End Violence Against Women International (EVAWI)

Understanding DNA Evidence and Sexual Assault Investigation

Part 1: Underlying Assumptions and Realities

Kimberly A. Lonsway, PhD
Sergeant Joanne Archambault (Ret.)

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Authors

Dr. Kimberly A. Lonsway has served as the Director of Research for EVAWI since 2004. Her research focuses on sexual violence and the criminal justice and community response system. She has written over 60 published articles, book chapters, technical reports, government reports, and commissioned documents – in addition to numerous training modules, bulletins, and other resources. She has volunteered for over fifteen years as a victim advocate and in 2012, she was awarded the first – ever Volunteer of the Decade Award from the Sexual Assault Recovery and Prevention (SARP) Center in San Luis Obispo, CA. She earned her PhD in the Department of Psychology at the University of Illinois, Urbana – Champaign.

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This training bulletin is the first in a series developed to explain the role of DNA evidence in a sexual assault investigation. In this first installment, we will unpack some assumptions that influence both discussions and policy initiatives in this area. In subsequent bulletins we will explore alternative sources of DNA evidence and their potential significance or impact on a sexual assault investigation. We will also provide a case example illustrating many of our points and offer a brief historical perspective on the use of DNA evidence within the criminal justice system. Finally, we conclude by charting a course for reform and offering best practice recommendations.

Some of the information in this series will overlap with the recent training bulletin addressing the question of whether we should “test anonymous kits.” While that bulletin focused specifically on evidence collected during a medical forensic exam with a victim who has not personally reported to law enforcement, this series is designed to address the role of DNA evidence in the investigation of sexual assault cases more generally.

Underlying Assumptions

In recent years, there has been extensive media coverage of the “DNA backlog” and the problem of untested evidence in sexual assault cases. There are also significant policy reforms underway – on the local, state, and federal level – to address these problems. Yet underlying the discussion are a number of implicit assumptions. They are not often stated outright, but these assumptions nonetheless influence how these problems are formulated, how their causes are diagnosed, and how the solutions are designed.

In fact, we believe there are three basic assumptions that underlie much of the discourse surrounding the DNA backlog and the problem of untested evidence. If pressed, most people would probably recognize that these assumptions are not accurate – or at least overly simplified. However, we will state them in their absolute form, to more clearly see their influence on how we think about these issues:

1. The purpose of a medical forensic exam of a sexual assault victim is to collect DNA evidence.

2. The process of investigating a sexual assault proceeds directly from the medical forensic exam, to the identification of a DNA profile, to the courtroom trial (from kit to court).

3. DNA evidence provides a “yes or no” answer to the question of whether a particular suspect committed a sexual assault against a particular victim.

Based on such assumptions, it is understandable that the public is outraged by the images of rape kits piled up in property rooms, never to be sent to crime labs for DNA testing. This image has certainly been fueled by media coverage, including a 2010 report by Human Rights Watch, entitled: I used to think the law would protect me: Illinois’ failure to test rape kits. That report opens with the experiences of a sexual
assault survivor referred to as Carrie. Both her experiences – and the conclusion of the report’s authors – perfectly illustrate the issues we would like to address in this paper, so we will briefly summarize them here.

Carrie’s Experience

Carrie was sexually assaulted while she was in high school, by a family friend of her father’s, “someone she barely knew” (p. 2). Immediately afterward, she reported the rape to police and submitted to a medical forensic exam. The police told Carrie that they had picked up this same suspect before, “for sexually assaulting the teenage daughter of a family friend” (p. 2).

The suspect was arrested, and although Carrie called repeatedly to find out what was happening in her case, she did not hear back from the prosecutor until six months later. At that point, the prosecutor “told her that there was not enough evidence” (p. 5) to pursue her case. She reportedly told Carrie: “Maybe if we get this guy coming in again for rape, we can move forward. In acquaintance rapes, it helps to establish a pattern” (p. 5).

Carrie asked if her rape kit could be tested to see if it was linked with any other cases, but her suggestion was refused. When Carrie requested a copy of the investigative file for her case, she discovered that:

- The police had not interviewed the suspect, not interviewed other potential witnesses, nor considered the hospital examiner’s report, which indicated ‘vaginal swelling and tearing consistent with forced penetration.’ As far as Carrie knows, her rape kit continues to sit in police storage, untested (p. 5).

With stories like this, it is no wonder that the public is outraged. It appears that the criminal justice and community response system completely failed Carrie. However, we believe this outrage is directed to some extent at the wrong problem.

It is clear that the authors of the report viewed the primary problem as the failure to “test Carrie’s rape kit.” That is indeed a failure, which we will discuss in greater detail later. Suffice it to say that Carrie was exactly right; analyzing the evidence might have linked her case to others, which could potentially have assisted in the prosecution of her case.

Yet the far more significant failure is stated in the sentence before that one, which states: “The police had not interviewed the suspect, not interviewed other potential witnesses, nor considered the hospital examiner’s report” (p. 5). This is the sentence that should cause the real outrage in our country, because we can test all the evidence in the world, and we will not be able to hold a single perpetrator accountable if law enforcement fails to conduct the type of investigation that will support successful prosecution. In other words, the problem is even more serious than people think; or at least it is larger and more complicated, because it extends beyond possible sources of DNA evidence to the entire investigation.
This series is designed to address the larger contours of this problem. We therefore return to the three basic assumptions outlined above, to understand their influence.

Not Just DNA Evidence

First, there is the common impression that the purpose of a medical forensic exam is to collect DNA evidence. This is illustrated with the definition of a “rape kit” offered in the 2010 Human Rights Watch report:

_When a person is sexually assaulted and reports the crime, she will be asked by the hospital staff or the police to consent to the collection of a rape kit. A rape kit is the DNA evidence gathered from an examination of the victim’s body, a process which can last between four and six hours (p. 3)._2

In fact, biological evidence (such as DNA) is not the only evidence that is collected and documented during a medical forensic exam – and it is not always the most important evidence for advancing a sexual assault case through successful investigation and prosecution.3 In most sexual assault cases, the victim and suspect know each other, and the suspect does not deny that the sexual act took place. Rather, most suspects argue that the victim consented. Thus, evidence is required to overcome the consent defense, by corroborating the element of force, threat or fear – or establishing that the victim was unable to consent. Typically, biological evidence is not used for this purpose; this is more likely to be accomplished with other evidence that is collected and documented in a medical forensic exam, including a history taken from the victim, photographs, and other documentation of injuries. Ultimately, these other types of evidence are more likely than DNA to help overcome a consent defense and lead to the successful investigation and prosecution of a sexual assault perpetrator.

For this reason, we try to avoid using the term “rape kit,” preferring instead more general terms such as “forensic evidence kit” or even simply the “evidence from an exam.” This highlights the fact that various forms of evidence are collected and

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1 We prefer to avoid gendered terminology, in order to be inclusive of both male and female victims of sexual violence. However, this is a direct quote from the 2010 Human Rights Watch report.

2 While a forensic medical exam can take as long as four to six hours to conduct, this is on the long end of the spectrum. The _Sexual Assault Nurse Examiner (SANE) Development and Operation Guide_ conducted a survey of SANE programs and found that: “The time estimated to complete an exam ranged from 2.5 to 5 hours with an average of 3.2 hours” (Ledray, 1999, p. 46).

3 This perception of a “rape kit” as including only biological evidence is further fueled by the description of the process offered in the 2010 Human Rights Watch report. In a breakdown of the steps involved, the final one is described as follows: “The nurse or doctor then collects other samples, such as fingernail scrapings, pubic hair combings, and urine and blood, placing each in separate envelopes or tubes. The swabs are labeled and sealed in containers with evidence tape. All of the evidence is then placed in a large white envelope – the rape kit” (p. 8). While it is true that this type of white envelope (or other similar package) is what people think of when they use the term “rape kit,” this obscures the fact that clothing and other items may also be collected from the victim during a medical forensic exam. Photographs and statements will also be taken, and any of these items may be more critical than DNA evidence for advancing the investigation, depending on the assault history.
documented during the process of a medical forensic exam, and it helps to keep in mind that evidence can be collected from both the suspect as well as the victim.

This more general orientation also reminds us that a medical forensic exam should be obtained in many different types of sexual assault cases. For example, despite the fact that most jurisdictions have established standards for how long an exam can be conducted following a sexual assault (e.g., 96 hours, 120 hours), emerging evidence suggests that forensic evidence may be available on the body of the victim (and suspect) far longer than was previously believed. Moreover, many people think a medical forensic exam is only needed in cases where sexual penetration was completed. However, as our case example will illustrate, critical evidence can be recovered in cases where penetration is attempted but not completed, and in cases where there are other forms of personal contact (e.g., the suspect covers the victim’s mouth with his hand).

This discussion even highlights the fact that these issues are not unique to sexual assault. As DNA technology advances and resources become available, forensic evidence will likely be recovered from the bodies of victims and suspects in other types of cases where there is personal contact (e.g., robberies, assaults). In sum, a variety of types of evidence may be collected and documented during a medical forensic exam, as well as the law enforcement investigation, and some of this evidence may be far more significant in advancing the investigation and prosecution than DNA.

**Not From “Kit to Court”**

Another common assumption is that the process of investigating a sexual assault proceeds directly from the medical forensic exam, to the identification of a DNA profile, to the courtroom trial. Or, as we describe it, “from kit to court.” Clearly, the process is much more complicated than this. Successful prosecution of a non–stranger sexual assault case typically requires a far wider range of evidence than just DNA; the medical forensic exam of the victim (and the evidence collected for a “kit”) is only one part of a much broader investigation. This reiterates the points made in the previous section.

**Not a “Yes or No” Answer**

Finally, the public discussion often makes it sound like DNA evidence provides a “yes or no” answer – as if it could determine whether a particular suspect sexually assaulted the
This misperception is illustrated quite poignantly with another survivor account in the 2010 Human Rights Watch report. Julie, 25 was raped by a friend of a friend:

I tried pushing him, I tried screaming, ‘No,’ I screamed, ‘Stop,’ I said, ‘You’re hurting me,’ nothing was helping so I ran out of the apartment and got into my car and was in hysterics and then we ended up going immediately to the hospital. From there I agreed to do a rape kit (p. 4).

Julie goes on to describe how difficult it was to go through the process of a medical forensic exam. Ultimately, the evidence that was collected during her exam was not sent to the crime lab for analysis, and the case was not prosecuted. She recognizes that her case may not have gone to court even if the rape kit had been analyzed, but she believes this would have provided her with answers or a sense of closure:

I feel like even though my case may not have gone to court regardless if my kit were tested or not, I feel like I would have had somewhat of a closure, I feel like I would have had answers, maybe not answers that I liked, but I would have answers. If the rape kit was tested, I feel like I, in some part, would have internal justice. It would have ... I wouldn’t be wondering why. It’s hard and it’s difficult to think that you could potentially be setting someone free to do it to someone else, and the reason not testing a kit (p. 4).

It is clear from Julie’s comment that she is seeking answers or a sense of closure that could never have been provided by submitting forensic evidence to the crime lab for analysis. Her story thus provides an excellent starting place for our discussion of the alternative sources and potential purposes of DNA evidence in a sexual assault case. These issues will be explored in another training bulletin in this series.
References


Human Rights Watch (2010). *I used to think the law would protect me: Illinois’ failure to test rape kits*. Written and researched by Sarah Tofte.


Understanding DNA Evidence and Sexual Assault Investigation

Part 2: Case Example in Historical Context

Kimberly A. Lonsway, PhD
Sergeant Joanne Archambault (Ret.)

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This training bulletin is the second in a series developed to explain the role of DNA evidence in a sexual assault investigation. Using a case example, I will seek to illustrate a number of points and place them within a historical context. This will hopefully lay groundwork for the best practice recommendations and future directions for reform to be outlined in the final installment of this series of training bulletins.

The Case

More than 13 women and children across five western states were raped and sexually assaulted by serial rapist James Allen Selby. This case of serial sexual assault offers an excellent example of why it is so important to submit forensic evidence to crime laboratories for analysis – with or without a known suspect – as well as submitting known suspect reference standards as soon as state laws allow. Making this point, however, requires looking back in time and tracing the history of the case. I have written this chronology so it unfolds the way it did from the perspective of those of us working in the Sex Crimes Unit of the San Diego Police Department at the time.

San Diego, California (July to September 2001)

The San Diego Police Department Sex Crimes Unit investigated a series of four home invasions involving rape and sexual assault. The crimes were committed between July 1st and September 26th, 2001. All of the victims were adults, but they could not provide detailed information about the suspect because he covered their faces with different items (e.g., a towel, pillow, blanket). As a result, investigators knew that the case would most likely be solved with forensic evidence.

Fortunately, a forensic DNA profile was obtained from the vaginal swabs collected from each victim. Foreign DNA was also recovered from some toilet paper collected in one of the cases. Although the profile was submitted to the Combined DNA Index System or CODIS, there was no match within the Convicted Offender Database.

Detectives Jack Knish and Dave Dolan were assigned to the series, and they worked hard to identify the suspect. The DNA profile linked all four cases together, but there were no viable leads to identify a suspect at the time. The detectives suspected that the assailant was a drifter. San Diego citizens wondered if and when the suspect would ever be caught.

Tucson, Arizona (October 2001 to May 2002)

Within days of the last San Diego assault, a serial rapist began terrorizing the citizens of Tucson, Arizona. The crimes were committed between October 2001 and May 2002, yet unlike the cases in San Diego, the Tucson series involved three adult women and one 13–year old child. In the case of the 13–year old, the suspect entered her home through a sliding glass door while her parents slept in the room next door. The suspect told the
victim not to scream or he would kill her, but the victim did scream and the suspect fled, so the sexual assault was not completed.

In this Tucson series of sexual assaults, the suspect also covered the victims’ faces so the information they could provide to describe him was extremely limited. Fortunately, foreign DNA was again located on the vaginal swabs from three of the victims. A foreign DNA profile was also obtained from the 13–year old, by swabbing her fingers.

The Tucson and San Diego series were linked together with forensic DNA profiles, but CODIS still could not provide the suspect’s identity. Tucson Detective Mary Gehm and the detectives in San Diego compared investigative notes, in the hopes of developing a potential suspect lead. However, they were unsuccessful at the time.

DNA Backlogs and Limited Resources

Before proceeding with this example, it is important to note that most police departments had extensive DNA backlogs during this time period. Both then and now, only the largest police departments typically have their own DNA laboratories. Rather, most law enforcement agencies utilize the state crime lab, or – if they have the budget – they contract with private laboratories to conduct their DNA analyses and these services are costly. Thus, forensic resources are limited, and several units within the police department must compete to get their lab work done (e.g., sex crimes, homicide, robbery, burglary). Agencies using State and FBI laboratories may face even more competition to get DNA work completed, given how limited these resources are. As a result, most of the forensic evidence collected from crime scenes and victims during the time period of this case example simply remained in storage in police department property rooms, untested.

At the same time, states were desperately trying to keep up with the collection and analysis of reference standards that had to be obtained from incarcerated offenders before they were released from custody. The backlog was partly due to the shortage of resources, as previously described. However, it was also the result of changes in technology.

Around this same period of time, law enforcement agencies across the country began moving from one method of DNA testing (RFLP) to another (STR). RFLP stands for Restriction Fragment Length Polymorphism, and it was the first DNA profiling technique that was widely used for law enforcement purposes. It is now largely obsolete. As the country moved to the new technology for DNA profiling, Short Tandem Repeats (STR’s), profiles in the existing RFLP databanks were incompatible with STR profiles. In other words, law enforcement had to start over to build up their DNA databanks.

While this process was facilitated with the improved automation of DNA analysis, considerable staff resources were still needed to obtain reference samples from incarcerated offenders. Once the reference sample was obtained from an individual, the
state also had to dedicate the crime laboratory resources needed to develop a DNA profile to submit to CODIS. As a result, it often took months or years for convicted DNA profiles to show up in the CODIS database – in order to match with DNA profiles developed from forensic evidence. The case example described here took place within the context of this desperate resource crisis.

Cleveland County, Oklahoma (September, 1999)

In August of 2002, investigators from Cleveland County, Oklahoma got a break. A DNA profile was developed from the evidence in a 1999 case that had plagued them for three years. The sexual assault occurred on September 16, 1999 in Norman, Oklahoma. The suspect reached through the bedroom window of a 9-year old victim to let himself in, gagged her with a sock, and carried her a few hundred feet to the nearby woods where he sexually assaulted her. The suspect fled when he heard the victim’s mother searching for her daughter.

The young girl was unable to identify her attacker. Foreign DNA was found on both the victim’s vaginal swabs and her underwear, but the profile could not be submitted to CODIS due to limitations at the time. The sample was shelved in the hopes that it would become useful in the future.

Detective Gerald Moody was assigned to the case, and he began his investigation by interviewing registered sex offenders in the area. As a result, he visited the victim’s neighbor, who had a friend named James Allen Selby living with him. Investigators learned that Selby had been charged just one year prior with attempted sexual assault, aggravated assault with a deadly weapon, false imprisonment, and kidnapping in Marana, Arizona. However, he was acquitted on all the charges except for simple assault by a jury in Pima County.

