

## Just Using Forensic Intelligence to Solve Gun Violence Cases

**Introduction** [00:00:01] RTI International's Justice Practice Area presents Just Science.

**Introduction** [00:00:10] Welcome to Just Science, a podcast for justice professionals and anyone interested in learning more about forensic science, innovative technology, current research, and actionable strategies to improve the criminal justice system. In episode two of our National Case Closed Project: Supporting best Practices and Investigation Season. Jason sat down with Fabio Sanchez, crime gun intelligence sergeant at the City of Miami Police Department, Yaneisy Delgado, Intelligence analyst at the Miami-Dade Police Department, and Kevin Armbruster, retired lieutenant with the Milwaukee Police Department, to discuss how their agencies utilize ballistics evidence and cross-agency collaboration to improve gun violence investigations in the greater Miami area. When a fatal or non-fatal shooting occurs, investigators can submit ballistics evidence to the National Integrated Ballistics Information Network, or NIBIN, which will generate potential associations with other firearm cases in the area. Law enforcement agencies in Miami, Florida, have developed best practices for utilizing NIBIN, and other information sharing techniques, to drastically reduce gun violence rates in one of the largest metropolitan areas in the United States. Listen along as Fabio, Yaneisy, and Kevin describe their agencies' methods for quickly and effectively entering data into NIBIN, using social media and other analyzes to track patterns in case evidence, and the importance of information sharing and collaboration for preventing gun violence. This episode is funded by the US Department of Justice, Bureau of Justice Assistance. Some content in this podcast may be considered sensitive and may evoke emotional responses or may not be appropriate for younger audiences. Here are your hosts, Julia Brinton and Kevin Armbruster.

**Julia Brinton** [00:01:41] Hello and welcome to Just Science. I'm your host, Julia Brinton, with the National Case Closed Project, a program of the Bureau of Justice Assistance. Here to join me as co-host is retired Lieutenant Kevin Armbruster from the Milwaukee Police Department. Welcome, Kevin.

**Kevin Armbruster** [00:01:58] Thank you for having me on here. It's going to be great.

**Julia Brinton** [00:02:01] On today's episode, we will discuss applying a forensic intelligence approach that leverages forensic evidence and intelligence analysis, to direct investigative resources and to help solve gun related investigations. Here to guide us in this discussion is Sergeant Fabio Sanchez with the Miami Police Department, and intelligence analyst Ms. Yaneisy Delgado with the Miami-Dade Police Department. Welcome, Sergeant and Ms. Delgado, thank you for talking with us today. I'm going to start with you, Kevin. Can you talk a little bit about your background and why you joined the National Case Closed project?

**Kevin Armbruster** [00:02:37] Yes, I retired from the Milwaukee police department as a lieutenant after 30 years. My background primarily is investigations, drugs, gangs, guns. Then I worked in our homicide unit, did a little bit with sex crimes and federal Task Force officer. As a supervisor of violent crime units and most of the federal task forces and our intelligence fusion center, it really helped and kind of rounded me with just violent crime and technology. And I was very influential in building our Milwaukee Crime Gun Intelligence Center, and it became a national model while I was there.

**Julia Brinton** [00:03:14] Thanks, Kevin. Sergeant, can you talk a little bit about your current role in Miami?

**Fabio Sanchez** [00:03:19] Hello, and thanks for having me in this podcast. My name is Fabio Sanchez, I am a sergeant with the City of Miami Police Department, and I've been here for 25 years and 17 years of it has been in an investigation capacity. I worked from burglary, economic crimes, homicide to public corruption, internal affairs. This program with us - We started a crime gun intelligence detail in September of 2019. Basically, that's when we started our NIBIN program in house in the city of Miami. And the way we did that is that we bought our own brass strikes machine so that we got the proper training from our partners at the crime lab here in Miami Dade County. They taught us how to triage evidence, they taught us how to identify how many guns were in any group of casings so that we could upload it properly into the NIBIN database, that's the National Integrated Ballistic Information database, they trained us so that we could do comprehensive collection and submission. So that means where there is a contact shooting, where somebody got shot or killed, or whether it's a shooting where nobody was there to witness or provide any testimony, we still collect all that evidence, we triage it and we submit it to NIBIN because we don't know when the ShotSpotter incident with no victims, no witnesses is going to lead us to get a lead to help us solve a homicide. We started small in September of 2019 with a team of two detectives and a CSI that basically did everything within the NIBIN process at a technician level, not to the level that is done at the crime lab with firearm examiners, but at that initial level. So we could, you know, guide the process, we could expedite the process, And we worked with our property unit so that we could make a lot of these processes automatic, we streamlined it. So no longer does a detective have to submit a request to process the evidence, it happens automatically. Our team goes to property, they have a good working relationship with them, we have the evidence that comes in, which guns come in, we see what casings come in and we could identify what needs to go into the NIBIN process. What that has provided us is the ability to streamline the process that would normally take a long time between transport from our department to the county lab, to something that happens automatically within one day. So now we get information, we're able to triage evidence entry within the next business day, or if it's something important enough, we can do it the same day and get results back in as little as three hours. That's, I think, our record so far, three hours where it's the evidence being processed, collected and submitted to NIBIN and a NIBIN response. That information now helps investigators to kind of consolidate investigations so that the moment we know that a homicide is connected to a ShotSpotter incident or shooting, we start at that moment in time, relaying that information with our partners within Miami. So our victims are sometimes the offenders in Miami-Dade or Miami Gardens and their offenders or sometimes our victims. So we created a good network within the NIBIN shareholders here within Miami-Dade, and we share information on a rapid level. So as soon as a lead comes in, we're already sending out e-mails, It's like we're sharing information, Here's our report, here's your reports. And then we're starting to compare information, see what commonalities we have, what leads that we have that are actionable at that point in time and what we can do about it. So overall, that process has helped out, in 2019, we've generated over 1400 leads within our department and we've had a lot of great success that can be quantified in how we started. Some of the information I could tell you that as a result of collaborating with, not only our department, but with collaborating with outside agencies, we've been able to reduce a lot of the crime, not only here in the city of Miami, but I think overall in Miami-Dade County. And I'm pretty sure our partner Yaneisy will collaborate as to how we're seeing the numbers go down due to our collaboration, because now we're getting to the information much quicker. We're getting to the offenders not on the 10th, 11th, 12<sup>th</sup>, 13th shooting, we're getting it early on and we're making the connections. So that's how in department like in-house CGIC program helps the department out, because you can imagine the county that we have, the lab, has 32

