Analysis of Untested Sexual Assault Kits in New Orleans

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In May 2010, the U.S. Department of Justice (DOJ) notified the City of New Orleans that it was initiating an investigation of an alleged pattern or practice of excessive force, unconstitutional searches and seizures, and discriminatory policing by the New Orleans Police Department (NOPD).

Among the issues that arose from this investigation were that hundreds of sexual assault kits (SAKs) in the NOPD evidence unit had never been tested. In addition, there were hundreds of sexual assault cases in which DNA testing was conducted on the SAKs, but NOPD did not follow up on hits obtained from the FBI's Combined DNA Index System (CODIS). (See sidebar "What Is CODIS.") These problems were exacerbated by the loss of the NOPD Crime Laboratory and its DNA functionality as a result of Hurricane Katrina.

What Is CODIS?

The FBI's Combined DNA Index System (CODIS) is a software platform that blends forensic science and computer technology. There are three CODIS levels at which DNA profiles can be stored and searched: the local level (for city and county DNA laboratories), the state level and the national level. Data stored at the national level are found in the National DNA Index System (NDIS). It is at this level that a DNA profile from a crime scene sample (also known as a forensic unknown) can be searched against offender profiles across the nation to solve cases between states.

DNA analysts use CODIS to search DNA profiles obtained from crime scene evidence against DNA profiles from other crime scenes and from convicted offenders and arrestees. CODIS generates leads for investigators when a match is obtained. For example, if the DNA profile from a crime scene matches a sample taken from another crime scene, the cases may be linked in what is called a forensic hit. If the crime scene sample matches a convicted offender or arrestee sample, an offender hit is obtained. Hits give investigating officers valuable information that helps them focus their investigation appropriately.

As of August 2012, the national DNA Index of CODIS contained more than 9,875,100 offender profiles, 1,216,499 arrestee profiles and 447,399 forensic profiles. Over 187,700 CODIS hits have occurred, aiding more than 180,000 investigations.

Learn more about CODIS at the FBI's Web site at http://www.fbi.gov/about-us/lab/codis. Also, see a special NIJ report, *Making Sense of DNA Backlogs, 2010: Myths vs. Reality*, by Mark Nelson, 2011, available at https://www.ncjrs.gov/pdffiles1/nij/232197.pdf.

As part of DOJ's assistance to the City of New Orleans, NIJ offered to use its existing partnerships, cooperative agreements and congressionally designated funding to help NOPD with issues related to untested SAKs and the follow-up investigations resulting from CODIS hits.

In October 2010, representatives from NIJ, NOPD, the Louisiana State Police Crime Laboratory (LSPCL) and the Marshall University Forensic Science Center (MUFSC) met in New Orleans to discuss what would be needed to resolve these issues and to develop a plan for the role of each agency. The memorandum of understanding (MOU) that arose from this meeting was signed in December 2010 and the project started in January 2011. Because of a short (one year) timeframe, the project focused narrowly on two goals — testing the SAKs and entering any resulting profiles in CODIS, and addressing CODIS hits that had not been followed up on.

Roles of Key Partners

The **Marshall University Forensic Science Center** agreed to:

- Test, within one year, up to 720 SAKs that had been collected *before* January 1, 2011.
- Assist LSPCL in validating a new DNA testing procedure to save time and effort.
- Provide specialized DNA training to NOPD and LSPCL personnel.

These services were made possible by congressionally directed funds awarded to MUFSC; LSPCL and NOPD paid nothing for the services.

The **Louisiana State Police Crime Laboratory** served as the conduit for transferring SAKs between NOPD and MUFSC. LSPCL also agreed to:

- Analyze (either in-house or through their contract vendor lab) all SAKs from New Orleans that were collected *after* January 1, 2011.
- Review DNA profiles generated by MUFSC analysis and upload eligible DNA profiles to CODIS.
- Search CODIS for hits that could provide investigative leads for the NOPD Sex Crimes Unit.

