



National Best Practices for Sexual Assault Kits: A Multidisciplinary Approach



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Sexual Assault Forensic Evidence Reporting (SAFER) Act Working Group

The SAFER Working Group was developed to address the SAFER (Sexual Assault Forensic Evidence Reporting) Act of 2013, which recommends, in part, the development of best practices and protocols for the collection and processing of DNA evidence in sexual assault cases.¹

The SAFER Working Group, which convened over the course of more than two years, consisted of subject matter experts empaneled by the National Institute of Justice (NIJ) and representing victims, victim advocates, sexual assault nurse examiners, medical examiners, forensic laboratories, law enforcement agencies, prosecutors, and the judiciary. The working group considered issues relating to evidence collection; prioritization of evidence and time periods for collection; evidence inventory, tracking, and auditing technology solutions; investigative and policy considerations; and communication strategies. With the diversity of backgrounds and views, the SAFER Working Group successfully reached substantial agreement on a variety of complex issues.

A draft of this document was also posted for public comment in August 2016 and received a litany of generally positive feedback along with a number of extremely helpful suggestions. All of the comments were considered, deliberated, and ultimately used to strengthen the document. The recommendations in this document are not mandated by any governing body; they are provided as recommended best practices based on research, well-established processes from other disciplines, extensive professional experience of the working group members, and input from the public.

¹ The Sexual Assault Forensic Evidence Reporting Act of 2013 (SAFER Act), P.L. 113-4, § 1002, (o)(1).

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The final recommendations contained in this document are the result of a consensus process and do not necessarily represent the views or opinions of the individual working group members or their agencies and affiliations.

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NIJ is the research, development, and evaluation agency of the U.S. Department of Justice and is dedicated to researching crime control and criminal justice issues. NIJ provides objective, independent, evidence-based knowledge and tools to meet the challenges of crime and justice. The Office of Investigative and Forensic Sciences is the federal government's lead agency for forensic science research and development as well as for the administration of programs that provide direct support to crime laboratories and law enforcement agencies to increase their capacity to process high-volume cases, to provide needed training in new technologies, and to provide support to reduce backlogs. Forensic science program areas include Research and Development in Basic and Applied Forensic Sciences, the Coverdell Forensic Science Improvement Grants, the DNA Backlog Reduction and Capacity Enhancement program, Solving Cold Cases with DNA Grants, Post-Conviction Testing of DNA Evidence to Exonerate the Innocent, Using DNA Technology to Identify the Missing, and the National Missing and Unidentified Persons System (NamUs).

Summary of Recommendations

The SAFER Working Group developed 35 recommendations through a consensus process. Although the working group acknowledges that every jurisdiction is different, the intent of the following recommendations is to positively impact sexual assault responses and the experiences of victims and to ultimately result in safer communities.

Chapter 1: Multidisciplinary Approach

1. A collaborative multidisciplinary approach should be implemented for sexual assault cases.
2. Sexual assault responders should use a victim-centered and trauma-informed approach when engaging with victims of sexual assault.
3. Agencies should collaborate and involve victim advocates early in the process to create a more victim-centered approach to the criminal justice process.
4. The multidisciplinary approach should seek out and include voices from underserved or vulnerable populations in the community's response to sexual assault cases.

Chapter 2: The Medical-Forensic Exam and Sexual Assault Evidence Collection

5. Establish minimum standards for a national sexual assault kit (SAK); until that time, states and territories should create a standardized SAK for sexual assault cases that addresses the minimum criteria in the National Adults/Adolescents Protocol.²
6. The medical-forensic exam should be performed by a health care professional specifically trained in the collection of evidence relating to sexual assault cases such as a sexual assault nurse examiner or other appropriately trained medical professional.

² Office on Violence Against Women, *The National Protocol for Sexual Assault Medical Forensic Examinations—Adults/Adolescents* (2nd Ed.) (Washington, DC: U.S. Department of Justice, 2013), hereinafter referred to as the "National Adults/Adolescents Protocol." https://safetasource.site-ym.com/resource/resmgr/Protocol_documents/SAFE_PROTOCOL_2012-508.pdf.