agencies that they have to process evidence for. And on top of that, their own evidence from their own department. So, by us being able to expedite our process, now we're sharing information with them on a regular basis. And then, so when it goes to trial, now we could actually, instead of just doing all the entries that we do, now the county lab can actually go into it and do the comparison where firearm examiners are now going to testify to the results. So, instead of submitting thousands and thousands doing that technician work that would normally be done by them, now they could concentrate on the work that really matters, which is testifying in court to get a prosecution. So I started in 2019, with he two detectives and the CSI, now have grown to over 12 detectives. This past June, we've actually not only done the NIBIN process, because we were very NIBIN support based on our unit, now we're actually doing enforcement work, we're going to start using some of that Intel that is not normally used by our investigators and doing follow up investigations to see if we could identify those straw purchasers that we could identify, NIBIN leads across jurisdictional boundaries and just do further investigations to really track down the prolific trigger pullers in our area.

**Kevin Armbruster** [00:08:11] Fabio, it's such a great story and showing how it has evolved because in reality, from 2019 to this year, you've basically worked on the front end process, the lab, the getting your processes straight, working with your CSI unit. How have things changed or what efficiencies have your unit gained by doing things in-house? And then, what is Miami Police Department Lab? People look at the in-house labs, there's outside state crime labs. How does your lab, when you speak about labs, what does that mean?

**Fabio Sanchez** [00:08:40] Well, I'll start by saying the county lab, which is the sheriff's office, they have their own crime lab within Miami-Dade County. They're the ones that process the bulk of our evidence that needs any forensic review and enhancement or anything forensic that needs to be processed for a prosecutorial process. You could imagine, I don't know the total numbers of shootings, but I'm pretty sure we're in the range of thousands of shootings. Maybe Yaneisy could probably state that fact. But if it's a crime that that's processing thousands and thousands of shootings from a year, from the surrounding agencies, it becomes difficult to get that information back in a timely basis. So, but now being able to as a department, being able to process that evidence as it comes in on a daily basis, now we're getting information that we could share. And we were one of the main contributors to the county lab, Aside from their own shootings who were one of the main contributors. So we're part of the cog in the process, we're delaying some of the results coming up because they just had a lot of workload to deal with between casings and guns and all that information. So by the time we got to investigation, sometimes in the previous version, I'm not saying the current version, because we've grown exponentially between what we were at 2019 and what we are now, but the crime lab now is able to do their evidence in a more timely basis, they're able to assist other agencies in a more timely basis. The smaller agencies that don't have that much shootings to go into it, and now the information we're sharing is more current. So as the investigation is ongoing, the detectives are able to get that Intel and see the context, how it collaborates with their investigations, their leads, their suspect vehicles, their offenders, and seeing how it correlates. And we get all notified at the same time. So, for example, if in Miami-Dade County, somebody is picked up with a weapons violation, a felon in possession, and it gets entered into a NIBIN and we get the results back that is involved with a shooting or any contact shooting or any homicide, now, we have a good, viable lead that that person is somebody that we need to talk to. So having that information in a timely basis makes it actionable, and we could share that information with our detectives. And the other benefit of having an in-house team in the police department is that sometimes this information can

be a little bit complicated. I mean, I could tell you that when I was a homicide detective in 2012, it was hard for me to read the actual NIBIN leads and understand it. But now we have a dedicated team that could, not only look at the actual lead, but could also see associations to, you know, numerous other pieces that we have. So, for example, ATF provides us with a database that we could see the whole access. So if we have multiple guns involved in the shooting, we could see then the trajectories of those other guns. So we could see the trajectories of those other guns and see what they're involved in and if they've been recovered, so that we could get additional information that now we can then feed to our detectives and saying, look, this person was picked up with this firearm, this firearm was associated, this guy was also arrested with it, or this information that the county has video, and stuff that's going to help us collate information. And when it comes to prosecution, our case might not be the strongest, but the county's case might be stronger. And when we start combining the evidence from both cases, you know, either internal or external, now we have something, one that the state attorney's office can use to help prosecute and keep those people behind bars.

**Kevin Armbruster** [00:11:41] I think that's very important that you mentioned, I mean, you really laid out the foundation for anyone listening of what you need to change and how things change, and it's not a fast process. It's just a, you know, changing culture and changing your policies on your police department don't change overnight, and it's nice to see that it'll be a lot of success and just growing for Miami Police Department in the future.

