

Figure 1. Violent Crime Concentrations in Police Service Areas 601, 602, and 608

Program Elements of the PSN-DC Initiative – The Gang Intervention Partnership

The focus of this report is on one PSN-DC initiative that was intended to target youth at high risk for violence, gang involvement, or victimization within PSAs 601, 602, and 608, with the goal of reducing violence in those places. However, unlike other PSN projects which include law enforcement efforts and information sharing, this PSN-DC initiative was primarily implemented by a non-police entity, the Collaborative Solutions for Communities (CSC) (formally known as the Columbia Heights/Shaw Family Support Collaborative), ⁴ for reasons discussed below. The implementation of the intervention began on January 1, 2015, and

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⁴ See http://wearecsc.org/.

continued in full through September 30, 2015, although some additional project activities occurred on a limited scale after this period.

The overarching framework and initial goal of this PSN-DC program was to employ a program known as the Gang Intervention Partnership (GIP), used by the CSC in a previous PSN and crime prevention initiative (see Center for Youth Policy Research, 2006). This approach was to include a robust community partnership with the D.C. Metropolitan Police Department (MPD) and schools whereby the "intervention evolves into prevention." In this model, MPD would conduct gang suppression efforts and share information with youth outreach workers to identify high-risk youth and causes of violence. A "web of support" (Collaborative Solutions for Communities, 2007) would be identified, followed by youth development interventions. The web of support strategy includes providing gang-involved youth with social services support to their families, schools, communities, and peers, as well as to the juvenile justice system and youth-serving organizations that may interact with those youth. The youth development interventions focus on redirecting young people to educational and pro-social opportunities, including preparation for general education exams, college applications, and employment.

The GIP is undergirded by three principles that focus on understanding the big picture by contextualizing violent incidents, understanding that violence is preventable, and emphasizing the value of multi-system partnership. GIP is an approach that helps case managers and community outreach workers build relationships and establish trust in the targeted PSN sites. The goal of GIP is to eliminate or significantly reduce gang and crew related injuries and homicides and to prevent retaliations and escalation of violence resulting from critical incidents. Multiple activities guide the implementation of the GIP, including the use of weekly meetings, critical incident protocols, targeted and street-level outreach teams, cooldown activities to reduce retaliation, initiatives to reduce gang/crew-related suspensions in targeted schools, activities to prevent the formation of new gangs, and increased involvement of at-risk youth in education, jobs, recreation, and other productive activities.

Weekly meetings serve as an opportunity for stakeholders (e.g., residents, members of the CSC, other community groups, schools, youth services the police, and other justice agencies) to get acquainted, learn from residents, and also identify the most vulnerable youth. Schools became vital partners in these meetings, as they are a significant part of the web of support system of high-risk young people and account for a majority of time where ganginvolved youths spend their time. Building a relationship with schools allowed for increased information sharing between different schools and groups, and schools could also be used as a lever to provide services for youth or to work on reducing risk factors (like suspensions). For example, one outreach worker recalled the important utility of this relationship:

"There was an incident that occurred at a recreation center where a youth was beaten up. We were able to identify a couple of youth from different schools; that is when the

⁵ John DeTaeye, personal communication, February 9, 2015

communication starts with the school, [we were] able to ask if they know anyone at the school who knows what happened... [the school had] one notebook that has all the identified youth gangs with profiles and school photos."

In addition to these meetings and interactions with schools, outreach workers also had opportunities at recreation centers and on the street to engage community members in conversations for the purposes of fact gathering and to assess and build an understanding of the community climate. Leveraging resources in this way through community engagement was the hallmark of the GIP model.

This focus on social services for targeted youth has found traction elsewhere such as in Chicago's Gang Violence Reduction Program (see Howell & Hawkins, 1998, p. 297). The CSC uses a solutions-focused, community engagement strategy to identify high-risk young people between 14 and 24 years of age and their families; to intervene before retaliatory or future violence might occur; and to assist schools and neighborhood residents in taking ownership of solutions to violence. Thus, the GIP model emphasizes an interplay between targeted deterrence, focused outreach, intervention, and case management/family support services. However, certain aspects of the GIP effort changed as it was applied to CSC's new efforts in the Sixth District. Most importantly, the GIP model is intended to involve close collaboration with law enforcement and coordination of prevention efforts with gang suppression activities. However, following a change in the city's mayoral administration, MPD altered its strategy for addressing gangs and violence across the city. MPD's new approach involved less direct cooperation and information exchange with CSC relative to earlier efforts. Consequently, CSC had to implement community outreach activities and case recruitment on its own. Further, although CSC representatives took part in weekly meetings with other stakeholder agencies (including the MPD, the Court Supervision and Offender Services Agency, and the D.C. Department of Youth Rehabilitation Services), there was less follow-up from these meetings to help CSC with their efforts to implement the web of support activities at the street level.

