

Webinar Transcript - Innovative Use of Rapid DNA in Investigations

Welcome, everyone, to the National Criminal Justice Training Center webinar. Our topic today is "Innovative Use of Rapid DNA in Investigations." My name is Katie Koleske. And I will be your moderator for today.

At NCJTC, it is our mission to provide high-quality, practical training that equips justice professionals like you to better protect and serve our communities. Whether it's webinars, in-person courses, on-demand modules, or downloadable guides, our resources cover a wide range of topics and challenges you face every day. The best way to stay connected is through our website. Take a second right now and pull out your phone. Scan the QR code on the screen, bookmark it, and you'll find training opportunities, newsletters, and resources.

Today's presenters will be part of our 2026 National Missing and Unidentified Persons Conference that will be held in Las Vegas, Nevada, April 21 through the 23, 2026. Please join us at our conference to learn more from these great panelists. We'll be bringing hundreds of law enforcement, prosecution, search and rescue, first responders, educators, victim service providers, and tribal partners together for the event.

The conference focus is on identifying innovative and effective technologies, approaches, and strategies in the search, investigation, identification recovery, and reunification of missing persons regardless of the circumstances surrounding their disappearance. To view this conference and other current conference offerings, please visit [NCJTC.org/conferences](https://www.ncjtc.org/conferences).

We are pleased to introduce you to our presenters today. With us, Marc Desire, assistant director and technical leader with New York City Office of Chief Medical Examiner, Brian Elias, Chief Medical Examiner Investigations with Los Angeles County Medical Examiner, Kim Gin, CEO with Kim Gin Professional Solutions, LLC, Jason Moran, commander of police with Cook County Sheriff's Office in Illinois. Thank you for being here. The time is now yours.

Thank you for the invitation. I'm 29 years with New York City. I'm in charge of their Missing Persons and Body Identification Unit. I'm probably most known to be the last of the remaining World Trade Center team still working on identifications. But we approach here in New York our missing person case or mass fatalities like everyone. I mean, the mission is to identify the deceased as quickly as possible and return them to their families.

Our idea in New York was to put the rapid system in place to support our Family Assistance Center operations. That's the antemortem interview and the collection of DNA reference samples. And of course, all that is just lessons learned from going on 25 years now from 9/11. In fact, the last three new identifications we had last year were because of-- new family reference samples all these years later were brought forth. And we were able to identify those remains that were recovered in 2001.

But there's also been dozens of other mass fatality events we've worked on. And we get about 14,000 missing person cases a year and have to use forensics, some sort of discipline, on a few hundred of those to make the ID. But this all comes together to put the team we have in place today here in New York.

The FAC became a-- Family Assistance Center-- the FAC became a focal point in the weeks and months after 9/11. This is a photo outside our crime lab. These are all the family members who came-- thousands-- in the weeks and months after 9/11, looking for the lost, looking for answers. They had nowhere to go. They were so desperate.

And we had to walk through that on the way to our lab to do our work on the identification. The emotional strain that puts on you and your team, I mean, that was unheard of. We had never experienced anything like that and since then. But there had to be a better way. We had to develop a system. And that's what was born out of all those weeks and months and years that we put into building this system in New York.

And we are no stranger to mass fatalities. The city is surrounded-- it's a bunch of islands-- surrounded by water. We've got major shipping. We've got cruise liners. We've got 1,200 bridges in New York City-- three major airports. We kind of forget about that-- Three major airports. So there's about 10,000 passengers an hour overhead in our airspace. If you have that many, you better have a mass fatality plan.

We've-- big tourism in New York. We get more tourists than Walt Disney World. You can speed in New York City. It's not all gridlock. We're not immune to weather events. We have old infrastructure here. We've got these 100-plus-year-old cast iron pipes that still carry our natural gas. With building superintendents trying to tap into those things, they blow up and catch fire.

But a lot of these events that we've experienced in the past, we've been able to hone, we've been able to apply what we've learned in the past, the mistakes made. It's all about those lessons learned and mistakes made and, how do we do it better? But we got pretty cocky after 9/11 as far as working with bone.

22,000 remains-- all have been attempted. Many still elude us because they're so badly burned or soaked in jet fuel. Recovered in 2001, but we're still developing better procedures in hopes of identifying them. So that team is very much as dedicated today as it was in 2001. But all that work with those remains in 17,000 reference samples from families, that made us real cocky here in New York. And I decided, let's go tackle all of our cold cases, all of our previous unknown.

This is our Potter's Field. It's a little island off of the Bronx. There's a million people buried on this little island, including all the unknowns. So there are thousands and thousands of unknowns. The '80s, the '90s, we went after those first, those we could find on the island. And none of them had DNA collected back then. We didn't do DNA on UHRs back in the '80s and '90s.

So I got the great idea, we have this big bone lab. We can process all this. Let's disinter 1,200-- 1,200 of these deceased. We disinterred, we brought them back to the lab, and we finally did DNA work on them. And we were very successful. We got 1,200 full DNA profiles from all of those remains. And I'm like, yes, we're going to make all of these IDs. We're going to be able to return all 1,200 to their families.

You know how many IDs we got out of that 1,200? Zero. We got zero. With all of those DNA profiles, we made zero identifications because there was no family reference sample. We didn't collect anything on missing person cases back in the day. And the families thought we had forgotten. Years have gone, decades have gone by. The families had thought we had forgotten.

So we needed a better way. How are we going to reach out to these families? How are we going to contact them or get them to come to us so that we can now start collecting DNA and be able to make these identifications?

So we created our own. And these are very popular around the country. We visited a bunch of them first, stole some ideas, and brought them back to New York City. But we created our own Missing Persons Day. And this was simply to let the families know that we hadn't forgotten, that we're working on these cases every day. We have all of this DNA.

