

Counting bullets: ShotSpotter records 7 400 rounds fired in 8 months



Gunshot detection was launched in Lavender Hill in March. (Duncan Alfreds/News24)

- **More than 7 400 bullets were fired in ShotSpotter areas between January and August.**
- **The gunfire detection system aims to fill the gap caused by a lack of reporting in areas with large amounts of gang violence.**
- **The murder rate in the Western Cape has been on the rise, with much of that attributed to gun violence.**

A bullet is fired every 47 minutes, on average, across an area comprising less than 10km² of Cape Town.

The area - consisting of four suburbs which record some of the most intense gang warfare in the metro - saw more than 7 400 rounds fired between January and the end of August, according to the City of Cape Town's ShotSpotter programme.

ShotSpotter is a gunshot detection system that records audio of shots and similar sounds.

The system operated with around 98% accuracy, the City said.

The system allows a gunshot to be verified in under 60 seconds, with the deployment of officers often under two minutes. The location is accurate to within a few metres.

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The programme has been rolled out in Nyanga, Hanover Park, Manenberg, and Lavender Hill, over an area of 9.5km².

Between the beginning of January and the end of August, ShotSpotter recorded more than 2 650 incidents in the four areas. There were more than 7 420 rounds of ammunition fired during those incidents.

The mayco member for safety and security, JP Smith, said the reporting rate for shootings was as low as one report for every 13 shootings.

In contrast, ShotSpotter generates an alert for every audio that is consistent with gunfire.

Smith said, often, this lack of reporting was driven by residents feeling shootings have become the norm or that authorities would fail to take any action on tip-offs.

To mitigate the breakdown in trust, he added law enforcement officers in ShotSpotter areas were mandated to respond to every alert. The alerts are also shared with the police to allow them to deploy officers to the scene.

"Every time there is a shot, law enforcement responds. If you respond quickly, there's a heightened chance that you can recover firearms. We've seen the recovery of guns increase five times in ShotSpotter areas," Smith said.

He added:

In fact, around 70% of all firearms confiscated by law enforcement officers are in ShotSpotter areas. This is not surprising, as ShotSpotter allows us to respond to a precise location, within 10m of where the shot was fired.

Crime stats show guns are used in the majority of murders.

With the Western Cape's increasing murder rate, and the fact that most of its crime is centred in Cape Town, tackling gun violence offers authorities a real chance at reducing the growing number of murders.

The Western Cape saw the highest increase in murders consistently for the first half of the year. Between January and March, the province saw a 27.5% increase in murders.

Between April and June, there was a 21% increase.

The province accounted for 17% of the country's murders between January and April. Of the 10 stations that recorded the highest number of murders for the same three-month period, six are in the Western Cape.

Stats collated by GunFree SA, based on quarterly crime statistics, show guns are used in 42% of murders and 58% of attempted murders.

GunFreeSA spokesperson Claire Taylor said while the province had one of the highest rates of murder in South Africa, gun violence remained concentrated in particular communities like Manenberg, Hanover Park, Lavender Hill and Nyanga.



Cape Town Mayor Geordin Hill-Lewis and Mayco member for safety and security JP Smith joined an integrated crime prevention operation in Steenberg and Lavender Hill. (Supplied)

Supplied

However, she added murder rates were not an accurate depiction of the level of gun violence in a community, as they did not measure the number of bullets fired.

"Every single shot recorded by ShotSpotter is a potential death or injury."

Historically, gunshots have been difficult to pinpoint based on sound alone, Smith said, and eyewitness reports would often contradict each other.

However, having an accurate location has made it possible for officers to respond within minutes and either locate suspects, confiscate firearms, or preserve evidence.

The faster response was, in turn, increasing confidence in policing, Smith believed.

He said he hoped the tool would continue to be used to strengthen the working relationship between the City and police.

Last month, the national, and provincial governments and City signed a deal to boost the number of police officers and curb crime in the province.

SHOTSPOTTER

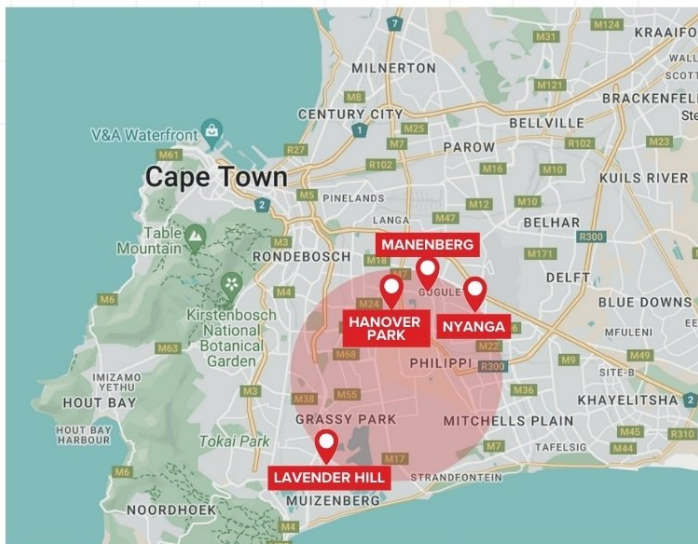
ShotSpotter is a gunshot detection system that records audio of shots and similar sounds.

