

# OPERATION SUMMER GUARDIAN

## 2022 AND 2023 IMPLEMENTATION OVERVIEW AND INITIAL EVALUATION

Submitted by:

Constance Kostelac, PhD, Assistant Professor  
Institute for Health and Equity, Division of Epidemiology and Social Sciences  
Director, Division of Data Analytics and Informatics, Comprehensive Injury Center  
Medical College of Wisconsin  
[ckostelac@mcw.edu](mailto:ckostelac@mcw.edu)

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## KEY FINDINGS

### To be added

## BACKGROUND

This report is an overview and evaluation of the initial implementation of Operation Summer Guardian (OSG), a proactive gun violence intervention effort led by the Milwaukee Police Department (MPD). The report covers the implementation in summer 2022 and 2023.<sup>1</sup> This initiative built upon or was an adaptation of the concept of “hotspot” policing. Hotspot policing has a relatively large body of evidence as a strategy for crime reduction within small geographic areas.<sup>2,3</sup> Prior studies have demonstrated that by focusing on relatively small geographic areas with higher levels of crime, police can have an impact on reducing crime and disorder, including violent crime.<sup>2,3,4</sup> The way that hotspots are defined differs across areas and studies, but are often relatively small geographic areas representing addresses, street segments, or blocks.<sup>2,3,4</sup> In addition, the way hotspot policing has been implemented across time and jurisdictions also varies. As summarized by the Center for Evidence-Based Crime Policy (CEBCP) at George Mason University, studies have varied from specific interventions within micro-areas to just increasing the amount of time spent in those hotspot locations.<sup>3</sup>

MPD was intentional about indicating that this program is an *adaptation* of hotspot policing. It is building on some of the core principles including a place-based focus, focusing on areas with a high concentration of particular crime types, and increasing resources to those identified hotspot locations. In this case, the implementation was concentrated in areas of the city of Milwaukee with high levels of gun violence, with a specific focus on areas with recent ShotSpotter<sup>5</sup> activations, a gunshot detection system

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<sup>1</sup> The analysis portion of this report will be updated after summer 2024 to provide a longer-term look at changes in the focus hotspot areas after program implementation.

<sup>2</sup> Braga AA, Turchan B, Papachristos AV, Hureau DM. Hot spots policing of small geographic areas effects on crime. *Campbell Systematic Reviews*. 2019; 15:e1046. <https://doi.org/10.1002/cl2.1046>

<sup>3</sup> HotSpots Policing. The Center for Evidence-Based Crime Policy (CEBCP). (n.d.). <https://cebcp.org/evidence-based-policing/what-works-in-policing/research-evidence-review/hot-spots-policing/>

<sup>4</sup> Telep, C. W., et al. (2019). Understanding and Responding to Crime and Disorder Hot Spots, Department of Justice. [https://popcenter.asu.edu/sites/default/files/understanding\\_responding\\_to\\_crime\\_disorder\\_hot\\_spots\\_spi\\_final.pdf](https://popcenter.asu.edu/sites/default/files/understanding_responding_to_crime_disorder_hot_spots_spi_final.pdf)

<sup>5</sup> ShotSpotter was recently renamed “SoundThinking” <https://www.soundthinking.com/> but the original name is maintained in this report given the recognition associated with the ShotSpotter name.

deployed across parts of the city to identify gunfire to allow for rapid deployment of resources to respond to those incidents. In both initial deployments of OSG, there was an emphasis on community engagement as part of the implementation of the program. The intent of the program was to increase presence and visibility in the hotspot areas, but also, particularly in 2023, to increase opportunities for direct interaction between law enforcement and community members in the focus areas. OSG was not designed as a primarily enforcement-based approach to working in the hotspots areas and is not intended, for example, as a “stop and frisk” strategy. The focus of the intervention was on increasing visibility and community engagement, not on over policing the areas already disproportionately impacted by gun violence. The intent was to be proactive by having an increased presence in the areas demonstrating higher burden of incidents related to gun violence, but to do so with an emphasis on positive police-community interactions.

#### EVALUATION BACKGROUND

This initial evaluation is being conducted by the Medical College of Wisconsin (MCW), through the Institute for Health & Equity, Division of Epidemiology & Social Sciences, as well as the Comprehensive Injury Center, Division of Data Analytics and Informatics. The evaluation is being conducted as part of the research, analysis, and evaluation efforts under the Violence Response Public Health & Safety Team (VR-PHAST). The evaluation is being submitted to, and was completed in collaboration with, the Milwaukee Police Department. The evaluation focuses on:

- program implementation
- immediate program outputs
- change in crime and violence, specifically homicides and nonfatal shootings, after program implementation
- changes in the implementation between 2022 and 2023

In 2023, MPD also conducted surveys with those who were involved with the program including officers and supervisors within the department, as well as community members who engaged with the program during the implementation period.

#### PROGRAM GOALS

Over the course of the implementation of the program, the initiative worked to achieve multiple goals. These goals included:

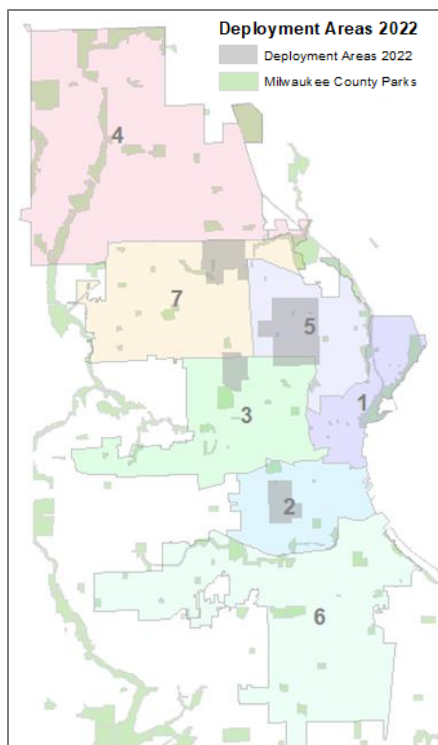
- To initiate proactive deployments in areas with a high concentration of ShotSpotter detections
  - This was expanded in 2023 to include other measures of violent crime
- To provide enhanced visibility and engage community members in the deployment areas
- To arrest individuals involved in firearm-related crime by rapid response to ShotSpotter detections
- To demonstrate a reduction in gun violence in the deployment areas

Although the initial program goals included a focus on arresting individuals involved in firearm-related crime, documenting a high number of arrests was not the primary focus of the project. MPD leadership recognized the importance of community engagement in this intervention effort and, as the project developed, the focus was more on the visibility and community engagement efforts, rather than a focus on arrests as a primary outcome. This is reflected in the results from the implementation.

## PROGRAM IMPLEMENTATION 2022

**Deployment structure:** For the initial implementation of the program, the deployments occurred between July 2 and October 2, 2022 across police districts 2, 3, 5, and 7 (see Map 1). Deployments were half a shift (four hours) Thursday through Sunday. Specific deployment times varied but were primarily afternoon or evening shifts between 1200 and 2200 hours. Each deployment consisted of:

- Marked specialty unit vehicles from the Special Investigation Division (SID) and the Tactical Enforcement Unit (TEU) each with two officers
- Undercover SID vehicle with two plain clothes officers
- Marked patrol vehicle with two officers from the district that was the focus of the deployments for the day
- Marked SID supervisor vehicle
- Total of 8 officers and a supervisor for each deployment



Map 1. Operation Summer Guardian 2022  
MPD Districts and General Deployment Area

was one deployment per day per zone for the four-hour period. A new set of zones were identified each month with one zone per district (2, 3, 5, 7) for a total of 12 deployment zones over the three-month implementation period. The deployment zones varied in size and were not fully distinct; in some cases there was overlap between the zones. The deployments were rotated during the month so each zone received a four-hour deployment approximately 6 to 7 times over a one month period during the intervention. This resulted in 57 total deployments between July 2 and October 2, 2022.