CSC staff felt that these changes in the emphasis of the program complicated their efforts to implement the GIP model fully. As a result, the program as implemented primarily emphasized community outreach and targeted case management of high-risk youth using a family-centered approach to violence intervention and prevention. This approach is reflected in the variety of programs implemented within the GIP framework including "social corners" initiatives, critical incident protocol meetings, community outreach workers and case management, solutions-focused brief therapy, family group conferencing, follow-up meetings, and youth summits, described in detail below.

Social Corners Initiatives

An innovative approach used by PSN-DC to gather and organize community members was the "social corners" initiative. The social corners initiative is based on Peter Block's (2005) "Small Group" approach to community building, and has elements of focused therapy and restorative justice practices such as family group conferencing. The approach involves using

street corners to foster civic engagement and build collective efficacy among residents, which in turn have been hypothesized to contribute to crime prevention (Sampson, 2011). As CSC staff member John DeTaeye emphasized:

"The greater number of social corners along with increased identification of individual and community-based assets (organized and effective individuals) and organizational capacity (partnership with other organizations), will connect residents with residents, and organizations with residents. These connections, if positive, in turn, are meant to demonstrate to the broader community that young people are safer and the community as a whole is more responsible for its own safety."

To implement social corners with PSN-DC, the CSC first developed objectives related to collective efficacy and community building. These included:

- Establishing and strengthening individual bonds with residents based on their gifts, values, and hopes for themselves and their community;
- 2) Establishing a structure to connect residents with each other based on their gifts, values, hopes, and needs identified;
- 3) Establishing and strengthening partnerships with existing organizations within the neighborhood and gaining their participation in the social corner;
- 4) Connecting residents with the range of services and support offered by PSN-DC partners; and
- 5) Helping residents identify and take ownership of solutions to immediate local problems by building collective efficacy and accountability in their neighborhoods.

Building on these objectives, and in addition to their GIP efforts, CSC held four social corners in May and June of the project period at strategic locations within each of PSAs 601, 602 and 608 to engage youth, senior citizens, and residents. The locations for these meetings were determined by the PSN task force in consultation with MPD and the District of Columbia Housing Authority (DCHA), as well as by examining the geographical locations of MPD alerts (crime notifications) and crime concentrations derived by the research partners.

Once a location for the social corners meeting was determined, a community partner was identified at each social corner. These partners helped facilitate the social corner, serving as recognizable community stakeholders knowledgeable about the area in which the social corner was held. CSC staff and the community partner would place at each corner a table adorned with a banner and set with food (cookies, chips, drinks, napkins, cups), a sign-in sheet to keep track of the number of community members drawn to the corner, and literature and brochures to inform residents about CSC and other resources. Social corners could last between one to three hours, depending on the community turnout.

⁶ John DeTaeye, personal communication, June 22, 2015.

During the PSN-DC initiative, social corners were executed to the best of CSC's ability, but several shootings in D.C. served as a major barrier to implementation. For the times when social corners were implemented, CSC would select residents and youth indiscriminately, engaging with anyone walking down the street, specifically trying to target youth. Those who visited the table were asked to write down their feelings in reaction to open-ended questions about the state of their community. The purpose of this exercise was to get residents more involved and attuned to neighborhood problems and their own strengths. For example, residents were asked what they or their family and friends might consider as their strengths, things that they were proud of in their lives, and positive and challenging aspects of their community.

Social corners were also used for prevention efforts after a critical incident occurred (see below). Thus, social corners became a way for outreach workers to engage with youth in positive activities such as recreation or conversations about a youth's future goals. Doing outreach to prevent future violence and suppress retaliatory feelings on the street meant CSC staff needed to have a presence in the community and engage with youth. One case manager relayed how these efforts produced information sharing and prevented retaliation:

"The child, once [he/she] has a relationship with CSC, [he/she] will call CSC [about a potential incident] and CSC will call the principal or guidance counselor [at the local school] or MPD and [would inform either of these stakeholders] that [they] need to be in a certain area at a certain time to prevent a fight."

This case manager summed up the byproduct of GIP and social corners efforts as: "curtailing [violence] through relationships with youth; [it's a] preventive effort to deter fights and violence."

Community Outreach Workers

The cornerstone of this PSN-DC initiative was the deployment of community-oriented, street-level outreach workers. Community outreach involved at least five CSC outreach workers building capacity with community members. These activities included gathering community intelligence at night to research problems, usually triggered by an incident, through foot patrols in PSAs 601, 602, or 608. Additionally, outreach workers were scheduled to report to schools and recreation centers on a daily basis to connect with young people and get a sense of what was happening in the community. Under the GIP model, community outreach workers would also have regular interactions with law enforcement officials to share up-to-date intelligence, so that immediate problems and risks of retaliation could be addressed. However, this collaboration was more limited during this particular PSN initiative.