And Missing Persons Day for us, it's just a way to advertise. We do this work like you all. We do this work every day. It's not like we only collect DNA from family members once a year. We use the press. We advertise this event, and we get calls. So our next event is in June. We're getting calls now about attending in June. But you don't have to wait till June. You can come now to the office, or we'll set up an appointment.

In the days after, the week after our Missing Persons Day, we get more family members than the day of simply because they missed it, and they want to know what next year's is. So we use it as a way just to advertise that we're still doing it because the press love these events, and especially if you can bring them in and show them some behind-the-scenes stuff or get them to talk to a family. They will put you all over the television and newspapers. And that all leads to free advertising for us.

We're in New York, but I don't have an advertising budget. I don't have money that I could put billboards up or sides of buses. That doesn't exist. But I had a hidden meaning for this, as well, something a little sneaky that I didn't tell anybody about. But I designed this half to collect those family reference samples for all those cold cases, those unknown remains we have. And the other half, the other reason was to practice for the next mass fatality because our events are all of the same people and the same equipment that we have. So I use it as a way, as a live action.

You see some of our setup for Missing Persons Day. And whether it's Missing Persons Day or mass fatality, it's the same people. It's the same interview specialist. It's the same collection kits, the DNA collection kits that we use. It's the same rapid equipment that we're going to use to generate DNA profile, same software. It's all the same-- all the same agencies that we use. It looks identical. And it's a great way for us to practice for that next mass fatality and also do good for the families and the public, as well.

And we might get 50 to 100 family members come, which is a decent size. If that was a mass fatality, that'd be a decent size mass fatality. We partner with the same groups. We'll have the same mental health specialists, the chaplaincy, the Red Cross. I always ask the Red Cross, can you come by and help us with our Missing Persons Day because I'd love to have that Red Cross truck parked right in front of my building. That just gives a sense of security to the families.

It's not just New York. We have half a million undocumented families in New York. If they have a missing relative, they're not walking into a precinct. But if I can set up our medical examiner's office or some place a little more neutral, no one's in uniform. And you got the Red Cross truck out front. It makes it so much easier for them to trust us and come to our event because they're not going to walk into a precinct. We've just seen that time and time again.

Our postmortem side here, we've got a couple different morgue locations. Each of the counties has a different morgue location. So processing postmortem, it's a 24/7 operation for us. So we're able to get to that relatively quickly.

The dental, the fingerprints, the visual IDs, it all falls first for us, like all of you, whatever the quickest and easiest way of getting that answer, who that person is. And then we fall back on DNA. Like I said, we do about 14,000 missing person cases a year. The NYPD does a great job, finds most of them alive. We have about 40,000 that die a year in New York City. Need, about a thousand of those, some sort of science, some sort of forensic discipline to identify them.

But if I can collect DNA during that interview process, and as we're still talking with the family and discussing the relative and how we can help them, and I can hand that DNA reference sample off to one of my DNA specialists and in the next room they're generating DNA profiles, the family, they leave. I know that I have a DNA profile for them because sometimes reference samples don't yield anything.

But even greater, if it's a mass fatality, we might have the postmortem. We might have the remains already, DNA-- because we've been working through the night on those-- might have DNA profiles for those. So I'm able to potentially make an ID when that family is still at the Family Assistance Center, and we don't have to send them home.

They don't have to wait for a knock at the door from an officer or a phone call. We can have a medical examiner sit down with them while they're still there, while they're still getting briefings on what happened with the mass fatality. So if they're going to spend some time with us, the rapid comes in very handy. You're able to deliver that message and help that family in the best possible situation on the worst day of their lives.

And this Family Assistance Center, the FAC, this is the one time-- we've learned this over and over again-- this is the one time that the families will see us face to face and they get to meet us. And that's a lasting impression. They're not going to go to the scene. They're not going to go into the morgue. They're not going to go into the lab.

The lasting impression is going to come from that Family Assistance Center, from that interview. So being able to help them, that's what they're going to-- that's what they're going to remember, how they were treated and the job that we were able to do for them. You get one shot. There's no do-overs at the Family Assistance Center.

You can have issues and mistakes in the lab, in the morgue, at the scene. No one's ever going to know about it. You can fix that. And no one's ever going to know about that. But when you have that family in front of you, that can make all the difference.

And these Family Assistance Centers today, unlike in 2001, all those family members, when they're talking to you and they're listening to your briefing, they're going to have their cell phones out. They're going to be recording you. There's going to be a ton of video. Some of that video may make it on TV. It's most definitely going to be shared with the other family members that aren't there.

But the average mass fatality-- we've got one designed here-- the average is 15 decedents. A larger mass fatality, you're definitely going to need a hospital program. We've learned the hard way there. We don't want any family members-- if their relative's in a hospital someplace, we want to make sure lights and sirens get them out to the hospital.

Have your briefing ready. Have a practice memorized ahead of time. You should never wing it with those things because, again, they're going to be recording you. [INAUDIBLE] it's allowed. They can have their cameras out, their phones out, and recording what you're saying that they're going to share.

We've even had relatives of the deceased that were reporters themselves. You're going to bar them from coming in? No, you can't do that. So all these family members in front of you, that briefing can be a very tough place. It's one of the things that we do practice over and over again.

We even do briefings during our Missing Persons Day just to talk about all the different disciplines, just to give us some practice. We're to be able to hone that skill set when that big mass fatality comes and we need to put this plan into action. But rapid is there for us. We do like it.

Also with processing of bone, if there are remains, you're using it for postmortem. It also works wonderfully in those situations if you're a lab that doesn't have the bone capabilities that we have or you don't have 25 years of working with 22,000 bits of burned-up bone like we have here in New York City. Thank you.

Good day, everyone. I'm Brian Elias. I'm a chief investigator here at the Los Angeles County Medical Examiner. I want to take a few minutes to just talk about our wildfires event that we had last year and a little bit about the importance of rapid DNA and identification.