LSPCL also agreed to train two DNA analysts to be hired by NOPD and to house them in LSPCL's Baton Rouge location.

The **New Orleans Police Department** agreed to supply at least 60 SAKs each month for testing. NOPD established a system to ensure that all evidence from each case was present at the time of submission, that the case had not been previously adjudicated, that the statute of limitations had not expired, and that the evidence was not from a case that the

victim did not want law enforcement to pursue. NOPD also agreed to actively and vigorously pursue each CODIS hit that resulted from both the pre- and post-January 1, 2011, portions of the project. (See sidebar "Background of the NOPD Sex Crimes Unit.")

The **National Institute of Justice** agreed to provide overall project management and additional assistance through its technical expertise, partnerships and cooperative agreements.

NOPD and LSPCL staff received significant training and assistance in managing the CODIS hits with a software application known as CHOP (CODIS Hit Outcome Project).

Background of the NOPD Sex Crimes Unit

After taking command of the NOPD Sex Crimes Unit in July 2010, Commander Paul Noel (a lieutenant at the time) identified the need for a unit dedicated solely to the handling of cold cases involving sex crimes, especially those with a CODIS hit. On January 1, 2011 — concurrent with the start of the NIJ project in New Orleans — the Cold Case Sex Crimes (CCSC) unit was created, and Detective Francis Jarrott became the unit's original member.

Before the CCSC unit was created, CODIS hits were investigated on an individual basis, typically using CODIS overtime grant funds. The mission of the newly created unit was to serve as the point of contact between LSPCL and NOPD; organize, prioritize and classify CODIS hits that NOPD had already received; and implement the same process for CODIS hits that were received after the unit came into effect. In addition, the CCSC unit was also responsible for conducting follow-up investigations on cold cases reopened after a CODIS hit.

It should be noted that the size of the CCSC unit was increased by one detective on February 26, 2012.

One of the reasons the unit was formed was because there were no usable records in existence. Before the unit was created, CODIS hits were transmitted via individual paper reports to the police department and were not centrally filed or tracked. It was therefore impossible to confirm the number of CODIS hits. To resolve this, LSPCL was asked to reproduce every CODIS hit letter it had sent to NOPD; at the time, this totaled 403 hit letters. CCSC members then had to systematically review each NOPD item number to find out the status of each case. Handling the review in paper format was extremely laborious and time consuming. The review revealed that 150 of the cases had previously been closed by arrest, warrant or exception.

Results of DNA Testing

Sexual assault kits in the New Orleans project fell into two categories:

- "Old cases" — 830 untested SAKs were in NOPD custody before January 1, 2011 (when the project began).
- "Current cases" — 178 SAKs were collected after January 1, 2011 (after the project began).

Although the MOU had estimated 500-700 old SAKs in NOPD custody, once the project was underway, the partners discovered that the number was actually 830. MUFSC provided complete analysis (screening for the presence of semen and DNA testing) of 720 of the 830 old kits and screened the remaining kits to determine the presence or absence of semen. LSPCL performed DNA testing on the remaining 110 kits that had just been screened by MUFSC. LSPCL received and analyzed 178 current SAKs (those collected after January 1, 2011).

> **RESULTS:** MUFSC and LSPCL tested a total of 1,008 SAKs in the NIJ project — 830 old (pre-January 1) cases and 178 current (post-January 1) cases. These 1,008 SAKs yielded 256 male DNA profiles that were uploaded to CODIS, resulting in 139 CODIS hits.