During the trial in Pima County, Selby acknowledged that the sexual acts took place, but argued that the victim consented. This consent defense was successful, despite evidence documenting significant injuries sustained by the victim – on her head, wrists, and other locations.

Cleveland County officials in Oklahoma attempted to get a DNA sample from Selby, but he fled before they could do so.1

In 2002, when the DNA profile from the evidence in Cleveland County was finally developed and submitted to CODIS, it matched with both the Tucson and San Diego series. Investigators once again began comparing notes. Oklahoma investigators advised their colleagues that the primary suspect in their case was James Allen Selby. In other words, the DNA match in 2002 confirmed that they had correctly identified the primary suspect.

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1 Some of the information on this multi-state series was drawn from the Cold Case Files: Episode #92, entitled, Manhunt. The show aired on the History Channel, Monday, October 16, 2004.
suspect three years earlier by checking for registered sex offenders in the area. Selby's name was run through the National Crime Information Center (NCIC) database and investigators learned that a warrant had also been issued for his arrest for a rape committed in Sparks, Nevada.

**Sparks, Nevada (April 2001)**

On April 30, 2001, just a few months before the first assault in the San Diego series, a 12–year old girl was sexually assaulted in her apartment. Again, the suspect covered the victim’s face with a pillow, towel, and comforter, and then raped her. Foreign DNA was found on the victim’s vaginal swabs, but there were no matches in CODIS.

Detective Tom Miller of the Sparks Police Department conducted an investigation and identified the suspect as James Allen Selby, a maintenance worker at the victim’s apartment complex. Selby failed to show up for work and appeared to have moved from his apartment in the same complex. The detective executed a search warrant on the suspect’s apartment where he obtained the suspect’s toothbrush and razor. A DNA profile was developed from this evidence, and it matched with the one identified from the victim’s vaginal swabs. An arrest warrant was issued for Selby, but he could not be located.

As of 2002, when the case was matched with the others in San Diego, Tucson, and Oklahoma, none of the cases could be prosecuted because the suspect had not yet been located. Most important, *Selby’s DNA profile was not uploaded to CODIS when the arrest warrant was issued because Selby’s DNA profile was developed from evidence seized during a search warrant and not from a known reference standard.*

Yet even if they did have a reference standard for Selby, his DNA profile would not have been eligible for inclusion in CODIS – based on state laws at the time – because he had not (yet) been convicted of the crime.

**Note on Forensic DNA Profiles**

At the time, Selby’s DNA profile could not be submitted to CODIS in the Convicted Offender Database. However, a forensic DNA profile could still have been submitted to the Forensic Database, *based on the evidence collected from the victim’s vaginal swabs.* We will recommend this practice in a subsequent training bulletin. But then – as now – most police departments did not do this as a matter of routine practice.

Because of limited resources, many police departments do not submit forensic DNA profiles in cases such as this one to CODIS, based on the evidence that has been collected (e.g., from the victim’s vaginal swabs), because they have already identified their suspect using traditional means (e.g., based on information gained from interviews, leads, and the list of registered sex offenders). Fortunately, the Sparks Police
Department did submit this forensic DNA profile to CODIS, but the information was not available to law enforcement personnel in other agencies for over a year.

**Timeline Continued**

In August 2002, a warrant was issued for Selby’s arrest in Oklahoma after the Cleveland County Sheriff’s Department entered their case information from the 1999 assault. Last seen in Tucson on August 16, 2002, a massive multi-state search for Selby began. He was featured on the television program “America’s Most Wanted.” Flyers were posted in residence halls, bars, and garages warning the public that Selby was considered to be very dangerous and asking for any information that would help to apprehend him.

At the time, information had also emerged that led law enforcement to believe Selby was responsible for four additional sexual assaults in the Tucson campus area as well as ten other assaults in other locations. The charges issued in Arizona included not only sexual assault and aggravated assault, but also kidnapping and attempted murder for cutting the throat of one of his victims.

**Colorado Springs, Colorado (July 2002)**

At long last, Selby was arrested in September 2002 at a Veterans Affairs (VA) clinic in Colorado Springs, Colorado. In addition to the charges listed in the outstanding warrants for his arrest, the detectives who interviewed Selby also suspected that he might be responsible for an unsolved home invasion and rape of a 55-year old woman that occurred in July 2002 in Colorado Springs. DNA from the victim’s shirt linked Selby to the Colorado Springs attack.

Selby was arrested and booked for rape on these charges as well. Not surprisingly, Selby claimed a consent defense in the Colorado case, stating that he and the victim “had a budding romantic relationship” that started weeks before after meeting at Safeway when her grocery bag broke. Selby said he helped carry the woman’s groceries three blocks to her house and that they saw each other at least four more times before she invited him into her bedroom on July 25, 2002 (Hethcock, 2003). As in the earlier trial in Pima County, Arizona, Selby raised a consent defense in his trial in Colorado Springs, acknowledging that the sexual acts took place but claiming that the victim consented.

This time, the jury didn’t buy it. On September 15, 2003, they convicted Selby of the assault and he was sentenced to 20 years to life.

From Colorado, Selby was transported to Tucson, Arizona where he was tried on 27 felony counts. During the Tucson trial, Selby represented himself. This placed even more stress on his victims, because he was allowed to personally face each one and question them in court.
Selby was convicted in the Tucson trial on October 7, 2004. He was scheduled to be sentenced to life in prison the next day, but he hung himself from the window of his jail cell, just a few hours before the hearing. One of the two lawyers who prosecuted Selby, Micah Schmit, said that Selby’s suicide fit his character: “It was an 11th hour cowardly act that deprived the community, deprived the victims (of a chance) to get their retribution.” Schmit concluded that, “this is entirely in keeping with the controlling and narcissistic behavior of a serial rapist” (Teibel & Flick, 2004).

The Lessons and the Goal

To learn the many lessons from this case example, keep in mind that the investigators in Sparks, Nevada identified a suspect in their April 2001 case fairly quickly – based on detective work rather than DNA analysis. The suspect’s DNA profile was then obtained from evidence obtained during a search of his apartment (from his razor and toothbrush). This evidence was used to create a DNA profile for James Allen Selby that matched with the foreign DNA profile developed from evidence collected during the victim’s medical forensic examination. A reference standard from the suspect was not available, however, because the suspect could not be located, arrested and prosecuted. Therefore, the suspect’s identity could not be uploaded in CODIS – even though investigators knew that their primary suspect was James Allen Selby.

Investigators in Cleveland County, Oklahoma also identified James Allen Selby as the primary suspect in their September 1999 case. Again, this identification was based on detective work, rather than DNA analysis, and a DNA reference standard could not be obtained from Selby before he fled their jurisdiction. However, even if they had obtained a reference standard it would only have been used to compare with the forensic DNA profile developed from the evidence collected from the victim and her underwear. It would have confirmed that the person they suspected of committing the crime (James Allen Selby) was in fact the one who left biological evidence on the victim’s body and clothing. Based on state law at the time, neither the suspect’s identity nor his DNA profile would have been entered in CODIS until after his conviction. And, depending on the state’s resources, this might have taken years. Remember, states were rushing to obtain DNA samples from offenders who were scheduled to leave prison, rather than profiling individuals who had lengthy sentences ahead of them.

If this had not been the historical context for this case, it is possible that the subsequent assaults could have been prevented – not only the ones committed in the San Diego series, but also in Tucson and Colorado Springs as well. This is the goal we are striving to achieve today – to ensure that we have the forensic resources available to submit samples in all sexual assault cases and have DNA analysis completed promptly. We are much closer to achieving that goal, but there is still a great deal of work and education that needs to be done.

For example, there are still many law enforcement agencies whose officers have only limited knowledge of the many possible uses for DNA evidence, especially in a sexual...
assault case. Even in agencies that have such specialized expertise, they are often lacking the resources they need to get their lab work completed.

Another challenge is that many law enforcement investigators and medical professionals still focus exclusively on the issues of penetration, ejaculation, and semen. Yet the investigators in Tucson had the training they needed to recognize that DNA evidence could potentially be recovered from the body of their 13–year old victim – regardless of the fact that the sexual assault was not completed – by swabbing any location on her body that had contact with the suspect. (They obtained a foreign DNA profile by swabbing her fingers). Based on the specific assault history, they knew such evidence would be critically important in this particular case. This is exactly the kind of “out of the box” thinking that is required to solve and prosecute these difficult cases.

Other obstacles include common misunderstandings about the role of DNA in a sexual assault investigation and the backlog of untested DNA evidence. As we discussed in the first training bulletin in this series, there is a common perception that sexual assault cases proceed almost directly from “kit to court.” Yet investigators in both the Nevada and Oklahoma cases identified the correct suspect using good old fashioned detective work, rather than DNA analysis.

Moreover, they could not have successfully prosecuted their cases (such as the one in Colorado Springs involving the 55–year old victim) with DNA evidence alone, because of the consent defense. In that case, Selby acknowledged that the sexual acts took place, but claimed that the victim consented.2 This series thus offers an example of how sexual assault investigations cannot proceed “from kit to court” without the type of evidence that can only be identified, collected, and documented with a thorough investigation. It is critical that this point is understood by victims, the public, and community professionals responding to sexual assault. Otherwise, people can be misled into thinking that the failure to prosecute most sexual assault cases can be solved by simply eliminating the DNA backlog and “testing every rape kit.”

**Conclusion**

In this series of training bulletins, we hope to provide accurate information that is needed to clearly understand the history of DNA evidence and to recognize how it can be used to help successfully investigate and prosecute sexual assaults. I specifically want to emphasize the fact that the DNA backlog is not law enforcement’s “dirty little secret,” as so often portrayed in the media. The reality is that law enforcement investigators all over the country have been begging to have evidence analyzed that they collected from the forensic examinations of victims, clothing, and other crime scene.

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2 The consent defense is not available in many states for sexual assault cases involving child victims, such as the 9-year old in this case example. As a result, DNA evidence can often be more critical in successfully prosecuting these cases, because the suspect cannot argue that the victim consented if the evidence establishes that the suspect committed the sexual act(s).
evidence such as condoms, tissues, and bedding. (Although many law enforcement agencies do not routinely obtain forensic examinations for sexual assault suspects, this is a best practice that will hopefully be utilized more in the future and thus add to the evidence collected and tested.) Unfortunately, their efforts to have this evidence analyzed have often been thwarted by laws, technology, and resources – as clearly illustrated in this example of a multi-state series.

The truth is this: If law enforcement investigators did not think forensic evidence was valuable, many of these examinations would not have been conducted in the first place. This is clear, because most jurisdictions have historically required law enforcement officers to authorize a sexual assault victim’s forensic examination.3

The evidence from many of these forensic exams, as well as any crime scene evidence collected, could have been destroyed long ago, in accordance with specific criteria and guidelines such as statutes of limitations. Yet law enforcement investigators and administrators have allowed kits to stack up by the hundreds of thousands, in evidence storage facilities across the country – and supervisors have signed off, again and again, on property room forms to authorize their continued storage. The reason is because they hoped the evidence would eventually be useful in solving and prosecuting these cases. As law enforcement officers, we know that victims and their loved ones strive for closure, and many investigators have dedicated their lives to achieving this goal and holding offenders accountable for their crimes.

With this series of training bulletins, I hope we can reach a common understanding of the challenges faced by law enforcement professionals and victims of sexual assault. Only then can we work together collaboratively, across professional disciplines, to provide the training and resources we need to live in a world where more offenders are held accountable and all of our communities are safer.

3 This has changed in the wake of the forensic compliance provisions of the Violence Against Women Act (VAWA), as first enacted in 2005 and reiterated in the 2013 reauthorization. VAWA 2005 established that states and territories may not “require a victim of sexual assault to participate in the criminal justice system or cooperate with law enforcement in order to be provided with a forensic medical exam, reimbursement for charges incurred on account of such an exam, or both” [Violence Against Women and Department of Justice Reauthorization Act of 2005, Public Law 109-162, codified at US Code 42, § 3796gg-4(d)]. Some states still have statutory requirements that medical forensic examinations will be authorized and paid for by the law enforcement agency with jurisdiction over the assault. Therefore, community protocols can vary for exams conducted with or without initial police involvement, as long as victims have access to a medical forensic exam without being required to personally report to law enforcement first (see Lonsway & Archambault, 2010).
References


Understanding DNA Evidence and Sexual Assault Investigation

Part 3: Historical Perspectives and Future Promise

Kimberly A. Lonsway, PhD
Sergeant Joanne Archambault (Ret.)

October 2013
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This training bulletin is the third in a series developed to explain the role of DNA evidence in a sexual assault investigation. As illustrated with the case example presented in the prior training bulletin, I think it is important to remember how recent the developments in DNA technology actually are. This will help us to appreciate just how far we’ve come, in such a short time, and to better understand why we currently face the challenges that we do. In this installment, I would like to provide some historical perspective on the use of DNA for law enforcement purposes, based primarily on information provided by Smith Alling Lane, a Professional Services Corporation in Governmental Affairs and Attorneys at Law.

**Introduction**

The science of DNA as we know it only became available to law enforcement during the late 1980’s. However, just because the technology became “available” at that point does not mean the average law enforcement agency had access to DNA analysis. This is like saying that we have the technology to go to the moon; we all know this does not necessarily mean that any of us will personally go to the moon during our lifetime.

**Submission to CODIS**

During the time period in which this case example took place, most states could only submit DNA profiles to the [Combined DNA Index System (CODIS)](http://www.csis.org) for offenders who were convicted of the most violent crimes and for certain sexual assault offenses. In 1988, Colorado became the first state to enact laws requiring DNA reference standards to be collected from sex offenders. By 2000, only seven states had laws that allowed DNA reference standards to be collected from individuals convicted of all felonies. It wasn’t until 1994 that Congress enacted the DNA Identification Act and CODIS was formally created. This is only 19 years ago – a very short period of time to implement the dramatic transformations in policy and practice that DNA technology has required.

**Convicted Offenders**

In 2000, Congress enacted the DNA Backlog Elimination Act, appropriating $140 million for DNA resources. By 2005, 43 states had passed legislation authorizing the collection of DNA reference standards from individuals convicted of all felonies.¹ Today, all 50 states as well as the federal government have laws requiring the collection of DNA samples from individuals convicted of certain crimes, according to the National Institute of Justice.

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Arrestee Database

Following a series of sexual assault homicides committed in Baton Rouge between 2001 and 2003, Louisiana passed legislation in 2005 to became one of the first states to allow DNA testing for individuals at the point of arrest – again, for all felonies but this time for some misdemeanors as well. This sparked a nationwide push for similar laws to test arrestees. In the same year, President Bush signed the DNA initiative known as the Debbie Smith Act, appropriating an additional billion dollars for DNA testing.

In September 2005, only one of the five states identified in this case example (California) allowed for DNA testing at the point of a felony arrest or indictment. Today, 28 states collect DNA from arrested offenders (National Institute of Justice, 2012). As a result, the case example we provided in the prior training bulletin might have unfolded very differently if it were to take place today.

Case Example

With the laws that are currently in place, investigators in Marana, Arizona would have been able to enter Selby’s DNA profile in CODIS at the point of his arrest rather than his conviction. This is important because Selby was not convicted for that crime. He was acquitted by a Pima County jury, on the charges of attempted sexual assault, aggravated assault with a deadly weapon, false imprisonment, and kidnapping. He was only convicted for simple assault, a crime that did not make him eligible for inclusion in CODIS. As a result, his known DNA profile was not entered into CODIS, and it was not available for investigators in any of the subsequent cases, in order to link them together and to identify Selby in the subsequent assaults.

Even at the time, a forensic DNA profile could have been submitted to CODIS, based on the evidence collected in the case. However, the majority of law enforcement agencies across the country did not do this as a matter of routine practice, because of limited resources and/or a variety of other reasons.

Investigators in Oklahoma could not obtain a known reference standard from Selby before he fled their jurisdiction. As a result, Selby’s DNA profile still could not have been entered into CODIS, even today, unless he was located and arrested. Similarly, the detectives in Nevada still would not be able to enter a DNA profile in the CODIS Convicted Offender Database today, based on evidence they collected from his apartment – because they were unable to obtain a known reference standard or make an arrest. If they could have done so, it might have possibly prevented the subsequent assaults in San Diego, Tucson, and Colorado Springs.

Global Perspective

It is also important to understand that DNA has not just been an issue in the United States. In fact, the United Kingdom has led the world in its DNA reforms. In the United
States, Virginia and Florida contributed greatly to our current understanding of the valuable use of DNA databases. These states were two of the first to collect DNA from all felons, and they demonstrated how many CODIS hits could be made based on non-violent crimes, such as forgery or drug offenses. The nature of the CODIS hits also confirmed how much crossover there is between violent, sexual, and non-violent offending. Based on the data, the power and value of DNA offender databases was revealed to the rest of the country and the world.

We all want to live in safer communities – in a safer world. I believe this is becoming a reality, thanks to the advances in DNA technology. To demonstrate, I would like to return to some of the data provided by Smith Alling Lane.\(^2\) As of 2005, 32 countries (representing 30% of the world’s population) had passed – and implemented – laws creating DNA databases which then included an estimated 25 million offender samples worldwide. By 2015, it has been estimated that countries representing 60% of the world’s population will have implemented such legislation, which will mean that databases will potentially include 100 million DNA samples from around the globe.