In addition to scheduled outreach tasks, the role of outreach workers was also one of a mentor. The community outreach workers interacted with 45 individuals, and directly served a total of 36 young people, including their family members. Workers also had multiple contacts with the same youth, which created opportunities for strengthening the quality of street-level

contact. Relationships were also enhanced by community outreach workers in that they filled resource gaps when families were in need (e.g., access to services, assistance with employment or housing, etc.). Relationship building also took on the form of follow-up meetings with youth at places such as schools, over the phone, or at a recreation center. Community outreach workers and case managers traveled to locations where youth would be found as opposed to encouraging young people to meet them outside of their normal environment. These follow-up meetings were meant to build relationships with youth in the community, by asking questions like, "what are you proud of?" or "what are you good at?" These questions were meant to encourage youth to think differently and develop a solutions-focused approach to solving interpersonal conflicts.

Outreach efforts were also geographically focused. Workers used crime analysis provided by the research team as well as community intelligence about the history of tensions in the community, e.g., among rival gangs, to target their efforts. The purpose of focused outreach was to build trust and credibility with young people and families within specific neighborhoods. Outreach workers identified high risk young people and families through contact with schools, word of mouth communication, and information gathered from previous incidents. Outreach workers also worked with MPD's community coordinator to connect with community leaders in each PSA to build upon existing trust between the MPD community outreach coordinator and the community, and to obtain MPD's assistance in cases where outreach workers needed contact information for a victim in order to reach out to the victim's family. These outreach efforts translated into more resources for the community, invitations to community events, and legitimacy within the community. One outreach worker recalled, "we will be called if someone notices or hears something; we will try to mediate. The community leaders trust what we could do."

Overall, CSC outreach workers interacted with youth to establish relationships, discussed their state of being and future goals, provided them with feedback about how to accomplish their goals, or de-escalated conflict and mediated tensions between youth. These interactions took place at various locations such as churches, CSC offices, in the community, and in the home of the youth. Many of the above activities overlapped and included a number of community events that are hard to capture systematically. For example, outreach workers might have met with youth and their families at funerals or helped to coordinate candle light vigils. They may have visited with families in their homes during case management or when they saw them during their street work. They might have also arranged for lunch meetings with individuals at their schools.

Critical Incident Protocol and Follow-ups

The critical incident protocol was part of the PSN-DC's GIP approach and has been used in other PSN projects (see Bynum and Varano, 2003). A total of eight critical incident meetings were held during PSN-DC, and occurred after GIP and social corners activities solidified infrastructure and community trust in the program. A majority of the critical incident meetings

in PSN-DC occurred later in the initiative, with five occurring in August, two in September, and one at the beginning of October.

The critical incident protocol is an incident-driven protocol grounded in the belief that violence is not an isolated incident, but, rather, an expression of broader family, community, cultural, social, and political dynamics. The purpose of these protocols is to reduce the potential for retaliation and address immediate and long-term trauma for the victim, their family and friends, and the community. During critical incident meetings, critical incidents are defined and graded on two levels: a level one incident applies when "a person 24 years old or younger is killed or requires hospitalization as a result of a violent incident." A level two incident applies when "known groups, gangs, or crews engage in a fight or altercation of words in a public space" (Collaborative Solutions for Communities, 2014). Within 24-hours of a level one incident, the protocol is activated, which begins with a meeting between MPD and the CSC. Level two incidents trigger the critical incident protocol within 24 – 72 hours. These sessions allow the police to provide an overview of the incident to the CSC staff. If no "critical" event occurred, a protocol might still be activated after a weekly GIP meeting or stakeholder meeting if youth are identified as in need of immediate preventive and support services.

The critical incident review protocol process also produced standardized documentation of each incident complete with information on the initial critical incident conference, the incident overview, the critical incident meeting, updates, information about the possibility of retaliation, and next steps to be taken. This helped to ensure transparent and consistent communication across all stakeholders included. We include the full critical incident protocol in Appendix A. The general steps of the protocol include:

- 1) Identifying and interviewing victim(s), as well as family and friends of victim(s);
- Assessing the scale of potential retaliation through identification of the top three
 potential shooters and targets in retaliatory violence and developing an intervention
 strategy to address potential perpetrators and victims;
- 3) Ensuring the provision of support services for family and friends; and
- 4) Assessing community temperature and designing activities to initiate a community "cool down" as needed with a "Vigil Protocol" (see Appendix C).

The critical incident protocol allowed the CSC and other stakeholders to implement targeted and intensive outreach efforts to gang-related youth and their family members, communities, and peers. Teams comprised of agency workers, community-based case managers, police officers, and youth outreach officers coordinated preventive efforts. The critical incident protocol also leveraged the resources of law enforcement (MPD) and community-based organizations (CSC) to execute coordinated efforts in incapacitating violent offenders, preventing retaliatory violence, and mitigating trauma through restorative justice approaches. This process often required the CSC and the MPD to work simultaneously and sometimes in partnership, depending on the situation. Information gathering needed to

support the execution of the protocol was completed within twenty-four hours of a violent incident.