Patrol and specialty unit officers were expected to communicate and work together during the deployment. Part of the intent of the deployment of both specialty units and patrol officers was to provide an opportunity for mentorship between patrol and the specialty unit officers, who typically have more extensive training and experience than patrol officers. The patrol officers participating in the deployment came through recommendations from the districts with the intent being to identify officers with an interest in participating in this type of local intervention. Prior to the deployment, MPD officers received training on Constitutional policing, in alignment with the Collins Settlement Agreement.<sup>6</sup> Expectations were set for the activities to take place during the deployments with the guidelines for the deployment being reinforced at the beginning of each shift through briefings. In particular, the emphasis was on visibility, engaging with community members, and working to build trust within the community.

**Deployment locations:** The deployments occurred across specific zones that were identified based on a high concentration of ShotSpotter detections. The hotspot areas were identified by the MPD Office of Management Analysis and Planning (OMAP) based on Kernal spatial density maps that indicate higher areas or clusters for Shotspotter activations. There

Zone	Primary Police District	Deployment Month
A	2	July
B	3	July
C	5	July
D	7	July
E	2	August
F	3	August
G	5	August
H	7	August
I	2	September
J	3	September
K	5	September
L	7	September

Table 1: Deployment Zones by Deployment Month  
Operation Summer Guardian 2022

<sup>6</sup> Charles Collins, et al. v. City of Milwaukee, et al. <https://city.milwaukee.gov/fpc/Reports/Settlement-Agreement.htm>

**Community engagement:** In terms of the community engagement aspect of this intervention, and where Operation Summer Guardian differed from some more traditional forms of hotspot policing, is the intervention was intended to be more collaborative with the community. A press release was issued at the beginning of the deployment. In part, this was intended to let the community members know that this deployment activity would be taking place and the general geographic area where it would occur. Meetings were also held to share information with community members about the intervention. The intent of this direct outreach was to be transparent about the deployments, as well as to build trust within the community. The intent was also to have a potential deterrent effect in the area, to reduce involvement in criminal behavior based on the knowledge that there may be an increased likelihood of the behavior being detected, in this case by law enforcement. By having increased visibility within identified areas, the department was looking to reduce involvement in gun violence overall as community members would be aware that there was a potential increase in the likelihood of such activities coming to the attention of law enforcement.

The initial meetings included a number of community leaders and led to on-going engagement throughout the implementation period with approximately 15-20 community members and community leaders who stayed engaged and provided feedback throughout the process. One of the recommendations from the initial deployment in 2022 was to expand the community outreach aspect of the OSG deployment efforts, including implementing pre-deployment data collection that can be utilized as part of the on-going evaluation of this initiative.

## EVALUATION FINDINGS 2022

The following section outlines the program outputs and outcomes related to the specific goals of Operation Summer Guardian. This is followed by a series of recommendations for future deployments and follow-up evaluation of the initiative.

### GOAL 1: TO INITIATE PROACTIVE DEPLOYMENTS IN AREAS WITH A HIGH CONCENTRATION OF SHOTSPOTTER DETECTIONS

A primary intent of this initiative was to focus law enforcement resources in areas with an identified need based on a high concentration or burden of gun violence. For this particular initiative, the hotspots were based on specific zones identified by

reviewing the density or concentration of ShotSpotter detections,<sup>7</sup> which provides a tool to identify locations of recent firearm-related activity in an area based on the activation of the gun shot detection system. The zones were reassessed each month based on the more recent density of ShotSpotter detections. This resulted in 57 total deployments total over the 3-month period within the 12 deployment zones with the highest concentration of detections. The size of the 12 zones did vary, in part due to adjustments made during the implementation based on feedback from those working within the zones, as well as the areas of concentration for the ShotSpotter deployments. A recommendation for future implementation is to work to standardize the size of the zones by geographic area and/or population, to support comparative analysis across the deployment zones.

In addition, the timing of the deployments was attempted to be matched to the timing of ShotSpotter detections within the deployment areas. However, some of the shifts appear to be earlier than when the shots fired incidents tend to be recorded. A recommendation for future implementations is to tie the deployment times more directly to when the incidents of ShotSpotter detections are concentrated to ensure that the deployment are occurring in the times most likely to see incidences of gun violence.

## GOAL 2: TO PROVIDE ENHANCED VISIBILITY AND ENGAGE COMMUNITY MEMBERS IN THE DEPLOYMENT AREAS

A primary goal of OSG was to increase visibility in the hotspot areas, but also to promote proactive, positive interactions with community members. There was qualitative evidence of the community-engagement efforts, as the after-action report from the implementation identified specific situations in which specific community engagement activities occurred. For example, officers noted specific situations in which they:

- Had positive interactions with groups of juveniles in the deployment areas
- Assisted individuals with specific needs (such as moving a washing machine, repairing a broken lawn mower used for a grass cutting business)

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<sup>7</sup> It should be noted that there is mixed evidence on the role and value of gunshot detection systems. A summary of research prepared by Eric L Piza indicates that gunshot detection systems may not reduce shootings or violent crimes, but there may be other benefits such as reducing response time to incidents involving gunfire and increases in ballistic evidence being collected and firearms being recovered. <https://www.vitalcitynyc.org/articles/learning-about-shot-spotter-from-chicago> For the purpose of OSG, the ShotSpotter data was primarily used as part of the criteria for identifying hotspots of firearm activity.



- Peacefully dispersed a group that was congregating in a specific area (near a liquor store)
- Received feedback directly from community members who were appreciative of their efforts

These document some of the specific interactions that officers had with community members during this initiative. A recommendation is to implement a more specific accounting method of the types of activities officers engaged in during each deployment and the time breakdown for each activity (e.g. patrolling in vehicle in deployment area, responding to calls, proactively interacting with community members, focused enforcement efforts, etc.). This would provide a more robust set of data to understand the specifics of the activities undertaken and how it relates to the results both in terms of community engagement, as well as changes in firearm-related activity. This could also be specifically set in guidelines for the deployments in terms of how officers are expected to spend their time (e.g. what percent of time should be based on community engagement, call response, patrol, enforcement, or other activities) and a comparison could then be made between the target for how time should be spent compared to what occurs during the specific deployment periods.

Based on the initial implementation of this program, it is difficult to specifically measure the enhanced visibility in the zones. The deployment included three marked vehicles working within the identified zone for a four-hour shift approximately once per week during the deployment period. There was also not specific data collection carried out to measure community perception or engagement. A recommendation for future enhancement to the implementation and evaluation would be to gather information both from the community and from officers involved in the initiative, both prior to the start of the implementation and at the end of the deployment period.

### GOAL 3: TO ARREST INDIVIDUALS INVOLVED IN FIREARM-RELATED CRIME BY RAPID RESPONSE TO SHOTSPOTTER DETECTIONS

As described earlier, arrests were an initial stated goal of the effort, but throughout the intervention this was not emphasized as a primary outcome of OSG. A total of 10 arrests were made during the deployments either for outstanding warrants or based on probable cause for a more immediate situation. The most common charges were for carrying a concealed weapon, followed by a variety of other charges such as recklessly endangering safety, homicide, and drug possession. This differs from some other

implementations of hotspot policing, where there was a more direct emphasis on enforcement and making arrests in the hotspot areas.<sup>8</sup>

Part of the intent was to have not only the increased visibility, but also the ability to respond rapidly to ShotSpotter detections, as the zones were based on a high concentration of detections in the period leading up to the specific zone deployment. However, as discussed further below, there is some evidence that there may have been a deterrent effect on firearm-related activity in the deployment zones as there were few ShotSpotter detections *during* the specific deployment periods, despite these areas having been identified as having high ShotSpotter activity leading up to the deployment. Therefore, the goal of having rapid response to ShotSpotter detections was also not a primary focus during the implementation. A recommendation for future deployments is to limit the focus further on making arrests, but as described above, determine the percent of time officers are expected to engage in particular activities such as community engagement or responding to calls in the hotspot areas.

#### GOAL 4: TO DEMONSTRATE A REDUCTION IN GUN VIOLENCE IN THE DEPLOYMENT AREAS

In addition to the goals described above, part of the intent of this initiative was to reduce gun violence in the deployment areas, since these were areas with high concentrations of ShotSpotter activity prior to the deployments. Multiple indicators were assessed related to this goal.