A CODIS match (referred to as a "hit") occurs when a DNA profile that is developed from evidence collected from a crime scene matches a DNA profile from another crime scene or from an offender whose DNA profile is already in CODIS. A CODIS hit does not always result in a new investigative lead that can close a case. DNA testing in sexual assault cases is most useful when a known suspect denies that a sexual act occurred or when the attacker's identity is unknown.[1]

There can be two kinds of CODIS hits: offender hits and forensic hits. An offender hit occurs when a DNA profile developed from a crime scene matches an offender profile already in CODIS. In some cases the offender was not previously a suspect, and in other situations the offender may have been a suspect in the crime, but no reference sample was available. A forensic hit occurs when a profile developed from a crime scene matches a profile developed from another crime scene in CODIS—also known as a "case-to-case" hit. In some forensic hits, a suspect profile may have matched the crime scene sample in one case, and therefore the second case can be linked back to that same suspect. In other situations, forensic hits may only link two cases with no match to a known suspect or offender profile. CODIS hits can give police new investigatory leads.

Of the 830 pre-January 1 SAKs tested in the project, 10 percent yielded a CODIS hit — 9 percent of these were hits to offenders not identified as suspects, 0.5 percent were forensic hits in which the offender was unknown, and 0.5 percent were offender hits to a known or named suspect.

Of the 178 post-January 1 SAKs tested in the project, 31.5 percent yielded a CODIS hit — 21.4 percent of these were hits to offenders not identified as suspects, 1.7 percent were forensic hits in which the offender was unknown, and 8.4 percent were offender hits to a known or named suspect.

The following figure summarizes the CODIS hits in the project as of September 1, 2012.

CODIS Hits as of September 1, 2012

Type of CODIS Hit	**Pre-Jan 1 , 2011 (Old Cases), N=830**	**Post-Jan 1, 2011 (Current Cases), N=178**
Forensic hits to another forensic case in which the identity of the male DNA profile was known in one case	0	0
Forensic hits in which the identity of the male donor was unknown	4	3
Offender hits in which the offender was not known to be a suspect and that could result in an investigative lead	75	38
Offender hits to an individual identified as a suspect in the case	4	15
Total Hits	**83**	**56**

It was not surprising that current cases generated a higher percentage of hits than older cases because many of the pre-2011 SAKs had already been examined and previously yielded CODIS hits. Many of those hits simply had not been followed up on (i.e., further investigated). The SAKs that had not been previously tested were the old cases to be tested in this project.

There is little scientific literature about CODIS hit rates in other jurisdictions that have tested large numbers of previously untested SAKs. We do, however, have anecdotal evidence from the City and County of Los Angeles. These two agencies tested thousands of previously untested kits. Peterson and colleagues reviewed a sample of SAKs tested, including 1,948 SAKs that are analogous to the old cases in the New Orleans project.[2] In Los Angeles, 4.6 percent yielded either an offender hit to an individual not known as a suspect (3.6 percent) or a forensic hit linked to a known suspect (1 percent). In the 371 SAKs Peterson and colleagues examined that were analogous to the current cases in New Orleans, Los Angeles had a CODIS hit rate of 5.9 percent. Of these, 5.4 percent were offender hits to individuals not known to be a suspect in the case, and 0.5 percent were forensic hits matched to a known suspect.[3]

There may be several explanations for why the CODIS hit rates in the NOPD SAK project appear to be higher than in the Los Angeles project. The population of SAKs tested was different in the two jurisdictions and rules for testing and follow-up investigations may have varied. SAKs that had already been adjudicated or in which the statute of limitations had expired were not included in the New Orleans project but were tested in Los Angeles.

CHOP: Tracking CODIS Hits

To assist with the documentation, accountability and tracking of all CODIS hits, NIJ arranged for NOPD, the District Attorney's Office in New Orleans and LSPCL to receive specialized software known as CHOP (CODIS Hit Outcome Project). Originally developed by the California Department of Justice with partial funding from NIJ, CHOP tracks CODIS hits so that all stakeholders can locate information and deal with bottlenecks and delays. Through an existing cooperative agreement, NIJ arranged for the installation of CHOP on servers at LSPCL with connections to both NOPD and the New Orleans District Attorney's Office.

As of September 1, 2012, NOPD had received 626 CODIS hits from sexual assault cases, including hits generated from the SAK project, and 257 CODIS hits still required additional follow-up investigation. NOPD, the District Attorney's Office and LSPCL all reported on the benefits of having access to CHOP and the ability to deal with hits in real time.

