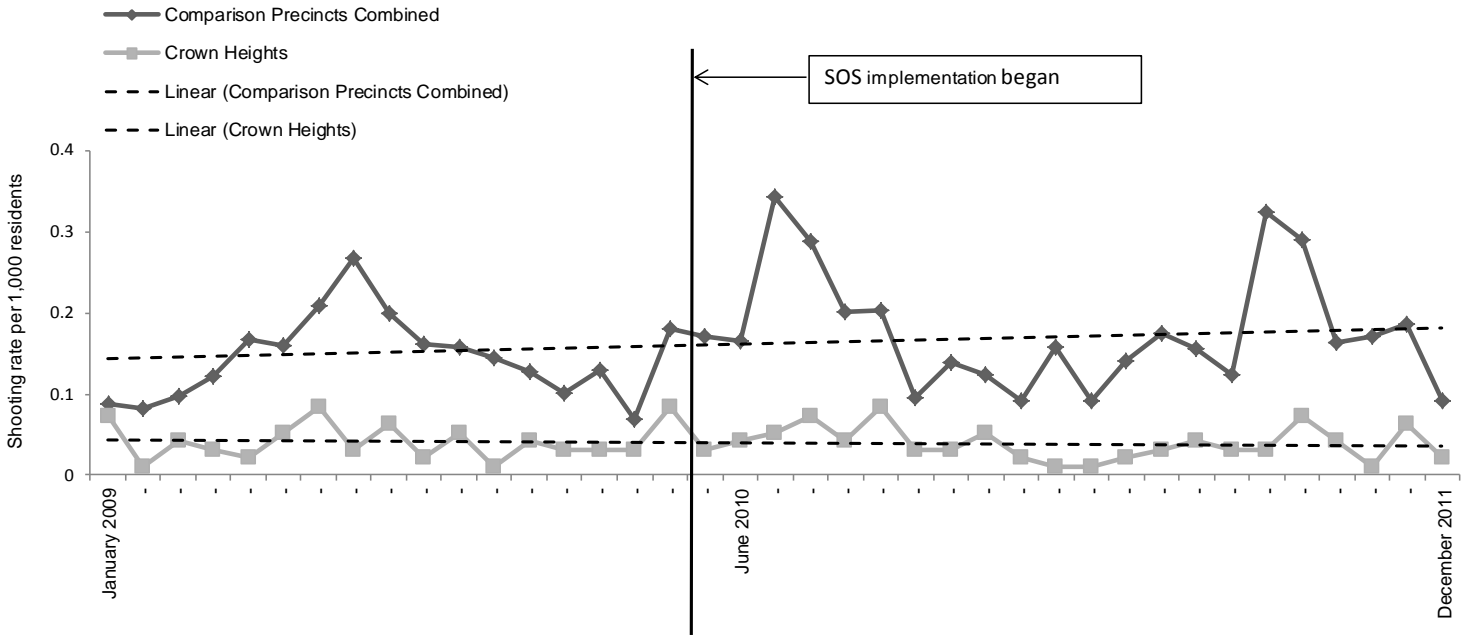
The central goal of the impact analysis was to isolate changes in gun violence incidence in the Crown Heights neighborhood during the post-program period that could be reasonably attributed to the implementation of Save Our Streets. Table 4.2 presents the percentage change in gun violence rates by precinct (and for Brooklyn as a whole) between the pre- and post-periods. As shown, the pre-implementation average monthly shooting rate in Crown Heights decreased 6% during the post-implementation period -- from .041 incidents per 1000 residents to .039 incidents per 1,000 residents. In contrast, all three comparison groups and Brooklyn as a whole showed increases in the average monthly rate of gun violence during the post-program period (ranging from 18% to 28%). Again, these increases were not statistically significant in any of the studied areas. As shown in the table, the 67th precinct (East Flatbush) had a 28% increase in mean shooting incidence during the post-program period. Gun violence also increased in the 73rd precinct (Brownsville) by 18% and in the 81st precinct (Bedford-Stuyvesant) by 20%. Finally, the borough of Brooklyn as a whole also experienced an 18% increase in gun violence incidents during the 21 months after the SOS program was implemented.

Table 4.2. Percent Change in Shooting Incidence Pre- to Post-SOS Program

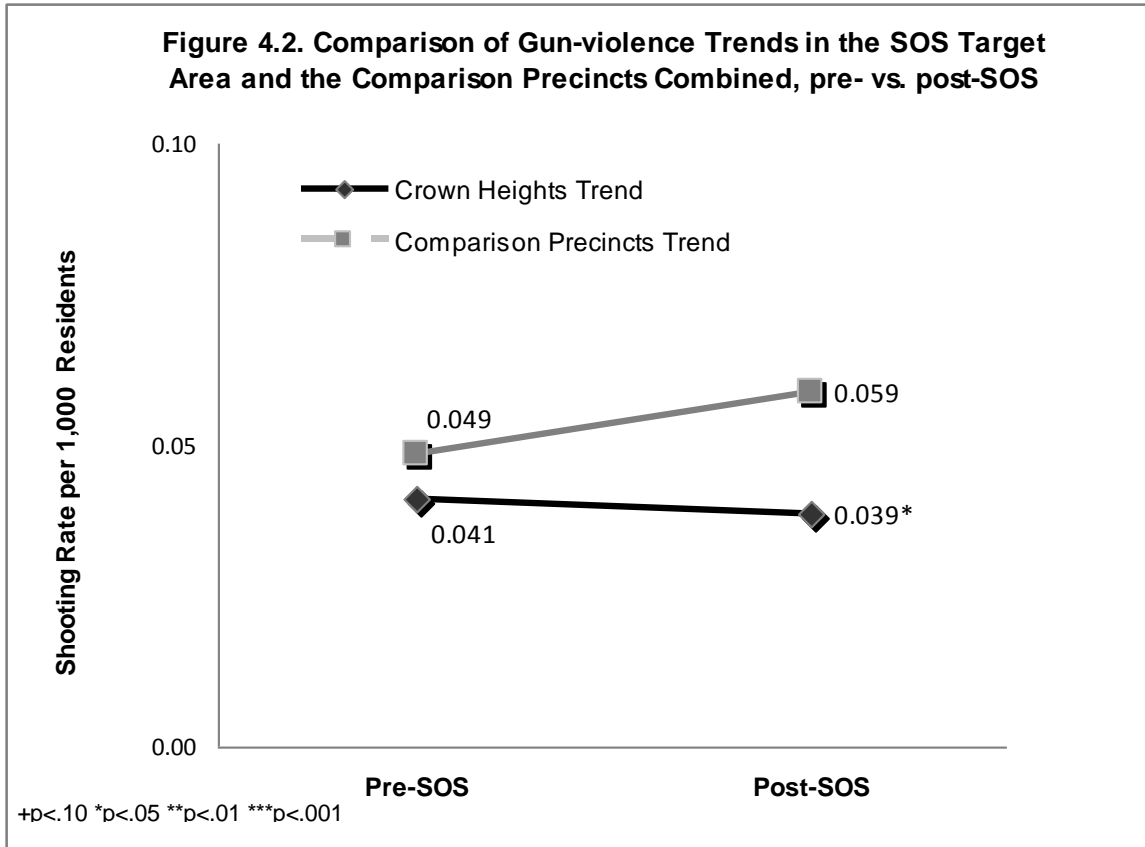
	Pre- Program Mean per 1,000	Post- Program Mean per 1,000	Absolute Change from Pre to Post	Percent Change of Shooting Incidents
Crown Heights	0.041	0.039	0.002	-6%
East Flatbush	0.033	0.042	0.009	28%
Brownsville	0.062	0.074	0.011	18%
Bedford Stuyvesant	0.051	0.062	0.010	20%
Comparison Precincts Combined	0.049	0.059	0.010	20%
All Brooklyn	0.018	0.021	0.003	18%