**Julia Brinton** [00:12:03] So turning to you, Mr. Delgado, what is your day to day look like in Miami-Dade? Can you talk to how you use intelligence analysis to assist violent crime investigations, How use NIBIN and what is it, talk about ShotSpotter. You've got a lot of tools that you use when you do your work.

**Yaneisy Delgado** [00:12:21] Hey, everyone, thank you for inviting me, Yaneisy Delgado, I'm assigned to the Forensic Services Division from Miami Dade Police Department. I'm currently an intelligence analyst and what I do mostly - when I was hired originally by the crime lab, was in 2019, around October, so around the same timeframe that CGIC was put in place in city of Miami, I was allocated to the lab to create pretty much crime gun events reports similar to the ones that the CGIC centers have been pushing out. Besides that, to also encompass additional datasets that might be found at some of these crime scenes. What I mean by that is, my day to day would look like I will come in and we review all the NIBIN links that were processed. For those listening in, NIBIN links or links that are made at a microscopic level, pretty much, between different evidence that are left at a crime scene, compared, and basically pushed out. And a scientist or a reviewer is basically letting us know, be it Fabio, with the evidence, myself, as Miami-Dade Police Department, or any other agency participating, that casings collected from other crime scenes linked together, pretty much, And is the same gun being present for multiple scenarios. That being said, when I come in, usually I receive a link through NIBIN, and they let me know if cases are connected, Like Fabio mentioned, if somebody was arrested with a firearm. And what we've done through the years, if we pretty much created a database with some of this NIBIN links, through my charts, which we call them spider web analysis, and basically what comes into play is like when you were in school and you saw like a big spider and everything linked, and it told you about all the connections and everything to come into place, That's basically what is in there. It's a layer of information, So you mentioned some of the systems that I use, ShotSpotter is one of them. So when a ShotSpotter goes off, an officer responds to the scene. A ShotSpotter is a gunshot detection system. What it does is it triangulates the sound from the gunshots as it's actually being fired from the offender, or it might be a victim, who are trying to defend themselves, it triangulates that sound and

it lets you know within 80ft, I believe, margin of error or just a circumference around the area where the shooter or the shooting might actually have been originated. Officers are dispatched to the scene; Evidence will be collected. A call doesn't have to come in from a witness or a victim, It's just automatically an officer's dispatched there. Evidence is collected, aid is rendered if there's a victim on site, and then evidence is entered into NIBIN. What I've basically realized through the years is sometimes you get a lot more information through ShotSpotter cases than you would if a victim was present. It allows us to see who is beefing with who, for lack of a better terminology, who's fighting with someone, whose turf they're infringing on, and it gives us an idea if we just follow the forensic intel and NIBIN links, of what scenarios is playing out. We also use, as well, CJIS, which is the Crime Justice Information System, basically to let us know if victims have been arrested, If subjects have been arrested, if witnesses might actually be lying, or if witnesses actually have also witness other crimes, and maybe they were the target at the time, they're afraid to come forward. What it allows us to do is look at their criminal history, the times that they actually had a run in with the law, either because they've been arrested or maybe there's an alert in the system for something else. We review, as well, our records management system. We don't have records management system, but I'm using that terminology because it's usually the most common one that people are familiar with, it's basically our incidents report, reports that officer pick up on the road, We look as well at field interview reports, that it's just when an officer had an interaction with someone and not necessarily a crime had occurred, but it's just if suspicious activities that an officer saw, an intake was made and that person will show up later on. There's also LINKS, which is a great database, it was created by the Naval Academy, it allows you to research multiple agencies', criminal, pretty much, records system or just records management system in general, to see they were involved an incident, if they might be a witness somewhere, so on and so forth. And we take this law enforcement databases information, and we add onto it the forensic Intel portion on our end, and then we add on to that as well any open source information that we might find on social media. We once had a scenario, for instance, that we realized a gun was targeting people that had a past of narcotics violation, or basically that we're dealing or selling a particular turf. And we noticed that the same guns that were targeting these victims, they had, what we call TR 52 pass, which is a narcotic pass, also targeted some juveniles that didn't have a pass per se, before. When we delve into the social media, some of those juveniles, we start seeing a pattern that they themselves were actually just starting up a business selling narcotics and using social media in order to do so. So their own friends were the ones to let officers know that the reason why they were targeted was because they were infringing on another gang's territory. And this is all information, like Fabio had mentioned before, that we come across, we try to exchange, we share between the communities and the agencies as a whole, and try to see which is the best way to target some of these violent offenders. And I use "target" not so much as in we just focus on them, but see what is the best venue investigation in order to move forward with it. I hope that answers your question.

**Kevin Armbruster** [00:17:21] I just wanted to ask one follow up on some of your use of your gunshot detection system, because I know you guys have looked in, especially with trends through the United States now, with the use of full auto gunfire. Do you look at gunshot detection systems or do anything special with full auto gunfire?