The critical incident protocol process was also informed by open-ended questions asked during the meeting meant to elicit a "solutions focused" dialogue. Such questions included:

- What happened?
- What do we know about the victim? (past criminal history, affiliations, "beefs," school, involvement with court services)
- What do we know about the family of the victim or offender? Who may know their families?
- What do we know about friends of the victim and offender?
- On a scale from 1-10 (1=low possibility and 10=highest possibility), how concerned or nervous are we about retaliation?
- What can be done to bring issues that may lead to further victimization to a resolution (e.g., bring youth to a safe place, etc.)?
- Who are we most concerned about (as victims or offenders)?
- Who may know the persons we are concerned about?
- Who may be missing from this meeting that we need to include?

Responses to these questions were then used to guide actions by stakeholders as outlined in the critical incident protocol. As one outreach worker remarked:

"The critical incident is a reactionary approach to an incident, but this is strengthened by the relationships you have on the preventative side. And you often hear details about the incident that MPD may not have and usually faster information and sometimes [you] may even receive [information] before the incident occurs."

These responses were also captured on a critical incident meeting report to summarize critical incidents and outline next steps (see Appendix B).

Follow-up meetings also occurred within 24-48 hours of a critical incident meeting. These follow-up meetings served as an opportunity for CSC outreach workers to exchange information with stakeholders and review what had happened in the community since the protocol was implemented. Follow up meetings allowed for reassessing the level of threat of retaliation, the community climate, and concerns about future shootings and victimizations. This also allowed caseworkers to obtain updates from the MPD and other stakeholders to determine the status of service provision and to plan for additional activities.

Case Management using Solutions-Focused Brief Therapy and Family Group Conferencing

GIP, community outreach efforts, or the critical incident protocol could trigger case management services. CSC's case management staff offered a range of services, such as providing locations where youth could get meals, distributing education materials, and helping youth connect with job opportunities.

Case management work for individual youth, which was introduced early in PSN-DC, complemented community outreach work and efforts to respond to critical incidents. Case managers would collaborate closely with outreach workers to identify at-risk youth and families. The purpose of case management was to introduce family support services and, when working with victims of violence, to reduce immediate and long-term trauma to the victim and their family and friends. Described as a "pipeline" process by one case manager, youth would confide in or speak to outreach workers about issues, and the outreach worker, in turn, would notify a case manager. A case would then be opened for the youth and the youth's family since most of a youth's circumstances often involved a family in need.

Case management workers tried to establish a web of supportive services with families and communities most at risk of violence. The focus was to work with youths and their families and to encourage them to take an active role in creating solutions and design a different future based on incidents that occurred. Solutions-focused brief therapy involved teaching a forward-thinking philosophy to inform daily practices around communication and decision-making. Open-ended questioning drives the implementation of this forward-thinking philosophy. Solutions-focused brief therapy (SFBT) is a therapeutic model and interviewing skill set that uses open-ended questions to identify solutions to situations rather than an exhaustive examination of problems (de Shazer et al., 2007; Lehman et al., 2012). It is intended to be future-focused, goal-directed, and focused on solutions, rather than on the problems.

CSC used the solutions-focused approach during community outreach efforts, as part of their social corners initiative, and with case management efforts for helping at-risk youth and their families develop a plan to reach their goals for change. SFBT was also used during each critical incident meeting. By allowing families to raise solutions, this also helped them to identify their needs, as well as identify additional young people and families in need of focused outreach. These needs ranged from employment to mental health services, and CSC case management workers could help connect clients to appropriate community resources. The end result was a discussion about how the family could move forward, empowering family members to identify their needs and solutions.

Family group conferencing was also a feature of case management and was implemented when needed. Here, families could be linked to services through a restorative approach in which the authority of the family was reinforced, but needs were also identified. The aim of family group conferencing was to help families re-establish the center of authority within the family system to make desired changes. During this project, CSC staff also used family group conferencing to develop safety plans for family members threatened with gun violence (e.g., being shot at in front of a residence). These plans would include strategies to keep families living together until the family could move to a different residence and generally were put in place after an incident occurred.

⁷ Tonya Pickett, personal communication, December 1, 2015

Youth Summit

The U.S. Attorney's Office for the District of Columbia also hosted a youth summit entitled, "Breaking the Silence on Youth Violence" in June of 2015 to inform youth about interacting with law enforcement. The theme of the summit was "know your rights" and presumably was meant to demystify law enforcement for young people and encourage relationship building (e.g., encouraging youth to view law enforcement as trusted confidents in the wake of a violent incident or pending incident). The summit was held in one of the PSN sites (PSA 602).

Program Implementation

The PSN-DC initiative was implemented for nine months, from January 1, 2015 through September 30, 2015, after planning for the implementation in 2014. ⁸ Many project activities—i.e., stakeholder meetings, outreach worker efforts, follow-ups to earlier critical incidents, prevention efforts, and case management activities—were implemented across this time period. Other activities like the social corners initiative and new critical incident meetings occurred during more focused times of the program. While a few intervention activities continued after September 30 (such as the critical incident response in early October), we treat these nine months as the main intervention period.