7. Guided by the victim history, sexual assault samples should be collected from any victim seeking care as soon as possible and up to five (5) days or longer post-assault. Regardless of the time frame, reimbursement should be provided for the medical-forensic exam.
8. Examiners should concentrate the collection of evidentiary samples by using no more than two swabs per collection area so as not to dilute the biological sample.
9. Sample collection should be an option for all sexual assault victims who present for a medical-forensic exam, including those who choose not to report (unreported) or report anonymously.
10. Suspect sample collection should ideally be completed by a medical-forensic examiner or appropriately trained individual.
11. Due to increased sensitivity in DNA technologies, masks and gloves should be used by all medical-forensic care providers and others in the collection and packaging of evidence, especially during the collection of intimate samples.
12. Policies for medical-forensic record retention should be created in accordance with statutes of limitations and other criminal justice needs rather than with traditional parameters for medical record keeping, storage, retention, and destruction.

Chapter 3: Transparency and Accountability of Law Enforcement for SAKs

13. Law enforcement agencies and laboratories should partner to use one evidence tracking system.
14. The federal government should develop an Electronic Evidence Exchange Standard for the data standards associated with physical forensic evidence.
15. SAKs should be received by the local law enforcement agency from the hospital or clinic as soon as possible, ideally, no later than three (3) business days from the collection of the kit, or as specified by statute.
16. Law enforcement agencies should submit the SAK to the laboratory for analysis as soon as possible, ideally, no later than seven (7) business days from the collection of the SAK, or as specified by statute.
17. Law enforcement or laboratories should be responsible for the long-term storage of all SAKs, unless applicable law provides otherwise.
18. A comprehensive inventory should be conducted to determine the number, status, location, and individual descriptive information (e.g., unique kit identifier, date collected) for all SAKs.
19. Law enforcement agencies should perform an annual audit verifying that all SAKs in the property room are present and in their specified location.

Chapter 4: Investigative Considerations

20. All SAKs that the victim has consented to reporting to law enforcement should be submitted to the laboratory for DNA analysis.
21. Law enforcement agencies should establish a system of accountability to ensure the timely follow-up on CODIS hits.
22. All law enforcement personnel involved in sexual assault investigations should receive training in the neurobiology of trauma and specialized skills for interviewing sexual assault victims.
23. Law enforcement agencies should implement electronic records management systems that incorporate investigative workflows to improve case investigations and communication.

Chapter 5: Processing Sexual Assault Kits in the Laboratory

24. With the goal of generating a CODIS-eligible DNA profile, if a laboratory is unable to obtain an autosomal CODIS-eligible DNA profile, the laboratory should evaluate the case to determine if any other DNA-typing results could be used for investigative purposes.
25. Forensic laboratories should have an evidence submission policy/protocol that includes prioritization of evidentiary items.
26. Laboratories should consider the volume of sexual assault cases and use business process improvement tools to review their input/output, identify where bottlenecks occur, and determine if a high-throughput approach to processing will achieve efficiencies.
27. Laboratories should consider changing the order of processing the evidence by going to *Direct to DNA* and then, only if needed, proceed to serology.
28. Laboratories should consider incorporating robotics and/or automation at each step of the DNA process for the most efficient high-throughput approach.
29. Laboratories should consider the use of standardized reporting templates, a paperless system, and specialized software to assist in the interpretation of DNA mixtures, to streamline interpretation and reporting of DNA results.

Chapter 6: Post-Analysis Communication and Policy Considerations

30. Jurisdictions should have a victim notification protocol for informing victims of the status of their sexual assault cases, including cases where SAKs are analyzed after many years.

31. Jurisdictions that do not have evidence retention laws should adopt biological evidence retention policies/protocols that are victim-centered and preserve evidence from uncharged or unsolved reported cases for 50 years or the length of the statute of limitations, whichever is greater.
32. Unreported SAKs should be retained for at least the statute of limitations or a maximum of 20 years.
33. States that have not already done so should consider eliminating the statute of limitations for sexual assaults.
34. Jurisdictions should develop a communication strategy to increase transparency and accountability to stakeholders within their communities regarding the response to sexual violence.
35. Mandatory training for those responding to sexual assault should be incorporated into every agency's strategic plan.

Background

In 2013, Congress passed the Sexual Assault Forensic Evidence Reporting (SAFER) Act as part of the reauthorization of the Violence Against Women Act.³ It was created, in part, to develop practices “appropriate for the accurate, timely, and effective collection and processing of DNA evidence, including protocols and practices specific to sexual assault cases, which shall address appropriate steps in the investigation of cases that might involve DNA evidence.”⁴ More specifically, these practices outline parameters for identifying and prioritizing sexual assault kits (SAKs) to be tested; time periods for testing; processes for communicating information about evidence testing between stakeholders; and auditing standards for all SAKs, including those SAKs that were collected but not reported and those that have never been submitted to a laboratory for testing.