**Yaneisy Delgado** [00:17:37] We do. Besides the fact that ShotSpotter has a function now that lets you know if a gun has pretty much gone full auto, just based on the sound, when anything comes into the labs as well, it is flagged, if they had a switch for this case. Now we're seeing as well here in Miami, which didn't happen before, is people have been changing the slides a lot. So sometimes we will execute search warrants and we'll see

multiple slides, even though there's just one, technically, one firearm part all together and they'll keep changing the slides to kind of throw off the examiner sometimes. When they change fire, just because the slide creates different, I know I'm using this terminology wrong because I'm not a scientist just full disclosure, the gridges in the bag where it makes the indentation that we put into NIBIN so they can compare it to like the bridge, and it creates a difference. And we actually had a scenario where a gun was recovered in a search warrant, we test fired it. And I'm deviating a little bit from switch and rapid fire, but they recovered the firearm from a crime scene. We test fired, it linked to a homicide, but there were multiple slides actually located at another location. When we tried to slide from the other location, actually, it linked back to the homicide, but two other casings there as well. So it wasn't so much we recovered the full firearm but just the slides that it sells. So sometimes they'll do that just to throw off the investigator. But right now, what I'm working on when it comes to those high-powered rifle mechanism, is I'm trying to create kind of like a central database utilizing Power BI, where I can analyze all those incidents that have occurred. For example, the type of rifle, that type of caliber that was recovered in a particular scenario, encompassing ShotSpotter data, NIBIN results, as well as e-trace results from the scenarios and trying to kind of map out where the weapons are coming from, what particular groups might be more likely to use the high profile weapons, and if so, where are they getting them from? Who is their supplier here in Miami? And what I'm doing that is I'm getting with ATF and they're providing me the e-trace data for the last two years or 2 to 3 years in total, of all the firearms recovered by our guys, pretty much. And I'm going to try to map that out and an interface where all these databases combine together to kind of help us, almost be like an alert system and like, hey, you should look here or there's a pattern here, just by looking at it, by creating this particular formula in which it kind of lets us know what certain things have picked up or not. And that's pretty much what we're doing with a lot of the data from ShotSpotter. We're trying to take advantage of it. Definitely.

**Kevin Armbruster** [00:19:54] That's awesome. And you mentioned a couple of things, and this is what I really, really love, and I feel like you're one of these best practices in the United States, is the fact that, you did mention ATF too, that you collaborate with them also, but you host and you have area meetings that you communicate with other analysts, not only just in your general city, in your regional area, it's in multiple counties. I think it's just so important that you guys communicate like that. Could you explain a little bit more on how that works?

**Yaneisy Delgado** [00:20:21] Sure. As intelligence analysts, it's almost like we have a direct link to each other. We know pretty much the thought process or most of the analytical components that comes into our job description. And we actually host quarterly meetings and we actually have a group as well, encompassing most of the analysts through the county. That includes Homestead jurisdiction, Florida City, city of Miami, obviously. But sometimes we actually collaborate directly with the CGIC centers, just because they're open pretty much all the time, depending on when the incidents occurred all the way up into Broward, Miramar, Pembroke Pines, the idea is that as civilians, we actually don't transfer as much and move as much as an officer would, for lack of a term. We're actually fixated sometimes in a lot of our positions just because when it comes to payment is usually the same depending on the unit you are. So a lot of analysts actually stay in the unit they've been assigned to for a long time. And if they were to move to another unit, they're still doing a lot of the same job descriptions and they can still assist us. And we're still working for the same function, which is to deter crime. Sometimes officers might be dispatched to different areas, different shifts schedules. It might just be harder to communicate with them all together. And also they have other job responsibilities

that an analyst would do. So we create, we make sure to create almost like a web of context, for lack of a better terminology, within the analyst field itself, where we help each other exchange information and make sure we pick up on any trends that have been going on. We share that, decimate that, and ensure that our officers act on it because we know who to provide that information to at a more accurate time. We actually have an analyst in cybersecurity here at Miami-Dade that, she does most of our quarterly meetings along with the training bureau, to encompass all the analysts get together and we exchange ideas. We actually teach each other what techniques have been more proficient in the area, what actually works for us, and I'm actually hosting a presentation on Power BI because we recently acquired it as well as new training on Excel, how we can utilize it to enhance our investigations, and when I'm saying that communicating with your counterpart is like the relationship I have with Fabio, is key to a lot of the success that we had here, I'm understating the importance of it. It is very important for law enforcement to get into the habit of sharing Intel and making sure the Intel is getting to the right personnel, because you may have amazing Intel, but I can't go and arrest anybody, Kevin. So it needs to go to the correct person, to the correct investigator. And we don't want to just broadcast it to the world because there might be information that might actually impede an investigation. So we need to know who that person is. And I think analyst kind of feels that void and allows us to encompass and go around that scenario that we have.

**Kevin Armbruster** [00:23:03] I think you really bringing up an important point of what you do and that you are bringing up all this intelligence on, especially with NIBIN leads, putting that contextual information, you're giving it to the investigators, you're having that communication. So, I mean, if people are thinking about, you know, I'm waiting on getting police reports, you're that communication piece that is so essential to a crime intelligence center. I love it and I probably goes right into the next question I have for Sergeant Sanchez. How do you collaborate with crime intelligence analysts and conduct investigations and some of your lessons learned? Because as you said before, now you're on that next part, now you're on that operational part. And what Yaneisy says, she's giving you this Intel, where's the action that comes behind it? How does that work?