In the United States alone, it is estimated that hit rates will increase from 10% to 70% – when DNA samples are taken from all arrestees, rather than simply collecting them from sex offenders and other violent offenders. To illustrate, in 2005, the UK had a 60% hit rate. If they had 5,000 stranger rapes with no evidence except for DNA, this means that 3,000 of these cases could be solved by DNA. These numbers demonstrate the staggering benefits of mature DNA offender databases. As a result of the findings and public support, President Obama announced his support for such efforts by pushing for new federal legislation to promote arrestee testing.

**Progress So Far**

Again, it is important to understand the progress that we have made – and continue to make. In September 2005, there were 2.4 million offender samples and 114,000 crime scene samples available. Five years later this increased to over 8,939,031 offender profiles and 337,988 forensic profiles. As of September 2013, just eight years later, the National DNA Index (NDIS) contained over 10,581,700 offender profiles, 1,641,400 arrestee profiles, and 514,700 forensic profiles. Clearly, the number of DNA profiles from convicted offenders has increased dramatically since 2005, and the number of arrestee profiles appears to be taking the same path. Yet the number of forensic DNA profiles developed from evidence continues to lag (see chart below). This suggests that we need continued training for law enforcement on the many sources of forensic evidence that can be submitted to crime labs for analysis.

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Future Promise

DNA databases even produce benefits beyond solving crimes. Perhaps most important, the databases help to prevent future crimes, by identifying offenders as early as possible. Law enforcement agencies can also solve more crimes, while spending less money. This is always an important goal, but especially critical during the current economic climate. To date, CODIS has produced over 226,000 hits, assisting in more than 213,500 investigations (according to the FBI).

In addition, DNA databases can help to exonerate those who are innocent yet charged with crimes. In the US alone, there have been 311 post–conviction DNA exonerations, according to the Innocence Project.

The cost–benefit analysis of DNA testing is hard to calculate, or even imagine, if you are the victim of a crime, an individual who is wrongly accused, or a loved one of the victim or the accused. However, as a veteran of law enforcement, I have long dreamed of living in a world where offenders are held accountable, the innocent are exonerated, and victims are offered justice and healing. It is exciting for me to see where we are today and to realize that the future is only that much more promising. In fact, that future promise is where we will turn our attention in the next training bulletin – the final one in the series – where we will chart a course for reform and offer best practice recommendations.
References


End Violence Against Women International (EVAWI)

Understanding DNA Evidence and Sexual Assault Investigation

Part 4: Alternative Sources and Primary Purposes

Kimberly A. Lonsway, PhD
Sergeant Joanne Archambault (Ret.)

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This training bulletin is the fourth in a series explaining the role of DNA evidence in a sexual assault investigation. In the first installment, we examined some assumptions that influence both discussions and policy initiatives in this area. We then provided a case example illustrating many of our points and offered a brief historical perspective on the use of DNA evidence within the criminal justice system. In this installment, we will describe alternative sources of DNA evidence and explore their potential purposes during a sexual assault investigation. Finally, we will conclude in the next installment by charting a course for reform and offering best practice recommendations.

Alternative Sources of DNA Evidence

Forensic Evidence

In many sexual assault cases, a DNA profile can be developed from forensic evidence collected from the victim’s body or clothing (e.g., during a medical forensic exam) or recovered from the crime scene(s).\(^1\) Forensic evidence can also be collected from the body or clothing of the suspect. For example, a forensic examiner may recover epithelial cells or body fluids from the suspect on the suspect’s body or clothing.\(^2\)

This evidence can be sent to a crime laboratory for analysis – whether it is a local crime lab, a crime lab that is not local but nonetheless used by the police department investigating the case (e.g., state or private lab), or the FBI lab. If a criminalist is able to develop a DNA profile for a suspect, it can then be submitted to the Combined DNA Index System (CODIS), in a section referred to as the Forensic Database. Within CODIS, this entry is described as a forensic DNA profile, because it is developed on the basis of forensic evidence collected in the case (US Department of Justice, 2010).

Some professionals refer to a forensic DNA profile as a forensic unknown, because it is developed from forensic evidence rather than directly from a known individual (e.g., suspect, victim, or consensual partner). However, this does not necessarily mean that the suspect is truly unknown; the victim and/or police may actually know who the suspect is. The terminology is simply used to distinguish a DNA profile developed from forensic evidence rather than reference standards collected directly from the suspect(s).

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1. Because we are focusing on the topic of DNA, we are primarily talking about biological evidence that can be recovered (e.g., blood, semen, saliva, fingernail scrapings). Trace evidence is also collected and could potentially be available for analysis (e.g., hairs, fibers, dirt, grass, paint chips).
2. The forensic examination of the suspect is a critically important source of evidence that is all too often overlooked. Many law enforcement agencies have failed to establish appropriate policies and procedures for obtaining comprehensive forensic examinations for sexual assault suspects. This is unfortunate given the potential for recovering probative evidence from the body as well as the clothing of suspects. More information is available in a previous training bulletin on the topic of forensic exams for the sexual assault suspect. Included in the appendix of that training bulletin are a variety of resources, including a sample template for a search warrant (and supporting affidavit) to conduct a suspect exam and a standardized form for documenting clothing evidence.
Reference Standards

As a sexual assault investigation proceeds, biological evidence might also be collected directly from a suspect, by drawing blood or using a buccal (cheek) swab. These samples are described as reference standards, and they are submitted to crime labs to develop DNA profiles.

Historically, the DNA profile developed from a suspect reference standard could not be submitted to CODIS during the process of an investigation. Until a few years ago, a reference standard could only be entered in CODIS when the person was convicted of a violent crime and/or certain sex offenses. These DNA profiles are entered in the Convicted Offender Database within CODIS. However, more than half of the US states have now passed laws specifically authorizing the submission of DNA reference standards at the point of an arrest. These profiles go into the Arrestee Database in CODIS (US Department of Justice, 2010).

Primary Purposes of DNA Evidence in a Sexual Assault Investigation

Establish the Sexual Act and/or Contact

One primary purpose of biological evidence (e.g., semen, saliva) is to confirm that a sexual act took place. This is important in any sexual assault case, because it may help to establish an element of the offense (e.g., the suspect’s semen is found in the victim’s vagina, or the victim’s epithelial cells are found underneath the suspect’s fingernails). However, this purpose is only crucial if the suspect denies that the sexual act took place, and this is rare. In most cases of non–stranger sexual assault, the suspect will acknowledge that the sexual act took place but argue that the victim consented.

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3 The National Institute of Justice (NIJ) states on its website that that “the federal government and 28 states (as of June 2012) have enacted arrestee DNA collection laws” (Samuels, Davies, Pope & Holand, 2012). An alternative number of 27 states is put forth by “dna saves,” an organization dedicated to the passage of DNA arrestee testing laws. On their website, they do not include several states on the list compiled by NIJ. Their list does not include Connecticut, for example, which authorizes the collection of DNA reference standards from arrestees only if they already have a prior felony conviction. The list also does not include Oklahoma, which only authorizes the collection from arrestees if they are “illegal immigrants,” and Minnesota which passed a law generally authorizing collection from arrestees but was since struck down in district court. However, the list posted by dna saves does include two additional states (Nevada and Wisconsin), both of which passed DNA arrestee laws since the last update of the NIJ website in June 2012. (Thanks to Ilse Knecht of the National Center for Victims of Crime for providing this information.)

4 Information on CODIS is available from the website for the Federal Bureau of Investigations (FBI).
For practical purposes, therefore, the main use for such evidence is to corroborate the victim’s account of events (i.e., confirm that the sexual acts or contact described by the victim actually took place). For example, a female victim may state that the suspect licked or kissed her breast. If a forensic examiner swabs this area and recovers saliva that is later identified as being the suspect’s, this will not necessarily establish an element of the offense – but it could help to corroborate the victim’s account by indicating that at least some of the events can be documented to have taken place.

**Identify (or Eliminate) a Suspect**

A second purpose of DNA evidence in a sexual assault case is to identify the person who committed a sexual act. This is particularly important when the identity of the suspect is unknown. In this type of case (i.e., a stranger sexual assault), foreign biological and trace evidence can be collected from the victim’s body, clothing, or the crime scene – and sent to the crime lab for analysis. If the crime lab is able to develop a DNA profile for the unknown suspect, it can be submitted to CODIS. Again, this CODIS entry is described as a *forensic DNA profile*, because it is developed on the basis of forensic evidence collected in the case, rather than a reference standard collected directly from the suspect.

After this forensic DNA profile is entered in CODIS, the database is searched for a match with any DNA profiles developed from reference standards taken directly from known individuals. These include DNA profiles in the Convicted Offender and Arrestee Databases.

If no identity or match is found, then the forensic DNA profile remains in CODIS waiting for a potential future match. It is like a permanent request through interlibrary loan; if the forensic DNA profile is ever identified as a specific person, then the investigator will be notified.

If a match is found within CODIS, within the Convicted Offender Database or the Arrestee Database, the suspect’s identity can be established with considerable certainty, since the DNA profiles in these two databases are developed on the basis of reference standards taken directly from the suspect. This is typically what people mean when they refer to a “hit” in CODIS. The case might then lead to a successful prosecution if the suspect can be located, and the investigation yields sufficient evidence to prove that the suspect committed the crime, and the victim is able to participate in the criminal justice process, etc.

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5 Establishing this element also requires confirming that the suspect is the person who committed the sexual act. In other words: “Is this suspect the same person whose DNA was collected from the victim or crime scene?” If the suspect is known, providing this confirmation is a relatively straightforward matter. First, biological evidence is collected from the victim’s body, clothing, or the crime scene. A reference standard is then collected directly from the suspect, and both samples are sent to a crime lab. If the DNA profiles from both sources match, it provides this confirmation and establishes both the element of the crime as well as the suspect’s identity.
Alternatively, the evidence could match with a DNA profile from a prior case (i.e., within the Forensic Database of CODIS). The identity of the suspect in the prior case may have been known, but even if it remains unknown, the link between the two cases may still assist in the identification of the suspect by producing a viable lead. Investigators can begin by comparing notes in the two case files and pursuing the type of “good old fashioned police work” that can lead to the identification and arrest of a suspect.

Of course, it is also worth noting that the CODIS match could identify that the source of the DNA is someone who is not currently viewed as a suspect in the case. To that extent, DNA evidence that identifies one person as a suspect could at the same time eliminate another.

Identify Prior Convictions or Arrests

While many of these purposes are actually overlapping, a third use for DNA evidence is to identify any prior convictions or arrests. Because DNA profiles developed from known reference standards have historically been entered in CODIS at the point of conviction, such a “hit” traditionally meant that the suspect had been convicted for at least one prior offense. Now that many states allow DNA profiles to be entered at the point of an arrest, a “hit” may simply mean that the person was arrested at least once (for the offenses that are specifically included in the authorizing legislation for the state that entered the DNA profile).

In either situation, this “hit” may help in the prosecution of the present case by demonstrating a pattern of past behavior, which may include criminal activity. However, it is only likely to be offered as evidence in the present case if the past arrest or conviction was also for a sexual assault, or for some other offense with significant similarities to the present case (e.g., both crimes involved a similar pattern of burglary or home invasion).

Link Cases Based on Evidence

Similarly, another purpose of DNA evidence in a sexual assault investigation is to link the present case with the evidence submitted in any past cases, or even to ensure that the forensic DNA profile is available to match with evidence submitted in any future cases. Either way, such a link can assist with the investigation and prosecution of both cases, even if they are linked together solely on the basis of evidence (not reference standards).

For example, the suspect’s identity in the prior case may have been known, but the case was not prosecuted for other reasons (e.g., the victim was unable to participate in the criminal justice process, or the prosecutor rejected the case for insufficient evidence). Depending on case law in a specific jurisdiction, it may be possible to introduce evidence or even victim testimony from the prior case – even those beyond
the statute of limitations – in order to assist with the prosecution of the present one.\(^6\) It is also possible that both cases could be prosecuted jointly, depending on case law, the facts of the cases, and a host of other factors.

**Challenges Remain**

Even with the stunning advances we have seen in the field of DNA technology, there can still be significant delays in the process of submitting and testing evidence. This means the results of any DNA analysis and CODIS search may not be available to law enforcement for some time. This factor currently limits the potential of DNA evidence to link cases together in a timely manner and to assist in the investigation and prosecution of sexual assault. In the final bulletin in this series, we will explore future directions for reform. For example, we need to continue to work to increase the capacity for crime labs to test the high volume of evidence submitted by law enforcement, as well as the resources and training available to law enforcement agencies so they can utilize DNA evidence to its fullest potential during an investigation.

It is also important to keep in mind that only a small percentage of sexual assault cases lead to an arrest, let alone conviction (Frazier, Candell, Arikian, & Tofteland, 1994; Horney & Spohn, 1990; Koss, 2006; Lisak & Miller, 2002; Lonsway & Archambault, 2012; Matoesian, 1993; McWhorter et al., 2009; Senate Judiciary Committee, 1993; Tjaden & Thoennes, 2000). Another recommendation for best practice is therefore to increase the number of forensic DNA profiles entered in CODIS during the course of an investigation – regardless of whether the suspect’s identity is known – by submitting evidence collected from the victim and/or crime scene in a sexual assault case.

In the next (and final) training bulletin in this series, we will continue this discussion about future reforms and policy implications. With a little bit of history, we hope to better understand how we got to where to we are now – and forge a path forward to continued improvements.

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\(^6\) The National Center for Victims of Crime (NCVC) offers a variety of information about the statutes of limitations in each US state and territory. In a series of charts, information is provided not only on the statute of limitations for sexual assault offenses, but also for any DNA exceptions (e.g., if a warrant can be issued on the basis of the suspect’s DNA rather than a name or other identifying information). When law enforcement obtains an arrest warrant, the statute of limitations is suspended until the suspect is taken in to custody. In addition to arrest warrants, the prosecution for the state might also be able to have the statute of limitations extended if they can show that the suspect fled prosecution by leaving the state. These exceptions allow for the possibility of prosecuting a sexual assault offense at any point when the suspect’s identity is definitively established and linked with the DNA profile developed on the basis of evidence in the case, and the suspect is arrested. NCVC also offers two papers on this topic. One is entitled, *Increasing victim’s access to justice: The statute of limitations and the prosecution of sexual assault cases*. A second paper seeks to address the question: *Why test rape kits after the statute of limitations has expired?*
References


End Violence Against Women International (EVAWI)

Understanding DNA Evidence and Sexual Assault Investigation

Part 5: SARA Model and Alternative Responses

Kimberly A. Lonsway, PhD
Sergeant Joanne Archambault (Ret.)

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We would like to thank Rana Sampson for her contributions to the material on Problem Oriented Policing and the SARA approach. Sampson is an international problem-oriented policing consultant. She was previously a White House Fellow; National Institute of Justice Fellow; senior researcher and trainer at the Police Executive Research Forum; attorney; and patrol officer, undercover narcotics officer and patrol sergeant with the New York City Police Department, where she was awarded several commendations of merit and won the National Improvement of Justice Award. She is a founding member of the Center for Problem-Oriented Policing and author of numerous problem-oriented policing guidebooks. She was a judge for the Herman Goldstein Award for Excellence in Problem-Oriented Policing, the police Fulbright awards, and a commissioner with California's Commission on Peace Officer Standards and Training. Sampson holds a law degree from Harvard and a bachelor's degree from Barnard College, Columbia University.

Introduction

This training bulletin is the fifth installment in our series dedicated to explaining the role of DNA evidence in a sexual assault investigation. In it, we explore current policy responses and examine available data regarding their impact, using a “SARA” model drawn from the field of Problem Oriented Policing (POP). We then offer a number of recommendations for practice with the hope of advancing discussion and charting a course for future reform.

Problem – Oriented Policing

In the field of law enforcement, there is a popular approach to problem – solving known as Problem – Oriented Policing (or "POP"). POP was designed to offer police an analytic approach to crime reduction. Within this framework, crime and disorder problems are examined carefully to develop a comprehensive understanding of the nature of each problem.

A fundamental premise of this model is that effective solutions can only be found when the problem is defined correctly and analyzed; far too often we design solutions that only address perceived symptoms of a problem, rather than the problem itself. POP was designed to avoid this dilemma, by teaching officers to approach problems in their community using the “SARA” model, which stands for Scanning – Analysis – Response – Assessment.
Understanding the SARA Model

The first step in this process is to scan or identify a recurrent problem. The problem could be a pattern of crimes, incidents or other issues in a particular area of the community. In this training bulletin, we focus on the problem of unanalyzed evidence in sexual assault cases. The next step is then to analyze any available data; much of this training bulletin will be dedicated to presenting this data analysis.

The third step is implementation of a response or responses, which is followed by an assessment or evaluation. The importance of assessment is to determine what, if any, impact the responses have had on the problem. This information should be gathered from a variety of sources, to evaluate both quantitative as well as qualitative impact.

Finally, if no change is seen as a result of the response(s), the SARA model recommends that the problem be analyzed again from additional angles to determine if something was missed in the original analysis that would lead to different responses (or more faithful implementation of the responses that were designed).