So to give a little bit of insight into this, people heard about this on the media that there's wildfires. There were actually two separate fires that occurred that were burning at the same time. So what led up to this is, the previous year, we had-- there was a lot of rainfall, a lot of vegetation growth. You can see in the little map the brown areas. Those are national forests. Those are heavily-- a lot of vegetation, not a lot of residential areas.

And that wet seasons were followed by record dry area, which caused all of that to-- all the vegetation to dry out. We have Santa Ana winds that are very seasonal, strong wind events that come through Southern California. So beginning in January 7, this started-- we had two fires started at the same day, one in the morning, one in the evening.

And we're not going to get into fire cause, all of that. But both these fires were raging, and it was 24 days before these fires were contained. They were both contained 100% in 24 days. But we have that initial response, and we have the issues going on with the fire during this challenge here.

So you'll notice two different fires. And what goes along with that these are two separate incidents. Ignore the smaller fires that you see up there to the north. But you have the Eaton fire and the Palisades fire. So you have two different fires, two different command posts, two different law enforcement agencies coordinating those, different fire departments.

There's also a distance there. You're looking at roughly 30 miles in between with an hour to hour and a half drive on average to get between those. So both incidents utilizing unified command, ICS principles, but they're run separately. And so we are navigating both of these along with our regular casework.

So a little more perspective. And you see an aerial view of just one neighborhood in the fire. You had over 37,000 acres that were burned and over 15,800 structures destroyed. Many of those were residential. Out of these fires, 12 deaths in Palisades, 19 in Eaton. Only 31 dead for the depth and breadth of this destructive event that occurred. But that gives you a little bit of context of what we were dealing with.

So a couple obscene photos. When you talk about 15,800 structures destroyed, how are you reconciling who's missing, who's deceased, trying to make sure that there's appropriate recovery? So we're partnering with our law enforcement agencies who are generating hundreds of missing persons reports.

And we aren't equipped to search every location. So there's a vetting process for this. And there was a commitment that was made that each location would get at least a cursory search. So significant mutual aid resources came to the region. We had Urban Search and Rescue. We had teams from all over the state, even out of state. We had a team from Mexico that came up to provide support and did an outstanding job.

But obviously we're not going to be able to search each of those. So we have parallel things going on. We have cursory searches by search and rescue, personnel, fire, law enforcement that are going to these locations. And if they see something, they're going to flag it.

And then we would go out with a team, with medical examiner personnel and potentially anthro, anthropologist support, go out and do an assessment to see if that was, in fact, something that was organic, human, and something that required further assessment. There was also a parallel work by law enforcement to analyze these missing person reports.

And so our focus was really on the high likelihood targets, the locations where it was more probable than not that somebody may be in there that didn't get out. So for those of you that have worked in these types of incidents and you've dealt with this, variety of calls that come in.

You get everything from, hey, I haven't seen my brother in 20 years. But when he left, he said he was going to go to LA. So I think he died in the fire. There's not a lot for us to go off of that, versus the other family who calls up and says, I was on the phone with my bedridden father, who was at home during the fire and could not get out, and rescuers couldn't get to him. That's a location that we are going to respond to, dedicate resources, get there, and do that exhaustive search.

So we're really vetting these cases from the law enforcement missing persons side and then vetting the response from the ongoing cursory search being done by fire, law enforcement personnel. And that's guiding our responses to these incidents. And as we go through these, the extent of damage that's there, there's very few intact bodies. So we are looking at highly fragmented, highly skeletonized, charred remains, if you could go back, please, a slide.

We've got very challenging areas to work with. And so one of the key parts with your search team is, do they have the skill set? You got great people, experienced people. But are they experienced knowing what to look for when you're looking at highly fragmented human remains?

And so we would get a lot of reports of human remains that we would then respond out to and say, this is a dog. This is not organic. This is not human. So as part of that process, when you're searching thousands of locations, you have to take that into account.

So our ability to get out there, respond, do recovery, was drawn out. This was not, hey, we're going to run out and collect all these bodies. This is something that these are found over time. We had several right out of the gate that we could respond to and recover. But then over several weeks, as searches are going on and remains are being recovered, we are going through. So it's a drawn-out recovery process.

Now, you see pictures here of some of our teams on the left are doing a recovery at a location. So safety is a paramount importance. We have major issues with electrical line-- power lines are down. Power is off. But we found out with the electrical vehicle chargers, home chargers, sometimes even though they were no longer powered, they would retain power and were a potential source of electrocution.

There were open and broken gas lines that were still going. And depending where you were in the neighborhood, you could hear gas coming out. You could see to the right here some of these older structures.

And this is California. We don't have a lot of basements. That's not modern construction with earthquakes and all our other issues. But the Eaton area had a lot of very old homes from the early 1900s that at that time did have basements. So we really had to be mindful of safety. And we know that responders are stretched thin. So we have to make sure that we have the appropriate support with us for these.

Now, we're scheduling our recovery search teams every day to make these recoveries. It's a slow process. Safety, accessibility to the scene are critical. And if we go to the next, this is just one example of some of the remains that we are recovering from this particular incident.

Now, most of these remains were highly fragmented. What you see here on the left is just one example of a case that-- this is a significant amount of remains compared to what we found for many of these cases. It's charred bone. It's highly fragmented-- because this instance is a little different. We do a lot of fire fatalities or structure fires, whatever it may be. But there's rapid response times.

Locations generally aren't burning for an extended period of time, unlike the wildfire event, where there's just not enough resources. So these fires are burning structures, completely obliterating them. Bodies are exposed to heat and fire for a longer period of time and are more degraded. So we have very poor condition of remains. So this is now creating an issue for us on the identification part, on the identification side.