Figure 4.1 below further illustrates the trends in the target versus comparison precincts. As the solid lines in the figure suggest, the trends in all the individual precincts studied were affected by seasonal fluctuations which are typical of violent crime data (e.g., see Braga et al., 2001; Papachristos et al., 2007; Webster et al., 2009). The seasonal fluctuations may have influenced the initial regression that was conducted to detect a statistically significant trend in the pre-intervention period. The dotted trend lines provide a simple illustration of the data listed in Table 4.2, which reflect a small post-program decrease in gun violence in Crown Heights as opposed to a moderate increase in the comparison areas.

Figure 4.1. Trends in Average Monthly Shooting Rates, Crown Heights vs. Comparison Precincts Combined



Given the finding that gun violence decreased within the Crown Heights precinct during the post-program period while all the other studied areas increased, the research team determined that a second analysis comparing the difference in trends between the target and comparison precincts was warranted. This was accomplished using a Difference-in-Differences test (DiD). As presented in Figure 4.2, the difference in the post-program reduction in gun violence rates in the Crown Heights community (-.002) when compared with the combined increase in rates (+0.010) in the three comparison precincts was statistically significant ($p < .05$). In effect, the gun violence rate in Crown Heights was 20% lower than what it would have been had its change from the pre- to the post-program periods mirrored the average change in the comparison precincts.



Findings from both the independent samples t-tests, which show a downward trend in violence in the target neighborhood and an increase in the comparison neighborhoods, as well as the DiD analysis, which shows a significant difference in the violence trends between the groups, strongly suggest that the SOS program has had a demonstrable effect on gun violence in Crown Heights. It should be noted that the increase in gun violence in proximal comparison precincts could be attributed to a “displacement” effect wherein violent criminals committed shootings in neighboring precincts in order to avoid being in the precinct with the SOS program. However, the displacement theory is weakened by the fact that gun violence also increased in Brooklyn as a whole, which includes precincts that are not geographically near the Crown Heights precinct. Moreover, because the SOS/Ceasefire model is a prevention rather than enforcement model, it is less likely that perpetrators would be motivated to “move” their crimes to another precinct. Instead, results more likely reflect the efforts of SOS outreach work and public education in preventing gun violence.

One factor that could have affected the analysis was the number of months analyzed in the pre-program data, which included only 18-months of pre-program data. This is a relatively small amount of data when conducting a time series analysis. The evaluation of Baltimore’s Safe Streets program, in comparison, analyzed more than four years of pre-program data (Webster et al., 2009). Thus, it is possible that if more pre-program data were examined, results may have been different. A longer timeframe could have revealed more or less positive results than those seen here.

The analysis presented here does not account for fluctuations in prior monthly arrest rates in the precincts. Although there were no known special police interventions in any of the police precincts during the SOS program, informal roundups and other directed activities at the precinct level could have taken place. Specifically, if there were an increase in arrests in Crown Heights, then a decrease in crime could be seen in the following months. This could be another factor influencing the results of the study.

Additionally, this analysis does not account for seasonality in the data. In looking at the monthly counts of shooting incidents, there are noticeable increases in the counts during the summer months and decreases in winter months each year. These findings are consistent with previous research on seasonality and violent crime, which tends to show an uptick during warmer months. Moreover, the observed seasonality patterns were detected in all of the precincts studied and Brooklyn as a whole. However, it should be noted that seasonality could influence detection of regression trends found when the OLS regressions were conducted on the pre-program data.

Finally, the decision that SOS staff made in March 2011 to create a targeted intervention area within the 77th precinct could have affected the impact of the program; such effects cannot be ascertained due to data limitations.

CHAPTER 5

ASSESSING THE IMPACT OF THE SOS COMMUNITY MOBILIZATION CAMPAIGN

As articulated in the original Chicago Ceasefire model (see Chapter One), levels of neighborhood gun violence are believed to be mediated, at least in part, by community norms regarding violence. In other words, the more tolerant the community as a whole is toward gun violence and related problems such as gangs, the higher the levels of violence may be -- regardless of whether the average community member is involved in violent behavior. In theory, the lack of community resistance to violent behavior reduces the perceived costs of violence.

In keeping with the Chicago model, the SOS project employed community mobilization and public education techniques with the goal of reducing the community's tolerance for gun violence and increasing Crown Heights residents' sense collective efficacy, as defined by Sampson et al. (1997). Several previous studies have demonstrated that perceptions of collective efficacy are linked to violent crime rates at the neighborhood level -- neighborhoods with a greater sense of efficacy have lower crime rates (Armstrong, Katz and Schnebly, 2010; Maxwell, Garner and Skogan, 2011).