An Illustration

To illustrate the application of the SARA model to a problem of community crime and disorder, Joanne Archambault describes an example from her time spent working as a Patrol Sergeant with the San Diego Police Department:

At one point while I was supervising patrol in a San Diego neighborhood, we found ourselves faced with the problem of repeated robberies and assaults at a particular trolley stop. Rather than simply responding to the reports over and over again, my officers and I analyzed the problem by collecting data from a variety of sources. What we learned was that the physical design of the trolley stop itself was contributing to the problem. The area was very dark at night, and the platform was raised above a narrow walkway, leaving neighborhood residents isolated and vulnerable while approaching and waiting for the trolley. Not all the trolley stations had a high number of robberies but this one did. With information gained from our analysis, we approached the transportation division which invested tens of thousands of dollars in improving the physical layout of the trolley station. As a result of these improvements, the number of robberies and assaults at this location were significantly reduced. However, this would not have happened if we simply continued to respond to calls of robberies at the station rather than analyze why offenders picked this station for repeated robberies.
Critical Role of Evaluation

Within a POP approach, it is critical to conduct a reliable and valid evaluation, yet not all law enforcement agencies are staffed for this task. Many medium – and large – sized police departments now have crime analysts with advanced degrees who should be involved in the analysis and assessment. Smaller agencies may not have this resource, but other community organizations concerned with crime problems may have staff members with the skills needed to help with such an analysis and assessment. Such critical stakeholders should be invited to bring their perspectives of the problem to the table.

It is also possible for law enforcement agencies to seek assistance from universities that have graduate students or interns who can work on the problem. There may even be possibilities for partnering on a grant application and project. For instance, in the example described above, it would be important to know whether robberies and assaults increased at other trolley stations, once they decreased at this particular one. Displacement of crime is by no means always a given, but it is the type of possibility that can be explored using this type of analytic strategy and community partnerships.

An assessment of police response is critical, because it will be used to determine whether the problem has been resolved or at least improved. Equally important, the results can be used to influence managerial decision making and guide policy decisions. The goal is to enact policies and practices that are driven by data, to identify what actually might work to address a particular problem – not just what looks good or feels good. Engaging management is also crucial because it would be unfair and counterproductive for police departments to develop a response that is not adequately supported by the organization.

Herman Goldstein, often referred to as the “Father of Problem – Oriented Policing,” captured many of these concerns in his description of an effective evaluation. In his book, Goldstein (1990) explains that any evaluation of police response will only be effective if it includes all of the following components:

- A clear understanding of the problem
- Agreement on the specific interest(s) to be served in dealing with the problem, and their order of importance
- Agreement on the method to be used to determine the extent to which these interests (or goals) are reached
- A realistic assessment of what is expected of the police (e.g., solving the problem versus improving the quality of police management of the problem)
- Determination of the relative importance of short – term vs. long – term impact, and
- A clear understanding of the legality and fairness of the response (p. 145–156).
We believe the time has come to apply this framework to the problems associated with forensic evidence in sexual assault cases. With a strategy of scanning, analysis, response, and assessment, we hope to advance our discussion of the problem, to ensure that our responses address its underlying causes as well as its symptoms.

Scanning and Analysis

Problem: Unanalyzed Forensic Evidence in Sexual Assault Cases

In media coverage, there is no doubt that this problem is typically defined by the images of thousands of evidentiary kits piled up in police property rooms – never submitted for analysis and never used to support a sexual assault investigation or prosecution. It is no wonder that professionals as well as the public are outraged. Many of these kits may indeed represent a missed opportunity for justice and a profound failure on the part of our criminal justice system. However, the piles of evidence kits could also be seen as symptomatic of larger and more complex problems. If the images of stacked-up kits define the problem for us, we may not address the full range of associated issues.

In recent years, for example, several states have enacted laws requiring law enforcement to submit forensic evidence to crime laboratories in all cases of sexual assault, typically within a specified timeframe. This is generally consistent with the practice we have recommended repeatedly throughout this series of training bulletins, to submit evidence in all cases of reported sexual assault. However, challenges will arise if these initiatives are not supported with other measures designed to meaningfully advance the investigation and prosecution of sexual assault cases.

Gathering and Reviewing Data

By scanning and analyzing available data, an alternative definition of the problem could be the fact that a very small percentage of sexual assaults ultimately lead to the conviction and incarceration of a perpetrator. This is illustrated in the graph below, which originally appeared in *Violence Against Women*. It offers a visual representation of data from a number of sources on the attrition of sexual assault cases within the US criminal justice system (for more information, see Lonsway & Archambault, 2012; see also McEwan, 2011 and Spohn & Tellis (2012) for sexual assault attrition data).

As the graph below illustrates, the available data suggest that:

> Of 100 forcible rapes that are committed, approximately 5–20 will be reported, 0.4 to 5.4 will be prosecuted, and 0.2 to 5.2 will result in a conviction. Only 0.2 to 2.9 will yield a felony conviction. Then an estimated 0.2 to 2.8 will result in incarceration of the perpetrator, with 0.1 to 1.9 in prison and 0.1 to 0.9 in jail (Lonsway & Archambault, 2012, p. 157).
If the problem is defined in this way, we can use an approach of Problem Oriented Policing to delve further into the data analysis and craft alternative responses.

Attrition Point #1: Non – Reporting

For example, given the high percentage of cases that fall out of the criminal justice process, one of our first questions should be where the most significant point of attrition is taking place. Based on the research findings depicted above, we know this is actually the very first step in the process, when victims decide that they are unable or unwilling to engage with the criminal justice process at all. One part of a comprehensive response should therefore be to encourage victim reporting, by improving societal responses to victim disclosures and offering support for victims as they contact law enforcement and begin their participation in the criminal justice process.¹

Attrition Point #2: Police Department

The graph then illustrates that the second most significant point of attrition occurs shortly after reporting. To illustrate, data collected by Dr. Rebecca Campbell and colleagues

¹ Research clearly documents that victims reap a variety of benefits in their well–being if they access formal support services, such as primary care by a physician, forensic medical care by a specially trained nurse, victim advocacy services, and other services such as counseling, therapy, and support groups. By accessing the services of just one professional, this can also increase the likelihood that victims will engage others. Victims can also benefit from the support of loved ones, such as family members, friends, and intimate partners. Yet positive social support is not only critical for assisting in victim recovery, it is also a key requirement for victims to engage the criminal justice system – and stay engaged – to hold offenders accountable for their crimes (for a review, see Lonsway & Archambault, 2013).
representing six jurisdictions over 12 years, demonstrated that 86% of sexual assault cases with a medical forensic examination never went any further than the police department. They were not referred to the prosecutor’s office, and no formal charges were filed (Campbell, Townsend, Bybee, Shaw, & Markowitz, 2013).

A comprehensive response will also include efforts to improve the law enforcement response to sexual assault, and to ensure that sexual assaults are thoroughly investigated with a goal of supporting criminal prosecution where appropriate.

Attrition Point #3: Victim Withdrawal

Yet sustained effort will need to focus on ensuring that victims are consistently supported throughout the process. As many as one–third to one–half of all sexual assault victims withdraw from participating in the investigation at some point after reporting, with cases resolved unsuccessfully as a “VDP” for “victim declines prosecution.” The key to increasing victim participation lies in improving their support.

A comprehensive response will therefore include models for providing consistent support for victims at every stage of the criminal justice process, so they can remain engaged and help law enforcement and prosecutors hold offenders accountable.

Attrition Point #4: Prosecutor’s Office

Finally, the graph reveals that significant attrition continues even after cases have been referred to prosecutors after the police investigation has concluded. A comprehensive response will also need to address the question of whether prosecutors have the evidence, skills, and training they need to vigorously pursue these challenging cases.

In the evaluation study conducted by Campbell et al. (2013), for example, forensic examiners were reportedly disheartened to learn that the vast majority of their cases never went further than the police department: “They had been operating under the assumption

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2 See, for example: Frazier, Candell, Arikian & Tofteland, 1994; Spohn, Rodriguez & Koss, 2008; Tellis & Spohn, 2008.

3 As Campbell et al. (2009) concluded from another evaluation study, “Our interviews with both survivors and police revealed that victims can give more detailed statements to law enforcement, remember more information, and can otherwise engage more fully with the investigation when they are not so traumatized and have adequate support” (p. 121). See also Campbell et al. (2011).

4 For a description of the critical role of victim advocates in this process, please see the OnLine Training Institute (OLTI) modules entitled, Effective Victim Advocacy Within the Criminal Justice System and Breaking Barriers: The Role of Community–Based and System–Based Victim Advocates. Also helpful are the two modules on Sexual Assault Response and Resource Teams (SARRTs), one specifically designed for rural and remote communities and one for sustaining a coordinated community response using a SARRT approach.
that the majority of sexual assault cases treated by their SANE program progressed through the criminal justice system” (p. 56).\(^5\) In fact, the authors concluded that:

*The under-prosecution of sexual assault is a national problem, and even the strongest, most well-established SANE programs are not ‘the fix’ to a problem so complex* (Campbell et al., 2013, p. 57).\(^6\)

Indeed, these evaluation findings “prompted useful reflection about the importance of a systemic, multidisciplinary approach, as one program or one service is not nearly sufficient in size or scope to tackle the problem of under – prosecution (p. 58–59).

In this training bulletin, we offer a number of recommendations for practices to begin addressing “a problem this complex.” By broadening our view of the issues, we hope to address both the symptoms and the root cause of problems associated with forensic evidence in sexual assault cases. This includes the full picture of case attrition.

**Responses to the Problem**

**One Response: "Test All Kits" Legislation**

To date, three states (Illinois, Texas, and Colorado) have responded to the problem of unanalyzed evidence by passing laws requiring forensic evidence to be submitted for analysis in all cases of sexual assault. Ohio has accomplished the same means through a directive issued from the State Attorney General, and similar efforts are underway in several local communities as well (see [www.endthebacklog.org](http://www.endthebacklog.org)).\(^7\)

This "test all kits" approach is frequently advocated in the media,\(^8\) and for a general public who does not understand the complex issues involved, this solution may appear relatively simple and straightforward to implement.

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5 A sexual assault nurse examiner interviewed by Human Rights Watch offered a similarly discouraging view: “In my 10 years doing this work, I have collected at least 500 kits and only heard back from the police about one” (Tofte, 2010, p. 31).

6 The findings did suggest that the creation of a Sexual Assault Nurse Examiner (SANE) program significantly increased the number of cases progressing further through the criminal justice system, but the effect was rather modest (Campbell et al., 2013).

7 These initiatives also frequently involve a requirement that law enforcement agencies inventory the unanalyzed evidence kits they have in storage, and develop a plan for submitting them for analysis.

The primary barrier is cost. Therefore, as long as funding is increasingly directed toward the task on a local, statewide, and even federal level, it can feel like we are fixing the problem. Yet the SARA model and a POP approach would guide us to conduct a broader evaluation and assessment of any chosen response. Has it led to improvements in the reporting, investigation, and prosecution of sexual assault? Are we reducing the funnel of attrition depicted in the graph above? Are we actually holding more offenders accountable?

Some of the answers can be found in two communities that have implemented this approach: Los Angeles and New York City.

- In New York City, officials used a self-described “forklift approach” to analyze evidence in approximately 17,000 untested kits that were stored citywide from cases reported from 1989–1998. This process was complete as of January 2009.

- In the fall of 2008, the chief executives of the Los Angeles Police Department and Los Angeles Sheriff’s Department publicly committed to analyzing all of the 10,896 “backlogged” sexual assault evidence kits estimated to be in their storage facilities. Their analysis was completed in April 2011.

Assessment: Two Examples

The existing data does indeed suggest that a “test all kits” approach can dramatically increase the number of DNA profiles identified in sexual assault cases. This effect was seen in Los Angeles as well as New York City. These uploaded profiles have also produced a significant number of DNA matches in the national DNA databank known as CODIS (Combined DNA Index System).

Yet challenges remain to investigate these cases and bring them to a successful resolution. Keep in mind that any match in a DNA database such as CODIS is only the

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9 Identifying funding sources can also be a significant challenge, not only for the actual laboratory work but also to expand the capacity of crime laboratories by hiring and training criminalists. As jurisdictions have implemented this approach, they have often had to expand their crime laboratory facilities and work through a lengthy accreditation process to ensure that they are meeting established standards.

10 In a study funded by the National Institute of Justice, Peterson et al. (2012) tracked the outcomes of 1,948 randomly sampled kits in the Los Angeles Police Department and Sheriff’s Department and found that foreign DNA was identified in 55% (1,070 cases). However, only 36% (699 cases) yielded a profile that was eligible for CODIS (Peterson et al., 2012; see also Ritter, 2012 for a detailed summary).

11 Of the 3,490 evidence kits submitted from Manhattan, 68% (1,329 cases) resulted in a foreign DNA profile being developed and submitted to CODIS (Bashford, 2012).

12 In Los Angeles, half of the DNA profiles uploaded in CODIS were found to result in a hit (347 cases). The vast majority of these DNA matches were from the Offender Index (92%). Only 8% matched to another case based on forensic evidence (Peterson et al., 2012). In New York City, the analysis of approximately 17,000 evidence kits yielded 2,000 cold hits and 200 active investigations, arrests, or prosecutions as of January 2009 (Tofte, 2009, p. 55). Martha Bashford confirmed in a personal communication that these numbers remain current up to December 2013.
first step in a lengthy process. Once a suspect is identified, the case will almost always require additional victim interviews as well as witness and suspect interviews and other evidence – gathering procedures. If the evidence supports a conclusion that the suspect did in fact commit the crime and there is probable cause, an arrest may be made or a warrant executed on the suspect to obtain a reference standard to confirm the match to the forensic profile developed from the evidence in the sexual assault. As the investigation moves forward, additional evidence may also need to be analyzed before the case can be successfully presented to a prosecutor. Further analyses will almost certainly be needed before a case can be tried in court. A competent investigation is also needed to exonerate a suspect when the facts of the case support this conclusion.

This more complex picture explains why so few of the cases in a “test all kits” approach will result in a criminal resolution. Again, this point is illustrated in the two examples.

New York Example

In Manhattan, for example, the analysis of 3,490 sexual assault evidence kits resulted in a total of 49 criminal prosecutions and one exoneration to date (Bashford, 2012). This represents only 1.4% of the cases submitted for analysis, but it is important to keep in mind that prosecution was precluded in many cases because the statute of limitations had run out. In addition, future hits with the “John Doe” profiles could still yield successful investigations and prosecutions (Bashford, 2012).

Yet even these relatively small numbers reflect an enormous financial investment and years of painstaking effort on the part of New York City officials, including members of a specialized cold case unit established specifically for this purpose. The unit was staffed with two senior attorneys from the District Attorney’s Office who worked with members of the New York City Police Department, to ensure that any leads identified in these cases were properly investigated and vigorously pursued. The crime laboratory also expanded their capacity to process DNA evidence, including hiring new criminalists, so analyses could be completed within 30–60 days of submission. A notification system was also created for cold hits: “When the DNA profile from a tested rape kit matches a profile in the DNA database, an electronic system ensures that the crime lab, police, and District Attorney’s Office are all notified at the same time” (Tofte, 2009, p. 55).  

13 These efforts were all undertaken at the direction of Mayor Rudolph Giuliani and Police Chief Howard Safir, with budgetary support from the New York City Council (Bashford, 2012). The financial investment was significant. but now that they have submitted all of the “backlogged kits” from 1993–1998, the policy of submitting all evidence kits remains in place. As a result, the crime laboratory is now processing as many as 10,000 DNA cases a year (Tofte, 2009) yet they have still reduced their turnaround time to six weeks (Reiss, 2012). Perhaps even more important, the New York Police Department’s arrest rate for rape has increased dramatically, from 40% to 70%, and there are “increased numbers of prosecutions and convictions for rape” (Tofte, 2009, p. 55). As one sex crime prosecutor concluded, “We had the political will to do it, and now, the policy is a no–brainer given all the rapes we have been able to solve and prosecute” (Tofte, 2009, p. 55).
Los Angeles Example

In Los Angeles, only two convictions were documented following the analysis of almost 11,000 “backlogged” sexual assault evidence kits, and researchers concluded that these were not the result of the crime laboratory analysis: “We determined that neither of the two new convictions involved helpful DNA testing (Peterson et al., 2012, p. iv).

In fairness, this evaluation was conducted only six months after the analysis was completed, so Los Angeles officials would most likely not have had sufficient time to successfully investigate these cases to the point of a successful resolution, such as a prosecution or exoneration. However, the evaluation study was not extended beyond this 6–month timeframe and there is no evidence that resources were specifically dedicated to the task of pursing these cases or tracking legal outcomes.

Conclusions from Assessment

These numbers therefore highlight the challenge. If we do not dedicate the resources needed to support these investigations, prosecutions, and exonerations – or if we divert resources for the sole purpose of DNA testing – we may find ourselves less able to hold perpetrators accountable, even as the number of CODIS hits continues to increase. In fact, this is a pattern we are already seeing with agencies establishing cold case units – with an increasing number of CODIS hits in our maturing DNA databases, a new "backlog" has been created by the lack of investigative resources rather than laboratory analyses.¹⁴ This is particularly true for cases that were poorly investigated or documented in the first place, making them difficult to evaluate for further investigation.