Currently, two versions of CHOP are available. The version installed at LSPCL is a stand-alone version that can be installed in either state or local DNA laboratories. This version may be purchased from a software vendor. The other system is an upgraded version of the California Department of Justice's software and is available from the California Department of Justice to state DNA database laboratories at no charge.

Judicial and Other Outcomes

Between January 1, 2011 (when the SAK project started), and September 1, 2012 (when data were provided to NIJ), 40 sex crime cases directly resulting from this project were closed after investigation by the NOPD Cold Case Sex Crimes Unit: 16 by warrant, 24 by arrest. Six of the 40 cases have been adjudicated:

- Jeffery Gordan: pled guilty and sentenced to 20 years.
- Troy Taylor: convicted and sentenced to 40 years.
- Reginald Berry: pled guilty and sentenced to 22 years.
- Willam Danastasio: convicted and sentenced to life imprisonment.
- Jimmie Spratt: convicted and sentenced to life imprisonment.
- Anthony Montecino: pled guilty and sentenced to 20 years.

The accomplishments of the NOPD SAK project go far beyond the numbers of closed cases, hits and judicial outcomes. The project has also prompted new initiatives that will increase law enforcement effectiveness. LSPCL, for example, is upgrading its CHOP network by establishing links to other clients throughout the state, including the Baton Rouge Police Department, the East Baton Rouge Sheriff's Office and the Ascension Parish Sheriff's Office.

In addition, when the project revealed how many CODIS hits NOPD had not previously followed up on and how successful follow-up investigations were in resolving cold cases, LSPCL examined CODIS hits that had not been followed up on statewide. As a result, the Louisiana State Police initiated a pilot project to pay its detectives overtime to follow up on CODIS hits, including the collection of reference samples from suspects identified in CODIS hits. During the pilot, 90 CODIS hits were dispositioned (closed or resolved). The project's overtime bill totaled $5,000.

As a result of the overtime pilot project's success, the Louisiana State Police applied for and was awarded a Justice Assistance Grant (JAG) from the Bureau of Justice Assistance to pay overtime for detectives, CODIS analysts and members of the Fusion Center (who collect and process law enforcement intelligence information) to follow up on CODIS hits. LSPCL uses a small portion of the JAG funds to train detectives in collecting outstanding CODIS-hit reference samples and sex offender samples. The goals of this project are to:

- Resolve or close at least 627 or as many as possible of the 660 CODIS hits that had been reported by LSPCL to law enforcement agencies throughout the state and that were pending investigation or disposition at the time the project began.
- Reduce the length of time between the laboratory telling the police it has a hit and the police submitting a reference sample to the laboratory. The goal is to achieve a turnaround time of 30 days.

- Ensure that the DNA profiles of thousands of registered sex offenders throughout the state have been uploaded to CODIS.

Conclusion and Recommendations

The NOPD SAK project achieved success through a shared commitment by stakeholders from the federal, state, city and university arenas. Testing sexual assault evidence and following up on investigative leads that are developed when there are CODIS hits can be very costly. The NOPD SAK project was successful in part because NIJ leveraged available services from existing NIJ cooperative agreements and grants to assist in defraying the expenses of this project. In addition, LSPCL was able to provide so much assistance to NOPD because the lab had recently increased its DNA unit's efficiency significantly by implementing new processes and procedures.[4]

In addition, because the project focused on two very narrow but highly important goals — analyzing all previously untested SAKs in the custody of NOPD and following up on all CODIS hits from NOPD sexual assault cases — rather than trying to address broader, multiple issues, the success of the project was immediate and measurable.