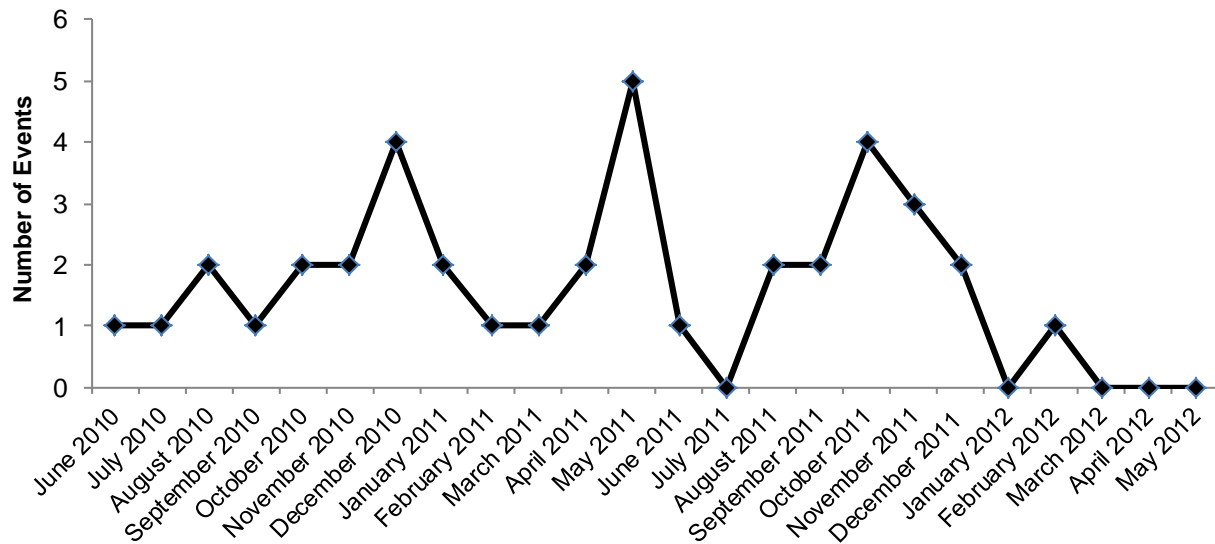
With the goal reducing tolerance for violence and increasing community members' sense of power to overcome violence, SOS initiated a community mobilization and public education campaign beginning in January 2010. The SOS program developers and staff worked closely with the Chicago Project for Violence Prevention to create a replication of Ceasefire's community mobilization strategy that would also be sustainable in the local context of Crown Heights. In addition to tracking outreach activities, SOS tracked the number and dates of shooting events; the number, dates and types of community mobilization events; and the number and types of SOS education materials distributed. This chapter summarizes the data on SOS community mobilization and public education campaigns and then presents the results of a pre/post community survey designed to measure the impact of the program's community-level interventions.

Community Mobilization Campaign

The SOS community mobilization campaign consisted of community events (e.g., basketball games, barbecues, anti-violence marches) as well as targeted "shooting responses" -- vigils that typically occur within 72 hours of a shooting in the target area. Some community events were designed for community members to take a stand specifically on the issue of gun violence (e.g., protest marches) and others served as more general community-building activities (e.g., basketball games).

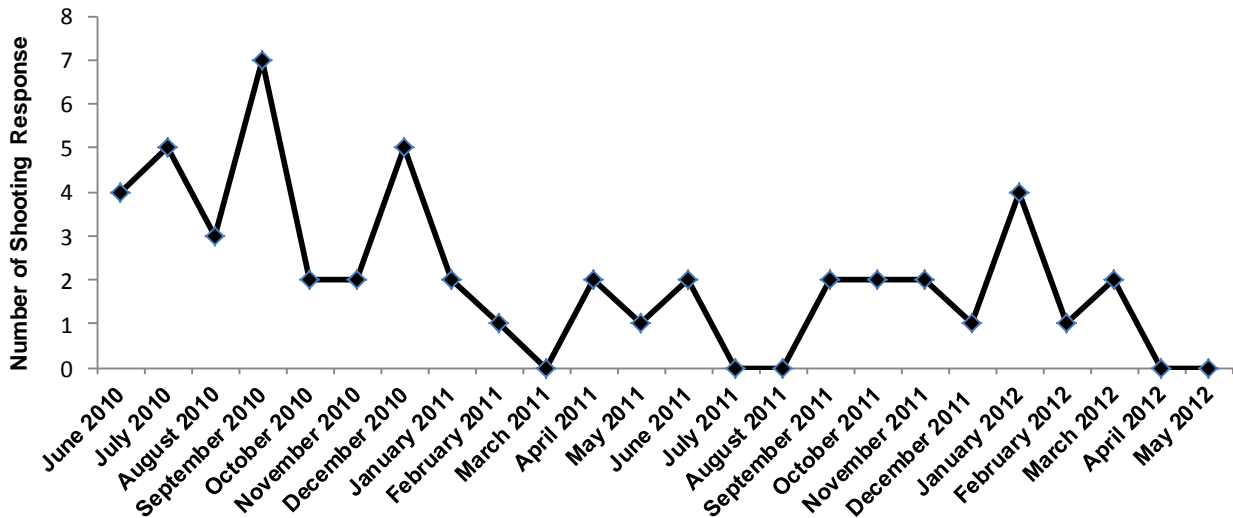
Figure 5.1 displays the number of community events held by the SOS project between June 2010 and May 2012. As in previous chapters, the selected time period excludes the first four months of 2010, which were essentially a planning period for the project, although there were three community events during this period. As the figure shows, the number of community events varied by month, which could be dependent on a variety of organizational and community-level factors. In total, SOS held 43 events that were attended by more than 5,000 residents, SOS staff and local clergy.

Figure 5.1. Number of SOS Community Events Held per Month (June 2010-May 2012)



Shooting responses were typically smaller, targeted events with the goal of gathering neighborhood residents at the location of a recent shooting to send the message that future violence will not be tolerated. Over the two years studied, there were 50 shooting responses led by SOS staff and involving more than 1,000 community members. Figure 5.2 displays the number of shooting responses held per month over the studied period. Because the goal was to hold a shooting response every time there was a shooting in the target area, in theory the number of shooting responses should be roughly equal to the raw number of monthly shootings. However, as shown, there were a total of 50 shooting responses compared to 73 shootings in the 77th precinct during the two-year time period. Due to data limitations, it was not possible to compare shootings and shooting responses on a monthly basis. However, there are several plausible reasons for the discrepancy. First, there may have been shootings that were not reported to the SOS staff. Second, there may have been shootings where it was not possible or advisable to hold a shooting response for safety or other organizational reasons. Additionally, a mid-program shift in the SOS target area (described in Chapter Two) may have resulted in some shootings outside the new SOS target area not triggering a shooting response.

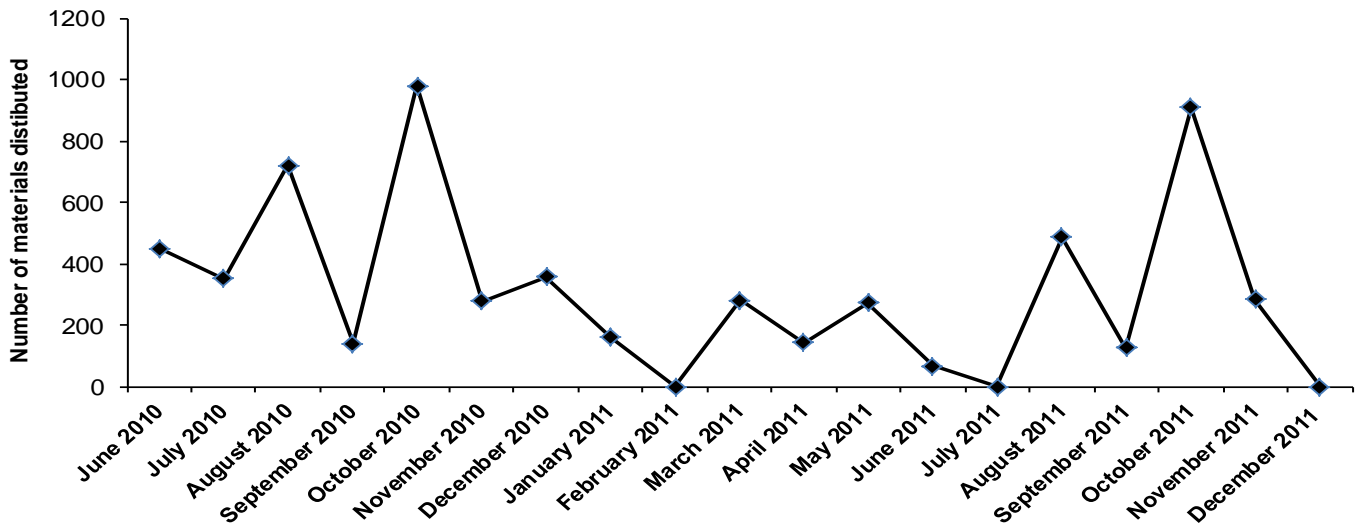
Figure 5.2. Number of Shooting Responses Held by SOS per month (June 2010-May 2012)