*ShotSpotter detections:* One key measure of a reduction in gun violence in the deployment zones, given they were identified as having high concentrations of ShotSpotter detections prior to this intervention, is to check for whether there was a reduction in ShotSpotter activity during the deployment. During the dates of deployment, the majority (approximately 88%) of the deployment zones did not have ShotSpotter detections during the specific date, time, and location of deployment. Out of the 57 deployments, 7 recorded ShotSpotter detections during the specific deployment period. There were also a few ShotSpotter detections near the deployment areas. In the majority of the deployments however, a ShotSpotter detection did not occur, meaning there were not detectable

**During the dates of deployment, 88% of the deployment zones did not have ShotSpotter detections.**

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<sup>8</sup> Various approaches to hotspot policing are addressed in the systematic review by Braga et al (Braga AA, Turchan B, Papachristos AV, Hureau DM. Hot spots policing of small geographic areas effects on crime. *Campbell Systematic Reviews*. 2019; 15:e1046. <https://doi.org/10.1002/cl2.1046>) including hotspot initiatives that emphasized arrest or related activities such as Sherman, L. W., Shaw, J. W., & Rogan, D. P. (1995). The Kansas City gun experiment: Research in brief. Washington, DC: National Institute of Justice.

incidents of shots being fired in the area during the deployment period. So there was not a frequent need for quick response to ShotSpotter activations since these were very limited during the deployment periods within the hotspot areas.

*Firearm homicides and nonfatal shootings:* In addition to ShotSpotter detections, one of the other primary measures for this goal is related to the prevalence of firearm-involved homicides and nonfatal shootings in the deployment zones during and following the implementation period. The data for this portion of the analysis is based on incidents reported to MPD and recorded in the Homicide and Nonfatal Shooting databases maintained by OMAP at MPD. All nonfatal shooting incidents are included, and homicides are limited to those involving a firearm. Data were analyzed both at the level of the number of victims, as well as the number of incidents to address multi-victim incidents. The data were selected based on the location of the incident falling within one of the designated zones for the deployment period. Although there is some analysis presented below as the zone level, the pre- and post-implementation comparison is based on the zones combined, due to the overlap of the geographic areas for some of the zones.

It is important to note that the zones selected for inclusion in OSG were not randomly assigned and this initiative was intentionally not implemented with an experimental design such as randomized control trial (RCT), which is considered the gold standard in research design. Rather, the areas were selected based on having a high concentration of ShotSpotter detections in the period prior to implementation so the focus was on the areas disproportionately impacted by firearm violence. Therefore, this analysis does not compare the selected zones to control or comparison areas with similar levels of violent crime as there are not areas with similar levels of ShotSpotter detections since the selection was based on where these incidents were disproportionately concentrated.

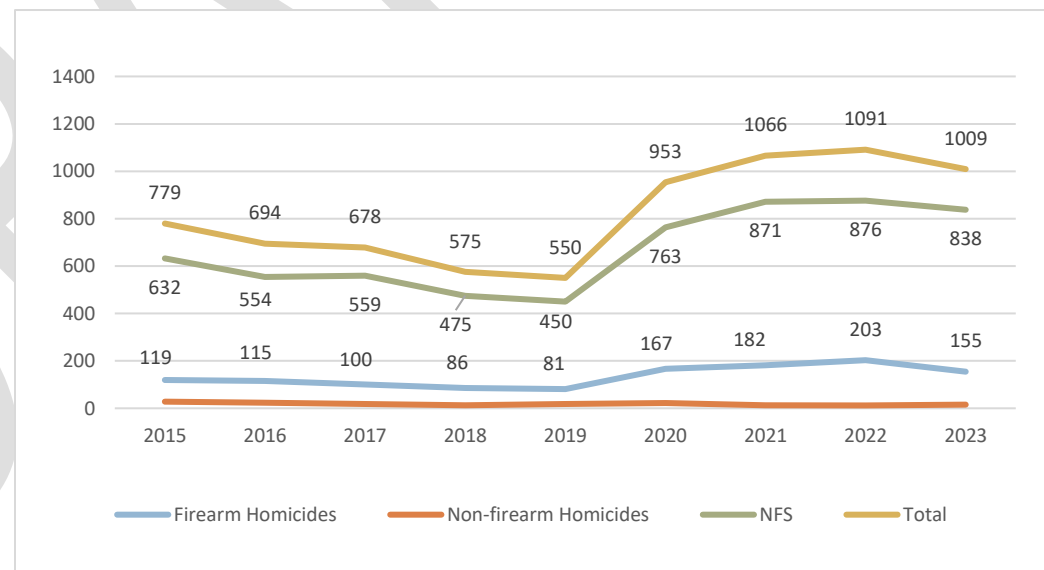


Figure 1. Milwaukee Homicides and Nonfatal Shooting Victims 2015-2023

Although longer historical data are available, for this analysis data were isolated to July 2020 and forward given the substantial increase in homicides and nonfatal shootings corresponding with the start of the COVID-19 pandemic in early 2020 (see Figure 1). Including only July 2020 forward keeps the periods prior to and following the intervention more comparable, while still allowing for at least two seasonal cycles of the summer months prior to program implementation. In addition, the analysis focused both on the time period of the intervention compared to prior years (2020 and 2021) and subsequent years (2023), to account for the short duration of the intervention and the seasonality of homicides and nonfatal shootings, which tend to be higher in the summer starting in May, including the primary months of the intervention (July-September). Figure 2 shows the seasonal distribution of firearm homicides and nonfatal shootings in Milwaukee for 2021-2023.

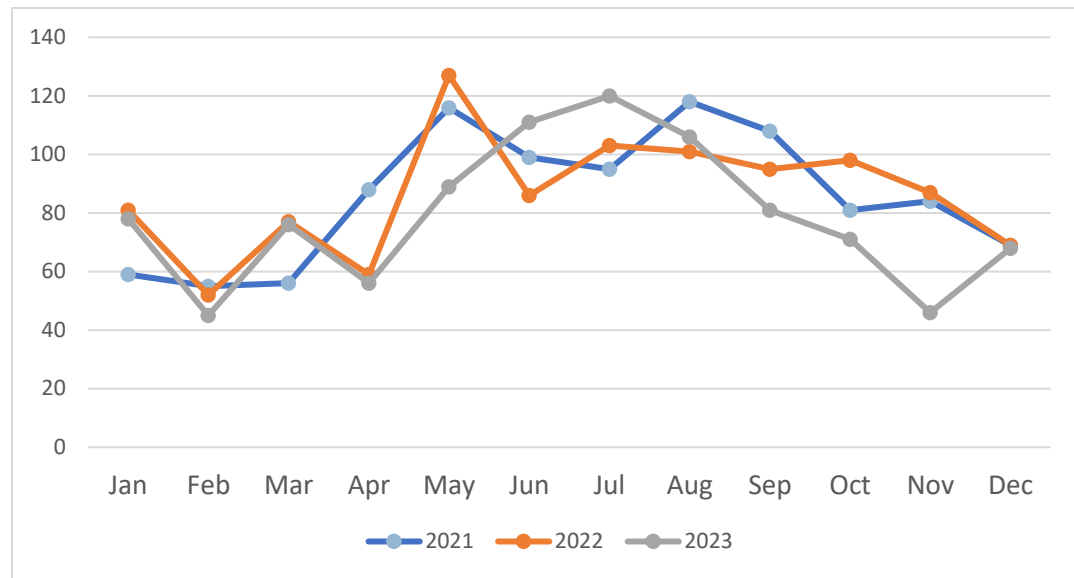


Figure 2. Milwaukee Firearm Homicides and Nonfatal Shooting Victims by Month 2021-2023

In the 2022 Operation Summer Guardian zones combined, during the intervention period of July 2, 2022 to October 2, 2022, the number of homicides and nonfatal shootings (by victim) in the zones was higher than the same time period in 2021 (increased 37% combined), while the number in the area outside of the OSG zones decreased (down 19% combined) as shown in Table 2. The intervention period was lower than the same time in the post-intervention year (2023 was 11% higher). These initial comparisons were utilized to account for the seasonal trends in homicides and nonfatal shootings during the summer months and did not demonstrate a decrease in the volume of homicides and nonfatal shootings in the deployment area during the initial implementation compared to the same time period of the previous year and the post intervention period was also higher than the implementation period. This same pattern was observed when looking at the full year following the intervention (July 2, 2022 to July

1, 2023) compared to the pre-intervention year. The full starting at the beginning of the intervention was higher (19%) than the full year prior to the intervention, while the area outside of the OSG zones decreased during this same time period.