Within each targeted PSA (601, 602 and 608), CSC workers implemented a combination of these activities. However, case management work by outreach workers was the foundation of all recorded project activities. Out of 103 recorded field activities conducted by project staff, case management alone or in combination with other activities (referrals, follow-ups, etc.) accounted for 97% of project work. For example, in PSA 601, there were a total of 26 recorded activities, 61% of which were related to case management. Another 11% involved prevention services related to case management, and 7% combined follow-ups to critical incidents with case management. In PSA 602, there were a total of 43 recorded activities, 93% of which were case management activities, followed by a combination of case management and referral services (7%). Finally, in PSA 608, there were a total of 34 recorded activities. The majority of these activities involved case management activities (58%). The remaining activities included case management services with follow-up to critical incidents (32%), case management and referral services (5%), and follow-ups from critical incidents (2%).

Across these 103 activities, outreach workers engaged with 45 individuals and were able to serve 36 people directly. While engaging youth was a central focus, CSC outreach workers also interacted with young adults (18-25 years of age) and others, including family members, school peers and staff, and community residents. The average client age was 19.8, and clients ranged in age from 12 to 49. Fourteen of these 36 clients (38%) were declared to have successfully completed the program. Twenty-two (61%) were dismissed for a variety of reasons including incarceration, non-participation or non-response, referral to case management, adoption of the youth's case by the DC Child and Family Services Agency, or because requested services (such as help with finding employment, returning to school, or permanent housing) were provided, family goals were addressed, or clients moved out of the service area. CSC staff were still working with nine remaining clients at the end of the evaluation period. CSC outreach workers interacted with these clients and their families and networks 281 times for a total of

⁸ One of CSC's potential partners in delivering the intervention was unable to contribute, resulting in a delay of the start of this PSN intervention.

1,315 hours (thus averaging about 42 hours per client, though there was wide variation around this average). This amounted to approximately 31 efforts and 146 hours per month.

Of the 36 individuals served by outreach workers during PSN-DC, twenty-one appeared to live outside of the PSN targeted areas of PSAs 601, 602 and 608. Because of CSC's interest in serving at-risk youth, it was often difficult for workers to confine themselves to individuals who only resided inside the PSN-DC target areas. Fortunately, of the 21 individuals served by CSC outside of the targeted areas, only one person appeared to come from one of the comparison PSAs used in this evaluation (see the Outcome Evaluation section). Thus, the research team concluded that the comparison PSAs selected for this assessment were not contaminated by these efforts.

A total of four social corner events were implemented, and eight critical incident protocols. The social corners efforts occurred in May and June, and critical incident protocols were implemented in August, September, and (in one case) at the beginning of October. Note that only one of the critical incidents occurred in a targeted PSA. However, most of these incidents were related in some way to the intervention neighborhoods.

In general, PSN-DC events took place at schools, recreation centers, public events such as basketball tournaments, or on the street block. Efforts varied by nature and intensity and went beyond solely interacting with the 36 youth and family clients discussed above. These activities allowed CSC outreach workers to maintain a public presence in the community during the year, especially during any periods of escalating tensions indicated by community intelligence provided to the CSC case workers. These efforts were undergirded by CSC outreach workers speaking with community leaders and actively engaging community members about crime incidents and safety tips. Some efforts included conducting educational or anti-bullying programs, providing activities, engaging in mediating activities, or having informal dialogue with youth in schools or on the street. Quantifying the level and intensity of these activities was difficult, as many activities were not documented in detail and were of a qualitative nature that made them difficult to report.

⁹ Anecdotally, project staff felt that the critical incident responses were effective in preventing violence, but this was not tracked and evaluated formally.

Outcome Evaluation

This evaluation examines how the PSN-DC initiative affected community-level crime rates in the PSAs where the program was implemented. As noted, the individual-level focus of many of CSC's activities resulted in project staff conducting many activities outside of the target areas, and this complicates our ability to assess area-level program effects. Additionally, the impact of this PSN intervention is difficult to evaluate with regard to crime outcomes for reasons commonly experienced by other PSN projects. In particular, because of the varied and overlapping activities that occur during PSN, the qualitative aspects of interactions between outreach workers and youth, and the difficulty in quantifying interactions, it is often difficult to discern what parts of a PSN intervention contributed to any observed crime reduction effect. The CSC case workers also provided services and assistance outside of the PSN targeted neighborhoods, as the nature of their networks extended beyond these places. Additionally, while young people in PSAs 601, 602 and 608 were targeted, understanding crime displacement or the diffusion of benefits of these interactions to adjacent or remote PSAs is uncertain.