So overall, we have a variety of methods we used for identification-- you can see this pie chart-- that was present. As I said, most of these are highly fragmented, charred remains. And working with this bone and this material can be very challenging. And so we've got a photo of some of our mutual aid partners from our neighboring Kern County, some outstanding staff from their coroner's office who have a lot of experience with the rapid DNA and processing charred bone, which is a little bit different process.

So we're bringing in cases. As you can see from the pie chart, majority of cases were identified through the rapid DNA process. Because these are so fragmented, we are not using much of our regular-- the normal processes you may use. We're not doing all the X-rays. We don't have tissue. We don't have fingerprints.

We had some teeth that we could use, some look at dental bridges, orthopedic plate screws, things like that that we could use to lead towards some circumstantial IDs based on a number of factors, a couple of dental X-rays. But the majority is based off of this rapid DNA. And this becomes a huge issue because there's such-- as those of you that work in this field, we have a tremendous pressure on us to get answers not just to the family quickly, but to the community. And so there's a demand for, let's get this done quickly.

And the rapid DNA enabled us to get these identifications done very quickly because when we know we're searching a particular residence, we already have contact with the family through the missing persons. We can run property records from that address, contact whoever the potential family is. And so we had reference samples that were already being collected that we had in advance of a lot of this processing.

So we had already run reference samples. So we're just working the bone to provide that closure. And we were able to get DNA identification on these very quickly. So we had this amazing turnaround to provide answers to family, which was really critical, especially in cases where they know their family member was at that home. The home is completely destroyed. And what they don't want to hear and what the politicians don't want to hear is that we're spending weeks or months trying to get this person identified.

And so this became a huge benefit for us, for this very rapid processing of cases, to have a scientific identification and to provide that closure to the families on this. There's a few cases that we weren't able to get the DNA profile through this because the bone was so degraded. But this bone, we would actually-- we had sent off to the state, as required, to see if they can get a DNA profile, be entered into CODIS. But the bone was so degraded, they were also not able to get a usable profile out of this.

So this became a very effective process. And this is probably the third or fourth incident that we've had where identification and timely identification has been a critical issue, where this rapid DNA has just been a key part of our investigative role here, especially when we know recovery response takes a significant amount of time. Thank you.

OK, hello, everybody. My name is Jason Moran. I'm a commander with the Cook County Sheriff's Police. Chicago is in Cook County for perspective. I've been here for 27 years. And the majority of my career has been doing investigations, specifically long-term missings, unidentified human remains, complex death, and unresolved murders.

I just want to take a point of personal privilege. I'm on the planning committee for the Missing and Unidentified Person Conference. And I just want to say how proud I am of this year's conference. I think everyone will be very impressed with the amount of talent that's going to be presenting at the conference.

This presentation that Mark, Brian, Kim, and I are doing is just a little taste of-- we'll be doing a full presentation, a plenary presentation on all of these topics. So this is just a little bit of a tease, so to speak. So I hope to see everyone there. I also want to thank NCJTC for having us do this webinar and for Kim Gin organizing this and having us all come together. So thank you.

This is-- yeah, no recording. This is for training purposes. Everything that Mark, Brian, and I, Kim are saying, it's all for training purposes. It's not legal advice. So just be aware of that. Any opinions expressed are our own, my own specifically, not the opinions of any government agency. And this is not an endorsement of any company or product or services at all. It's just why we all support the use of advanced DNA methods, rapid DNA. It's not an endorsement of any company.

Again, my background is all basically been investigative work, long-term missing persons, human identification, complex deaths, death care industry. You'd be surprised how often old cases bring us back to funeral directors and cemeteries and things like that, the use of advanced forensic services like forensic archeology, anthropology, the process of exhumation. And I do a lot of writing and teaching on the topics.

One of the cases that I'm most known for is the unidentified victims of the serial killer John Gacy, which is a case that I presented on at the conference in the past, but also is a really good example of everything that we're trying to do with this type of work. It has to do with the unidentified murder victims, long-term missing person cases, advanced forensic methods. So it encapsulates a lot of what we're doing with-- and what you guys are doing out there in the field.

Another one was I had the opportunity many years ago to work with the Cook County Medical Examiner's office on the burial of the indigent, unclaimed, and unidentified. It's similar to what Mark was talking about with Hart Island and the burial of the unidentified there. We had similar issues with being able to locate unidentified human remains. We weren't doing DNA back in the day.

And we realized, on the law enforcement side, this was hurting us as far as locating missing persons. So I don't have to talk to everyone here about the relationship between missing and unidentified persons. But we realized that certain burial processes and certain forensic methods had to be employed so law enforcement had the best opportunity at locating missing persons and our medical examiners and coroners had the best opportunity to identify the unidentified.

So what I began with the sheriff and I here in Cook County, we began amending ordinances. We realized that there was not-- that the law didn't support what we were doing. So we had to redo some ordinances having to do with the burial of the indigent, unclaimed, and unidentified, and the use of certain forensic methods.

So I was involved in drafting an unidentified deceased person protocol and checklist for our medical examiner's office, which we still use today, which really showed the relationship between the medical examiner or coroner and law enforcement working together to identify the unidentified so we could locate our missings. And rapid became part of this. Rapid DNA became part of this eventually as a way to quickly identify some unidentified decedents, especially those that are pending ID. And I'll talk about that a little bit later.

What I'm going to be talking about at the conference, and a little bit today, is what is a Missing Persons Day and some of the other components surrounding it, so establishing the need for one, getting out the word. It doesn't help at all if you have a Missing Persons Day and no one shows up. So there's a certain amount of advertisement that has to be done.

Operational planning-- who should be involved? Is it just law enforcement only? Is it medical examiner, coroner, and law enforcement? Or could there be more people? And I've worked very closely here on our Missing Persons Days. But I've also helped agencies throughout the country with them. And it's almost the more the merrier in some respects. You'd be surprised who could contribute to these events.