Time Period				In OSG Area			Outside of OSG Area			Citywide		
				Homicide	NFS	Total	Homicide	NFS	Total	Homicide	NFS	Total
July 2 - Oct 2	Intervention	07/02/22 - 10/02/22	Count	16	69	85	45	173	218	61	242	303
	Pre-Intervention	07/02/21 - 10/02/21	Count	8	54	62	53	216	269	61	270	331
			% Change Intervention to Pre	100%	28%	37%	-15%	-20%	-19%	0%	-10%	-8%
	Post-Intervention	07/02/23 - 10/02/23	Count	12	82	94	41	173	214	53	255	308
			% Change Post to Intervention	-25%	19%	11%	-9%	0%	-2%	-13%	5%	2%
July 2 - July 1	Intervention Year	07/02/22-07/01/23	Count	44	223	267	123	618	741	167	841	1008
	Pre-Intervention	07/02/21-07/01/22	Count	43	181	224	163	652	815	206	833	1039
			% Change Intervention to Prior	2%	23%	19%	-25%	-5%	-9%	-19%	1%	-3%

Table 2: Comparison of Operation Summer Guardian Area to Outside of the Area and Citywide for 2022 Deployment for Homicides and Nonfatal Shooting Victims

Looking specifically at July – September as the primary intervention months across multiple years (Table 3), the OSG zones were higher during the implementation period in 2022 than the average of the prior two years (2020 and 2021), while the area outside of the OSG zones decreased comparing the same time period.

Area	Average 3-month periods July-Sept 2020 and 2021	Implementation July-Sept 2022	Absolute Change	% Change
OSG Area	67.5	83	15.5	23%
Outside OSG Area	243.5	216	-27.5	-11%
Citywide	311	299	-12	-4%

Table 3: Comparison of Operation Summer Guardian Area to Outside of the Area and Citywide for July – September During and Prior to 2022 Deployment

To better account for the trends in homicides and nonfatal shootings and to identify whether there was a significant effect from the intervention an interrupted time series analysis was also conducted. An autoregressive integrated moving average (ARIMA) model was developed, and the model also accounted for seasonality. Data were included from July 2020 through December 2023 to provide at least two seasonal cycles prior to the implementation. The data were modeled both by

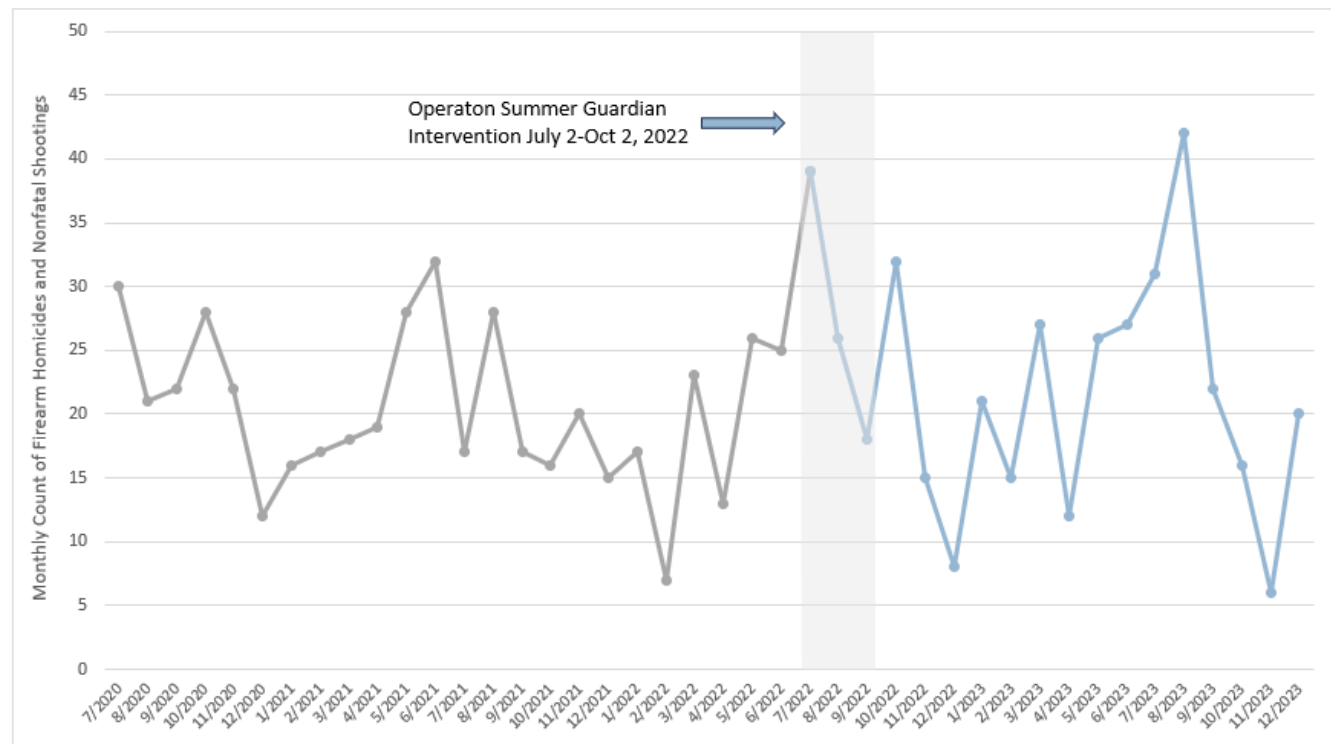


Figure 3. 2022 Operation Summer Guardian Deployment Area Firearm Homicide and Nonfatal Shootings Victims by Month

month and by week. In addition, the OSG was treated as both an intervention with potential short-term effects (change expected during the deployment period, but not necessarily anticipated to continue longer-term) as well as being treated as having potential longer-term effects (the change continuing after the intervention). None of the ARIMA models found a significant change in the trend in firearm homicides and nonfatal shootings in the OSG zones based on when the OSG program was implemented. The overall monthly trend in the OSG zones before and after program implementation is shown in Figure 3.

In terms of the individual zones during the 2022 OSG deployment, the volume of homicides and nonfatal shootings in the individual zones (A-L) was relatively low as shown in Table 4. Approximately 58% of the zones had between 0 and 3 homicides or nonfatal shooting incidents during the month that they were the focus of the deployment rotation. Overall, the zones were split with 50%

having fewer homicide and nonfatal shooting incidents during the month of their deployment than their average number of incidents for the same time of year over the two previous years. The other 50% had over the average number of incidents of the prior two years. This same pattern was also true when comparing the full three months of the deployment period to the previous two years.

Add table by zone

*Table 4. 2022 Operation Summer Guardian Homicides and Nonfatal Shooting Comparison by Zone*

Overall, the 2022 OSG zones did not demonstrate a significant decrease during the deployment period for the first implementation of the program. The deployment areas overall did not demonstrate a significant reduction in the number of homicides and nonfatal shootings short or longer-term while the level within the areas outside of the OSG zones decreased. This may in part reflect the higher volume of homicides and nonfatal shootings in the zones, as these areas were again selected based on the concentration of ShotSpotter activations in the time period leading up to the intervention. This analysis is again limited because there were not direct comparison areas to utilize with a similar volume of incidents and other characteristics to determine whether these areas changed at similar or different rate compared to the OSG zones. What this does suggest is that there was not a demonstrable decrease in firearm homicides and nonfatal shootings during the initial deployment of OSG.