All of these factors muddy the evaluation waters of PSN projects. Consequentially, using rigorous evaluation methods to evaluate PSN projects generally and PSN-DC specifically is a challenge. For example, the goal of PSN interventions is the delivery of services and interventions that are not conducive to randomization of treatment. Young people are found and referred to the program by a process of on-the-ground interactions, collaborations, and partnerships, and is based on need. A rigid experimental design would have thwarted the organic aspects of this program and also the way that youth, their families, and possible future victims and offenders of retaliatory violence might be identified for help. Because of these difficulties, we used a quasi-experimental design (see Rossi et al., 2006) to assess whether the PSN-DC initiative reduced crime overall in the communities where it was implemented. To do this, we compare crime and violence trends in PSAs 601, 602 and 608 (which we refer to as the "treatment" areas) to those of well-matched PSAs that did not receive the PSN intervention (which we refer to as "comparison" or "control" areas). We also analyze trends for PSAs adjacent to the treatment areas and for other non-treatment PSAs in the Sixth District to provide further insights into the effects of the program.

¹⁰ Another researcher affiliated with CSC is conducting an individual-level evaluation to assess how the program affected clients who received CSC services for an Office of Juvenile Justice and Delinquency Prevention research grant.

Data Used and Outcomes Measured

To evaluate the impacts of the PSN-DC initiative, we used publicly available crime data provided by the MPD at http://opendata.dc.gov/. These data contain all serious reported crime incidents (homicide, sex crimes, robbery, aggravated assaults, burglary, auto theft, theft from auto, larceny, and arson) from January 2012 to December 2015, including the PSAs of occurrence. Given that this was a PSA-level analysis, we examine the impact of PSN-DC on serious crime as well as violence (homicide, sex assaults, aggravated assaults, and robbery) in the project PSAs (601, 602, and 608) against well-matched comparison PSAs that did not receive the PSN-DC program.

Matching Treatment PSAs with Comparison PSAs

To determine which police service areas in Washington D.C. were most like PSAs 601, 602 and 608, we examined five factors for all PSAs in the District. These included each PSA's monthly mean crime counts for a three year period (2012-2014), population count, population density per square mile, ethnic mix (measured as the percentage of white versus non-white in the PSA's population), and geographic size. For example, to select a comparison area for PSA 601, a score was assigned to each PSA in the District by calculating the absolute difference between each PSA and PSA 601 on these five factors, standardizing the difference by the value of PSA 601 on each variable, and summing the results for all five variables. That score roughly represents to what extent any given PSA is similar to PSA 601 on our five selected variables. This same process was carried out for PSAs 602 and 608.

In selecting our comparison areas, we also excluded any PSA that was adjacent to 601, 602, or 608. This was done to avoid possible contamination, diffusion, or displacement effects also known as the stable unit treatment value assumption (SUTVA; see Rubin, 1990). Using this process, we determined that PSA 406 is most similar to PSA 601; PSA 505 is most similar to PSA 602; and PSA 701 is most similar to PSA 608. Figure 2 shows the key social characteristics of the treatment and comparison PSAs, and Figure 3 shows where they are located.

Figure 2. Values of Treatment and Comparison PSAs on Key Variables

Mean monthly Popula	tion % White	Population	Area
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¹¹ We note that while our initial memorandum of understanding with the MPD extended to the collection of much more detailed arrest and crime incident data, we were only given data by the MPD at the beginning of the project and at the midpoint of the project (May, 2015). After numerous attempts at trying to obtain updated post-intervention data for the final analysis, we were unsuccessful in gaining the cooperation of the MPD to obtain that data. Thus, we felt the open data source was the next best option for this final analysis.

¹² Because the percentage white was extremely small for PSAs 601, 602 and 608, we treated any PSA with a white population of less than 10% as being ethnically similar to the treatment PSAs.

PSA	crime (2012-2014)	density	population		
601	29	5,291	0.0107	7,536	1.424
406	26	7,707	0.0695	6,802	0.883
602	67	8,712	0.0119	9,647	1.107
505	66	4,805	0.0299	5,755	1.198
608	49	10,802	0.0110	8,297	0.768
701	48	11,573	0.0173	9,943	0.859

303 304 306 502 301 305 50 302 II 102 103.

Figure 3. Location of Treatment and Comparison PSAs in Washington DC

Matching colors indicate matched pairs for comparisons.

Pre-Post Analysis of Treatment and Comparison PSAs

Figures 4, 5, and 6 plot the monthly total serious crime trends for each treatment and comparison PSA. These figures show that we selected comparison groups well; the crime trends in our comparison PSAs appear very similar to those of our treatment PSAs. A seasonal trend of low crime in the winter and crime peaks during the summer matches the crime trends of the District of Columbia more generally. The dotted lines reflect the primary treatment period from January 1, 2015, through the end of September 2015 (although we also include in our measures below the full year of 2015, given that some parts of the intervention appear to have continued beyond September).