In addition, if victims did not feel that they were treated fairly during their initial contacts with the criminal justice system, they may be even more hesitant to re–engage years later. Again, this suggests that the large volume of unanalyzed evidence may be a symptom of a larger and more complex problem, which is the historic failure in some agencies to thoroughly investigate and vigorously prosecute sexual assault cases. While a “test all kits” approach will not solve these more complex problems, New York City has demonstrated that it can be used to focus resources and attention on the issue.

At this point, we would like to continue our application of the POP approach and SARA model to the problems associated with forensic evidence by offering recommendations for practice – not only for law enforcement agencies, but also for the many other multidisciplinary professionals involved in the criminal justice and community response system for sexual assault. We hope the following recommendations will contribute to the

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¹⁴ To illustrate, the Phoenix Police Department Cold Case Team realized this was a concern in 2005. After four years of reviewing, prioritizing, and submitting evidence in cold cases, the team saw a "slow stream" of CODIS hits from 2000–2004. However, in the fifth year, offender CODIS hits nearly tripled. To avoid a second "backlog" of cases requiring investigation and follow–up, agency leadership responded to this growing concern by assigning additional detectives to the team that also included forensic scientists, advocates and prosecutors (Jim Markey, personal communication, November 23, 2013).
ongoing scanning and analysis of the problem, development of alternative responses, and an assessment of their impact – all with the goal of charting a course toward meaningful future reforms that will address the larger funnel of attrition.

Alternative Responses: Recommendations for Practice

Allow Sufficient Time to Conduct a Thorough Investigation

As previously stated, several states have enacted laws or directives requiring that evidence be submitted to the crime laboratory for analysis in all sexual assault cases. So far, they have also included deadlines for evidence submission. In Texas, for example, law enforcement is required to submit evidence to the crime laboratory within 30 days; the timeline is 21 days in Colorado, and only 10 days in Illinois.15

For some sexual assault cases, 30 days will be sufficient time to conduct enough of an investigation to determine what sexual assault acts may have been committed and to decide which evidence is most likely to be probative. However, there are many situations where this will not be possible. For example, many victims are initially hesitant to participate in a law enforcement investigation beyond the first contact. The follow-up interview may therefore have to be postponed, delaying many of the investigative steps that can only be completed after a comprehensive follow-up interview has been conducted with the victim. In other cases such as drug facilitated sexual assault, it is critical to interview – not only the victim – but also the suspect and any potential witnesses, to determine what crimes may have been committed and the evidence that might be available. This will take additional time as well.

In still other cases, particularly when the victim has an incomplete memory of the assault due to drugs or alcohol or when the consent defense may be raised, law enforcement may need time to utilize other investigative techniques in order to determine what DNA evidence might be available and where it might be found. This could include conducting a pretext (monitored) phone call with the suspect or examining electronic evidence (such as texts, photos, social media). If evidence must be submitted to the crime laboratory within 21 days, let alone 10, investigators may find themselves in a situation where they

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15 Some of these statutes also include a timeframe for analysis to be completed by the crime laboratory. In Illinois, for example, the law requires evidence to be analyzed by the crime laboratory within 6 months but only “if sufficient staffing and resources are available.” Almost identical language is included in the Texas law. In Illinois, considerable effort has been taken to secure these resources. As of June, 2012, Chicago media reported that 2,049 of the 4,008 cases expected to be submitted to the Illinois State Police Crime lab system had already been processed, resulting in 445 CODIS hits. This represents a “hit rate” of about 22%. However, the Commander of the Illinois State Police Forensic Laboratory System, Arlene Hall was quoted as saying that the significance of any CODIS hit “can only be determined through additional investigation by the law enforcement agency” that originally handled the case (Reiss, 2012).
have to submit the evidence without the information they need to determine which analyses will advance their case.\textsuperscript{16}

The urge to set a deadline for evidence submission is certainly understandable. No concerned party wants to see a sexual assault investigation drag on indefinitely, and we all want to avoid unnecessary delays. However, concern is warranted if any such deadline does not allow sufficient time to conduct a thorough investigation, because sexual assault investigations are often the most difficult type conducted by law enforcement. It is critical to ensure that investigators have enough time to collect the evidence they need, and strategize their laboratory requests to prioritize the analyses most likely to advance their case toward successful resolution. When investigators do not have sufficient time to conduct such a review, they may find themselves submitting lab service requests for analyses that are overbroad and potentially redundant, thereby creating an unnecessary drain on precious crime laboratory resources.

The question is this: What purpose is served by rushing a sexual assault investigation or requiring that investigators submit their evidence for analysis – if they may not yet know what they are looking for, where it might be found, and what it may mean?

Our first recommendation is therefore to avoid imposing arbitrary deadlines for submitting the evidence in a sexual assault case, or at least ensuring that the time period is sufficient to conduct a thorough investigation in most situations. Equally important, we recommend that any such requirement include some flexibility to allow for investigations that may take more time than usual. A number of factors might legitimately slow down an investigation, including concerns of the victim, investigator, or other parties. Some of the newer investigative techniques, particularly those involving the collection and analysis of electronic evidence, may be particularly time consuming. Thus, if a deadline is established for submitting evidence in a sexual assault case, we recommend that it be accompanied by a procedural mechanism that can be used to extend the timeframe in cases where this is appropriate.

**Keep Victims Informed on the Status of their Case**

Our second recommendation is for law enforcement investigators to keep victims informed in an ongoing way of the status of their case, even when – and perhaps especially when – there are no significant developments. One of the most frustrating dynamics described by many sexual assault victims is a lack of contact from the police officer investigating their case and a lack of response to their requests for information on the current status or any developments in their case. This is not limited to the evidence collected during their medical forensic exam, if they had one. Rather, it pertains to the

\textsuperscript{16} There is evidence to suggest that rape investigations will often take longer to complete. In one study of felony cases in five jurisdictions, for example, McEwan (2011) examined a random sample of 602 rape cases. When an arrest was made in these cases, the average time elapsed between the rape and the arrest was 53.1 days. This includes the average of 7.6 days between the rape and the report, meaning that the investigation took 45.5 days before the arrest was made.
whole process of the investigation and possible prosecution. This recommendation was also offered by participants at a Roundtable discussion hosted by the Office on Violence Against Women (OVW) on Eliminating the Rape Kit Backlog:

Victim advocates recommended that victims should have access to real-time information on their case so they can stay informed on the latest developments. Access to timely information allows the victim to better understand the criminal justice process and how her [or his] specific case is being processed (Office on Violence Against Women, 2010, p. 24).

Investigators can sometimes be reluctant to provide information to victims, because they might want to protect them from unpleasant news, or the fact that there is no news at all. However, victims typically want to be kept informed of what is happening with their case, even if it is not what they hoped would happen. Again, this extends far beyond the question of whether the evidence from their medical forensic exam was submitted for analysis. As one sexual assault victim reported to Human Rights Watch:

They may have had a reason not to test my kit, but I wouldn’t know because I didn’t get any information about my case, much less information about why certain investigative decisions were made. Just knowing the reasoning behind the police’s decision not to move my case forward, may have helped me a little (Tofte, 2010, p. 33).

Especially when their case is being closed or inactivated, victims need to be notified of this fact, in order to achieve some closure in their own lives. In fact, keeping victims informed is critical for their emotional well-being, but it can also facilitate their ongoing participation in the law enforcement investigation and potentially reduce the funnel of attrition for sexual assault cases. Research documents that victims who are provided with more information are more likely to participate in the criminal justice process and to be satisfied – both with the outcomes of their case as well as the professionals who assisted them (Kilpatrick, Beatty & Smith Howley, 1998). It is therefore yet another component of a solution addressing the funnel of attrition for sexual assault cases.

Because it can be difficult for law enforcement to keep in contact with victims as often as they would like, advocates can play an important role in keeping them informed throughout the investigation. However, this is only appropriate if it reflects the wishes of the victim. For advocates to play this role, victims must sign a release waiver indicating that the advocate can contact law enforcement on their behalf to discuss the status of their case. Criminal justice and community professionals can work together to ensure

17 Human Rights Watch has published several investigative reports on the criminal justice response to sexual assault in several communities, with a particular focus on the law enforcement investigation and the volume of unanalyzed evidentiary kits. For more information and a copy of these reports, please see [http://www.hrw.org/](http://www.hrw.org/).
that such measures are taken to keep victims apprised of the status of their case and offered resources to assist them in navigating this difficult experience.¹⁸

**Provide Support for Victims Throughout the Process**

Our third recommendation is to ensure that victims receive consistent support throughout the criminal justice process. One way to accomplish this is to ensure that victims have access to advocacy services, if they want them, every step of the way.

Even if all of the professionals involved in the criminal justice system perform their jobs competently and with compassion, it will still be difficult for victims to participate and remain engaged in the process. In fact, some have described the role of an advocate in the criminal justice process as “holding the victim’s hand on a walk-through hell” (Weisz, 1999; cited in Koss, 2006). Victim advocates can be extremely effective in helping victims overcome the many barriers they will inevitably face, by providing them with the information, emotional support, and proactive assistance they need at each stage.¹⁹

While these recommendations may not seem directly related to the challenges surrounding the use of DNA in a sexual assault investigation and untested forensic evidence, we believe they are central to the larger issue of sexual assault case attrition. This is because we will only be able to pursue those cases that are reported and investigated if victims can withstand the process. Any of the other recommendations we offer for investigating and prosecuting sexual assault cases will only be relevant if victims can become engaged – and remain engaged – in the criminal justice process.

It is the only path toward holding more offenders accountable for their crimes.

**Dedicate Sufficient Resources to Support Investigations and Prosecutions**

Competent, high quality investigations not only take time to complete, but also require sufficient resources, including personnel, time, training, and supervision. The same is true for prosecutions. Our fourth recommendation is therefore to ensure that investigators and prosecutors have the resources needed to achieve these standards.

This will be a challenge for jurisdictions that enact laws or other policy initiatives requiring evidence to be submitted for analysis without allocating the funding needed to support

¹⁸ For more information, please see the OnLine Training Institute (OLTI) modules entitled, Effective Victim Advocacy Within the Criminal Justice System and Breaking Barriers: The Role of Community–Based and System–Based Victim Advocates.

¹⁹ For a description of the critical role of victim advocates in this process, please see the OnLine Training Institute (OLTI) modules entitled, Effective Victim Advocacy Within the Criminal Justice System and Breaking Barriers: The Role of Community–Based and System–Based Victim Advocates. Also helpful are the two modules on Sexual Assault Response and Resource Teams (SARRTs), one specifically designed for rural and remote communities and one for sustaining a coordinated community response using a SARRT approach.
the resource-intensive investigations and prosecutions that will inevitably result. As the example of New York City illustrates, the cost of laboratory analysis represents only a fraction of the total resources expended to bring a case to successful resolution. It is the very rare sexual assault case that can proceed to trial with the results from a crime lab analysis alone, and investigators should never expect that theirs will be that rare case. Successful prosecution of a sexual assault case requires a range of evidence that can only be gathered during the course of a thorough investigation.

Success will depend not only on the level of resources that are available to crime laboratories, so they can conduct analyses – but also on the resources provided to law enforcement agencies so they can conduct investigations, and for prosecutors’ offices to vigorously pursue charges when appropriate. Prosecutors may even need to call investigators and/or DNA analysts to testify at trial to explain what evidence was not tested and why not. Each of these additional tasks will require time and resources, as well as meaningful collaboration between all of the professionals involved in responding to sexual assault. This includes representatives from law enforcement, prosecution, and the crime laboratory, as well as health care providers, victim advocates, and other social service professionals who can provide support for victims throughout the process. Armed with this knowledge, community professionals can push for needed reforms as well as the resources that are required to successfully implement them.
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Lonsway, Archambault, O’Donnell

Authors

Dr. Kimberly A. Lonsway has served as the Director of Research for EVAWI since 2004. Her research focuses on sexual violence and the criminal justice and community response system. She has written over 60 published articles, book chapters, technical reports, government reports, and commissioned documents – in addition to numerous training modules, bulletins, and other resources. She has volunteered for over fifteen years as a victim advocate and in 2012, she was awarded the first – ever Volunteer of the Decade Award from the Sexual Assault Recovery and Prevention (SARP) Center in San Luis Obispo, CA. She earned her PhD in the Department of Psychology at the University of Illinois, Urbana – Champaign.

Sgt. Joanne Archambault (Retired, San Diego Police Department) is the Chief Executive Officer for EVAWI. In 2003 prior to founding EVAWI, Sgt. Archambault worked for the San Diego Police Department for almost 23 years, in a wide variety of assignments. During the last 10 years of her service, she supervised the Sex Crimes Unit, which had 13 detectives and was responsible for investigating approximately 1,000 felony sexual assaults each year. Sgt. Archambault has provided training for tens of thousands of practitioners, policymakers and others – both across the country and around the world. She has been instrumental in creating system – level change through individual contacts, as well as policy initiatives and recommendations for best practice.

Dr. Patrick O’Donnell received his Bachelor of Science degree in biology from Santa Clara University in 1982 and his doctoral degree in molecular biology jointly from the University of California, San Diego and San Diego State University in 1988. In November of 1990, he was hired by the San Diego Police Department (SDPD) to design and build a DNA laboratory for the agency. Over 25 years, the SDPD Forensic Biology (DNA) Unit has established a progressive reputation with the latest focus being the implementation of GlobalFiler, using software expert systems to aid in the interpretation of complex DNA mixtures. As of September 2015, the laboratory has a staff of 18 and serves a population of 1.5 million people living within the city limits of San Diego.
In this final installment of our series of training bulletins on *Understanding DNA Evidence*, we would like to continue our application of Problem-Oriented Policing (POP) and the SARA model (Scanning – Analysis – Response – Assessment) to the problems associated with unanalyzed forensic evidence in sexual assault cases. We offer additional recommendations for practice – not only for law enforcement agencies, but also for the many other multidisciplinary professionals involved in the criminal justice and community response system for sexual assault. Our objective is to contribute to the ongoing scanning and analysis of this complex problem, as well as the development of alternative responses and an assessment of their impact. The larger goal is to reduce the funnel of attrition for sexual assault cases within the criminal justice system and improve our responses to victims.

**Graph reprinted from Lonsway and Archambault (2012)**

**Recommendations for Practice**

**Provide Specialized Training on the Role of DNA**

In the first four recommendations (offered in training bulletin #5), we highlighted the critical need for victim support throughout the criminal justice process. While this recommendation may not seem directly related to the challenges surrounding the use of DNA in a sexual assault investigation and unanalyzed forensic evidence, we believe it is central to the larger issue of sexual assault case attrition – because we will only be able to pursue those cases that are reported and investigated if victims can withstand the process. We also offered recommendations to ensure that criminal justice professionals have the time and resources they need to successfully investigate and prosecute these difficult cases.

Yet specialized training is also needed for police officers and investigators on the role of DNA in a sexual assault investigation. This was revealed in a national survey of 2,250 law enforcement agencies conducted in 2007, which found – among other things – that...
forensic evidence had not been submitted in almost one in five (18%) of their unsolved rape cases from 2002–2007 (Strom et al., 2009). This reflects a lack of understanding regarding the role DNA can play in potentially identifying a suspect in an unsolved case.

Not Just a Prosecutorial Tool

This finding also suggests that many officers view DNA evidence as a tool for prosecutions rather than investigations, a conclusion that was also supported by other findings. For example, agencies were also asked to provide reasons why they might not submit forensic evidence for analysis in an open case. As many as 44% of respondents said that one reason they would not submit forensic evidence for analysis is because a suspect had not been identified. An additional 15% said evidence may not be submitted for analysis because it was not requested by a prosecutor, and 12% said the suspect was identified but not formally charged (Strom et al, 2009). The authors concluded that some agencies continue to have “a limited understanding of the full benefits of forensic evidence with a mindset that forensic evidence is only beneficial for prosecuting crimes, not for developing new leads in investigations” (Strom et al., 2009, p. vii).

In fact, the authors raised the possibility that there may be “standing policies or other inhibitors” specifically preventing officers from requesting analyses in some agencies:

In some jurisdictions, laboratories may require prosecutors to sign off that a case requiring forensic analyses will, in fact, go forward in order to avoid what would otherwise be viewed as an unnecessary use of laboratory resources (Strom et al., 2009, p. xv).

Such findings clearly indicate that training is needed on the role and impact of forensic evidence, including its use as a tool to assist in the investigation as well as at trial.¹

One detective described how he only came to appreciate the value of forensic evidence in a sexual assault investigation after a “test all kits” policy was enacted in Los Angeles:

Having the DNA from every rape kit I book has given me investigative leads I never would have expected. I take second looks at cases I would have dismissed, and I pass along more cases to the prosecutors. I used to think I didn’t need DNA to develop a case, but it has helped me solve more cases (Tofte, 2009, p. 18).

The findings also suggest that some agencies may need to make changes in their written policies, as well as their daily practices and reinforcement systems. This is especially true if the existing policies and practices are “putting the cart before the

¹ Other findings also support this conclusion that more training is needed in this area. As many as 17% of respondents said one reason why forensic evidence would not be submitted for analysis would be an uncertainty regarding the usefulness of forensic evidence, and 2% said they were uncertain where to send it. The authors concluded with a call for specialized training in this area (Strom et al., 2009).
horse,” by requiring prosecutorial review before any laboratory analyses can be requested. This means that prosecutors are making decisions on case outcomes before all of the investigative findings are compiled. One detective described how this process unfolds:

If the state’s attorney is going to reject the case, we don’t want to put a lot of work into it until we know for sure the case is going to move forward with them. I often wait to proceed too far in a case until I know what the state’s attorney is going to do with it. (Tofte, 2010, p. 20).