## RECOMMENDATIONS 2022

Based on this evaluation of the initial results of Operation Summer Guardian, as well as the research base on related initiatives, there are a number of recommendations for consideration as it relates to future deployments of this initiative:

1. *Review the goals and structure of the implementation.* Consider modifying the goals of the implementation based on what was learned during the initial deployment. In particular, review whether the number of arrests is part of the goal for this initiative. Arrests can certainly be tracked and part of the dissemination of information to the community may still emphasize that there will be increased police presence which may result in arrest if individuals are identified as engaging in gun violence or other criminal activity. However, a stated goal of the program may not be to proactively seek arrests. If this goal is adjusted, it may also make sense to consider whether the specific composition of the deployment units should be adjusted. For example, it should be clear what the role of the undercover unit is, relative to patrol, SID, and TEU and what goals each of these units are intended to support. If they do not apply to a specific goal of the intervention, then it may make sense to adjust the deployment structure.
2. *Consider adapting the approach to the deployment areas.* OSG is an adaptation of hotspot policing deployment although there are certainly variations in the research on approaches used by different agencies for what occurs within the deployment areas. A number prior studies emphasized focusing on small geographic areas (even down to the block level) with repeated, but small dosage to the hotspot areas.<sup>9,10</sup> This became known as the “Koper Curve” which identified that random patrols, of relatively short duration (10-16 min intervention periods), was optimal for deterrence.<sup>10,11</sup> Spending longer periods of time is costly and may not have the intended effects. MPD may want to consider adaptation to the deployment strategy to consider more repeat deployments to the same zones over the course of the intervention period, but potentially for shorter periods of time. The zones could also be divided into smaller micro areas that could receive more structured, but ideally random rotation during the intervention period.
3. *Consider adjusting zones so they are more similar in size and/or population density.* The size of the deployment areas varied during the initial Summer Guardian implementation, in part based on feedback from the officers involved in the deployment regarding challenges with spending the designated amount of time in the identified zones. In selecting the deployment areas,

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<sup>9</sup> Telep, C.W., Mitchell, R.J., & Weisburd, D. (2014). How Much Time Should the Police Spend at Crime Hot Spots? Answers from a Police Agency Directed Randomized Field Trial in Sacramento, California. *Justice Quarterly*, 31, 905-933.

<sup>10</sup> Christopher S. Koper (1995). Just enough police presence: Reducing crime and disorderly behavior by optimizing patrol time in crime hot spots, *Justice Quarterly*, 12:4, 649-672, DOI: 10.1080/07418829500096231

<sup>11</sup> Police Foundation. (nd). 5 Things You Need to Know About Hot Spots Policing & The “Koper Curve” Theory. [https://www.policinginstitute.org/wp-content/uploads/2015/07/PF\\_FiveThings\\_HotSpotsPolicing\\_Handout\\_Rev6.23.15.pdf](https://www.policinginstitute.org/wp-content/uploads/2015/07/PF_FiveThings_HotSpotsPolicing_Handout_Rev6.23.15.pdf)



it may be beneficial to consider selecting areas that are more similar in geographic size or population density, particularly if parts of recommendation 2 are adopted. It would also assist with the development of comparison areas that do not receive the intervention for more robust future evaluation, which was difficult given the size and variation of the 12 deployment areas in this initiative. In addition, the initial implementation had overlap across some of the designated areas, which also made it difficult to isolate what was occurring in each deployment area. It is recommended to adjust the areas so that they do not overlap for future implementation.

4. *Further align the the day/time of the deployments.* If a similar deployment strategy will be utilized and if part of the intent is the continued reduction of firearm related incidents, it may strengthen outcomes of this effort if the deployment days and times align even more closely with when the firearm related incidents (e.g. ShotSpotter, nonfatal shootings) occur within each deployment zone. Recognizing that the deployment is likely to occur during all days of the week, this could still be beneficial for more closely aligning the deployment efforts with the types of activity that are the focus of the intervention.
5. *Review the assessment period utilized in zone selection.* Prior to the next deployment of OSG, review the time period utilized in the selection of the deployment locations. The overall premise is based on the concentration of ShotSpotter activations and adjustments were made monthly to select new zones. This takes into account recent activity, which is a strength of the deployment, but this should also be reviewed against a longer time period to help ensure that the recent activity is not unusual or an outlier for the area. This can include ShotSpotter data, as well as other data on violence such as firearm homicides and nonfatal shootings since these are part of the evaluation of program outcomes.
6. *More specifically identify and track activities during deployments.* Implement a more specific accounting method of the types of activities officers engage in during each deployment and the time breakdown for each activity (e.g. patrolling in vehicle in deployment area, responding to calls, proactively interacting with community members, etc.). This would provide a more robust set of data to understand the specifics of the activities undertaken and how it relates to the results both in terms of community engagement, as well as changes in firearm-related activity. This could be specifically set in guidelines for the deployments of how officers are expected to spend their time while in the deployment zones (e.g. what percent of time should be involve direct community engagement, call response, patrol, or other activities) and a comparison could then be made between the guidelines for how time should be spent compared to what occurs during the specific deployment periods. This should also take into consideration the functions of the different types of units deployed during this

implementation (as discussed in recommendation 1). There is evidence that what officers do in deployment areas does matter and developing expectations around the implementation this program could help to add to the evidence base with this community-engaged adaptation of hotspot policing.

7. *Enhance community outreach.* One of the recommendations from this initial deployment is to expand the community outreach aspect of the OSG deployment efforts, including collecting pre-deployment data that can be utilized as part of the on-going evaluation of this initiative, as well as post-deployment community feedback on the perception of the effectiveness and satisfaction with police activities. This could include input from engaged community members and leaders, as well as potentially broader community members.
8. *Gather feedback from officers involved in the initiative.* One of the areas that was discussed for potential inclusion in this evaluation was data collection directly from officers involved in the initiative. This could involve both pre- and post-deployment data collection to determine understanding of the initiative, the deployment areas, and expectations for program outcomes. This could then be repeated after program implementation and could include perceptions of the intervention effectiveness. This would provide valuable insight into their activities during the deployment, as well as their perception of the outcomes and recommendations for future enhancements or improvements.
9. *Share deployment plans and track how the zones overlap with other initiatives.* Since there are multiple efforts underway that specifically focus on gun violence prevention and intervention, one recommendation is to proactively track how the deployment zones for Operation Summer Guardian overlap with other partner initiatives (e.g. Promise Zones, Violence Response Public Health and Safety Team (VR-PHAST) focus area and micro hotspots). This can then be included as part of the evaluation of future deployments and can also help to ensure that there is coordination across initiatives. As part of this recommendation, given the partnership and collaboration occurring through VR-PHAST, as well as other efforts, a recommendation is to share the deployment plans with partners so that there is general awareness of the initiative and when and where the deployments will be taking place. This will also help to limit the likelihood of unintentional overlap between the various efforts while the deployments are underway.

10. *Review options for measuring each goal.* Prior to the start of the deployments for future implementations, the evaluation partner (MCW) and MPD can discuss measurement and any data collection needs prior to the start of the deployments to ensure that data will be available the evaluation. This ties to a number of the recommendations above in terms of collecting additional data before, during, and after program implementation to provide a more robust picture of outcomes for the initiative.

## PROGRAM IMPLEMENTATION 2023

The 2023 deployment of OSG reflected changes to the initial program implementation, based on both recommendations from the first year of the program, as well as lessons learned during the initial program year. The emphasis was placed even more strongly on proactive, community-focused policing efforts in the areas disproportionately impacted by gun violence, with the intentional focus on aligning with the vision and mission of the Milwaukee Police Department.