Public Education

The public education component of SOS involved the distribution of educational materials, which included posters, resource flyers and buttons regarding gun violence, throughout the target neighborhood. Additionally, local merchants were enlisted to display SOS materials in their storefronts and religious leaders and SOS staff educated the community through canvassing and direct education. In total, more than 5,000 materials were distributed. Figure 5.3 displays the number of educational materials distributed each month between June 2010 and May 2012.

Figure 5.3. Number of SOS Public Education Materials Distributed (June 2010-December 2011)



In order to measure the impact of the public education and mobilization components of SOS, a community survey was administered in two waves: Wave 1 occurred just after full implementation of the project (July 2010) and Wave 2 occurred near the end of the original grant period (November 2011). The survey utilized a purposeful sample of Crown Heights' residents who were recruited from public spaces in the neighborhood, including outside of train stations, along a business strip on Kingston Avenue, and at a local park. The survey covered perceptions of the level of gun violence in the community, opinions of neighborhood safety, and opinions of the legitimacy of gun possession and gang membership. Respondents were also asked whether they had seen SOS public education materials or heard of the program, as well as their opinion regarding the potential for community mobilization to affect gun violence. The full community survey is available in Appendix A.

The survey was administered using pen and paper by community volunteers recruited by the SOS staff. During Wave 1, a total of 112 surveys were administered over a two-week period. An oral consent script was read to potential respondents in order to protect their anonymity. Following oral consent, respondents were asked to choose whether to read the survey questions to themselves and respond in writing or have the survey read to them by the interviewer. All completed surveys were returned to the principal investigator by SOS project staff. Wave 2 utilized the same procedures and survey instrument and 104 total surveys were collected. Data from both waves were entered into SPSS for the purpose of analysis.

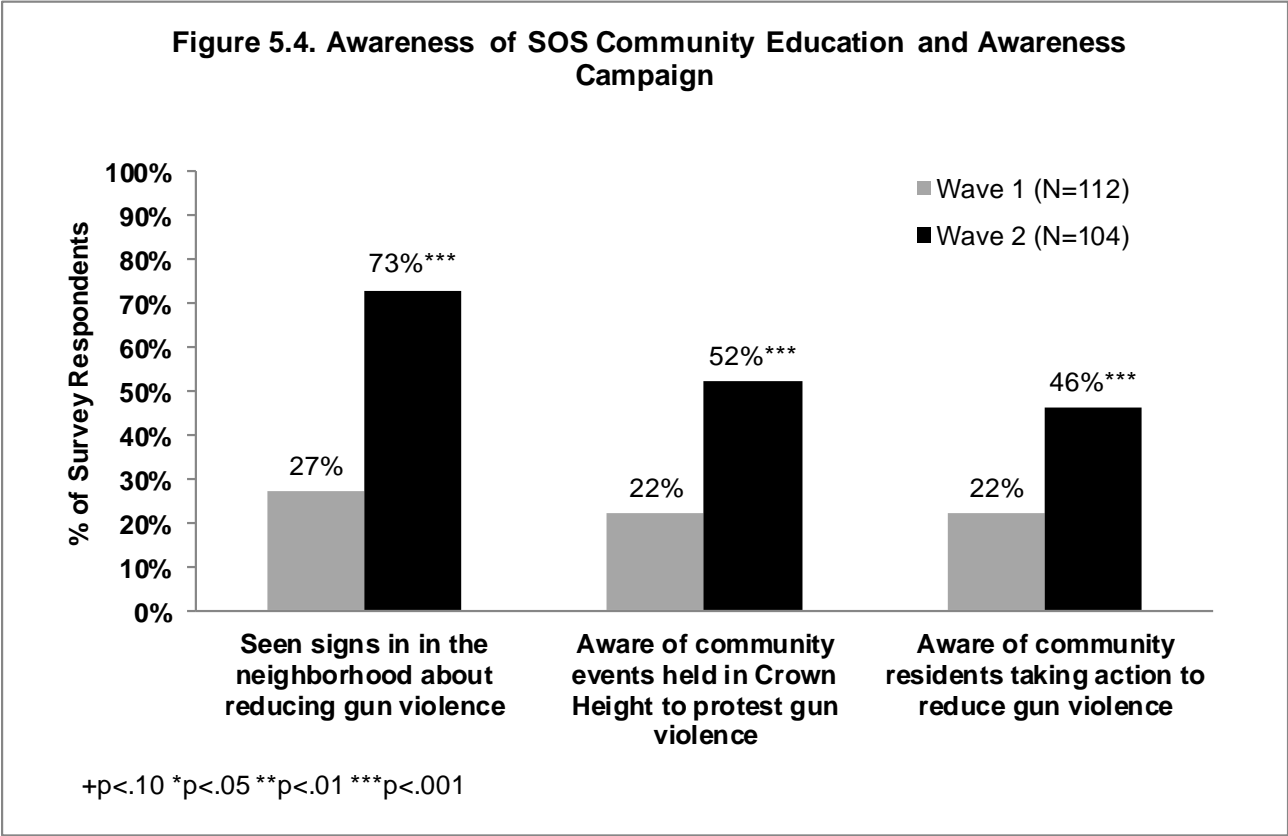
Table 5.1 displays the demographics of survey respondents. Overall, the two waves were highly comparable in terms of race, gender, age, and time living in the neighborhood. Additionally, both waves are mostly reflective of the census data for Crown Heights as a whole (see Table 4.1 in the previous chapter), suggesting that the samples can be interpreted as representative of the community. As shown, respondents were split evenly in terms of sex (55% male in both waves). In terms of race/ethnicity, survey respondents were primarily African-American or Caribbean (80% in Wave 1 and 64% in Wave 2). There was a higher percentage of white respondents in the second wave (8% vs. 1%) and Wave 2 participants were on average slightly older.