Figure 4. Monthly Crime Trends for PSA 601 compared to PSA 406

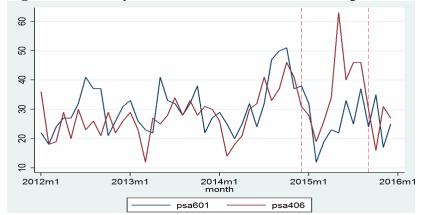


Figure 5. Monthly Crime Trends for PSA 602 compared to PSA 505

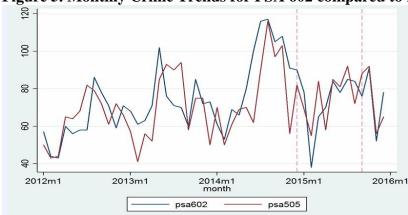
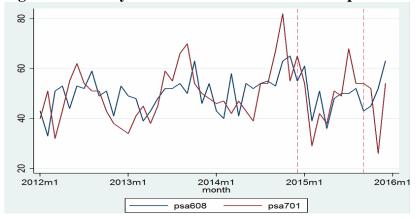


Figure 6. Monthly Crime Trends for PSA 608 compared to PSA 701



Findings for All Serious Crime

Figure 7 shows the mean monthly crime counts in the study PSAs during the 36 months (2012-2014) before the intervention compared to the 9 months during the intervention period (January – September 2015). Serious crime in all three treatment PSAs declined during the treatment period, most notably in PSA 601, while crime averages increased in comparison PSAs 406 and 505. Comparison PSA 701 also experienced a decline, but that decline was slightly smaller than that which occurred in treatment PSA 608.

Figure 7. Average Monthly Serious Crime in Treatment and Comparison PSAs 36 Months Before and 9 Months during the PSN-DC Intervention Period

	Before (36 months)	During (9 months)
PSA 601	30.8	25.2 (\18.2%)
PSA 406	27.7	36.9 (†33.2%)
PSA 602	74.1	73.1 (\1.3%)
PSA 505	69.9	76.0 (†8.7%)
PSA 608	50.4	47.8 (\\5.2\%)
PSA 701	50.1	48.8 (\\dagge2.6\%)

Because all of the treatment and comparison PSAs experienced an increase in crime during 2014, we conducted an additional set of analyses in which we used only 2014 as the pre-intervention period. Figure 8 examines only the 12 months prior to the intervention (2014) as a pre-intervention period, finding a similar overall result, with the monthly averages for treatment PSAs declining, and averages for comparison PSAs either increasing (in the case of PSA 406) or declining at lower rates compared to matched treatment PSAs. We note that these results do not change when comparing all 12 months of 2014 with all 12 months of 2015.

Figure 8. Average Monthly Serious Crime in Treatment and Comparison PSAs 12 Months Before and 9 Months during the PSN-DC Intervention Period

	Before (12 months)	During (9 months)
PSA 601	34.2	25.2 (\\26.3\%)
PSA 406	30.8	36.9 (†19.8%)
PSA 602	88.0	73.1 (\16.9%)
PSA 505	77.2	76.0 (\1.6%)
PSA 608	52.8	47.8 (\$\.19.5\%)
PSA 701	53.4	48.8 (\\$.6%)

Findings for Violent Crime Only

When examining only violent crime (homicides, sexual assaults, robberies, and aggravated assaults), we see similar findings for PSAs 601 and 602, but not for PSA 608. PSAs 601 and 602 both had reductions in violence and improved relative to their matched comparisons, PSAs 406 and 505, respectively. More specifically, PSA 601 had a greater reduction in violence than did PSA 406, and PSA 602 had a decrease in violence while PSA 505 had an increase. This was true using both the 36-month pre-intervention period (see Figure 9) and the 12-month pre-intervention period (see Figure 10). (Although PSA 601 had considerably lower counts of violence prior to the intervention than did the other treatment PSAs, it had the largest drop in violence, measured as both a change in the average count and as a percentage change.) However, in both analyses, it appears that PSA 608 either increased in violent crime compared to PSA 701 (36-month pre-intervention analysis—see Figure 9) or declined slightly less than PSA 701 (12-month pre-intervention analysis—see Figure 10). Results were also similar to those described here when using all 12 months of 2015 as the intervention period.

Figure 9. Average Monthly Violent Crime in Treatment and Comparison PSAs 36 Months Before and 9 Months during the PSN-DC Intervention Period

	Before (36 months)	During (9 months)
PSA 601	9.6	5.8 (\139.6%)
PSA 406	5.0	4.6 (\\ 8\%)
PSA 602	23.6	21.3 (\$\dagge 9.7%)
PSA 505	13.1	13.4 (†2.3%)
PSA 608	16.5	16.9 (†2.4%)
PSA 701	14.4	12.9 (\10.4%)

Figure 10. Average Monthly Violent Crime in Treatment and Comparison PSAs 12 Months Before and 9 Months during the PSN-DC Intervention Period