### MPD Mission:

*By using effective community engagement, we will impact crime, help build sustainable neighborhoods and foster positive community relations.*

### MPD Vision:

*To be a department where every member works with our community to help build sustainable healthy neighborhoods, free of crime and maintained by positive relationships.*

The specific objective of Operation Summer Guardian 2023 was stated as:

*To effectively deploy uniformed personnel throughout identified geographical areas which are experiencing high volumes of shots fired (ShotSpotter) and violent crime.*

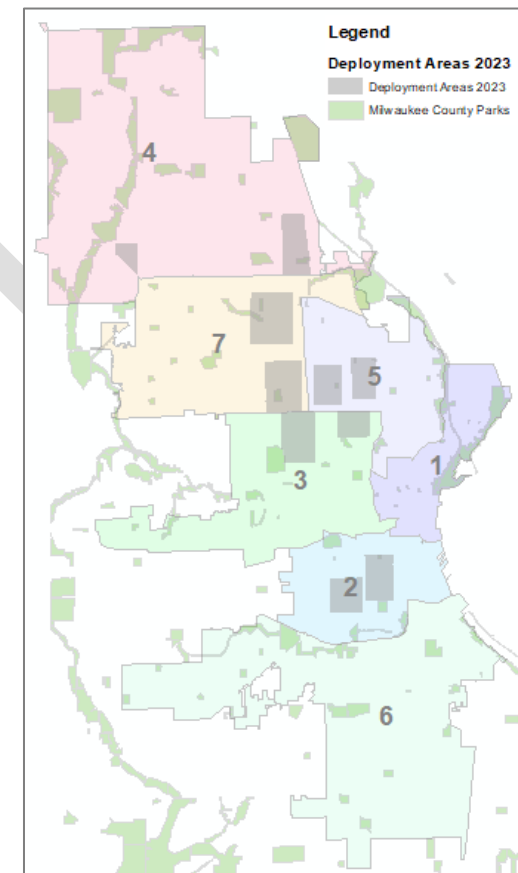
**Deployment structure:** The deployments for the second implementation of Operation Summer Guardian occurred from July 6th, 2023 to September 30th, 2023 across police districts 2, 3, 4, 5, and 7 (see Map 2), as District 4 was added into the deployment

schedule. Deployments were half a shift (four hours) Thursday through Sunday. Specific deployment times varied but were between 0800 and 2400 hours. Each deployment consisted of:

- Marked specialty unit vehicle from the Tactical Enforcement Unit (TEU) with two uniformed officers
- Marked patrol vehicle for each respective district, with two uniformed officers
- SID also provided a supervisor to oversee the deployment, as well as both uniformed and undercover officers

Communication was again expected across all officers involved in the deployment. Prior to the deployment, those participating in the deployment were given refresher training from Police Academy staff in line with the Collins Agreement to ensure that any stops were based on individualized, objective, articulable reasonable suspicion (IOARS). Expectations were set and reinforced on Constitutional policing and an emphasis was placed on carrying out the activities of the initiative while treating people with fairness and respect and in alignment with the MPD Standard Operating Procedures (SOPs) including areas such as utilizing body-worn cameras and the handling and documentation of stops.

The training administered prior to the start of the program also addressed the enforcement of curfew and parental responsibilities as part of the deployment. Although this is potentially a more controversial aspect of the initiative, the focus was not on proactively enforcing curfew, but rather utilizing curfew as a potential way to address situations identified when encountering or investigating violent crime incidents during the deployment. In addition, rather than just enforcing curfew violations, this was seen as an opportunity for officers to interact with parents or caregivers to address curfew for young people as a mechanism to limit the potential for late night interactions that may lead to violence. In addition, officers involved in the



Map 2. Operation Summer Guardian 2023  
MPD Districts and General Deployment Areas

initiative were given direction to utilize this opportunity to provide parents or caregivers connections to resources to address underlying needs such as substance use, mental health, employment, financial, or other challenges.

Expectations were again set for the activities to take place during the deployments with the guidelines for the deployment being reinforced at the beginning of each deployment shift through briefings where the supervisor would reinforce the intent of OSG and deploy resources for a given shift within the assigned zones. In particular, the emphasis was on visibility, engaging with community members and working to build trust within the community. In response to recommendations from the 2022 OSG, this deployment was more specific in setting expectations for what officers should be doing to interact with the community proactively and positively during the deployments. Officers were guided engage in “park, walk and talks” where they would park their vehicles, walk through the deployment area, and talk with community members. Part of the emphasis of this approach was also on officers having information available to connect community members with a variety of services or resources, as well as reinforcing how they can contact the department to report concerns about potential criminal activity and to share information about other MPD programs. In alignment with the recommendations from the first deployment, a pre- and post-survey were also administered to department employees that were engaged in the initiative to better understand their perceptions of the program and activities related to the program.

**Deployment locations:** The deployments occurred across specific zones that were identified based on density maps demonstrating a high concentration of ShotSpotter detections, as well as additional data on violent crimes such as firearm related homicides and nonfatal shootings. Given the focus on community-level gun violence, the analysis to select the hotspots also excluded incidents that occurred in residences, as well as those labeled as being related to domestic violence. The data were analyzed by crime analysts, the Fusion Division, OMAP with input from the district commanders. The approach was modified in part based on recommendations from the first implementation. Each district was assigned two deployment zones, with each zone having between two and four identified smaller micro hotspots based on the hotspot analysis (see Table 5). The assignment of daily deployments was handled by the SID supervisor, who determined when each zone would be the focus. The zones and hotspots were identified based on a longer period of time (12

Zone	Primary Police District	# of Micro Hotspots
A	2	3
B	2	4
C	3	4
D	3	3
E	4	2
F	4	4
G	5	2
H	5	3
I	7	4
J	7	4

Table 5. Deployment Zones by Deployment Month  
Operation Summer Guardian 2023

month period prior to June 22, 2023) and remained the same during the full deployment period, rather than identifying a new set of zones each month as was the case during the first deployment. These adjustments to the deployment location and approach aligned with recommendations from the first year of implementation. This resulted in 51 total deployments between July 6 and September 30, 2023.



Figure 4. Operation Summer Guardian 2023  
Community Message

**Community engagement:** In terms of the community engagement aspect of this intervention, the second year of OSG continued to emphasize the collaborative focus with the community. A press conference was held, information was shared on social media and with partner organizations, a press release was issued at the beginning of the second deployment, and a community message was shared (see Figure 4). In addition, door hangers describing Operation Summer Guardian were developed by the department's Community Engagement Manager and these were distributed in the deployment areas to provide information regarding the increased police presence. In part, this was again intended to let the community members know that this deployment activity would be taking place and the general geographic area where it would occur. A pre- and post-survey was also developed and administered by the department to gather information on the perceptions of residents of the program and related activities. The intent of this direct outreach was to continue to focus on transparency about the deployments, as well as to build trust within the community and emphasize that the program was intended to be carried out in collaboration with the community rather than having the department seen as an "occupying force" in the hotspot areas. The intent was also to again have a deterrent effect in the area particularly on gun violence.

More regular (monthly) meetings were held with both department and community stakeholders during the duration of the initiative. This provided an opportunity for the program leadership within the department to share updates on the deployment progress and preliminary results, as well as examples of police-community interactions. In addition, the meetings were used to share educational information about firearms including messaging about firearm risk and safety. These meetings were open to the public and the

media and some news outlets shared information on the program and the police-community interactions. Regular updates on the implementation were also shared on social media throughout the duration of the deployment.

## EVALUATION FINDINGS 2023

The following section outlines the program outputs and outcomes related Operation Summer Guardian 2023 and the objective: *To effectively deploy uniformed personnel throughout identified geographical areas which are experiencing high volumes of shots fired (ShotSpotter) and violent crime.*

**Deploying resources:** A primary intent of this initiative continued to be focusing law enforcement resources in areas with an identified need based on a high concentration or burden of gun violence. This was operationalized through the identification of specific zones and hotspot areas identified by reviewing the density of ShotSpotter detections for gunfire. An enhancement over the 2022 initiative, which aligned with another recommendation, was that additional data on violent crime and gun violence in particular were utilized in the development of the deployment zones and micro hotspot areas within each participating district. This information was then directly utilized in the deployment determinations during the designated days and times. In alignment with the recommendation from the first implementation, the deployments were of higher frequency but shorter duration (15-20 min). Rather than spending multiple hours in a deployment location on one day, shorter but more frequent activity within the micro hotspot areas in each zone.