The table also shows the results of two questions about lifetime experiences with gun violence and one about perceptions of the levels of gun violence in Crown Heights compared with other Brooklyn neighborhoods. As shown, experiences with gun violence are common among Crown Heights residents: 39% of respondents had ever seen someone threatened with a gun in the neighborhood and 34% had seen someone shot with a gun in the neighborhood. Respondents held a range of opinions in terms of how violent Crown Heights is compared with other Brooklyn neighborhoods, with half (50%) of respondents considering the neighborhood to be about the same as other neighborhoods in terms of violence, 19% considering it to be *less* violent and 30% considering it to be *more* violent than other neighborhoods in Brooklyn. While the two samples (Wave 1 and Wave 2) were similar on most of the baseline violence questions, it should be noted that Wave 1 respondents were noticeably more likely to have actually seen someone threatened (40% vs. 29%) or shot (40% vs. 29%) with a gun, a difference that could have an effect on responses to later survey questions.

	Wave 1 (July, 2010)	Wave 2 (November, 2011)	Total
<i>Total Number of Respondents=216</i>	<i>N=112</i>	<i>N=104</i>	<i>N=216</i>
Sex			
Male	55%	55%	55%
Female	45%	45%	45%
Mean Age	37	41	39
Mean Number of Years living in Crown Heights	20	20	20
Race			
Black/African-American	55%	42%	49%
Caribbean /West-Indian	25%	22%	23%
Latino/Hispanic	5%	9%	7%
Asian/Pacific Islander	0%	2%	1%
White/Caucasian	1%	8%	4%
Other	6%	9%	7%
Multi-racial	7%	9%	8%
Lifetime Experiences with Gun Violence			
Ever seen someone shot with a gun in this neighborhood?	40%	29%	34%
Ever seen someone threatened with a gun in this neighborhood?	49%	29%	39%
Perception of Violence in Crown Heights			
Crown Heights is <i>more</i> violent than other Brooklyn Neighborhoods	24%	38%	30%
Crown Heights is <i>less</i> violent than other Brooklyn neighborhoods	19%	20%	19%
Crown Heights has about the same amount of violence as other Brooklyn neighborhoods	57%	43%	50%

Increased Awareness of the SOS Program

In order to assess the impact of the SOS program on observed shifts in community norms and perceptions, the research team first assessed the level of self-reported exposure to the program and whether that exposure increased substantially between Wave 1, which was conducted in July 2010 (approximately 60-75 days after the program was fully operational), and Wave 2, (approximately 16 months after the program was fully operational). The survey asked a series of questions concerning exposure to different facets of the community mobilization campaign (e.g., *During the last 12 months, have you seen any signs in the neighborhood about reducing gun violence? During the last 12 months, have people in the neighborhood done anything to stop or bring down gun violence?*) Results are presented in Figure 5.4.

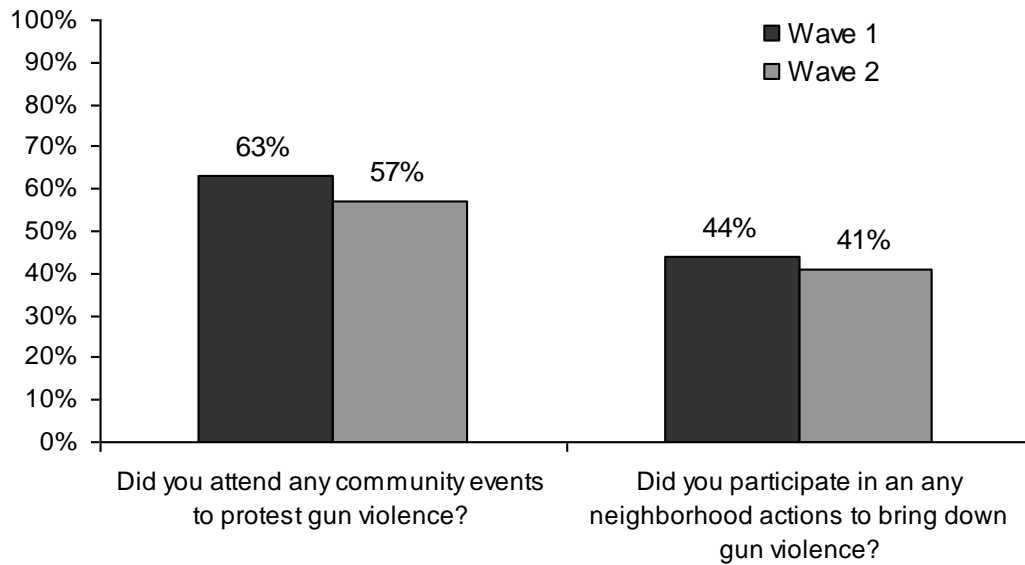


As the figure shows, there was a large and statistically significant shift between Wave 1 and Wave 2 regarding exposure to the SOS project. In Wave 1, just over a quarter of survey respondents had seen signs about reducing gun violence, compared to 73% in Wave 2 ($p<.001$). There was a similar increase in awareness of community events to protest gun violence (22% vs. 52%, $p<.001$) and awareness of residents taking action to reduce gun violence (22% vs. 46%, $p<.001$). On the whole, these results suggest that Crown Heights residents were aware of the SOS project and its mobilization efforts.

Levels of Participation in Community Mobilization Activities

As a follow-up to the two questions about exposure to community events and actions, participants were asked to report if they had participated in any of the activities after they heard about them. Figure 5.5 shows the participation results, *only for those who reported they had heard of the activities*, broken down by survey wave. As shown, in both waves survey respondents were more likely to have participated in one of the community-wide events (e.g., barbeque or basketball game) than one of the community actions (e.g., shooting responses). Specifically, approximately 60% had participated in a community event in both waves, as opposed to just over 40% of both waves that had participated in a shooting response. This may simply be a result of the fact that shooting responses are staged within 72 hours of the crime, therefore leaving less time to spread the word throughout the community.