**Fabio Sanchez** [00:23:53] Well, that's the most important part. And I could tell you that that when we started many years ago, before this process, like, we were basically siloed out. So a homicide investigation that would happen here would stay in-house for the most part. And sometimes it happened in other departments, you know, just because people thought that that information was very crucial to not push that information out. But as NIBIN has been introduced and the way we use it here in Miami-Dade, the way we're pushing the information out to the effective detectives, the ones that know the intelligence, because there's so much reading the reports that we can do. We're not out there knocking on doors, talking to people, and we don't know the Intel that's on the ground. So by making those connections now, we're able to consolidate investigations, whether it's with the city of Miami or with the Miami-Dade County, and by sharing that information on a regular basis, we're able to make the connections that that lead us to identify who the offender is and see what they're affecting. And now collaborating, not only internal or external, seeing if they have any phone numbers or phones that were connected to it so that now we could add an additional enhancement of the locations, their cell site, you know, there whereabouts at the time of the crime before and after. So as we get now the information, that's basically Intel-based because now, it's good and if it's bad. So if it's a no lead or detectives get very disappointed real quick, it's like, oh, there's no lead. But the good thing about knowing that there's no lead at that point in time is that you don't have to concentrate on that aspect of your investigation anymore. You can concentrate on other aspects to help you move the case forward. But there's been plenty of times, for example,

we had a recent case where we had a county homicide and a city shooting that happened the same day. The detectives were in the hospital, and it was the same caliber cases that were involved in both shootings. And then the lead came in and they kind of, at that point in time, thought that the cases weren't connected. And then when they started comparing notes, they saw that the clothing that we had on our crime scene kind of matched what was in our search warrant. So now we're joining investigations together and presenting them to the state attorney's office, where now we could, whatever makes our case stronger, we can now focus on that information on the case and building that case up and then taking the time to do follow up investigative techniques on the other case to make it rounded up and make it stronger as well, so that now we can prosecute both cases together. What we call it here is a Williams rule, I'm pretty sure there's rules, you know, throughout the nation that can do that. So by collaborating, you're actually affecting the crime that's happening in your neighborhood, because like I said before, what NIBIN taught us more than anything else is that, you know, the victims and offenders do not just stay in the general area. So by now, collaborating with those outside agencies, now we're able to put more leads together and connect the dots like you see on my background over here. So we're connecting the dots to the shootings, and then getting that into on the ground, the ground truth for the most part, from the detectives, and then collaborating in that manner. So as I say, with our detectives now, not only collaborating and understanding the Intel and being that driven now, for example, we have a case where we know who the offender is, but we don't have enough probable cause to go forward with the arrest. Now we can start doing some proactive measures. What we can start doing is seeing who bought the guns, start concentrating on that angle of it, which normally investigating the pedigree of the gun is not something that's really investigated that often by agencies because they're just concentrating on what that gun did. So by identifying who purchased the gun, now you can start getting that information. Okay, did you have the gun? If you did not have the gun, then who did you sell it to, or was it stolen? And you can start narrowing down the time frame to possibly possess the gun and getting those that information to help you solve the case. Or we do surveillance, we know that that individual or suspect is riding armed and we try to get them with a firearm, hoping that it's the one that was used in the previous crime, we're adding additional charges on that individual that would then lead us to see if we could do a proffer session or get additional information as to what he's been doing in our area that's been targeting victims. So there's a lot of Intel that guides what we do. The beautiful part about it is that you're really concentrating on the segment of the community that's doing the most shooting. So it's not like you're drawing a blanket over everybody saying, okay, there's a black car, we're going to stop every single black car. Now like, okay, we know these individuals, we're hyperfocus on the information. Now we have identified the individual and now we're going to concentrate on that information. So it's a way to let that the Intel investigations and be laser focused on identifying the ones that have the most shootings and your agency. And by doing that, by putting the right number of people in jail, you tend to see that the numbers of crime goes downward. And that's some of the experience that we have here in Miami-Dade County that a lot of our crime trends or shootings are really going in the opposite direction or going downwards because we collaborate on a regular basis. Now, we're not naive to think that it's stopping. I'm pretty sure it's being diverted to our partners in Homestead and our partners in Broward. So they're starting to see what the effects of displacement of the crime that's happening here. Another good thing is that we have a good toolset, a good platform, a good foundation that we could share that information and spread it.

**Kevin Armbruster** [00:28:26] Sergeant, I really think that you hit that on the head. Thinking about like how you're targeting people and targeting the right people, I think there's a lot of cities around the U.S. that actually have a CGIC program in place, but



they're missing this part. You know, the leads are just going to detectives and they're letting the detectives do it themselves. But you're adding additional people in place to actually bring these cases to the finish line to do the extra work. You're bringing these resources and federal resources, your own resources, You mentioned surveillance, There's usually extra search warrants with it, I just think that's such a key part that your city has embraced and not only embraced, I mean, you talk about how, you know, crime has gone down in a large metropolitan area. And I think it's important to know that, you know, you started with things and staffing really wasn't there. You started with like a person or two. I mean, it doesn't take a lot to have that investment in this. I don't know if you can expand on that or thoughts.