	Before (12 months)	During (9 months)
PSA 601	11.8	5.8 (\$\\$0.8%)
PSA 406	5.2	4.6 (\11.5%)
PSA 602	25.7	21.3 (\17.1%)
PSA 505	13.5	13.4 (†0.7%)
PSA 608	17.5	16.9 (\\3.4%)
PSA 701	13.7	12.9 (\$\dagger\$5.8%)

Comparison of Treatment PSAs to Adjacent PSAs and Other Sixth District PSAs

While the findings above suggest that there may have been a positive treatment effect of the PSN intervention in at least PSAs 601 and 602, we also compared crime trends in the treatment PSAs as a group to those for the rest of the Sixth District (i.e., PSAs 603, 604, 605, 606, and 607) and to those for all PSAs adjacent to the treatment areas (i.e., 108, 503, 507, 603, 604, and 605). These contrasts provide insights into the possibilities that the PSN-DC intervention caused crime displacement or a diffusion of crime reduction benefits into nearby areas. At the same time, these analyses can also reveal whether changes in the treatment PSAs may have been caused in part by broader trends in nearby areas that were independent of PSN-DC.

Figure 11 plots the monthly crime trends for the PSAs in the treatment and comparison groups, as well as for the non-treatment Sixth District PSAs and all PSAs adjacent to the treatment areas. The common pattern across PSA groups show a sharp crime drop at the beginning of 2015, followed by a peak in crime during the summer. The similarities and differences in monthly crime trends across the PSA groups can also be seen in Figures 12 and 13, which show the average monthly serious and violent crime counts for the 12 months before the intervention and the 9 months during the intervention. Although the treatment PSAs improved relative to the comparison PSAs, crime also declined in the other PSAs in the Sixth District and, to a lesser degree, in PSAs adjacent to 601, 602, and 608. (These patterns were also similar when using the 36-month pre-intervention period.)

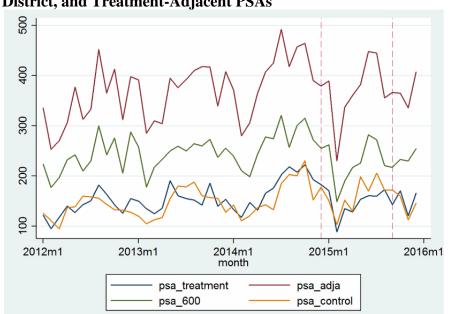


Figure 11. Serious Crime Trends by Month for Treatment, Comparison, Other Sixth District, and Treatment-Adjacent PSAs

Figure 12. Average Monthly Serious Crime in the Treatment, Comparison, Other Sixth District, and Treatment-Adjacent PSAs Before and During the Treatment Period

	Treatment	Comparison	A discont DC A	600 PSA
	PSA	PSA	Adjacent PSA	000 F3A
Before (12 months)	58.3	53.8	66.0	52.8
During (9 months)	48.7 (\16.5%)	53.9 (†0.2%)	61.4 (\17%)	45.2 (\14.4%)

Figure 13. Average Monthly Violent Crime in the Treatment, Comparison, Other Sixth District, and Treatment-Adjacent PSAs Before and During the Treatment Period

	9		0	
	Treatment PSA	Comparison PSA	Adjacent PSA	600 PSA
Before (12 months)	18.3	10.8	15.0	13.9
During (9 months)	14.7 (\19.7%)	10.3 (\\4.6\%)	14.1 (\(\dagger 6\%)	11.4 (\18%)

These patterns provide no indication that crime was displaced from the treatment PSAs to their adjacent PSAs or to other parts of the Sixth District; on the contrary, the patterns are more consistent with the possibility that the intervention produced benefits that spread into the adjacent and other nearby areas. On the other hand, the strong similarity of trends in the treatment PSAs and the other PSAs of the Sixth District also suggest that the drop in crime in the PSN-DC targeted areas may reflect a localized crime reduction for the Sixth District that was caused by social factors and/or crime prevention initiatives other than PSN-DC. ¹³ We cannot disentangle these possibilities from the available data.

Statistical Tests of Changes across PSAs

To examine the changes in crime across PSA groups more formally, we created weekly time series data for the treatment PSAs, the comparison PSAs, and the PSAs in the remainder of the Sixth District. We then used these data to test whether there were statistically significant changes (i.e., changes that were not likely due to normal variability) in the weekly averages of crime in these areas during the program period. Figure 14 displays the weekly trends in total serious crimes for each group of areas used in this analysis.

¹³ Although the PSN-DC intervention could have created benefits that spread into other PSAs in the Sixth District, we believe it unlikely that the program would have caused crime reductions in those areas that were so similar in magnitude to those that occurred in the treatment areas. Hence, we view it as more likely that other factors contributed to the observed changes in both the treatment PSAs and the other PSAs of the District.

¹⁴ We used weekly averages for these analyses (rather than monthly averages) in order to increase the number of units for analysis, which increased the sensitivity of our statistical tests.