Instead, law enforcement agencies can work with prosecutors and other stakeholders to establish written policies or shared expectations that some basic number of investigative steps will be taken – at a minimum – before a case is referred to the prosecutor’s office. Although there will certainly be exceptional circumstances, these steps should include a detailed follow-up interview of the victim as well as the suspect and any potential witnesses.

Fortunately, there are some helpful tools to guide this process, developed by the Police Response to Violence Against Women Project at the International Association of Chiefs of Police (IACP). These tools include a Model Policy on Investigating Sexual Assaults, a supporting Concepts and Issues Paper, and a Supplemental Report Form for sexual assault that includes helpful guidelines for case documentation, effective techniques for victim and perpetrator interviews, and a pocket “tip” card for officers.

Not Just for Strangers

Another common area of misunderstanding is the role of DNA evidence in cases where the victim and suspect know each other. This was documented by Human Rights Watch, based on focus groups conducted with law enforcement professionals and others:

Law enforcement gave … various reasons for not sending rape kits to the lab for testing. By far the most common reason was the belief that testing was not necessary in an ‘acquaintance rape’ – when the identity of the alleged perpetrator was known to the victim no matter the history, or lack thereof, in their relationship (Tofte, 2010, p. 32).

We will discuss this issue in more detail in a later recommendation. However, other misconceptions are also commonly seen regarding where DNA can be found and how it can be used in a sexual assault investigation. To illustrate, there are examples of investigators submitting a suspect’s underwear to the laboratory to check for semen, when this request will not advance a case in any meaningful way (there is no probative value to finding a man’s semen in his own underwear). The appropriate lab request for a sexual assault case would be to analyze the suspect’s underwear for biological evidence that came from the victim, including the victim's epithelial cells or blood.
Not Just for “Winnable” Cases

Yet another area of misunderstanding stems from the strategic use of DNA analysis in a sexual assault investigation and prosecution. In the 2010 Human Right Watch report, police officials were quoted as saying that they would not submit forensic evidence for analysis in a sexual assault case unless it was perceived as “winnable” (Tofte, 2010, p. 32). DNA evidence is thus particularly under-utilized in cases that are viewed as difficult, particularly when the victim has engaged in behavior that will be perceived by some people as being high risk or damaging to her/his credibility. Two police officers articulated these concerns in reports published by Human Right Watch:

I am not going to submit a kit when we know who the alleged perpetrator is. I am also not going to submit a kit when I don’t think the case is founded, where something about the victim’s story just doesn’t add up. As you know, some people report a rape to get back at their boyfriend, or to hide from their parents that they were having sex with their boyfriend, or all sorts of reasons. So, you don’t just test every rape kit that comes to you (Tofte, 2009, p. 54).

In my experience, many rape victims are lying. They come forward to hide from their parents that they had sex with their boyfriend, or they want attention. In other cases, the victim’s story doesn’t make sense, or maybe it does, but there is no way a jury is going to believe her over the suspect (Tofte, 2010, p. 32).

Training must therefore go beyond a basic understanding of DNA evidence to address fundamental misunderstandings about the nature and dynamics of sexual assault as well as the common myth that false reporting is rampant for this particular crime.

The Need for Cross–Training

In fact, specialized training is one of the most common recommendations made to improve the use of DNA evidence in sexual assault cases, especially with respect to law enforcement personnel (Office on Violence Against Women, 2010; Strom et al., 2009; Tofte, 2009, 2010). However, cross–training is also recommended for professionals in other disciplines who respond to sexual assault (e.g., victim advocates, health care providers, prosecutors). Such cross–training can better equip these professionals to provide more accurate information to victims and improve the support they provide for victims throughout the criminal justice process.

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2 Two of the most common reasons law enforcement agencies gave for not submitting evidence to the crime laboratory were because the case had already been dismissed or adjudicated without it. These reasons were given by 24% and 19% of respondents, respectively. However, it is impossible to interpret the meaning of these findings without detailed information about the case and available resources, so it remains unknown whether the analysis of forensic evidence could have affected the outcome otherwise.
One example of this was described by Sexual Assault Nurse Examiners (SANEs) participating in the OVW Roundtable discussion on eliminating the rape kit backlog:

SANEs noted that it would be helpful if law enforcement could inform the SANE of the current turnaround times and potential next steps so the SANE can convey this information to the victim. Victims may have questions about the process before, during or after the exam, and SANEs may be unsure of how to answer such questions (Office on Violence Against Women, 2010, p. 14).

Of course, police officers and prosecutors working a case are in the best position to answer the victim’s questions regarding any developments in the ongoing investigation and prosecution. This includes questions about the submission of evidence to a crime laboratory and any resulting analysis; this information will most likely not be known by professionals outside the criminal justice system, such as victim advocates and forensic examiners (including SANEs).

However, forensic examiners and advocates play a critical role in providing information for victims, explaining general criminal justice procedures, and helping victims to weigh their options for how they might proceed. They must also be prepared to explain both the importance, and the limitations, of DNA evidence in a sexual assault case.

For example, it is not uncommon for sexual assault victims to believe that testing forensic evidence will “solve” a crime resulting in a perpetrator being charged. This fuels the idea that the primary reason why, so few sexual assault cases result in a conviction is because forensic evidence was not tested. As we have highlighted throughout this training series, however, a DNA match will not typically refute the consent defense that is raised in the vast majority of sexual assault cases where the suspect is someone who is known to the victim. It is still valuable evidence that should be submitted for analysis to aid in the investigation and prosecution of sexual assault, as we have outlined previously. However, victims need to know that DNA testing will not be a “magic bullet” that will somehow guarantee that the criminal justice system can hold an offender accountable in a sexual assault case. We recommend that all professionals who interact with victims (but particularly forensic examiners and victim advocates) should receive specialized training so they can accurately relay such information to victims.

Finally, participants in the OVW Roundtable also recommended training for prosecutors on “how to employ equipment and software to create a visually effective, meaningful and informative prosecution for jurors” (OVW, 2010, p. 29). In fact, given the complex challenges of investigating and prosecuting sexual assault, many have called for more than just specialized training, but the creation of specialized units to handle these cases within police departments and prosecutor’s offices (e.g., Tofte, 2009, 2010).

Cross–training regarding the use of DNA as an investigative tool is an excellent activity for multidisciplinary teams, such as Sexual Assault Response and Resource Teams (SARRTs). An additional opportunity for cross–training is to provide feedback from
Submit “Forensic Unknowns,” Not Just Reference Standards

Our next recommendation returns to a more specific discussion of the role of DNA evidence: It is to submit DNA profiles developed from forensic evidence to the Forensic Index within CODIS as a routine practice conducted during the course of a sexual assault investigation and laboratory analysis. (This is also described as submitting profiles developed from evidence to the Forensic Unknown index within CODIS.)

In this series of training bulletins, one of our goals has been to clearly differentiate between DNA profiles developed from forensic evidence versus reference standards. As we explained earlier, DNA profiles can be developed from forensic evidence, often described as forensic unknowns even though the identity of the possible suspect(s) may be known. This is because the only way to definitively establish whose DNA it is will be based on a match to a known reference standard. Reference standards are another source of DNA profiles. They are developed from a biological sample collected directly from a known individual, so the identity of the person is certain.

The cost to develop a forensic unknown DNA profile from evidence is typically significant, while that required to obtain one from a reference standard is minimal. Developing a DNA profile from a known reference standard is a very straightforward process that can be automated, and therefore conducted with ever-increasing speed and decreasing costs. This explains in part why the number of DNA profiles included in the Convicted Offender and Arrestee Indices in CODIS are increasing exponentially. The process of analysis only requires collecting biological samples directly from the arrestee or convicted offender (with a blood draw or buccal/cheek swab) and then conducting highly automated procedures to develop a DNA profile.

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3 Dr. Patrick O’Donnell estimated the cost of analyzing an arrestee or conviction sample for inclusion in the CODIS Offender Index. Because private laboratories compete for contracts with state agencies, these costs often come in at around $40 a sample. This reflects the cost to process the sample and produce a DNA profile. There will be additional costs for the government laboratory to review the private laboratory data, conduct a site visit, and upload all of the resulting DNA profiles into CODIS. However, these costs are shared across all of the contracted analyses, so the expense associated with a single sample will increase only incrementally from the estimated unit cost of $40.
Conversely, developing a DNA profile from forensic evidence requires painstaking work manually conducted by criminalists at a crime laboratory. For example, extracting a foreign DNA profile from a vaginal swab requires separating out biological material originating from the victim from sperm of the potential suspect. Information collected from the victim will then be used to identify possible contributors of the foreign DNA and ensure that consensual sexual partners are excluded (we return to this discussion later).

For other types of evidence, the process of conducting an analysis is even more labor-intensive. For example, consider the human effort required to analyze possible evidence from items such as sofas, cars, clothing or bedding. If an investigator has submitted a pair of underwear that the victim wore immediately after the assault, or a quilt from the bed where the sexual assault was committed for analysis by the crime laboratory, a criminalist must examine the entire item, locate any and all biological samples, conduct extensive manual sample manipulations, and then conduct the final procedure to develop a DNA profile. Each of these steps requires significant time and costs. This is part of the reason why the number of DNA profiles in the Forensic Index in CODIS is increasing at a much slower pace than those taken from reference standards in the Convicted Offender and Arrestee Indices in CODIS.

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4 The National Institute of Justice estimates that it costs an average of $1,000 to analyze a sexual assault evidence kit (Ritter, 2012). Actual costs will vary, as will the amount of time it takes to conduct the analysis. Again, Dr. Patrick O’Donnell estimated that his laboratory may spend about 6–7 hours of analysis time to screen a sexual assault evidence kit at their facility, yet this is for the biological samples only. If the results are negative, the laboratory will conduct an analysis of any clothing that has been submitted. O’Donnell went on to note that the San Diego laboratory analyzes all of the samples included in the kit. In an effort to deal with their backlogs, some other laboratories have streamlined the process by analyzing only the three swabs most likely to yield probative evidence. Regardless, any detection of male DNA will then require additional laboratory testing. The entire process therefore involves a considerable degree of time and effort on the part of crime laboratory personnel. It even requires a great deal of physical movement between various locations within the crime laboratory, to conduct different types of analyses. In one study, researchers found that a typical sexual assault case required criminalists to travel a total of 2.4 miles within the crime laboratory to complete their analysis (Richerd & Kupferschmid, 2011).
We will only achieve the full potential of DNA when this situation improves and evidence beyond the forensic evidence kit is analyzed when warranted by the case history.

This recommendation is also supported by data. For example, Dr. Patrick O'Donnell, supervisor of the San Diego Police Department Crime Laboratory, notes that most probative DNA is found somewhere other than samples collected during the victim’s medical forensic exam. Specifically, in approximately 25–30% of the sexual assault cases where probative DNA is found, it is not from the victim’s medical forensic exam (in the forensic evidence kit often referred to as a “rape kit”), but from the victim’s clothing, the crime scene, or the suspect’s forensic exam.

In sum, DNA profiles from various sources of evidence should be submitted to CODIS as a routine practice during the course of a law enforcement investigation, based on the assault history and case facts. This will prove more costly than simply “testing all kits,” because it requires a significant investment of time and investigative resources to identify which evidence could potentially yield probative DNA. However, this strategy is more likely to yield meaningful results in terms of successful investigations and resolutions, whether they are criminal prosecutions or suspect exonerations. Moreover, by making investments in such crime lab analyses upfront, during the course of the investigation, it will decrease the level of resources needed to test DNA later. Shortly, we will discuss how improved communication between law enforcement investigators and crime laboratory personnel can help to increase the efficiency of analyses and ensure that evidence most likely to be probative is analyzed first.

Test Evidence Most Likely to Be Probative, Based on Case Facts

Our recommendation is to enact policies requiring that evidence be tested based on the specific history of the assault, an analysis of case facts, and a determination regarding which evidence is most likely to be probative for the investigation and possible prosecution or exoneration. For the sake of discussion, we will contrast this with the
self-described “forklift approach” used by professionals in New York City to analyze evidence in the 17,000 untested kits that were stored in the city from 1989–1998.

The Forklift Approach

Martha Bashford, Chief of the Sex Crimes Unit in the New York County District Attorney’s Office, explained their rationale for the “forklift approach” in a presentation at the 2012 EVAWI conference. When they set out to deal with the problem of untested evidence, she said, they used a strategy of testing everything for the simple reason that it was less expensive than using any screening process to triage their analysis. At that point (April 2012), their efforts had yielded a total of 49 convictions as well as one exoneration, and there are a number of very important lessons to be learned from their successes (for more information, see Bashford, 2012).

Yet it is important to keep in mind that they did not truly “test everything.” Bashford explained that New York City officials contracted with a number of private labs to analyze the swabs only. As in other communities that have sought to “test all kits,” officials in New York City focused only on biological samples developed from swabs, rather than the countless other pieces of evidence that could have potentially been collected during any sexual assault investigation. The reasons for this are understandable. As difficult as it is to imagine dealing with 17,000 untested kits, it is virtually impossible to picture the resources that would be required to process the bags and boxes of other types of evidence, including clothing and bedding … towels and bedspreads … cushions, carpet and Kleenex … not to mention condoms, lubricant, and countless other items that were most likely collected in these 17,000 cases. If all of this evidence were to be submitted for analysis, the end result would likely be to simply shift our piles of unanalyzed evidence from one place to another, with the crime laboratory becoming the new police property room. This would overwhelm crime laboratories, but it would also interfere with law enforcement’s ability to respond appropriately to crimes that continue to be reported and investigated.

Investigators are already struggling to compete for precious crime laboratory resources. One police detective described dealing this problem to Human Rights Watch:

*If the evidence is absolutely crucial to making the case, I will beg the crime lab to test the kit and put it closer to the top of the pile. But if I am not sure the rape kit test will add anything to the case, I will save up my favors with the crime lab for another case* (Tofte, 2010, p. 33).

In fact, we also need to remember that it is not just these 17,000 cases we are talking about, because they are only the cases where a medical forensic exam was conducted. Many victims do not have an exam (primarily because their sexual assault is reported outside the timeframe where an exam is warranted), so a “test all kits” approach will do nothing to advance the investigation and prosecution of these cases, even if other types of evidence are collected and impounded by law enforcement.
As Martha Bashford noted in her conference presentation, the forklift approach used in New York City did clear their initial “backlog,” defined in terms of swabs contained within the 17,000 untested evidence kits. Yet, this in turn led to subsequent “backlogs” for the analysis of underwear and other possible associated evidence. This is because the investigation and prosecution of these cases often resulted in requests for laboratory analyses beyond the victim’s sexual assault evidence kit. In New York City, they therefore conducted focused analysis looking at associated evidence (e.g., underwear, clothing, tissues) in stranger cases only when the swabs were negative for semen.

**Evaluating Case Facts**

In fact, in many of these cases – based on specific details and the history of the assault – the victim’s forensic evidence kit will be the last place investigators and criminalists should be looking for probative evidence that might identify an offender or corroborate specific acts. After a thorough history of the sexual assault is obtained and evaluated, investigators should only submit the evidence for analysis that they believe will be relevant to proving the crime.

Another San Diego case is described by Joanne Archambault to illustrate this point:

_A San Diego transit bus driver was kidnapped and sexually assaulted by her last passenger of the night. The suspect clearly intended to rape the victim, but he could not obtain an erection and therefore did not attempt to penetrate her. The suspect sucked on the victim’s neck and breasts and then he forced her to orally copulate his penis. The victim was able to escape, and a medical forensic examination was conducted within a short period of time. Unfortunately, the forensic examiner did not obtain swabs from either the victim’s neck or breasts. It would have been ideal in this case to conduct a suspect examination to obtain swabs of the suspect’s penis and scrotum, but he fled the scene and was not taken into custody for some time._

_In this case example, based on the specific history of the assault, an investigator should request that the lab first examine the victim’s bra since it was pushed up while the suspect was sucking on her breasts and then later brought back down over the moist area. The second possible source of biological evidence might be the victim’s shirt collar, because it is the location on the clothing item worn closest to the area where the suspect sucked, the victim’s neck. The third item that might offer probative evidence would be the swabs taken from the victim’s mouth if the suspect ejaculated. However, this is perhaps the least promising option of the three. Any vaginal swabs would not be considered a viable option for analysis, because they will not yield probative evidence based on the sexual assault history._
As this case example illustrates, we must keep in mind that a solution designed to “test all kits” will actually only address the lowest hanging – and most easily definable – fruit. Relatively speaking, it is also the least expensive. It can certainly feel like the solution if we enact such policies and our storage facilities have fewer untested kits, our DNA databases expand, and we produce an increasing number of DNA matches, including CODIS hits. However, we also need to stay focused on our objective of holding more offenders accountable, as well as exonerating innocent parties. To achieve those goals, we need to improve our strategies for evaluating different forms of evidence in a sexual assault case, by determining what is most likely to assist in the investigation and possible prosecution, depending on the types of acts committed, the location(s) of the crime scene(s), and other case facts, including what defenses may be raised.