Creating an event workflow-- what happens if you have a missing person located during your event? How do you handle that? Post missing day follow-ups-- everything's not going to be resolved on the day of the missing person event. There's going to be some follow-up that needs to be done, whether it be DNA testing or obtaining records or additional interviews of family members or other people. So there's going to be follow-ups to these Missing Person Days.

And then talking about how Missing Person Days are a multidisciplinary practice. The Missing Persons Days are many-- like Mark was saying earlier, it's like a mini mass disaster event, a mini cold case investigation. It's all done within a day sometimes. So it's just a small picture of what a larger operation would look like. You're doing it within maybe six hours in the day.

So what is a Missing Persons Day? So I've identified three types of events. So you have the community event. These types of events are more about awareness than a forensic practice, which is fine because any awareness we can bring to the missing person and unidentified person crisis is fantastic. But it doesn't really have a forensic component.

The next one is an event that furthers long-term missing person, unidentified human remains, and complex death investigation. So these types of events are going to bring awareness, like the community event. But it's going to be focused on maybe looking at dental records, bringing cases to a contemporary status.

So you'll have families come in, and they'll have a missing persons report. And you could review those there. But you'll notice in the report there's never been dental records collected. So family members could bring those dental records in. And we could have a forensic dentist look at those on the day, and we could enter them into a file and bring that case to a contemporary status.

And then there's hybrid events. These are a mix of the community event and the forensic event. And they're much larger. So again, this community event style, like the first one I spoke to, this is not going to be real heavy with reviewing historic documents or looking at fingerprint records.

This is about putting posters up of your missing persons. This is maybe have your local police department do a K-9 demonstration, maybe have your media come in and just get the word out. We're looking for these missing persons. If you have information, please come forward. And they're a little bit more simple.

The one that I sort of like is the next one. The forensic investigative event is where it's going to be this one-stop shop to bring these missing person cases to a contemporary status. So that means, when we're meeting with these families-- and you'll have families that come in that their loved one's been missing for 20 years. And remember, one way to solve cold cases is to use forensic and investigative methods that were not available to our predecessors.

So you'll see, by going through these missing person cases, that DNA was never collected. Well, now is the chance. So we'll have people from our laboratory there. Law enforcement will collect a sample. We'll turn that sample right over to our lab people.

Also, very important is, if you have access to a rapid DNA instrument, to have the DNA profiles of unidentified deceased persons loaded into the machine prior to the event because then you could take two samples. You could take a DNA sample for laboratory testing, full laboratory testing, and then you could also take a buccal swab and do a comparison right during the event. And it can be compared to the profiles of unidentified deceased persons possibly.

So again, this is your one-stop shop where you're going to be trying to bring these cases to a contemporary status. Maybe it's an event also where we talk about genetic genealogy and giving people opportunity to help someone else solve their loved one's case by taking a consumer DNA test and entering it into these combined databases where we could do some genetic genealogy.

And then lastly is, like I said, this hybrid event where maybe you could have a 5K run in honor of your missing persons in your jurisdiction, along with your police department coming out with their command vehicles so members of the community could look at what the police department's resources are and the K-9 demonstrations and things of that nature, while inside, at a separate location, you're doing some forensic work. And you're doing some follow-up. And you're looking at old records, and you're trying to obtain old records.

You want to make sure that these missing persons are still in our law enforcement databases. We have NamUs present. If there's not a NamUs entry, we'll get them entered in. So you could do a hybrid, one that brings attention and then one that is a little bit more forensic.

So other considerations. And again, this is just a teaser for what we're going to be doing in April at the conference. But like I talked about before, when to have-- what's the dates? There's certain dates that are synonymous with missing persons. Is that when you do them? Or is there other dates that can be done?

Establishing the need. Like I said before, if you have a Missing Person Day and no one shows up, everyone's deflated. So it's about learning how many missing and unidentifieds you have in your jurisdiction. Maybe it's a response to a recent event, too, in your community, a high-profile missing person case or a pattern of missing persons.

Getting out the word-- the use of who should be involved, too. Not-for-profits, advocacy, and I always incorporate our victim support services people into our Missing Persons Days. Information bulletins, where should they be sent? What should the public know prior to the event? What should they be bringing?

When, where, who should attend? Event-day operations-- how does it work? When someone comes into the event, what do we begin with? Maybe a registration process. Who do they meet with next? Like I said, having members of the clergy possibly present, members of victim support services present. When do they meet with those individuals? Our medical examiners or our coroners. So there's a lot of considerations to take into account when you're running one of these events.

Like I talked about with the rapid DNA, that is also when you're collecting samples there. Samples haven't been collected. This may be an opportunity to do that. And use both rapid and conventional DNA. And I talked about the consumer DNA.

Yep, post Missing Person Day actions, that's very important. Not everything is going to be resolved on the day of your missing person event. There's going to be items that need to be followed up on, and you must do it because you lose credibility and you lose the faith of the families you're helping if you have this big Missing Persons Day, media is present, it appears that everybody's working together, this one-stop shop to bring these missing person cases to a contemporary status, and you say, well, we're going to need time to look at this record, or let's look over-- this office is going to be open tomorrow. Let's try to find the reports from this agency.

If the families don't get a follow-up, it hurts our credibility. So how do we do these things the right way? And then, finally, Missing Person Days-- pitfalls and pinnacles. Where could the mistakes be made? And where are the high points? So those are some of the things that we'll be talking about at the event.

Just a point, too, like I said, these Missing Person Days are like a mini mass disaster event or a mini cold case investigation. But there'll be times within your jurisdiction where you have cases that are pending ID. So you may have an individual that passes away in their house or apartment. They become so badly decomposed that they cannot be viewed by anyone. And so you have a circumstance that sort of supports the ID, but you just need that one piece of science.

Fingerprints aren't good due to the decomposition. You may not have dental records to compare to. Rapid DNA is great for pending identification cases. It helps just confirm the idea of these individuals and move forward with the death investigation much, much quicker. And ANDE has done a lot of work here locally and across the country with that.