Unlike the first year of OSG, the zones and hotspot areas were kept consistent during this intervention period rather than being reassessed each month, which supported more frequent and consistent interactions with the hotspot areas than was possible in 2022. In addition, the areas were distinct and did not overlap which supported additional analysis around the zones and hotspot areas. Some of the zones and hotspot areas were contiguous, which makes the analysis of any potential displacement effects within the immediate area challenging as the areas surrounding the zones or hotspots would overlap. The area within 500 feet of each zone and hotspot was analyzed, but it should be noted that there was some overlap between the areas treated as a catchment for potential displacement and neighboring zones or hotspots. The size of the zones did still vary, but they were more consistent than in the first implementation. The zones ranged from .23 square miles to just over 1 square mile and the micro hotspots ranged from .02 square miles to .12 square miles. The 2023 implementation resulted in 51 total deployments total over the 3-month period within the 10 deployment zones with a high concentration firearm violence across multiple measures.



**Community Engagement:** As described earlier, a modification to the 2023 approach was to have officers more directly engaging in proactive outreach and engagement. A focus was on conducting “Park, Walk and Talks” to get officers out of their vehicles and engaging proactively with community members in the deployment zones.

During this implementation period, officers conducted 116 “Park, Walk and Talk” interactions where they were able to connect directly with community members on a variety of topics in an effort to gather and share information and build trust. This was also intended to potentially have a deterrent effect on both gun violence, but also other activities. The officers were also able to conduct 27 checks of businesses in the deployment zones which also presents an opportunity to interact and share information with the business owners/managers and employees.

**During the 2023 OSG, officers completed 116 “Park, Walk and Talks” to engage with community members.**

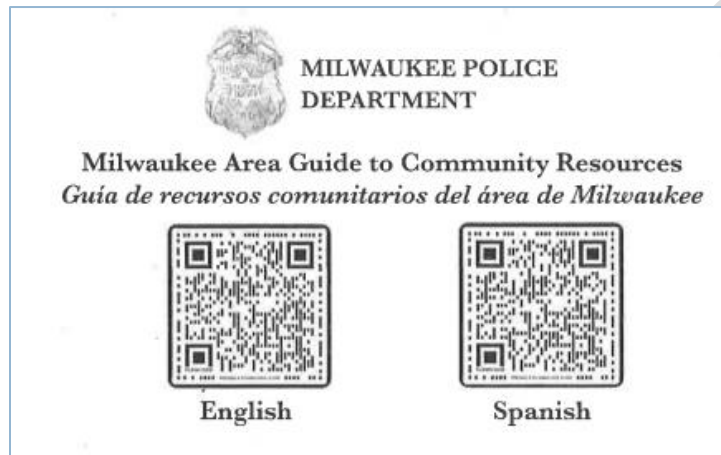


Figure 5. Operation Summer Guardian 2023  
Community Resource Cards

There was again some qualitative evidence of the community-engagement efforts, as the after-action report from the implementation identified specific situations in which specific community engagement activities occurred. For example, officers noted specific situations in which they engaged in activities such as helping a community member change a flat tire and interacting with children by handing out stickers or purchasing from lemonade stands. Officers were also encouraged to talk to community members concerns regarding crime and given direction to provide information and resources to community members to address broader needs. MPD developed Community Contact Cards with QR codes in both English and Spanish to allow officers to more directly share a list of resources during their interactions with community members (as shown in Figure 5).



**Arrests:** As described earlier, arrests were an initial stated goal of the effort, but throughout both the 2022 and 2023 intervention this was not emphasized as a primary outcome or measure of success for OSG. A higher number of arrests were made during this implementation period with 45 arrests being made with more than 60 charges. The arrests were a combination of outstanding warrants and situations in which probable cause for arrest was identified for a more immediate situation. The most common charges were for possession of drugs with intent to deliver (including a variety of substances such as cocaine, fentanyl, methamphetamine, THC), felon in possession of a firearm, recklessly endangering safety, sale/possession/transportation of machine guns, and fleeing and eluding officers, followed by a variety of other charges. The majority of those arrested did have at least one charge related to a firearm or weapon-related violation.

**Gun Violence in the Deployment Areas:** Part of the intent of this initiative was to affect gun violence in the deployment areas since these were areas with high concentrations of ShotSpotter and other firearm violence activity that were used to identify the deployment and hotspot areas. As with the 2022 analysis, one of the primary outcome measures is related to the prevalence of firearm-involved homicides and nonfatal shootings in the deployment zones during and following the implementation period. Comparison or control areas were again not feasible as the focus was deploying to the areas disproportionately impacted by firearm violence. The data for this portion of the analysis are based on incidents reported to MPD. All nonfatal shooting incidents are included, and homicides are limited to those involving a firearm. Both homicides and nonfatal shootings are excluding those indicated to be domestic violence related and those occurring inside of a residence, to align with how the hotspot areas were identified. The data were selected based on the location of the incident falling within one of the designated zones or hotspots within the zones for the deployment period, as well as specifically looking at the hotspot areas. In addition, the data were analyzed both at the victim and the incident level, since one incident can have multiple homicide or nonfatal shooting victims.

Given some of the program adjustments that were made in 2023, such as not having overlap between areas, does make it possible to better isolate what occurred within each zone and micro hotspot, although the areas were in some cases contiguous, limiting the analysis of potential displacement outside of the focus areas. Also, as documented below, a recommendation from the 2023 deployment is to conduct additional analysis after summer 2024, to allow for a longer-term analysis of any changes within the deployment zones following implementation of the program including the following summer months.

In the 2023 Operation Summer Guardian zones combined, during the intervention period of July 6, 2023 to September 30, 2023, the number of homicides and nonfatal shootings (by victim) in the zones was lower than the same time period in 2022 (down 6% combined), while the number in the area outside of the OSG zones increased (up 12% combined) as shown in Table 6. This initial comparison was again utilized to account for the seasonal trends in homicides and nonfatal shootings during the summer months and did demonstrate a decrease in the volume of homicides and nonfatal shootings in the deployment area during the initial implementation compared to the same time period of the previous year. The comparison to the full year and the post-intervention period cannot yet be conducted since the full year has not passed since the initial implementation. A follow-up analysis will be conducted after September 2024.

Time Period				In OSG Area			Outside of OSG Area			Citywide		
				Homicide	NFS	Total	Homicide	NFS	Total	Homicide	NFS	Total
July 6 - Sept 30	Intervention	07/06/23-9/30/23	Count	10	66	76	32	134	166	42	200	242
	Pre-Intervention	07/06/22-9/30/22	Count	12	69	81	28	120	148	40	189	229
			% Change	-17%	-4%	-6%	14%	12%	12%	5%	6%	6%
	Post-Intervention	07/06/24-9/30/24	Count	NA	NA	NA	NA	NA	NA	NA	NA	NA
			% Change	NA	NA	NA	NA	NA	NA	NA	NA	NA
July 6 - July 5	Intervention Year	07/06/23-07/05/24	Count	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Pre-Intervention	07/06/22-07/05/23	Count	41	253	294	75	436	511	116	689	805
			% Change	NA	NA	NA	NA	NA	NA	NA	NA	NA

NA = Not available as of the time of this initial report. A follow-up analysis will be conducted once data are available through September 2024.

*Table 6: Comparison of Operation Summer Guardian Area to Outside of the Area and Citywide for 2023 Deployment for Homicides and Nonfatal Shooting Victims*

Looking specifically at July – September as the primary intervention months across multiple years (Table 7), the OSG zones were lower during the implementation period in 2023 than the average of the prior three years (2020, 2021, 2022), while the area outside of the OSG zones increased comparing the same time period. This is the reverse of the pattern observed during the 2022 deployment.