Considering Other Types of Evidence

We have highlighted a number of possible sources of evidence that could potentially be more probative in a sexual assault investigation than the evidence collected during the victim’s medical forensic examination. However, this will depend on the assault history and the facts of the case. For example, in the majority of sexual assault cases, consent is going to be the primary issue, so any evidence that provides corroboration of the victim’s account by establishing the sexual acts that took place and documents force or injury is absolutely essential.

We have also recommended expanding the practice of obtaining a forensic exam of the suspect(s) in a sexual assault case. Depending on the type of contact involved in a sexual assault offense, the suspect’s body or clothing may actually be a better source of probative evidence than the victim’s. In cases with an incapacitated victim, however, a critical source of evidence may be found in witness statements and perhaps toxicology tests. The significance of any piece of evidence can only be understood by looking at the entire context of the case. Therefore, knowledgeable and well–trained investigators must think through the history of the assault and other case facts to decide what evidence should be analyzed – and determine what impact the results may have on the investigation and potential prosecution or exoneration in the case.

An analysis of case facts will also help to reveal what sources of evidence are not likely to be probative. For example, consider a scenario where the victim reports being sexually assaulted by her boyfriend, in the bed they share. Any analysis for the suspect’s semen or the victim’s epithelial cells on the bed would be a waste of valuable crime laboratory resources, because it will not have probative value for the case. Similarly, if the sexual assault occurred in the suspect’s own bed, the presence of his own seminal fluid is irrelevant – regardless of whether he has a relationship with the victim. There is no probative value to finding a man’s sperm in his own bed. However,

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5 For more information, please see the Appendix Section of the training bulletin on Forensic Exams for the Sexual Assault Suspect. There, you will find a number of useful tools, including a sample warrant and instructions for obtaining a buccal (cheek) swab from a sexual assault suspect, for the purpose of developing DNA reference standards.
when the victim's epithelial cells are found in the suspect's bed, this may have probative value by placing her in that location, in case the suspect denies that fact. In either case, lab analysis for the victim’s blood may corroborate any injuries the victim described, or the forensic examiner documented at the time of the medical forensic examination.

To encourage this type of analytic thinking, one place to start is using a standardized form that prompts investigators to carefully review the assault history in each case, including the types of acts reported, and the specific locations where evidence might be found on the items that have been collected. We have provided a sample of such a form, entitled Sexual Assault Case History and Analysis. After completing this form, investigators are better able to determine which lab analyses are most likely to be probative – and therefore advance the investigation and potential prosecution of the case. It can also be extremely helpful for investigators to communicate personally with criminalists, whether in person or on the telephone, to discuss strategies and priorities for analyzing evidence in each case. Some policies even require such communication, because it can help reduce confusion and provide better direction for the analysis.

Requesting Laboratory Services

We believe investigators should only complete a request for lab services after conducting such a case history and analysis. The analysis will then serve as a road map for the lab service request, guiding the investigator to think about the most probative items of evidence available. In some cases, investigators may even consider consulting with a prosecutor prior to submitting their requests. This can be especially helpful if lab analysis can determine dual elements such as penetration and force.

We have included two sample Lab Service Request Forms that can be adapted for use in your own community. Both were developed by the San Diego Police Department. One is the version that is currently in use, which asks investigators to write a brief narrative of the assault history for criminalists to prioritize the items to be analyzed and identify the locations on those items where probative evidence is most likely to be found. The version was used in the past by the San Diego Police Department, and it required investigators to review the case history themselves and then fill out the form to communicate with criminalists the order of priority for items to be analyzed and the locations on those items where probative evidence is most likely to be found.

Another difference between the two versions is the number of items listed for analysis. The lab service request form currently used by the San Diego Police Department does not limit the number of items that can be listed. However, for many years the Sex Crimes Unit included space to list up to four specific items of evidence. They were to be prioritized in terms of: (1) where DNA is most likely to be found, and (2) what the potential impact on the case will be (if DNA is found). The form also requires investigators to choose a specific description for each item (such as “victim’s underwear” or “vaginal swab”) rather than providing vague or general descriptions (e.g., “victim’s clothing,” or “rape kit”). Investigators are also asked to provide specific
information about where evidence is likely to be found on the item, based on the history of the assault.

Although the form includes space to list up to four items of evidence, Sex Crimes Detectives in the San Diego Police Department typically only request two or three items of evidence to be evaluated by the crime laboratory.6 This is very different from the typical request made by Sgt. Joanne Archambault at the beginning of her career with the unit, when detectives would ask the lab to: “Analyze all evidence for trace and semen.” Neither detectives nor their supervisors really understood the process set in motion as a result of such a request. With an assessment of the case history, it often quickly becomes clear which specific analyses of which items are likely to advance the case. Such forms can prove very useful in helping investigators implement this recommendation for practice. The goal is to streamline the process of laboratory analysis, thereby reducing backlogs and wait times. Improved communication can also go a long way toward helping both analysts and investigators understand what the results mean. For example, to make sense of the samples they are provided, criminalists might need to know the answers to questions such as the following:

- Did the victim or suspect bleed during the assault and from what areas of the body?
- Was the victim menstruating?7

The process of adapting such a form for use in your community is best undertaken by all the multidisciplinary professionals involved in a Sexual Assault Response and Resource Team. Of course, this effort will need to include members of the crime laboratory.

Cold Case Review Protocols

When developing a cold case team, other steps will also be required so this general strategy is supported with policy statements and standard operating procedures, as well as supervisory and management practices. For example, a case review protocol is essential for ensuring consistency by helping investigators to organize their case information, track investigative steps, and evaluate evidence. A sample tool is available

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6 Some crime laboratories are establishing policies limiting the number of analyses that can be requested per case, typically between five and ten (for example, see Kovner, 2012 in Connecticut and Forensic Resources Blog, 2013 in North Carolina). If probative evidence is not located on the first set of items, additional analyses can be requested. In North Carolina, the State Crime Lab issued new Evidence Submission Guidelines effective September 1, 2013. For sexual assault cases, the first submission is restricted to the sexual assault evidence kit, one pair of underwear (if not in the kit), and a condom if applicable. Subsequent submissions can then include up to three items of clothing and/or bed linens.

7 A case may pose a question about whether evidence collected was menstrual blood or the result of an injury. While most crime laboratories will not be able to differentiate between these two sources of blood, a sophisticated medical laboratory could potentially test for a hormone or other marker. This and other specialized analysis should be considered by investigators and prosecutors when relevant, though it is likely to be cost-prohibitive in many cases.
to assist in this process, which we developed in collaboration with Sgt. Jim Markey who retired as supervisor of the Cold Case Unit of the Phoenix Police Department. This Cold Case Investigation Checklist can be used to evaluate what evidence is available from the original investigation as well as the subsequent investigation conducted following a cold case review or CODIS hit. It also helps to keep the laboratory analyses in context, to ensure that investigators are thinking well beyond the evidence that might be available from the victim’s medical forensic examination.

Computer databases are also recommended for investigative case management. In the Phoenix Police Department Cold Case Unit, for example, a computerized system known as “SCAT” is used (for Sex Crime Analysis and Tracking). While other programs may be available, many sex crimes investigators rely on their agency’s records management system which is unlikely to be sufficient for this purpose. Whether commercially purchased or developed in–house, a comprehensive tracking system can allow members of the police department, prosecutor's office, and crime laboratory to share information. For a more detailed discussion of this issue, please see a later recommendation.

**Improve Communication Between Law Enforcement and Crime Laboratories**

A related recommendation is to improve communication between law enforcement and crime laboratory personnel. In too many agencies, evidence is sent to criminalists without any communication from investigators regarding where DNA might be found on a specific piece of evidence – and how to prioritize the analyses requested. The laboratory also needs to be aware of whether the victim was incapacitated, whether or one or more suspects might be involved, whether consent or identity is the issue, and the timeframe for any consensual sexual activity that might have taken place.

For some evidence types, a lack of communication will not create a significant problem; for example, a vaginal swab will simply be analyzed to develop any foreign DNA profiles (assuming consensual partners are excluded). The meaning of any resulting DNA profiles will be interpreted within the context of case facts but testing a vaginal swab will generally be the same from one case to another.

For other types of evidence, however, communication from law enforcement may be able to improve the efficiency of analysis rather significantly. We have previously mentioned the example where a sexual assault is committed on the victim's bed, and a quilt is submitted to the crime lab for analysis. In that scenario, there may be a number of stains and biological samples on it. Because bedding is very time-consuming bench work, it is often not a first priority for laboratory analysis. However, depending on the case facts, it can be an important option. For example, a sexual assault involving a bedspread from a hotel or a dorm room would be a much lower priority than an assault where a victim has not been sexually active for some time and washes her/his sheets every two weeks.
A great deal of time can be wasted if criminalists are provided no communication as to where specifically they might look for biological evidence. It is much more efficient if they are provided with information that the sexual assault took place – for example – on the top, left-hand corner of the bed and the quilt is marked to identify which is the top and bottom, versus the right and left-hand side. Alternatively, the crime scene investigator could simply use a marker or a piece of masking tape to indicate the spot where the act took place or the area that was still wet or stained when the quilt was collected. While this stain may be clearly visible at the time of the initial report, by the time the quilt is analyzed in a crime laboratory, it will typically be much more difficult to identify as the probative stain.

As another possibility, with appropriate training, crime scene investigators could collect a swab from the wet stain while at the scene, to submit directly for analysis. For many agencies, this goes against the traditional thinking that officers and crime scene investigators should never handle or mark evidence for fear of contamination or outright destruction. These concerns are well-grounded, but they can be balanced with common sense and the reality that DNA evidence is simply not that fragile. The advantage of marking the area surrounding a wet stain on a quilt may far outweigh concerns over contamination as long as appropriate precautions are taken.

As with any other piece of evidence, such handling will be documented in the crime scene report and accompanied by photographs. By consulting with a prosecutor as early as possible during the course of an investigation, investigators can ensure that their efforts to improve communication and efficiency with the crime lab are easily explainable in court and not counterproductive to holding offenders accountable.

Implementing this recommendation requires a number of documentation tools. One has already been mentioned – a Lab Service Request Form that improves communication regarding the priority of requested analyses and the specific locations where evidence might be found. Another tool is a Clothing Documentation Form to be used by law enforcement investigators as well as forensic examiners, as an addendum to their standard reporting forms. Again, this tool can potentially help improve communication between law enforcement and the crime laboratory by documenting exactly what items were collected, indicating whether they were worn during or immediately after the assault and describing specifically where evidence might be found on each item. It can help investigators and forensic examiners answer questions such as the following:

- Was clothing removed during the assault? If so, it might still contain pre-ejaculate fluids, saliva stains, or trace evidence.
- Was clothing used to wipe the genitals following a sex act? This is a common source of biological evidence following a sexual assault.
- What clothing did the victim put on after the assault? Especially relevant will be any clothing worn closest to the genital structures.
Most officers are not taught to identify these various items of clothing separately in their documentation. However, it is critical to the criminalist screening a large amount of evidence to know what they are looking for and where (specifically) they are most likely to find it. There is also space on the Clothing Documentation Form to record observations by the law enforcement investigator, forensic examiner, and even the victim, regarding any visible signs of foreign material as well as the general condition of the item (e.g., whether there are any tears, stretched out material, or missing buttons).

As we have previously noted, documentation tools are only one way to communicate information from investigators to the crime laboratories. Comprehensive policies can also require that the investigator personally talk with the analyst working on a case, either on the telephone or in person. Again, this is one of the most effective ways of prioritizing analyses to make the most efficient use of crime lab resources.

Submit Forensic Evidence DNA Profiles to CODIS in Non – Stranger Sexual Assault Cases

This recommendation has already been offered in a general way, but we reiterate it here because we want to ensure that investigators/laboratories are submitting forensic evidence DNA profiles in CODIS in all cases of sexual assault, including those perpetrated by non–strangers. The only cases where this would not typically be appropriate would be if the investigation determines that no crime occurred or perhaps if the victim does not want the case pursued. We will return to this point shortly.

However, we want to emphasize here that this practice should be routinely followed in sexual assault cases, regardless of whether the identity of the suspect is actually known and even in those cases where the suspect admits that there was sexual contact but claims that it was consensual. This is because the primary purpose of DNA in a non–stranger sexual assault case is not to confirm the identity of a suspect. Rather, a key purpose is to link cases together, which may be critical to the investigation and prosecution. Unfortunately, this point is sometimes missed by investigators who view identification as the primary purpose of DNA evidence. As one police official described:

We don’t need the DNA test when we know who the suspect is already without it. It would be a waste of everyone’s time and money (Tofte, 2010, p. 32).

What is lost from this perspective is that by entering the forensic evidence profile into CODIS, the investigator will be conducting a comparison to all sexual assault cases submitted to CODIS nationwide. In fact, the match could be with any type of criminal offense included in the database, not only sexual assaults. The current trend on a national and indeed international level is to continue to expand the number of qualifying offenses for CODIS submissions. Therefore, as we move forward we may see an increasing number of matches, even with misdemeanor offenses such as peeping and indecent exposure.
Any matching cases are likely to be unknown to investigators and prosecutors and these may prove critical to a successful investigation and prosecution. For example, the additional case may demonstrate the same pattern used to commit that crime (e.g., a series of sexual assaults perpetrated against women in prostitution). Or it may reveal a more general pattern of deviant sexual behavior, not rising to the level of felony sexual assaults. This can be particularly helpful in cases that could not otherwise be successfully prosecuted. An example from the New York City initiative is described by one of the prosecutors interviewed by Human Rights Watch:

*We had an assailant who raped drug addicts coming to him to buy drugs. These are women who may be particularly vulnerable to rape because of their addictions or their socioeconomic status, but whose cases are hard to get a jury to believe. But when we could connect the same guy to a number of rapes, we could get a conviction* (Tofte, 2009, p. 55).

DNA evidence may also be critical for corroborating the victim’s version of events and the specific sexual acts that were committed (e.g., vaginal swabs that test positive for the suspect’s DNA establish the element of penile–vaginal penetration) – as opposed to merely proving the origin of the biological sample. A prosecutor describes an example where this type of corroboration evidence was needed but not available, because the physician conducting the medical forensic exam did not swab all of the locations on the victim’s body where she said that the suspect had ejaculated:

*The victim claimed that the suspect had ejaculated in her belly button [but] the suspect … denied ejaculating in the victim’s belly button. I had hoped to test a swab taken from the victim’s belly button in order to back up the victim’s version of events and discredit the suspect at trial…. [However,] the lab informed me that the doctor had not swabbed the victim’s belly button … it was incredibly frustrating to move forward without crucial evidence* (Tofte, 2010, p. 29).

Linking cases together can help with their investigation and prosecution, by demonstrating a pattern of similar past behavior. It might also help to solve and prosecute past cases, if the identity of the suspect was unknown at the time or the case could not be successfully prosecuted for other reasons. This was illustrated with the case example presented earlier in this series of training bulletins, where James Allen Selby was finally convicted after committing a series of brutal sexual assaults of women and children across five states. While he had been identified as a suspect in several cases, he was not successfully prosecuted, either because he could not be located or due to limitations with DNA testing and the requirements for uploading profiles to CODIS at the time. Selby was even acquitted in one case, on charges of the attempted sexual assault of an adult woman, aggravated assault with a deadly weapon, false imprisonment, and kidnapping. In that case, he was acquitted on all the charges except for simple assault, despite evidence documenting significant injuries sustained by the victim – on her head, wrists, and other locations.
Linking cases can thus help to solve and prosecute any future crimes, if the suspect re-offends. If DNA profiles developed from forensic evidence are only submitted in cases involving strangers, investigators and prosecutors will miss a critical opportunity to identify any other cases involving the same suspect. This is especially significant, because research indicates that rapists commit an average of six rapes (Lisak & Miller, 2002; McWhorter et al., 2009). In other words, one failed opportunity to hold an offender accountable can equal five or more additional victims.

Historically, one of the reasons this practice has not been followed has been a lack of understanding. This training material is designed to address this barrier, by contributing to the growing recognition of the benefits of investigating non-stranger sexual assaults and the opportunities for connecting cases and corroborating the history of the assault. Yet another reason has been a lack of resources available to law enforcement to support investigations, particularly sexual assault investigations. In many communities, there is a traditional hierarchy among law enforcement agencies and prosecutor’s offices whereby homicides are given higher priority in resources over other crimes, and cases pending trial are given higher priority over ongoing investigations. Hopefully this barrier will also continue to diminish as DNA testing becomes less expensive, faster, and/or more resources become available.

**Identify and Exclude DNA Profiles from Consensual Partners**

Our next recommendation is to ensure that investigators obtain DNA reference standards from any consensual partners identified by victims, so their DNA profiles can be excluded and therefore not submitted to CODIS as a forensic unknown. This is necessary not only in cases where the victim has a medical forensic exam, but anytime the consensual partner’s DNA may be found on evidentiary items (e.g., the victim’s bed or clothing). It is best to obtain these reference standards from any consensual partner as soon as possible during an investigation, because it may become more difficult over time. This is especially true if the person’s relationship with the victim deteriorates.