And just lastly-- I'm probably over my time-- Missing Person Days are a multidisciplinary team, just like any of the other ones that I spoke about. But remember, we have to have a flow. Everything must flow. Everything that everybody's doing in these multidisciplinary teams must flow through a cold case unit or a detective or the medical examiner or coroner, however it's set up, so we're not working in these silos. I constantly see across the country us working in silos. These multidisciplinary teams are great when they're done the right way.

And then, lastly, remember that human identification, and offender identification for my law enforcement brethren that are out there, is a mix of science and circumstance. So simply having some science and not being able to explain to the family the circumstances surrounding a person's death or the circumstances surrounding the ID is problematic. The identification won't make sense to the family. And we have to be able to tell a story.

So we have to have both the science and the circumstance, and that equals our human identification. And that's something that I'm going to talk about at the conference, also, these two things. And I think that's it for me. Thank you for listening. And Kim Gin, you are up next.

Thank you, Jason. So I'm Kim Gin. If some of y'all have come to the conference over the last few years, you might have seen me present on some incidents. I was the coroner for Sacramento for many years. My office worked on the Camp Fire in California, where 86 people died. We did the identifications for that incident, largely IDs through rapid DNA.

Six months later, we got involved with Santa Barbara with a big fire on a ship. That happened, and we identified 34 people. And we did it in 10 days, which was just remarkable. The rapid instrument allowed us to do it so quickly.

And then, lastly, I was involved with the Maui wildfire, primarily the rapid response and working out at the Family Assistance Center to get identifications quickly. So that is kind of my claim to fame, I guess. No one actually wants to be known for mass fatality incidents, but unfortunately I am.

OK, so I'm going to do a couple of things with my presentation. This is just a snippet. And like I said, if you saw me present last year, we did present on the Maui wildfire. So I'm going to give an update.

I also want to encourage the people that are in the medicolegal field. You're starting to see a few more coroners, medical examiners come to the conference. I wish I had known about this conference when I was early on in my career because I would have learned so much. It's a great conference for the medicolegal professionals.

If you're on this webinar and you're thinking about attending, you should. If you know someone that doesn't know about this conference, tell them about it. Quite a few people are attending now because I told them it was a great conference. So please keep this in mind. There's not a lot of training out there for medicolegal professionals, and this is one of them.

So the first thing I'm going to talk about is just to give you an update on the Maui Police Department. So at the conference last year, we did the whole wildfire. We talked about how they did the identifications. This is the Maui team. They're actually running a rapid instrument now.

They used a variety of modalities to make identifications. But like I said, rapid was primarily the large percentage. From this incident, they started a cold case unit. They had just started it when we were talking at the conference last year. But now they have it up and running. They got their training on the rapid instrument in October of 2024.

And since then, from November 2024 to November 2025, they've actually been able to do six non-fire-related identifications. I say non-fire because they actually did a couple more fire-related identifications using rapid. So they were able to clear some of their old cases. So they have dedicated detectives that work in this unit.

What they say about rapid now is that it's positive-- well, the positives that they say is that it's fast and efficient. The negative-- and I say this all the time-- this is a horrible place to be. We still have a problem with getting family reference samples. And oftentimes, we'll need outside agency assistance.

And because they live on an island, it's even worse because family members are distributed throughout the island. So they actually have to have agencies step in and help. But that's actually not too bad of a problem because they still get fast IDs. This is a video from Maui.

[VIDEO PLAYBACK]

--*News Now*.

Tonight, the Maui Police Department's first-of-its-kind equipment that's helping reunite families with lost loved ones. And it's already proven to be successful. Chelsea Davis reports.

Maui police evidence specialist Jasmine Davis Ramirez looks forward to going to work every day because she gets to utilize this new instrument that helps bring closure to families.

Anytime we have an unidentified human remain, we can generate a DNA profile from that decedent.

MPD first used the rapid DNA technology, ANDE, during the 2023 fires.

During the mass casualty event that we had with the Lahaina fire in 2023, part of the federal response to Maui included five rapid DNA instruments that were shipped here for us to use.

They say this sophisticated system played a key role in helping them identify all 102 victims. But when the feds left, their high-tech equipment did, too. Realizing the benefits, the Maui Police Foundation gifted MPD the \$375,000 instrument in October. Immediately, the forensic team was able to get a positive identification for someone they were working on for months.

This decedent didn't have any X-rays or any medical records really to do any type of comparison that way. There were no fingerprints that we could do, no dental records. So DNA was our only option for this decedent.

ANDE is used around the world. But it's the first of its kind in the state. Testing takes about 90 minutes to run five samples.

ANDE is really impactful in an island country like Hawaii and specifically for Maui because they don't have access to all the same services that may be available on the mainland. And the cost that it is to build and staff a forensic lab can really be burdensome.

Our job is to reunite the families with their loved ones. So anything that we can do to expedite that process will help them to find closure.

Chelsea Davis, *Hawaii News Now*.

[END PLAYBACK]

OK, so now I'm going to talk about something a little different. ANDE has started an unidentified human remains program, a UHR program. And I'm going to talk in detail about the program in just a few minutes. But this is the first case that we did through this program.

So this is a case in Colorado. It's a truck that's traveling through Colorado. There are three people in the vehicle, or in the cab of the truck. There's a female driving, a male in the passenger seat, and then a female in the sleeping compartment directly behind the passenger and driver's seat.

They crash. The male is thrown out of the vehicle upon impact. The cab catches on fire and burns. The two people that are in the cab, they don't even-- they're not even able to get out of their seatbelts, and they burn in the cab.

So this is not just a regular case, though. The media gets involved, and there are allegations that the male is actually a human trafficker and he is trafficking two females through Colorado. So that was an issue right away. And this case needed to be-- the identifications needed to be made. And this question needed to be solved as to whether or not this was a human trafficking incident.