**sgFabio Sanchez** [00:29:28] Yeah, Yeah. You know, having the right people in place, that have basically the respect of others, will help you go a long way. So we were able to recruit people for this program, We got Detective Thompson that was integral part of the ballistic information. He's an expert. He's a gun guy. He knows subject matter expert when it comes to guns, and he embraces information. So as the leads would come in, we would go to our investigators to share that information with them and let them know, Yeah, and the initial phases are like, yeah, this is, you know, NIBIN, we have other process, but not only do we do it through the detectives one on one, but we also have it throughout the agency, the buy-in from the agency and our command staff. It is something that cannot be understated either. Our command staff embraces technology and saw that this was a way of moving forward. They've seen it in in many other conferences instituted in other agencies. So it's nothing new. It's just now instituting it in our agency and making sure it's successful and effective. So I could tell you the best thing that we could have done was start our bi-weekly meetings with violent crime, where the chief of investigations, Chief Aguilar, at the time, would create an agenda of all the shootings that happened within the area and would push it out to the commanders of the unit. So the homicide unit was there, the violent crime lieutenant was there, the special investigations staff was there, their SIS command staff. Usually that's the place where everything remains secret, now we're all collaborating on a regular basis. We brought in our gang component so anytime we had a shooting and we still have an NIBIN connection, as Yaneisy very clearly stated, you could see where the infringement on the turf wars we're going on. We start identifying that information, now we started sharing that information and basically within the criminal investigation section and also sharing it with our outside partners. And when we started doing that, it held the detective accountable. So they knew the NIBIN lead was there, they looked at into it further and when it solved the case, that was fine, and when know when it wasn't enough, then they moved on to other investigative components. But we had everybody there that could possibly help that investigator with this investigation from gangs, and narcotics, and robbery or anywhere else that could show that information, that move that information along. And so, as we went along, the collaboration has basically enhanced and it's moving investigations forward because we know that there's multiple ways to tackle a case. But by sharing that information with the detective and their supervisors, you know, knowing that that information's in there now, it brings in the accountability. So now you can't ignore that the lead was there. Either address it and it helps you out or you move on to other things that are going to help you out with the case. And that's what we're seeing here. And then sometimes when we have a lead, for example, that links to stuff back in 2017, we could clearly tell them like, look, you may not want to look into the lead that much because between 2017 and to 2023, that gun could have exchanged many times. So that's where CGIC comes in and says, look, this is a lead, but it's not going to help you out, or, hey, this lead is really good, it's been connected to other guns, there's a sequence of fire where it's been shooting on, you know, three times this past three months or something like that, something that we think is incredibly

important so that now we could enhance it with cell sites, we could enhance it with gains, we could enhance it with connections. And that's how we're making that information viable and productive and successful in this area. And then our partners at ATF and partners at Miami Dade County, just the fact that we're sharing information on a daily basis. So it's not just the meetings that we have with them, but we also have a daily call that is administered by the sheriff, by Miami-Dade County, and that's information there that we're sharing as to what happened in the last 24 hours. That collaboration is crucial, sharing that information with not only internal detectives, but exterior detectives that could help out with the case.

**Kevin Armbruster** [00:32:50] Thank you for sharing all that. That's super important.

**Julia Brinton** [00:32:51] So turning back to you, Yaneisy, how can other agencies, including ones that may not be the size of Miami Dade, take steps to implement more of a forensic intelligence-based approach to shootings investigations?

**Yaneisy Delgado** [00:33:04] One thing I have noticed the more I've been in this position is that sometimes while you may not have all the fancy resources that your agencies are fortunate to have, there is a lot of grants available where you can apply for and actually start either a CGIC center, which is a big boost, because I know a lot of different entities are very dependent on labs in order to do the work up, and because of geographical issues and might be far away, so it may take them a while to get there. For example, I once had, someone spoke to me from Canada and they asked me how can I duplicate what you do here over there? And I was like, Well, do you have a robust like NIBIN center over there. There it's called SIBIN, and she tells me it takes them around a year to add their information from when the crime happens, actually to enter in to SIBIN. And my first thing was like, That's too long. Here, we usually, like Sanchez said, sometimes he can get his results within three hours from when the crime happened, get it into NIBIN. Sometimes for us, we get it within 24 hours, or we'll get a result, we'll get a hit. Everything keeps moving like a well-oiled machine. The only thing that I would ask them was to speak to their lab directors, to speak to the people in charge of processing their forensic evidence, and see how they can expedite some of these incidents. Just because it's not a priority case does not mean that there's not Intel there that will be beneficial for them in the future. Like Sanchez was saying, it's true, maybe a homicide from 2017 that a gun was recovered from 2023 might not be useful, but if we were to look at the entire history, the totality of the circumstances, of how that gun was recovered, we might be able to find more viable information. Those cases that he linked to - was any DNA recovered from the homicide? Is anybody present there that at one point may have had some type of connection with that firearm? The known associates of some of those victims, the known associates or the offenders or that person that actually was recovered with the firearm, can any of that be tied to the homicide itself? If I were to show my entire results of my findings to the lead investigator for that homicide, is it most likely they will be like, oh my God, that's the guy I was looking for. And that has happened a lot of times. He's like, Oh, how did you know that he was related? And I was like, I didn't personally know he was related to, It's not written anywhere, but he is a very close friend of the person that the firearm was found under. Or the person that claimed they stole the firearm. You know, it just puts him in the area and just kind of confirms the officer's findings. And once again, like I said, not everybody has the resources. But don't give up on forensic intelligence just because right now some of the labs might be taken a little bit too long in order to do it. Keep trying. The intelligence there is like the hidden gem that you were looking for. It is information that's very valuable. Nobody will come up to you and say, no, I didn't say that because science is not a witness that contradicts itself. It will tell you, yes, they are linked and it will always be so. So it's valuable information backed by scientific facts, not by an opinion. That carries a lot of

weight in law. And if it's a homicide or any type of case, any type of intelligence or information or Intel that you have available will be exceptionally valuable. So I say to them, if right now you can't duplicate what Sanchez is doing, or what we're doing at the moment, start having the conversations that matter. I know that before Chief Stephanie Stoiloff was able to bring me on board, she actually had to reach out a couple times and tell them there is a need for an intelligence analyst to view the forensic Intel of the forensic information we're producing here. And once they saw what was available, pretty much it was like they turned on the fire. And it's just the information was in abundance and it wasn't anything I was making up. So officers always thought that I was like, How do you know this? Like, where did you find it? And I was like, The forensic results told me. So this is my findings Just looking at the forensic result and reading the reports that you guys write. This is the information. This is the story that evidence was able to yield for you. And that will be the best advice that I have. Work with what you have. Also, if you're a new intelligence analyst and you just want some information, there are great YouTube videos available. There are great trainees that are free and always reach out to your counterparts all through the county or close by and they'll be more than happy to help.