To understand the significance of this recommendation, it is helpful to consider what would happen if the DNA profile from a consensual partner is entered into CODIS. First, there might be no match in CODIS, leading investigators to believe that the suspect’s profile is not yet in the database, when it might in fact be in there. (In this scenario, it is the consensual partner’s DNA profile that is not in the database.) This could potentially deter investigators from using more traditional law enforcement techniques designed to identify the correct suspect (e.g., searching for registered sex offenders in the area, conducting witness interviews, obtaining phone records and search warrants).

Second, the consensual partner’s DNA profile could yield a “hit” with a forensic or offender profile already in the database for having committed another crime. This could derail the course of the investigation if the victim is distressed over the discovery that her/his partner may have an undisclosed criminal history.
Therefore, the recommended practice in all cases of sexual assault is to identify and exclude the DNA profile from any consensual partner identified by the victim. Federal policy concerning CODIS requires that laboratories make every attempt to ensure that only legitimate case evidence DNA profiles are entered in the CODIS database. This requires asking victims sensitive questions about any consensual sex they might have had in the past few days, either before the assault or even during the time frame between the assault and the medical forensic examination. Asking the questions can be difficult, but this process can be facilitated by explaining their very important purpose.

This is also another reason why it can be helpful to involve the prosecutor as early as possible during an investigation. Prosecutors can answer questions the victim may have about what will happen as a result of submitting the consensual partner’s DNA—specifically, whether this means that a victim’s sexual past will be introduced at trial. Typically, rape shield laws exclude a discussion of prior consensual sexual activity at trial, unless this can potentially explain injuries that the prosecution wants to introduce. However, the specific answers to such questions will of course vary by jurisdiction; the prosecutor will be able to answer these questions with a jurisdiction–specific response.

**Do Not Submit Evidence if the Victim Has Not Talked with Law Enforcement**

While we have repeatedly recommended that evidence be submitted for analysis in all sexual assault cases where appropriate, we need to be very clear that this does not apply when victims have a medical forensic exam but have not yet personally reported to law enforcement. In other words, the victim has not yet talked with police.

In this situation, the evidence should not be submitted to the crime lab for analysis, nor should any foreign DNA profile that might have been developed be entered into CODIS. The reasons for this were outlined in a training bulletin titled, *Should We “Test Anonymous Kits?* However, they can be summarized as follows:

1. Victims have not (yet) consented to having their evidence analyzed.
2. No crime report has been documented by law enforcement (yet).
3. Consensual partners have not been excluded.

In fact, national policy for CODIS requires that law enforcement must establish that a crime has occurred in order to utilize the database for searching purposes. Therefore, this recommendation is actually a statement of CODIS policy: No DNA profile should be submitted to CODIS unless the victim has personally talked with law enforcement and a crime report completed. Rather, evidence should simply be stored in accordance with established standards for the length of time established by policy. These policies should also spell out what procedures will be followed for the collection, documentation, transfer, storage, and potential destruction of evidence in these cases.

This is particularly relevant for jurisdictions enacting laws or policies to “test all kits,” especially those with a deadline for evidence submission. What will happen to evidence
collected from a victim who has not personally reported to law enforcement, to ensure that it is not submitted for analysis as a matter of routine procedure? Victims may need more time to make a decision regarding criminal justice participation than the timeframe established for evidence submission. Careful discussions will be required among law enforcement, health care providers, victim advocates, prosecutors, and other stakeholders to craft policies to appropriately address this issue.8

Long Range Strategies

Beyond these recommendations for the investigation and prosecution of individual cases, there are also a number of longer-range strategies for creating positive change.

Invest in Crime Laboratories

Still other concerns were revealed in the national survey of law enforcement agencies. When asked to provide reasons why forensic evidence might not be submitted for analysis in an open case, 11% of respondents cited the concern that they would not get a timely result, 9% referred to insufficient funding, and 6% said the crime laboratory was not accepting new evidence because of a backlog at their facility (Strom et al., 2009). Any imbalance in the supply and demand for laboratory resources will obviously limit the potential for meaningful impact on the investigation and prosecution of criminal cases, including sexual assault. This creates a situation where investigators and prosecutors have to be strategic in their requests for services from the crime laboratory. This was described by a police detective:

You have to be careful about not getting on the lab's bad side by bothering them, because you need them for your next case (Tofte, 2009, p. 6).

Many people have therefore issued a call for increased capacity, personnel, and training for the nation’s crime laboratories (e.g., Strom et al., 2009), and funding has been increasingly dedicated to this task over the past decade. For example, in response to their legislation requiring all sexual assault evidence kits be submitted for analysis, Illinois has invested considerable resources in their state crime laboratory. Since the law passed, they have seen an average of 60 more evidence kits submitted per month, or 720 more per year than was submitted on average before the law was passed. Illinois has also reduced the time required to complete the analysis, from an average of 6–9 months before the legislation to 3–4 months afterward (Reiss, 2012).

Develop Policies for Evidence Retention, Storage, and Destruction

However, beyond capacity and staffing there is a need to ensure that the policies, procedures, and documentation used by crime laboratories are aligned with the

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8 For more information on these issues, please see Module #14 in the OnLine Training Institute (OLTI), entitled, The Earthquake in Sexual Assault Response: Implementing VAWA Forensic Compliance.
recommendations offered here. For example, laboratory personnel will need to work with law enforcement and other stakeholders to develop the forms and communication procedures described in our previous recommendations.

Collaborative work will also be needed to develop or review evidence retention policies, to ensure that evidence in sexual assault cases is being stored as long as possible – at least for the statute of limitations and ideally indefinitely for sexual assault cases that remain unsolved. This is particularly critical for associated evidence such as clothing and bedding, because it will be needed if the results of the evidence kit are negative. This may mean that law enforcement agencies will need to expand their storage capacity, since the need for sexual assault evidence has increased with the dramatic improvements in DNA technology and the national trend toward eliminating the statute of limitations for sexual assault.

Even in states that retain a statute of limitations, the evidence in a sexual assault case can often be used to issue a “John Doe” indictment. John Doe indictments use DNA profiles instead of names to identify individual suspects as a way of commencing the case within the statute of limitations. Because the suspect does not appear at his or her scheduled hearing, a warrant issues (often referred to as a “John Doe” warrant), and the case is on warrant status until the suspect is located. In some states, the statute of limitations is suspended or extended once a foreign DNA profile is obtained and until the suspect is taken into custody. In California for example, once the suspect is identified and located, the prosecutor has one year to file the appropriate charges.

These policies will potentially affect both police storage facilities as well as crime laboratories, and they need to address the question of evidence that is analyzed versus unanalyzed, as well as cases that have been adjudicated or remain open. Many agencies are lacking written policies in some of these areas. For example, Strom et al. (2009) found in his national survey of over 2,000 law enforcement agencies that fewer than half had “a policy in place for preserving biological evidence for cases in which the defendant is found guilty. In addition, “about one in five agencies reported they were unsure if their agency had such a policy or not” (Strom et al., 2009, p. xvi).

Evidence retention policies and agency procedures will also need to address the question of how long evidence will be stored in cases where the victim has had a medical forensic exam but not yet personally talked with law enforcement. We will return to address this point in a later recommendation.

On the other end of the spectrum, evidence retention policies and agency procedures must also address how to properly identify and discard evidence that is no longer required to be maintained. Again, this will require multidisciplinary collaboration with the

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9 The National Center for Victims of Crime catalogs sexual assault statutes of limitations by state, including “DNA exceptions” that extend the time for prosecuting sexual assault cases. http://victimsofcrime.org/docs/DNA%20Resource%20Center/sol—for—sexual—assault—check—chart—final—copy.pdf?sfvrsn=2
range of relevant stakeholders, to ensure that tracking systems appropriately flag evidence when it is eligible for destruction (Strom et al., 2009).

**Establish Computerized Tracking Systems**

There is a particular need for computerized information management systems, to record the status, progress, and outcomes of all reported sexual assaults and their associated evidence. In fact, improved tracking is one of the most common recommendations for the problems associated with forensic evidence in police departments, crime laboratories, and other criminal justice agencies (McEwan, 2011; Office on Violence Against Women, 2010; Peterson et al., 2012; Tofte, 2009, 2010).

Of course, this need extends beyond sexual assaults, but it has been particularly challenging in this area given the number of unanalyzed evidence kits as well as other types of associated evidence.

> Law enforcement desperately needs information management systems that will allow them to better track evidence from sexual assault cases that are stored in property rooms and warehouses (Office on Violence Against Women, 2010, p. 21–22).

This need was highlighted in the national survey of 2,250 law enforcement agencies, which found that over 60% had no computerized system for tracking evidence (Strom et al., 2009). The authors concluded that this needed to be remedied, by enhancing law enforcement information systems so they can “systematically track and monitor forensic evidence associated with criminal cases” (Strom et al., 2009, p. xv–xvi). Such a system could be used by law enforcement as well as crime laboratory personnel and prosecutors, to track the physical location of evidence and its testing status. However, it could also be used to record the outcomes of cases, in terms of investigations, arrests, charges, prosecutions, dismissals, convictions, and exonerations (Tofte, 2009, 2010). This could potentially help all of the relevant stakeholders to understand what happens to cases as well as analyzing what factors are associated with one path versus another. For example, data could be captured to understand why a decision is made in a particular case not to submit evidence to the crime laboratory for analysis (Ritter, 2012).

To ensure that these goals are met, all of the relevant stakeholders should be involved in the process of determining what information will be recorded in the database. This can be accomplished using a multidisciplinary advisory committee, which increases the transparency of the decision–making process in criminal cases and facilitates evaluation of the quality of investigative and forensic services (McEwan, 2011; Ritter, 2012).

**Prioritize Analysis of Untested Evidence**

For those jurisdictions not adopting a “test all kits” approach to deal with unanalyzed evidence from past sexual assault cases, there may be a need to develop some alternative strategy for reviewing these cases and prioritizing laboratory analysis.
Establishing a Cold Case Team

One possibility is to establish a specialized unit to investigate and prosecute cold cases. The Phoenix Police Department provides an example of this approach, with their Cold Case Sex Crime Team that was established in 2000 and included four full-time detectives and a supervisor assigned to investigate and review these cases, as well as two prosecutors to pursue them. The team also works collaboratively with forensic scientists and victim advocates, to ensure that cases are pursued with all of the resources available.

When agencies have a large number of cases with unanalyzed evidence, some system will be needed to prioritize which ones to pursue with investigative resources. Screening is likely to be based on the factors that affect an investigation’s potential for successful prosecution, including the availability of the victim and the victim’s willingness to participate in the process. It will also take into account the availability of official records, including police reports, photographs, and other evidence from the original investigation. Multidisciplinary collaboration will be needed to develop the process and criteria for screening, in order to guide the cold case unit in triaging cases for further investigation.

Screening Criteria

If a cold case team is not established, a multidisciplinary committee or oversight board can still be used to establish criteria for submitting previously unanalyzed evidence to the crime laboratory (Peterson et al., 2012; Ritter 2012). This group could include, for example, representatives from law enforcement, public and private crime laboratories, prosecutors, public defenders, private defense lawyers, victim advocates, judges, and other nongovernmental organizations and social service agencies (Tofte, 2009).

Based on their review, such a group may determine that evidence does not need to be submitted for analysis if the case has already been adjudicated, the victim has withdrawn the complaint, the prosecutor has declined to file charges, or the charges have been dropped (Nelson, 2010; Office on Violence Against Women, 2010). In fact, this criteria is likely to exclude a number of cases from potential analysis. In both Los Angeles and New York City, the use of a “forklift approach” resulted in quite a few redundant CODIS hits – matches with DNA profiles in the Offender Index, indicating that the suspect was arrested or convicted without the analysis of the victim’s evidence kit.

Other cases may be screened out of the analysis if the evidence is not likely to be probative (Office on Violence Against Women, 2010). On the other hand, "open, active cases" might be given the highest priority for submission when “the analysis of the evidence may provide important investigative leads to solve the case” (Nelson, 2010, p. 5). While the creation of such screening criteria will not necessarily be easy or straightforward, a multidisciplinary process involving relevant stakeholders will help to increase transparency and ensure that decisions reflect varying perspectives.
Conduct Evaluation Research

Finally, we return where we began, with a call to evaluate the responses we enact and determine whether they are reducing the problems we are seeking to address. Research is therefore needed in a number of areas.

As discussed in the OVW Roundtable, we need more information on the decision-making process currently used in law enforcement agencies to determine whether evidence will be submitted to the crime laboratory in a sexual assault case, and which specific analyses will be requested (Office on Violence Against Women, 2010).

In fact, the field is in desperate need of improved tracking for all kinds of case–related information. This will help not only to document the progress and outcomes of individual cases, including the location and status of evidence, but also the probative value of various types of evidence and their impact on cases. These recommendations were outlined by the researchers who studied the impact of the Los Angeles initiative:

All associated criminal justice agencies should share and compile data at key decision points and work toward the development of more comprehensive databases and models that can predict successful case outcomes. Sexual assault databases, or additional new fields in existing data bases, are needed that maintain offense characteristics, investigator files, victim sexual [assault medical forensic] examination, laboratory results, and prosecutor information. The effects of forensic DNA testing on sexual assaults cannot be accurately estimated until there are better data maintained by all the various agencies in the criminal justice system handling sexual assault cases and consolidated into a single forensic sexual assault database.

A range of quantitative and qualitative data are needed from investigators and prosecutors, in particular, to determine the value of scientific evidence in securing arrests, filings, convictions, and sentencing. The quantitative data would collect basic discrete factors on every sexual assault case, its investigation, prosecution, adjudication and sentencing. Qualitative data would include the persuasiveness of various factors that influenced arrest, charging, plea bargaining, trial verdict (including interviews with jurors after verdict), and sentencing (Peterson et al., 2012, p. 106).

This information can be combined with a review of the specific facts in a particular case, to make decisions regarding which analyses to request. A cost–benefit analysis would also be beneficial, to make an empirically based comparison between various protocols for evidence testing protocols (Peterson et al., 2012). However, participants in the OVW Roundtable remind us that criminal justice outcomes are not the only ones that matter:

Researchers and policymakers should be cautioned against relying exclusively on imperfect performance measures, such as successful
Conclusion

Attrition data for the US criminal justice system suggest that only a small fraction of the sexual assaults committed in this country ultimately lead to the conviction and incarceration of the perpetrator. The problem of untested evidence is both a cause and a symptom of this failure. By widening our view of the problem and enacting the practices recommended here, we can begin to address both the symptoms and the root cause, which will be more important for creating positive change over the long term.

Returning to the SARA model, there is clearly a problem with unanalyzed evidence in sexual assault cases, but each agency/jurisdiction should conduct its own process of Scanning and Analysis before crafting a response. An effective analysis will include input from all of the stakeholders involved, including representatives from law enforcement, prosecutors’ offices, sexual assault (or dual service) advocacy agencies or coalitions, crime laboratories, and others. In many states and communities, Responses have already been initiated to address the problem as they have defined it in their jurisdiction. For those jurisdictions that have already initiated responses, it is important to Assess these initiatives to see if there has been any improvement. If not, continued analysis should be continued to determine if there is a more appropriate and potentially effective response. If so, a new response should be crafted, and another assessment conducted to determine whether the new strategy worked to reduce the problem.

We know this type of assessment is being pursued in communities such as New York City, Detroit, and Houston. A policy response consisting solely of a requirement to analyze all evidence kits is not likely to prove the best option available. These communities can lead the way toward more comprehensive response strategies.

As we have watched the media coverage and public discourse in this area unfold, the terminology has evolved from a focus on the “DNA backlog” to the problem of “untested rape kits” and eventually “unanalyzed evidence in sexual assault cases.” This evolution in terminology reflects a widening focus on the actual problem, which demonstrates a maturing view of the issue. However, the time has come to widen the focus even further and frame the discussion in terms of improving law enforcement investigations, criminal prosecutions, and more timely exonerations.

Collectively, we can probably agree that our real goal is to improve the response to all cases of sexual assault – so all reports are thoroughly investigated and vigorously

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10 See, for example: Frazier, Candell, Arikian, & Tofteland, 1994; Horney & Spohn, 1990; Koss, 2006; Lisak & Miller, 2002; Lonsway & Archambault, 2012; Matoesian, 1993; McWhorter et al., 2009; Senate Judiciary Committee, 1993; Tjaden & Thoennes, 2000.
prosecuted where appropriate. Yet meeting this goal will require a commitment of resources far beyond simply “testing all kits.”

In fact, solving this problem will require dedicating sufficient funding for personnel, training, supervision, and leadership – to ensure that law enforcement agencies can conduct thorough investigations and prosecutors’ offices can pursue challenging cases. It will also require significant investments in our crime laboratories, so criminalists can conduct the labor–intensive benchwork needed to develop DNA profiles from evidence submitted during the course of an ongoing investigation.

A comprehensive solution will also involve coordination between all of the professionals involved in responding to sexual assault victims, to ensure that victims have the support they need to remain engaged in the criminal justice process. This may be particularly true for victims who are contacted in cold cases, because they may be faced with the heartbreaking prospect of re–engaging with a system that they might feel failed them the first time. These measures go beyond the current focus on only analyzing evidence from medical forensic exams to improving the larger criminal justice and community response to sexual assault.

References