So here's the problem again. You have a male victim, not a US citizen. No fingerprint records are on file, no dental records. The nearest biological relative was in Florida. But there were some issues on getting a family reference sample from that person. And then the allegations were made about the human trafficking.

Both female victims were supposed to be non-US citizens, no fingerprint records available. They didn't have fingers anyway for fingerprinting. So that was out. No dental records on file that they knew of. And the nearest presumed biological relative was in another country.

So the coroner in that county knew about ANDE. And they knew from some information that was sent out that this brand new UHR program had just been started. So I'm going to go through the timeline real quick.

The crash happened on the 13th of October. Coroner actually got in touch with us at the UHR Program on the [INAUDIBLE]. She immediately got samples. We talked with her on the phone, set up a zoom call, went through all the different sample types, told her what to send. She got everything packaged up and sent by FedEx. And it arrived in the afternoon of the 16th.

On the 17th, the testing was initiated on all three victims. 19th-- reports were released to her with the identification results. So the puzzle was solved.

Victim 1-- and this is the way we did it. Victim 1 was recognizable. He did have ID on him. And he did look like his ID. But the coroner went ahead and ran him through a facial recognition software, too, just to be sure. And he actually matched.

So we ran a DNA profile for him. Victim 2-- ran and completed a DNA profile. Victim 3-- ran and completed a DNA profile. So from all this, we got victim 1 and victim 2 were a parent and child. And victim 2 and victim 3 were also a parent and child. And we were able to say father and mother based on the sex from these two tests.

OK, so the big question was, was it human trafficking problem? It wasn't. This really was a family. That was the story. This was a family that was driving through Colorado, and there was no human trafficking. So this was a really good case-- very first one. Great way to start off this program.

And so I'm going to tell you a little bit about the program. So this was started because there's not a lot of grants out there to buy these instruments. The grants were really tight this year where a lot of it was dependent upon status and accreditation. And a lot of it meant lab requirements. But if you weren't a lab, then you weren't able to get the funding for it.

So we saw a real need for these agencies that couldn't now afford this technology but needed it for identification purposes. So we decided to set up this program where agencies could actually send in samples and get a result. So from the first case, that was just remarkable. It gives fast, efficient, proven results even with difficult samples.

This instrument loves, for some reason, these really hard to identify samples, like fire victims. It's very fast, and it's cost effective. So the [INAUDIBLE] based on sample type. So to use this testing, actually pick what type of sample that you want done.

So what we do typically is for a case like the one I described, the male was able to have just a blood spot card that was sent in, which is not very expensive to run. And then the two females, we were sent blood spot card. We were sent bone. And then we were sent tissue. And we were able to get identifications with just the blood spot cards on all three.

So in the conference, I'm going to actually talk about, because we just finished it, another big case that is going to be awesome for you all to hear about, but we're not quite ready to talk about it. And hopefully I'll have quite a few more to talk about by the time we get there. But this is actually a really good program for agencies that want to utilize this technology that don't have the funding to buy one of these instruments.

I know y'all heard the price in the video. It's not exactly that much. I don't know where they got that price from, but that's a little bit high. But it is expensive for a lot of agencies that just don't have a lot of extra money lying around to buy an instrument. And they can use the technology.

It's good to use when you're doing a Missing Persons Day. And if, say, you can't have an instrument there, maybe you make some arrangements with us ahead of time to send in samples through this program, and you'll still get a quick answer, as you can see from the example I gave from the first case.

So I urge you to come to the conference. Come by and talk about this program a little bit more. And I'll talk about it a little bit more in depth there. But this is a good way to use the technology. And yeah, that's it for me. That's just a wonderful expansion of this technology. I wish it had been available to me when I was the coroner.

Here's our contact information as well as contact information for NCJTC. If you have any questions after the webinar, please reach out to us. Thank you for the excellent presentation and sharing your insights and knowledge with us. We are now moving into the question and answer portion of our webinar. Jason, I'm going to turn it over to you for some questions we have.

All right, so I'm seeing some of them are technical questions. And maybe we could touch on a little bit, Brian and Kim or Mark about, how complete were you seeing DNA profiles with the ANDE instrument in the fires or in other situations? And I don't know, Brian, if you want to talk about that, or Kim, but I think that's talking about how complete these profiles and with the rapid DNA instrument.

I know Kim and I both have experience. And I'll let her speak to hers, as well, because she dealt with more fire victims in the Camp Fire. But we were getting complete DNA profiles out of many of these charred remains. The ones that were problematic, they were so small. We had less-- we're talking 2-, 3-centimeter piece of charred bone that's significantly degraded.

And so weren't able to get profile from that or even using the traditional methods through the crime lab, through the DOJ lab. They were also not able to get those. But in general, getting good complete profiles. But there's a point where it gets so degraded, you're just not going to be able to get that.

I would say that most of the cases that we ran, we got good profiles. Like Brian said, if they were so degraded, we might get a partial, but it was just such a low amount. The real problem we had was finding family. The family reference samples was more of an issue than actually getting a good profile.

We kind of guesstimated from looking at the three incidents that we had that you could probably say roughly that you would not get a good, solid profile because the sample was degraded on 5% or less of the samples. And then you want to make sure that you have enough sample left to go down the genealogy route. So if you're doing this and there's an incident and you know right away you're not getting really good results, make sure before you continue that you have enough sample to continue with genealogy testing if you need it. And Mark's shaking his head, so I think he agrees.

All right. So this one is, what happens to the samples if the ANDE program doesn't produce an identification? So I think there's two parts to this question. One, I think, is the physical sample, so the blood cards, say. If a blood card is used, what would happen? But it's sort of unclear if it was sent in or if you have the instrument at your location. A blood card would simply be destroyed after it's used as medical waste.

No, we send it back.

You would send the whole blood card back?