**Julia Brinton** [00:37:03] Thank you for that. And I think you touched on this and a theme that I'm hearing throughout this discussion is really about these building relationships, both internal and external. And you did touch on this a little bit, but for people who, you know, newly hired crime analysts or intelligence analysts, or maybe new to an agency, earlier in their career, we've heard that sometimes there's this big disconnect. They don't quite know how to talk to cops and the cops don't know what service they're really going to be able to provide for them. So what advice do you have for those sorts of folks who are new to this career or new to an agency to form those deep connections that you need for this to be a successful partnership?

**Yaneisy Delgado** [00:37:40] It's like any relationships. Be it family, be it friends, be it a romantic relationship, It takes work. When I first joined, I would say hi to officers, Sometimes I would demote them because I didn't know their rank. So one time I saw a lieutenant and I was like, Hey Sergeant. He's like, Thank you for the demotion. That day I learned everybody's uniform insignia and I made sure I never messed up again. He didn't say it in a mean way, but it's just that I realized right off the bat, my lack of knowledge and in the concept of it. Sometimes I'll talk to officers and I'll be like, Well, if I just like filter really quick through I2 and Power B, I'll be able to tell you the probabilities of this happening. Their eyes just glaze over and they're like, What are you talking about right now? And I realized that is just a way of the beast. Pretty much like I was taught to think in an analytical component because most of my databases work like that. And sometimes when I'm talking in my own head, it all makes sense. But imagine if an officer were to take you out on the road and he would start throwing signals, at you. And he will start throwing you in the Florida statues all of a sudden. And you're not particularly known in the field and suddenly you feel like you have no clue what's going on. So it's about finding that common ground and relating to them and vice versa and officers taking the time to relate to analysts as well and be like, Oh, that makes sense, This is what she means when she said she was going to throw that commonality, I was like, yeah, I'm just going to see if you guys have been arrested multiple times and if you're in the area he's most likely to be arrested in, and use terminology that is familiar with them. I'm like, I'm going to check to see how many times he's been arrested. I'm going to just like a mug shots. I'm going to look all he hangs out with. I'm going to see if any of the officers at one point did a field interview report on him and see how we can coordinate all that information for you. What is it that you're trying to find out and how can I assist you to do it? Analyst have been a support to officers and officers have a lot of information that, because they don't write it down anywhere, does not

mean that it's not valuable. So it's just a matter of, as an analyst, sitting down and having a conversation and creating those relationships with officers. Just like everything, there will be people that will be easy to deal with, others might be a little bit more difficult. But sometimes you just ride the wave. I know this and I said this before, it's like when I first joined, I would speak to officers, they didn't understand exactly what I meant. And then one day I had a presentation and I just showed them my product. And I started talking to them like I talked usually when I was assigned to the station, or when I was assigned to an RTCC. In code, signal code, anything that they can relate to, they're like, Oh yeah, he's a 52. Yeah. He always hangs out there. And he started recognizing them by nicknames and pictures and images, because sometimes they don't have like the DOB and all the data sets that I have available. And like I said, it's just a matter of creating a connection and just remember that we're all humans, we're all here for a greater purpose, which is to help our communities. And that usually works out for everybody.

**Kevin Armbruster** [00:40:16] You bring up such a good point about creating that relationship with the investigators themselves, knowing what you want, so you're getting them the proper information. You're not doing any extra work on products they don't want, and the investigators are getting exactly what they want. Just amazing what you guys are both doing. Yaneisy and Fabio, Looking ahead, I guess, the next 5 or 10 years, Stuff the Miami Dade Police Department and Miami PD are doing right now, and doing right now specifically to prevent fatal and non-fatal gun violence, what could you tell about your successes that other people in this nation should be following?

**Fabio Sanchez** [00:40:56] I could tell you that partnerships are the most important part of it. You have to have partnerships within your local prosecutor's office and within the agencies, the ATF, the federal agency, the FBI. It all has to be a collaboration because we all have partnership, we all have a stake in reducing crime, and we all have parts that we can contribute to that. So the success we've had here is by having an actual in-house expedited NIBIN process that now we show that gives actionable intelligence on a on a regular basis that helps investigations. That's something that it might be a big initial investment, If you look at it, the machine itself, I think when we started was at \$500,000 for the brass strikes machine, along with the dedicated training. But once you have that dedicated group of people that do that process in an expedited manner, work with our partners in law enforcement and property and evidence and prosecutors office, we're streamlining the process and combining a lot of information. So I could tell you that this is a model that could be, you know, you had it in Milwaukee. So we learned a lot from other agencies as to what was done in other agencies, what can be done in your agency and start tackling a little bit at a time. So if you can do that, and NIBIN, at least understanding the NIBIN process, and the technology nowadays. Now, the investment we have within forensics, I mean, DNA advancements that we have, I could see that as long as we have this younger group of law enforcement individuals, whether it's an analyst or a detective or a forensic analyst, we're going to all join together with technology and advance it as much as we can so that it could collaborate the investigative process, it could be expedite it and it could guide us so that we're data driven. Not only that driven from word on the street, but, you know, understanding that the forensics have a big component that could help you investigation out. When you factor in video, cell sites, this all combines together. It's a point where you don't always need a witness or victim, a witness for somebody to say, yes, that's the person shot me, because we have the video, we have the DNA, We have the NIBIN. And we have all those components that, kind of, point to the offender and get to a point where it's undisputable to some extent where it becomes an unsurmountable for defense to overcome that overwhelming circumstantial evidence. So we'll see more of these cases with the multilayer of components. But I think the more we embrace