Area	Average 3 month periods July-Sept 2020-2022	Implementation July-Sept 2023	Absolute Change	% Change
OSG Area	95.3	83	-12.3	-13%
Outside OSG Area	169.7	181	11.3	7%
Citywide	265	264	-1	0%

Table 7: Comparison of Operation Summer Guardian Area to Outside of the Area and Citywide for July – September During and Prior to 2023 Deployment

To better account for the trends in homicides and nonfatal shootings and to identify whether there was a significant effect from the intervention an interrupted time series analysis was again conducted. An ARIMA model was again developed, and the model also accounted for seasonality. Data were included from July 2020 through February 2024 to provide at least three seasonal cycles prior to the implementation. The data were modeled both by

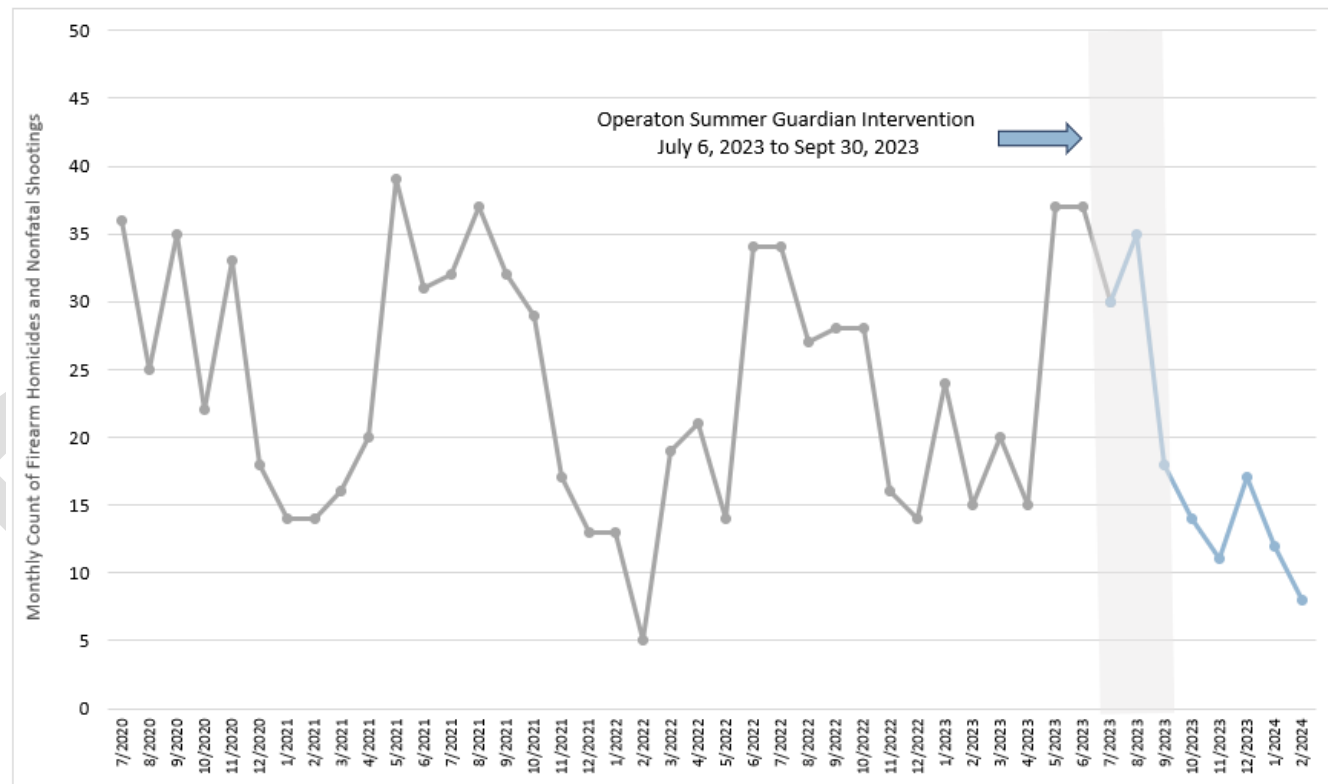


Figure 6. 2023 Operation Summer Guardian Deployment Area Firearm Homicide and Nonfatal Shootings Victims by Month

month and by week. In addition, the OSG was again treated as both an intervention with potential short-term effects (change expected during the deployment period, but not necessarily anticipated to continue longer-term) as well as being treated as having potential longer-term effects (the change continuing after the intervention). As was the case with 2022, the ARIMA model did not identify a significant change in the trend in firearm homicides and nonfatal shootings in the OSG zones based on when the OSG program was implemented. The overall monthly trend in the OSG zones before and after program implementation is shown in Figure 6. However, the post-intervention period only had five months of data available for the 2023 analysis as of the time of this report. This will also be repeated after the data are available through September 2024.

In terms of the individual zones and hotspots during the 2023 OSG deployment...to be added

Add table by zone and hotspot

Table 8. 2023 Operation Summer Guardian Homicides and Nonfatal Shooting Comparison by Zone and Micro Hotspots

Overall, while this initial analysis of the 2023 OSG zones did not demonstrate a significant change during or following the deployment based on the ARIMA models, unlike the 2022 deployment there was some indication that the volume of homicides and nonfatal shootings was lower during the deployment than the same time period of the previous year, while the level in the areas outside of the OSG zones increased. This analysis is again limited because there were not direct comparison areas to utilize with a similar volume of incidents and other characteristics to determine whether these areas changed at similar or different rate compared to the OSG zones. This is suggesting that while there may not have been a full shift in the homicides and nonfatal shootings in the deployment zones that changed the overall trend in the deployment area, there is at least some indication that the

volume of homicides and nonfatal shootings in the deployment area was lower than what was seen the previous three years during the specific time period of the OSG.

## RECOMMENDATIONS 2023

In addition to the original recommendations after the initial deployment of Operation Summer Guardian, we would recommend that MPD consider the following recommendations for future implementations of the program:

1. *Additional Analysis.* As mentioned in the report, this report should be updated after data are available for September 2024 to check the areas for longer-term trend changes after the 2023 deployment. In addition, as part of this process, MCW will explore the possibility of creating a synthetic control for the 2023 deployment as a method to determine whether there is a significant change in the deployment area relatively to other areas
2. *More specifically identify and track activities during deployments.* The specific direction and tracking of the “park, walk and talks” was an enhancement over the 2022 deployment and provided more specifics to officers on the expected engagement activities during their shifts in the OSG zones and hotspots. An additional enhancement would be to implement an even more specific accounting method of the types of activities officers engage in during each deployment and the time breakdown for each activity (e.g. patrolling in vehicle in deployment area, conducting “park, walk, and talks” responding to calls, etc.). This would provide a more robust set of data to understand the specifics of the activities undertaken and how it relates to the results both in terms of community engagement, as well as changes in firearm-related activity. There is evidence that what officers do in deployment areas does matter and developing expectations around the implementation this program could help to add to the evidence base with this community-engaged adaptation of hotspot policing.
3. *Additional examples of positive interactions.* In addition to what was captured in both the 2022 and 2023 deployments, additional examples of positive interactions between the MPD members deployed during OSG and members of the community, would help to provide more evidence of the way officers are interacting with community members during this community-engaged adaptation of hotspot policing. Collecting additional detail on those interactions would be beneficial and would help to supplement the information collected through the surveys of both agency and community members.

4. *Zone boundaries:* To allow for more detailed analysis of potential displacement of incidents to surrounding areas, the recommendation is to make sure there is at least some distance (approximately 1000 feet) between the zones and between the micro hotspots within the zones to allow for more direct development of catchment areas to monitor for the displacement of incidents during the deployment period.
5. *Share deployment plans and track how the zones overlap with other initiatives.* Since there are multiple efforts underway that specifically focus on gun violence prevention and intervention, one recommendation as a carryover from 2022 is to continue to proactively track how the deployment zones for Operation Summer Guardian overlap with other partner initiatives (e.g. Promise Zones, Violence Response Public Health and Safety Team (VR-PHAST) focus area and micro hotspots). This was done to some extent during this implementation as the maps and zone included reference to boundaries of some of the partner initiatives such as VR-PHAST. As part of this recommendation, given the partnership and collaboration occurring through VR-PHAST, as well as other efforts, a recommendation is to share the deployment plans with partners so that there is general awareness of the initiative and when and where the deployments will be taking place. This will also help to limit the likelihood of unintentional overlap between the various efforts while the deployments are underway.