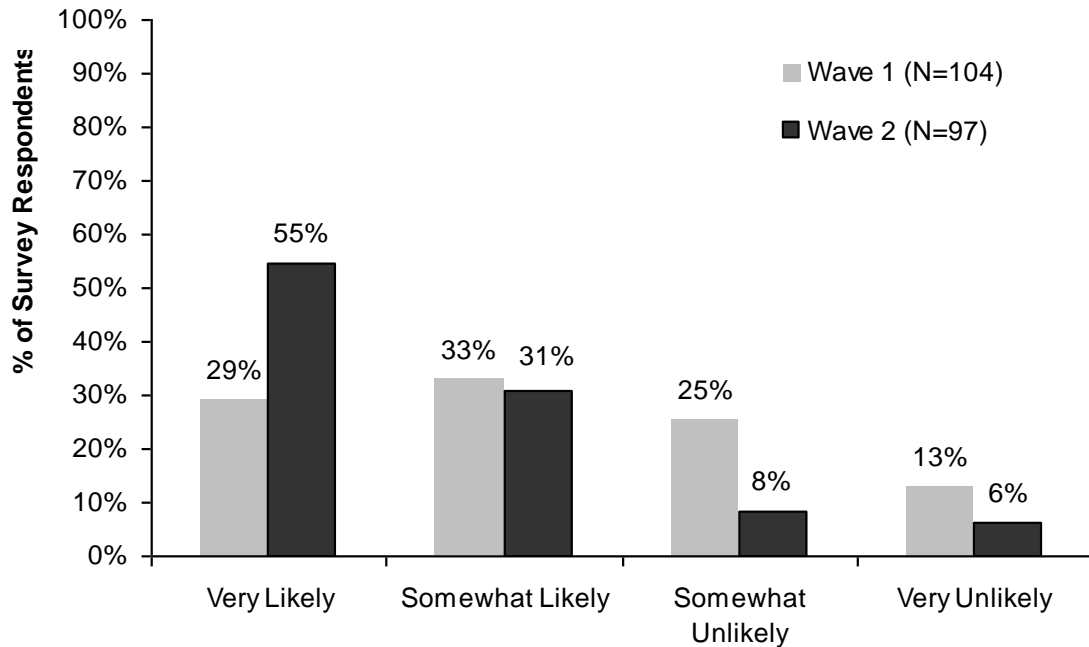
Figure 5.5. Levels of participation in community mobilization activities among survey respondents (of those who had heard of such activities)



Shifts in Perceptions of Community Mobilization Against Guns

Survey results were used to explore whether the SOS mobilization campaign had an impact on residents' perceptions of the community's ability to combat violence. Specifically, the survey asked: *In your opinion, how likely is it that a campaign to stop or bring down gun violence in the neighborhood would actually help stop or reduce gun violence?* Results, as shown in Figure 5.2, suggest that perceptions shifted noticeably in Wave 2 toward a perception that a community mobilization campaign could be effective in bringing down gun violence. Overall, the shift was statistically significant ($p < .001$), with the biggest change being a substantial increase in the number of respondents who reported that such a campaign would be "very likely" to bring down gun violence.

Figure 5.6. Likelihood that a community campaign to bring down gun violence would actually reduce gun violence**



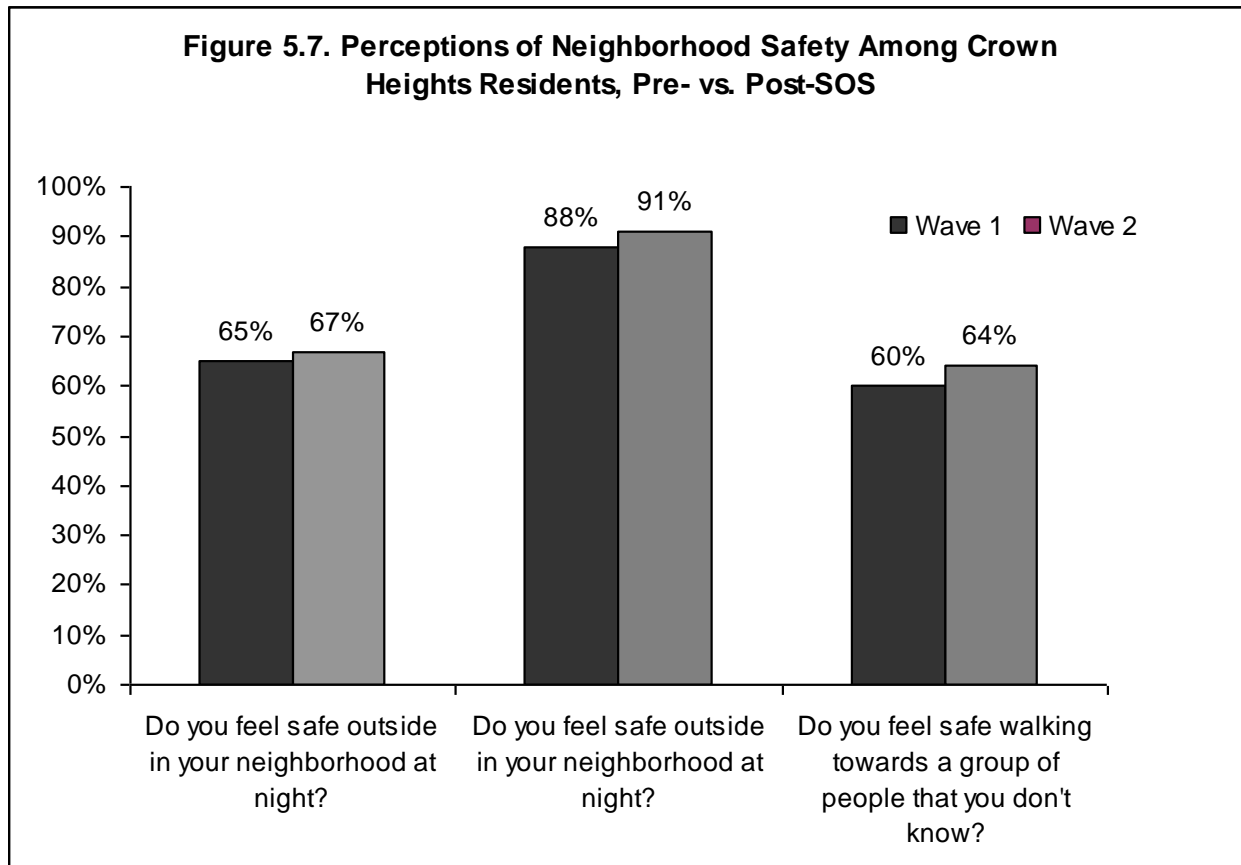
+p<.10 *p<.05 **p<.01 ***p<.001

To further explore the findings, the research team ran a bivariate analysis correlating participation in community events and shooting responses with perceptions of community mobilization. Results showed that those respondents who had been part of shooting responses were more likely to feel that the campaign was “very likely” to reduce gun violence (59% vs. 38%, $p<.001$). There was no relationship between having attended a community event and perceptions of the efficacy of a campaign against guns. Caution should be exercised when interpreting these results, as those who participated may already have been more positive about the potential of the campaign before they attended a shooting response.