47 MINUTES

On average, a round of ammunition is fired every 47 minutes in Nyanga, Hanover Park, Manenberg and Lavender Hill - an area of Cape Town comprising less than 10km².



The ShotSpotter system has been rolled out in the four suburbs, which record some of the most intense gang warfare in the city.



2 6 5 6

The number of incidents ShotSpotter recorded in Nyanga, Hanover Park, Manenberg and Lavender Hill between January and the end of August 2024.



7 4 2 8

The rounds of ammunition fired in this area between January and August 2024.



60 SECONDS

The ShotSpotter system allows a gunshot to be verified in under 60 seconds, with officers often deployed in under two minutes.

RESEARCH: Nicole McCain
SOURCE: City of Cape Town
GRAPHIC: Sharlene Rood

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Police spokesperson Lieutenant-Colonel Malcolm Pojie said the police and City have had a "standing cooperative relationship" for years.

"One of the tools used effectively is the ShotSpotter used by the City to locate and identify shooting incidents.

"It also assists with the speedy response and dispatching of integrated forces that have led to the confiscations of a significant number of firearms and the arrests of perpetrators in hotspot areas," added Pojie.

He said the signing of the cooperation agreement "formalises a strategy that is already in existence".

Hanover Park Community Policing Forum (CPF) secretary Yaseen Johaar said he did not believe ShotSpotter had had any meaningful impact in reducing gun violence in the community.

He added:

The City needs to invest in the root causes of crime, not in the detection of it. The reality is that it's not effective. The crime in the area hasn't dropped.

"On a daily basis, we hear 50 to 100 shots fired. It wakes you up even in your deepest sleep. It's traumatising."

Johaar argued the budget allocated to ShotSpotter could be put to better use in intervention programmes and better intelligence could be sourced from engaging with the community.

However, the CPFs in Manenberg, Lavender Hill and Nyanga all said there had been noticeable results following the implementation of ShotSpotter.

Nyanga CPF secretary Dumisani Qwebe added the programme had helped to identify shooting hotspots and inform the deployment of officers to these areas.

Manenberg CPF chairperson Vernon Visagie said it closed the gap created by a lack of community reporting and put officers in a better position to retrieve firearms.

Steenberg CPF chairperson Gavin Walbrugh added the impact could be seen clearly in Lavender Hill.

"It's definitely working. The guys are still going to shoot. But the response times are fantastic at the moment, and they've had good results in recovering firearms.

ShotSpotter might not be a deterrent, but the response to shootings is much better," he said.

The reality in SA

Crime expert Guy Lamb said the ShotSpotter programme was developed in the US to understand where firearm violence was concentrated and to help deploy resources to those areas.

However, the model was designed for a well-resourced police service controlled at city level, which is not the reality in South Africa, where policing is a national competency.

Lamb added ShotSpotters only provided a snapshot of gun violence in Cape Town due to the small area it covered.



Police seized guns. (Supplied/Hawks)

However, it has potential as an intelligence-gathering tool to inform the deployment of officers to hotspot areas.

"ShotSpotter gives us much more accurate feedback on the extent of shootings within specific areas, although it is dependent on acoustic technology and is limited to specific spaces.

"But if you've got high-crime areas and want to understand when, where and the extent of shooting, ShotSpotter gives you that information. You're not going to get that from residents in those areas," he said.

Lamb added, particularly in high-crime areas, residents have become accustomed to hearing gunshots fairly regularly and stopped reporting them.

"ShotSpotter is going to give you a much more accurate picture of where violence is taking place. The information is only helpful to the degree to which it's used to plan interventions.

He said:

Technology can only really work well if the police are able to respond and use the information to improve the way in which they police firearms and firearm violence.

Taylor added while stats have shown the metro police and law enforcement recovered 34% more illegal guns in 2023/24 than the year before, it did not solve the problem of gun violence long-term.

"This would require tightening controls over legal firearms held by the state and civilians," she said.

"An incident of gun violence in any community is shocking, but this kind of violence deeply traumatises communities who are essentially living in a warzone."