The National Institute of Justice (NIJ) — the research, development, and evaluation agency of the U.S. Department of Justice — convened several working group meetings representing victims, victim advocates, sexual assault nurse examiners, medical examiners, forensic laboratories, law enforcement agencies, prosecutors, and the judiciary. The NIJ working group was directed to address issues relating to evidence collection; prioritization of evidence and time periods for collection; evidence inventory, tracking, and auditing technology solutions; communication strategies; and victim engagement and notification. Additionally, the Scientific Working Group on DNA Analysis Methods (SWGDM) empaneled a subcommittee within the working group to assist with issues relating to laboratory processing and turnaround times. Representatives from jurisdictions that identified and successfully addressed issues relating to untested SAKs shared their progress and strategies with these working groups. The working group met over a 24-month period to develop recommendations for sexual assault evidence, whether it originates from a SAK collected decades ago and recently discovered in storage or from a SAK collected in connection with a newly reported sexual assault.

Advances in the technology for processing and analyzing DNA evidence — plus maintenance and expansion of the Combined DNA Index System⁵ (CODIS)

What is a sexual assault kit (SAK)?

A sexual assault kit (SAK) is a package of materials used to collect samples (evidence) from the victim’s or suspect’s body by a medical professional, often a medical-forensic examiner, such as a Sexual Assault Nurse Examiner (SANE). The type of evidence collected depends on what occurred during the assault. The contents of a SAK vary by jurisdiction but generally include swabs and collection envelopes for biological materials, debris, and underwear.

³ The full text of the Sexual Assault Forensic Evidence Reporting (SAFER) Act, P.L. 113-4, is available at <https://www.gpo.gov/fdsys/pkg/PLAW-113publ4/pdf/PLAW-113publ4.pdf>.

⁴ The Sexual Assault Forensic Evidence Reporting Act of 2013 (SAFER Act), P.L. 113-4, § 1002 (o)(1).

⁵ CODIS is the acronym for the Combined DNA Index System and is the generic term used to describe the FBI’s program of support for criminal justice DNA databases as well as the software used to run these databases. The National DNA Index System or NDIS is considered one part of CODIS, containing the DNA profiles contributed by federal, state, and local participating forensic laboratories, see <https://www.fbi.gov/services/laboratory/biometric-analysis/codis/codis-and-ndis-fact-sheet>.

DNA databases, including the National DNA Index System (NDIS) — brought an increase in understanding the value of DNA in sexual assault evidence to identify perpetrators, enhance criminal investigations and assist in prosecutions, rapidly exclude some suspects, and exonerate the innocent. The broad use of DNA technology in forensic laboratories and the growth of the DNA database in the early 2000s created a powerful tool that helps hold perpetrators accountable and assists victims in seeking justice (see Exhibit 1, on page 4).

Reports of unsubmitted SAKs and victim⁶ accounts of re-traumatization in the criminal justice system provide lessons for the future as communities move forward with a multidisciplinary process that outlines best practices for handling sexual assault evidence — from the medical-forensic exam to laboratory analysis to storage, and beyond. Inconsistent approaches to sexual assault evidence collection, lack of policies and procedures, and an absence of timely communication leading to delays in transferring evidence from the point of collection to a forensic laboratory for analysis, inefficiencies at the point of testing, and general resource challenges across the criminal justice system compromise public safety and negatively impact criminal justice outcomes. Whether it is a cold case or a current case, a lack of communication with victims about the status of the investigative process — and a failure to consider the impact of their experiences and provide support across the investigative and prosecutorial continuum — create additional trauma and cause disengagement with the criminal justice system.

Jurisdictions use a variety of terms (such as unsubmitted, unprocessed, untested, not analyzed, awaiting testing) to describe the SAKs identified during their audits/inventory. For this document, the more general term “unsubmitted” will be used to describe the SAKs that have not yet been submitted to laboratories for forensic analysis. The term “awaiting testing” will be used to specifically refer to those SAKs that have been submitted to forensic laboratories but have not been tested. These terms should not be confused with “unreported kit” or “anonymous kit.” The unreported kit is a sexual assault kit collected from a victim who has consented to the collection of the SAK but has not consented to participate in the criminal justice process; these kits cannot be submitted to a laboratory for analysis.⁷ The anonymous kit is collected from a victim who has consented to the collection, participation in the criminal justice process, and to having the SAK tested, but wishes to remain anonymous; therefore, no personally identifiable information will be included.