Shifts in Perceptions of Neighborhood Safety

The survey also explored the possibility that the presence of the SOS program and the community mobilization activities increased Crown Heights’ residents overall sense of neighborhood safety. Specifically, respondents were asked about their perception of safety in three situations: (1) outside in the neighborhood at night, (2) outside in the neighborhood during the day, and (3) walking towards a group of people that you don’t know. The presence of the SOS program does not appear to have had a strong impact on feelings of safety among residents generally. As shown in Figure 5.6, about two-thirds of respondents in both waves reported feeling safe outside in the neighborhood at night, while a larger majority (90%) reported feeling

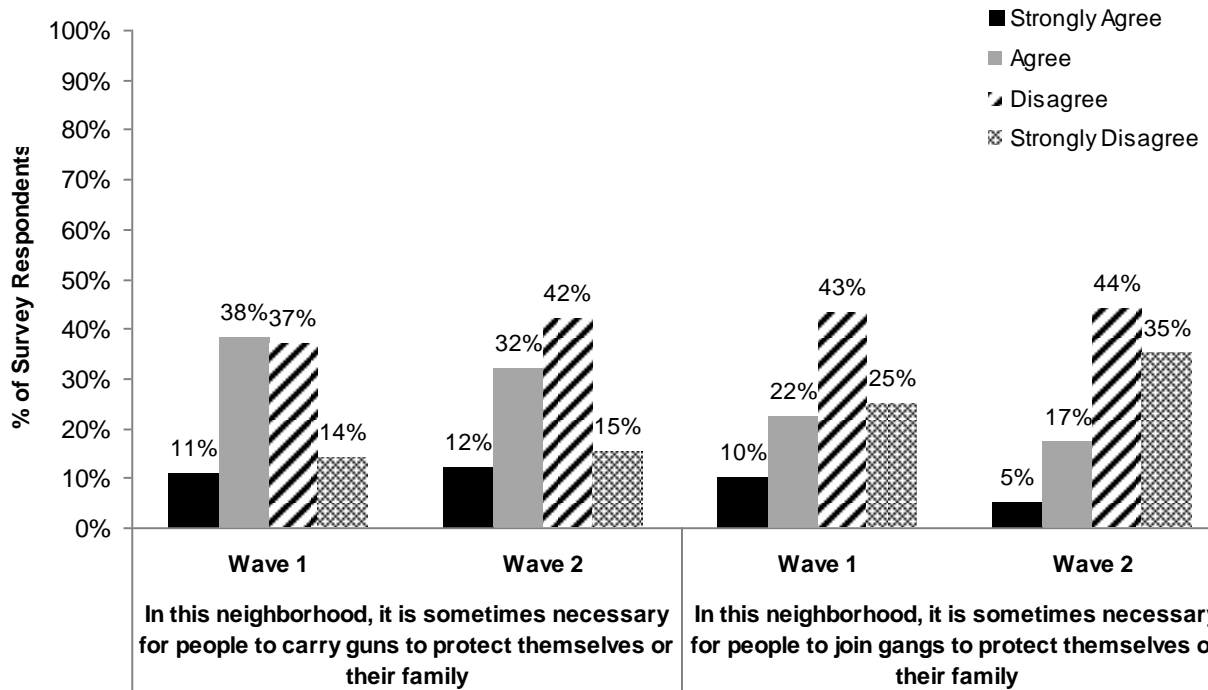
safe outside during the day. Finally, just over 60% in both waves reported feeling safe walking towards a group of people that are strangers.



Shifts in Norms Regarding Gun Violence

Finally, the survey attempted to document whether community norms regarding gun violence were affected by the presence of the SOS program or exposure to program materials or mobilization activities. Gun violence norms were measured using two specific items on a five-point Likert scale (strongly agree to strongly disagree): (1) *In this neighborhood, it is sometimes necessary for people to carry a gun to protect themselves or their family;* and (2) *In this neighborhood, it is sometimes necessary for people to join a gang to protect themselves or their family.* As figure 5.7 shows, there was not a strong or statistically significant relationship between the program and the answers to these questions about gun violence norms. Additional analysis of whether having participated in a community event of shooting response affected responses also showed no significant effect.

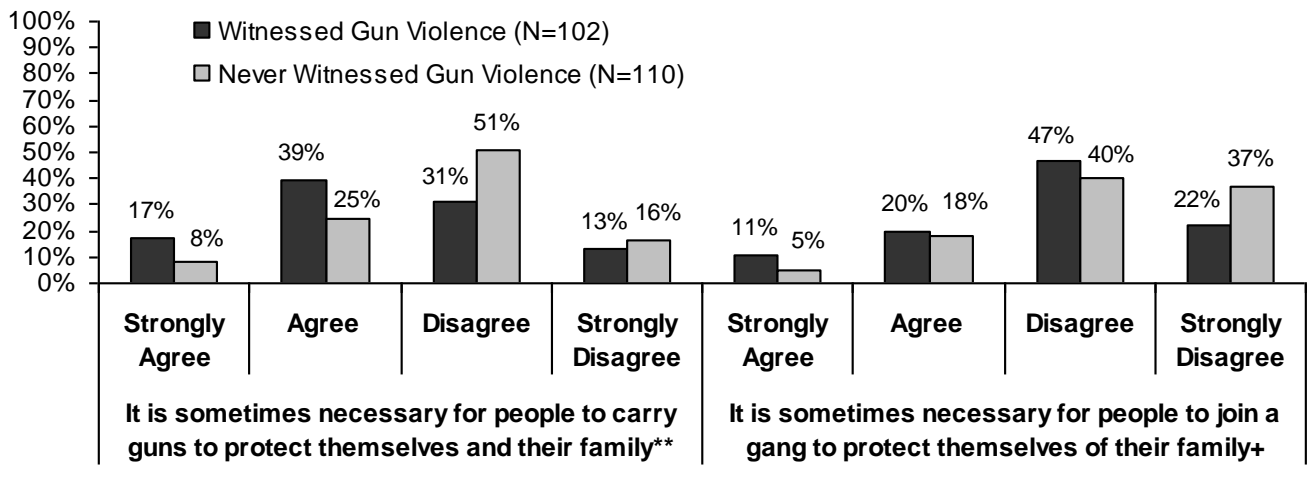
Figure 5.8. Shifts in Norms Regarding Gang and Gun Violence, Pre- vs. Post-SOS



Exposure to Violence and Norms Regarding Guns and Gangs

Further exploration of correlates of tolerance for gun violence revealed that survey respondents who had been exposed to more violence also had a *greater* tolerance for gun-carrying and gang membership. As shown in Figure 5.9., below, 56% of respondents who reported prior exposure to gun violence agreed with the statement, “In this neighborhood, it is sometimes necessary to carry a gun to protect yourself or your family,” compared with only 33% of those not exposed to gun violence ($p < .05$). Respondents exposed to gun violence were also more likely to support the legitimacy of gang membership (31% vs. 23%, $p < .10$). While these results may at first seem counter-intuitive, previous research suggests that fear, which may be triggered by exposure to violence, is associated with support for gun ownership and use among minority youth (Cook et al., 2000).