technology and partnerships, the way we embrace our collaboration, I think the collaboration here is the most important part. So long as you have partnerships throughout the region and when you have a champion within your agency that could help you move this process along, you could take baby steps and move light years ahead of where you are, because we definitely saw that here in Miami. A lot of the technology, a lot of the forensics helped us break through those barriers. And if it wasn't for that and the dedicated individuals like Yaneisy and the people here at CGIC, if it wasn't for those dedicated people, we wouldn't be able to break through those barriers because we want to have success stories to provide. As long as we continue to embrace and evolve the forensic processes that we have, through DNA and ballistic analysis, I think we're going to continue to bring down that crime.

**Kevin Armbruster** [00:43:40] So let me ask you, Sergeant Sanchez, using this CGIC model, what is your city as a whole, seen as far as crime increase or decrease?

**Fabio Sanchez** [00:43:49] So overall, we're seeing a drastic drop in all violent crime involving firearms. Homicides so far this year for the city of Miami, we have a total of 25 that are straight up homicides, seven that are justifiable where somebody was defending themselves. So 32. 32 in total for an agency with a population the size of Miami, it's an incredible number. It's a historic number that we haven't seen since the, I think, 1950s. So compared to last year, for example, we had 12 less homicides at this point this year than we had last year. So that's a tribute to the hard work and collaboration that's been done by the surrounding agencies. But it could all be correlated to the forensic process that is being done in the background that's kind of driving some of these investigations. So as you look at other agencies that have the CGIC model incorporated into their structure, you're going to see that there's a drastic number of, like a decrease in crime, and that's worth the investment that you put into it. That's worth the investment, not just in money, but in personnel to help you fight crime and reduce crime.

**Kevin Armbruster** [00:44:44] That's amazing.

**Yaneisy Delgado** [00:44:46] Yeah, I'm seeing, kind of like the same pattern as well. Our homicide rate is a little bit lower than it was last year, but our shootings definitely have gone down almost like a 100 case difference between 2021 to 2022, and forward. So our shooting events have diminished as well. On our end.

**Kevin Armbruster** [00:45:05] We hope projects like the National Closed Case Project can continue to learn from agencies like yours. You guys are truly a best practice. Your whole region down there has really benefited from people like you and then departments like you, that have invested in this. You know, the best practices of crime gun intelligence centers, I mean, this is what it's all about. You guys have changed your investigative processes, your department processes, the way evidence flows, the way you're analyzing case loads, and cases in itself. You're leveraging technology and forensics. You're using the most innovative, best practices that we've seen in the United States. And that's where I see that, you know, getting ballistics back from a crime lab nine months to a year later is a thing of the past. And departments have that in their hands right now. And you definitely have shown us how we can actually change things for the better, to make cases with easier solubility and linkages and to even increase your case clearance rates. And that's really what the National Closed Case Project is about.

**Yaneisy DElgado** [00:46:10] Thank you for having us. We're happy to have been part of the podcast and I appreciate everything again. Thank you.

**Fabio Sanchez** [00:46:16] Yes, thank you, Julia, for having us, inviting us to this important podcast and we look forward to collaborating with the Department that's up on the block to learn from them as well, because it's always going to be learning and evolving. And I appreciate your National Case Closed efforts in that aspect.

**Julia Brinton** [00:46:30] Thank you, Fabio and Yaneisy, for discussing this important work. I think that's one thing that the National Case Closed Project is really trying to do is not only provide resources to other agencies, but learn from agencies and models like yours on the ground that we can implement into national recommendations. If you enjoyed today's episode, be sure to like and follow Just Science on your platform of choice. For more information on today's topic and resources in the forensics field, visit [nationalcaseclosed.org](http://nationalcaseclosed.org). I'm Julia Brinton.

**Kevin Armbruster** [00:47:00] I'm Kevin Armbruster

**Julia Brinton** [00:47:01] And this has been another episode of Just Science.

**Introduction** [00:47:06] Next week Just Science sits down with Rob Lang and Lamar Fyall, to discuss the importance of collaboration among law enforcement and prosecutors, and the critical role each plays in improving clearance rates for both fatal and nonfatal shootings. This project is supported by grant number 15PBJA-21-GK-04008-GP, awarded by the Bureau of Justice Assistance. The Bureau of Justice Assistance is a component of the U.S. Department of Justice's Office of Justice Programs, which also includes the Bureau of Justice Statistics, the National Institute of Justice, the Office of Juvenile Justice and Delinquency Prevention, the Office for Victims of Crime, and the Office of Sex Offender Sentencing, Monitoring, Apprehending, registering and Tracking. Points of views or opinions in this document are those of the author and do not necessarily represent the official position or policies of the U.S. Department of Justice.