Yeah. So the samples that we ran for the first case I talked about, we had blood cards on everybody, we did not use the whole blood card. And it was all sent back to the agency. So if we know ahead of time that that's all you have, we're going to be super careful. And you're going to get back whatever is left. Now, what's put into the instrument is gone. That's not used anymore.

It's consumed.

Yes.

I think the question is partially when you have the instrument present, so you're there collecting blood, not being sent in by mail. That's why I said that probably, I guess, could be returned to the body or would be-- if it wasn't-- if you have the body there, you wouldn't need to send it back.

Right. Yeah.

And then, also, it goes to talking about having the profiles stored electronically on or near the ANDE instrument. What would happen to the DNA profile? I think you could talk about that a little bit, Kim. But it's associated with a laptop that's storing these items-- these profiles, correct?

So there's a laptop that goes with it. It's just for the ANDE instrument. So if you're running different incidents, you can name it different things. The databases do not clink together. They're not a one whole, big database that is searched. That's not what it is. They're a closed database. It stays on that computer, and that's it. I think I answered the question.

Yep, you're right. And they said "thank you," too. So yeah, in other words, it doesn't go out into the world anywhere else. It stays there.

Yes.

And I think that's-- some of them are asking for some documents, which we could get them later. We could respond to some later.

Can I answer the question about the link?

Sure.

I probably should have done that. So if you just type in into your search engine A-N-D-E-U-H-R, it'll actually pull it up. And then you just enter it. And then you'll go in, and you'll see the costs. I didn't go through the cost. But right now, the cost listed on the website is, for bone, is 895, which is a tremendous cost. That's awesome. Tissue is 350. And then the buccal swabs are 195.

And then one more. How long does a buccal test take to get results in the instrument?

So if you're looking at just the profile, not the ID but just the profile, it'll take about 90 minutes.

So just about a hour and a half.

Yeah, as long as you have something to search on. So if you have an unidentified profile already done, it could take just a couple hours for it to be looked at and make sure that it's [INAUDIBLE] person. When I was running them at these incidents, I could tell you as soon as it was done if it was a certain person, if we were making a comparison.

If you're creating a missing persons database where you're looking at a bunch of missing persons-- and Mark's shaking his head again; y'all have done this-- it just takes as long as the instrument to do that search and then make the comparisons and then come up with a result. So it doesn't take very long.

Yeah, this question was just about the testing of the buccal swab. About an hour and a half I would say is the general answer on that. This is more of a comment. "I've spoken with several people who now refuse to get the DNA test done because there was a company that sold everyone's data."

I'll take that one. That had to do with genetic genealogy, not with rapid DNA testing and not with conventional laboratory DNA testing. That has to do with consumer sites for genetic genealogy. So this is different.

That's one thing I think we'll touch on at the conference, too. Maybe we'll put our heads together, Kim, because you have rapid DNA, you have conventional DNA testing, both in STR and mito. You have SNP testing with genetic genealogy. And sometimes people believe that these are one and the same or could be used interchangeably, but they're not. They're all different types of instruments and different types of DNA.

And ANDE's not a-- they don't [INAUDIBLE] testing for just individuals. So they're not that type of company. They only do it for agencies. So this stuff is very private. And it's not shared with anybody. And it's certainly not sold.

Yeah, you own all the data that's generated. It doesn't go anywhere.

Yeah, it's kept in house, which is why having good policies around that genetic data is important.

I know in Maui, we had a hard time with people that they didn't want to give their DNA. So we actually had a release form. And in the release form, it talked about what we're going to do with it, what we're not going to do with it. And we gave them a copy. Like, we're not going to sell this. We're not going to do anything else with it. And it made people feel very comfortable that that was put in writing and that they signed it and that it came from us.

Yeah, just like when we collect laboratory DNA. We have people sign a form that this sample is being collected to help identify your missing loved one. And once your loved one's located, that DNA profile is not used anymore.

Thank you to all of our presenters. This will now conclude our question and answer portion of the webinar. I do have a few reminders before we close the webinar. To hear more on this topic, the panel of experts will also be presenting at our upcoming National Missing and Unidentified Persons Conference in Las Vegas, Nevada, April 21 through the 23, 2026. To view this conference and other current NCJTC conference offerings, please visit [NCJTC.org/conferences](https://www.ncjtc.org/conferences).

We have several upcoming trainings that may be of interest to you. Visit [NCJTC.org](https://www.ncjtc.org) for additional training and technical services, offerings, and opportunities. For more than 30 years, we have been working with communities and agencies across the nation. And I know there are many success stories to tell. You're here because you understand the important role that staying up to date on criminal justice trends, emerging technologies, and ongoing training play in keeping your community safe.

At NCJTC, it is our mission to help you affect the lasting and meaningful change in the communities you serve by providing relevant and expert criminal justice training and technical assistance. Your ability to apply the skills and knowledge you learn during the training is of utmost importance to us in helping you achieve success each day, which is why I'd like to invite you to share your own story of impact and success with us.

Did your training help you solve a case or achieve a goal? If yes, we'd love to hear from you. Open your camera on your phone. Snap the QR code to learn more about our Tell Us Your Story interview series. By sharing your experiences, you will help other agencies and communities address and solve similar public safety concerns.

Your successes will be showcased on a national stage to hundreds of thousands of people, bringing well-deserved, positive attention to you and your community to protecting the communities you serve. You are providing valuable insights into how NCJTC resources, tools, or training are relevant to the work you do and how we can continue to enhance our tools to meet your needs. You'll receive NCJTC perks like free training registrations, opportunities for future events, or-- I mean "and" NCJTC swag. Help us showcase your wins and further our mission. Sharing your story can save lives.

This concludes our webinar today. Thank you again to our presenters for sharing your time and knowledge with us. And thank you to all the attendees for joining. We hope you can join us in April or future webinars. Have a wonderful day.