Figure 5.9. Effects of Witnessing Violence on Gun Violence Norms



CHAPTER 6

FUTURE RESEARCH DIRECTIONS

The current evaluation documented a decrease in gun violence incidence in the target neighborhood of Crown Heights, Brooklyn during the implementation of Save Our Streets. In the context of increasing gun violence rates in three matched comparison areas and Brooklyn as a whole, the downward trend was found to be statistically significant. Given the close adherence of SOS to the original Chicago Ceasefire model, this finding supports the ongoing replication efforts currently in progress across New York City and the rest of the country.

While the ultimate goal of the public health approach championed by Cure Violence/Chicago Ceasefire is decreased gun violence, multiple short-term objectives are thought to facilitate this goal, as illustrated in the logic model discussed in Chapter One. Specifically, the model aims to increase the perceived adverse consequences of engaging in gun violence; promote alternative strategies for solving conflicts at the individual level; increase local perceptions that community mobilization can make a difference; and modify social norms to decrease the tolerance for gun violence at the community level.

Using mixed methods, this study attempted to measure the success of each of these short-term objectives. Findings from interviews with SOS staff and analysis of program activities suggest that the outreach workers were able to realize the goal of enrolling and working directly with a high-risk group that may not respond to traditional enforcement efforts. Additionally, based on the estimates of the outreach staff, the program offered alternatives to violent conflict in dozens of cases.

Findings regarding the impact of community mobilization were mixed. The community survey results suggested that SOS exposed a large percentage of Crown Heights residents to the project. While the campaign appears to have increased residents' perceptions of the potential of the community to mobilize against gun violence, norms regarding the legitimacy of guns and gangs for self-protection remained the same following the SOS community mobilization. One unanticipated finding was a statistically significant relationship between respondent support for gun violence and having been a witness to gun violence in the past.

There are several specific areas where further research regarding the Chicago Ceasefire model could be fruitful. First, little is known about the relative strength of each component in the model. In particular, further qualitative research exploring the nature of the relationship between outreach workers and high-risk participants, with a focus on the protective qualities of this relationship in reducing propensities for violent behavior, would be revealing. Second, in the current study, the outcome of mediation of individual conflicts was based on anecdotal judgments that may or may not be accurate. Confirming whether individual conflicts are permanently resolved or continue following mediation would be productive. This could potentially be accomplished through a combination of outreach worker reports and administrative data, provided proper privacy protections were in place. Finally, given the finding that witnessing violence is related to support for the legitimacy of guns and gang membership, piloting and evaluating trauma-informed care and cognitive-behavioral treatment for a targeted

group of individuals who have been victims of violence or witnessed violence in their neighborhoods could be fruitful. Preliminary research in this area is already underway in Crown Heights.

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APPENDIX A: SAVE OUR STREETS COMMUNITY SURVEY

Save Our Streets Community Survey

Year 2

Save Our Streets is a project of the Crown Heights Community Mediation Center. The project's mission is to prevent gun violence in the community. Part of the project involves mobilizing the community to speak out against gun violence. We would like to ask you a few questions about violence in the neighborhood/community and what might be done to reduce it. The survey will only take 10 minutes and it is anonymous. To thank you for participating we will be offering (a \$5 gift certificate) at the end of the survey. Would you be willing to participate?

Introductory Questions (to be asked by field interviewer)

(1) Do you live in Crown Heights?

Note to interviewers: If the respondent does not live in Crown Heights, please stop the interview and thank them for being willing to take part.

(2) How long have you lived here?

(3) What the closest street corner/intersection to your house?

Note to Interviewers: At this point you should offer the respondent a choice: (1) you can give them a clipboard and pen so they can complete the survey themselves, or if they prefer, you can read the questions and mark the answers for them.

--Please Do Not Put Your Name on this Survey--

Instructions: Place an "x" in the box that best answers the question.

Demographics

(1) Sex

Male

Female

(2) How old are you?

__ __ years

(3) How would you describe your race/ethnic background (pick all that apply)?

- Black/African American
- Caribbean/West Indian
- Latino/Hispanic
- Asian/Pacific Islander
- White/Caucasian
- Other: _____

Neighborhood Violence Questions

(1) In terms of street violence (fights or confrontations that happen outside or on the streets), how do you think Crown Heights compares to other neighborhoods in Brooklyn?

- Better (less violence)
- Worse (more violence)
- About the Same

(2) In the last year, how often have you heard gunshots in your neighborhood?

- Never
- Once or twice
- Three to five times
- More than five times

(3) How common would you say it is for people to belong to street gangs in the neighborhood?

- Very Common
- Somewhat Common
- Somewhat Uncommon
- Very Uncommon

(4) How common do you think it is for people to carry guns in the neighborhood?

- Very Common
- Somewhat Common
- Somewhat Uncommon
- Very Uncommon

(5) Have you ever seen someone threatened with a gun in the neighborhood?

- Yes
- No

(6) Have you ever seen someone shot with a gun in the neighborhood?

- Yes
- No

(7) If a fight were to break out near your home, how likely is it that your neighbors would break it up?

- Very Likely
- Somewhat Likely
- Somewhat Unlikely
- Very Unlikely

(8) If a fight were to break out near your home, how likely is that the police would be called?

- Very Likely
- Somewhat Likely
- Somewhat Unlikely
- Very Unlikely

Questions about Safety

(1) How safe do you feel alone inside your house?

- Very Safe
- Somewhat Safe
- Somewhat Unsafe
- Very Unsafe

(2) Outside in your neighborhood during the day?

- Very Safe
- Somewhat Safe
- Somewhat Unsafe
- Very Unsafe

(3) Outside in your neighborhood at night?

- Very Safe
- Somewhat Safe
- Somewhat Unsafe
- Very Unsafe

(4) Walking alone toward a group of people that you don't know?

- Very Safe
- Somewhat Safe
- Somewhat Unsafe
- Very Unsafe

(5) In this neighborhood, it is sometimes necessary for people to carry guns to protect themselves or their family.

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

(6) In this neighborhood, it is sometimes necessary for people to join a gang to protect themselves or their family.

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

Questions about Community Mobilization

(1) During the last 12 months, have there been any community events held in the neighborhood to protest violence?

- Yes
- No
- Not sure

If there have been any community events, did you attend?

- Yes
- No

(2) During the last 12 months, have people in the neighborhood done anything to try to stop or bring down gun violence?

- Yes
- No
- Not sure

If anything has been done, were you a part of this action?

- Yes
- No

(3) During the last 12 months, have you seen any signs in the neighborhood about reducing violence, stopping shootings or increasing peace?

- Yes
- No

If you have seen any signs, can you remember where you saw them?

- Yes (where? _____)
- No

(4) In your opinion, how likely is it that a campaign (events, community action) to stop or bring down violence in the neighborhood would actually help stop or reduce gun violence?

- Very Likely

- Somewhat Likely
- Somewhat Unlikely
- Very Unlikely

Why do you feel this way?