Recommendation No. 1: Expand CHOP to more jurisdictions nationwide.
The NOPD SAK project demonstrated how successful CHOP software can be in managing and providing accountability for following up on CODIS hits. CHOP should be expanded to more jurisdictions nationwide. Installing CHOP software in a state database laboratory seems to be ideal as CODIS hits are generated and disseminated from the state database laboratory to government crime labs and police departments statewide. Deployment of CHOP nationwide — *in concert with efforts similar to those undertaken by NOPD and the Louisiana State Police to conduct timely and complete investigations of all CODIS hits* — would benefit the criminal justice system and decrease victimization through faster identification and apprehension of repeat offenders.

Recommendation No. 2: Implement and install evidence tracking systems.
Using electronic systems to track evidence would allow police agencies to communicate directly with their crime lab's Laboratory Information Management System (LIMS) and would help eliminate situations in which untested SAKs fall between the cracks as was experienced by New Orleans and by many other jurisdictions around the country. Computerized evidence tracking systems allow for the *permanent retention of decisions by investigators* regarding why a SAK is not being submitted to a crime laboratory for analysis. This, in turn, would allow for subsequent review by management and oversight boards and would increase transparency and accountability to the public. For example:

- When a victim recants a complaint of sexual assault, the investigator would note that the SAK was not submitted to the lab for this reason.
- When there is a confession leading to a guilty plea, this would be noted as the reason for not testing the SAK.
- When a suspect admits sexual contact but maintains that it was consensual, DNA testing (or finding semen present) would not add new evidence in the case and this would be explicitly stated in the electronic tracking evidence system (although testing may reveal cases of other allegations of sexual assault against the individual).

For more information regarding the need to implement and install computerized evidence tracking systems, see the recommendations in the evaluation of the project to test SAKs in the Los Angeles Police Department and Los Angeles Sheriff's Department.[5]

The NOPD SAK project adds to the growing body of evidence-based research on how to deal with large numbers of untested SAKs in police custody.[6] For example, NIJ is continuing to help develop best practices through an ongoing action-research project in Houston, Texas, and Wayne County (Detroit), Mich. To learn more about this project, visit http://www.nij.gov/nij/topics/law-enforcement/investigations/handling-evidence/untested-sexual-assault.htm.

Through multiple project evaluations, NIJ is providing evidence-based guidance for establishing testing priorities and strategies that improve judicial outcomes in cases of sexual assault, which will increase public safety and reduce victimization. Although we will continue to learn from different approaches employed in other jurisdictions, the success in the NOPD project offers invaluable knowledge regarding the approach used in New Orleans.

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ENDNOTES

1. See, for example, Peterson, Joseph, et al. (2012) "Sexual Assault Kit Backlog Study." Final grant report submitted to NIJ. Available at https://www.ncjrs.gov/pdffiles1/nij/grants/238500.pdf. In the first recommendation from the study of untested SAKs in the City and County of Los Angeles, Dr. Peterson states, "There is little need for SAK testing in known offender cases where the assailant does not deny intercourse, and where the offender has been arrested and his DNA has already been taken and profile entered into CODIS."

2. Peterson, Joseph, et al. (2012) “Sexual Assault Kit Backlog Study.” Final grant report submitted to NIJ. Available at https://www.ncjrs.gov/pdffiles1/nij/grants/238500.pdf.

3. Ibid.

4. See Richard, Melinda, and Timothy Kupferschmid (2011) “Increasing Efficiency of Forensic DNA Casework Using Lean Six Sigma Tools.” Final grant report submitted to NIJ. Available at https://www.ncjrs.gov/pdffiles1/nij/grants/235190.pdf.

5. Peterson, Joseph, et al. (2012) “Sexual Assault Kit Backlog Study”; Ritter, Nancy (2012) ”Solving Sexual Assaults: Finding Answers Through Research,” *NIJ Journal* 270:4-17. Available at http://www.nij.gov/journals/270/answers-through-research.htm.

6. Ritter, Nancy (2011) *The Road Ahead: Unanalyzed Evidence in Sexual Assault Cases*, NIJ Special Report. Available at https://ncjrs.gov/pdffiles1/nij/233279.pdf.