The term “backlog” is often used by jurisdictions that have identified “unsubmitted” (not unreported) SAKs during their audit or inventory, but for

⁶ A note about language: This document uses the term *victim* throughout, rather than *survivor* or *patient*, for consistency. Professionals should continue to use the terminology appropriate to their discipline.

⁷ Some jurisdictions have allowed for the testing of unreported sexual assault kits; the Office on Violence Against Women cautions against policies that favor testing SAKs collected from patients who have not reported a sexual assault to law enforcement nor have they consented to having their SAK tested. A victim’s safety and autonomy are the priority and are paramount to all other investigative considerations.

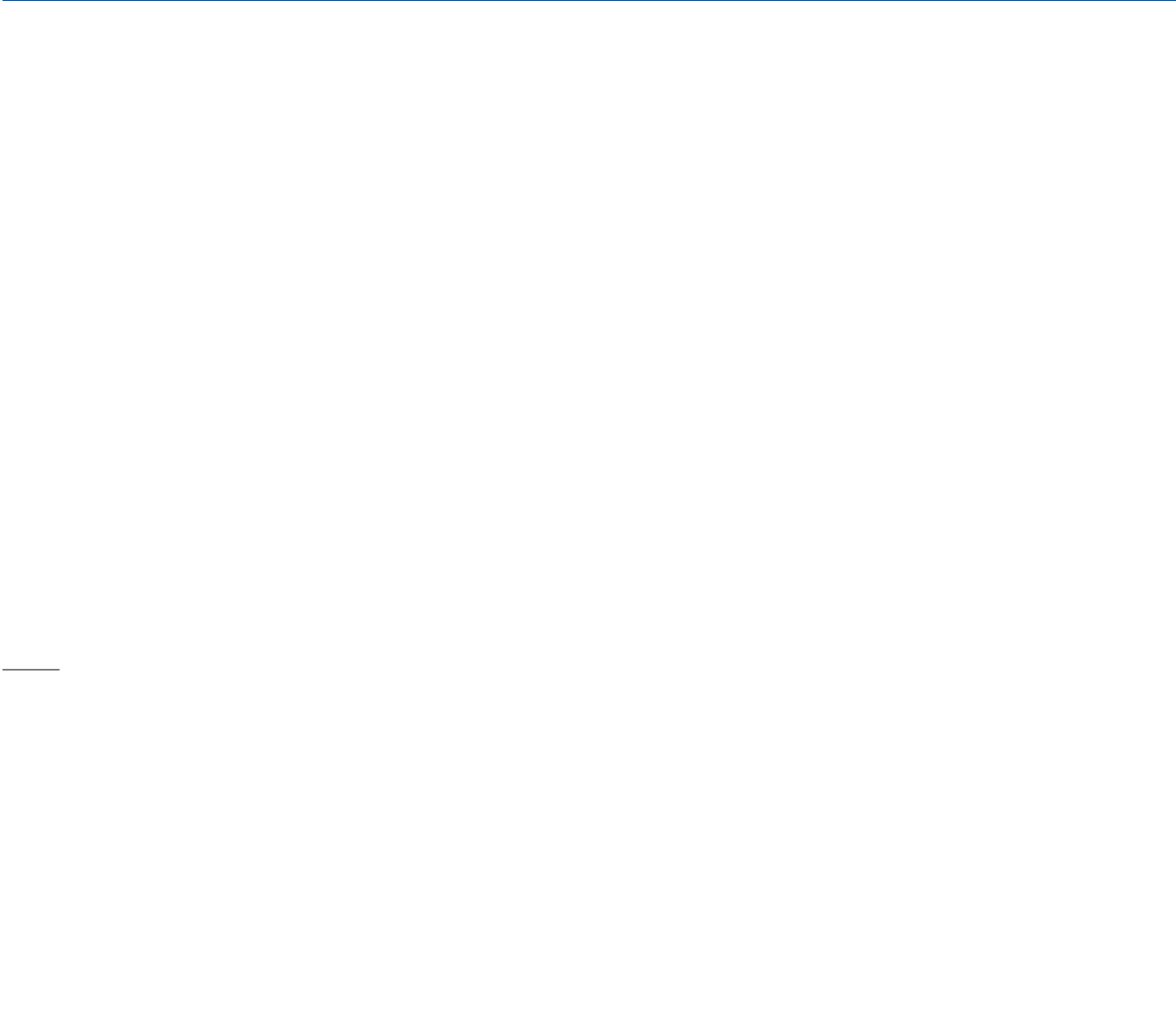
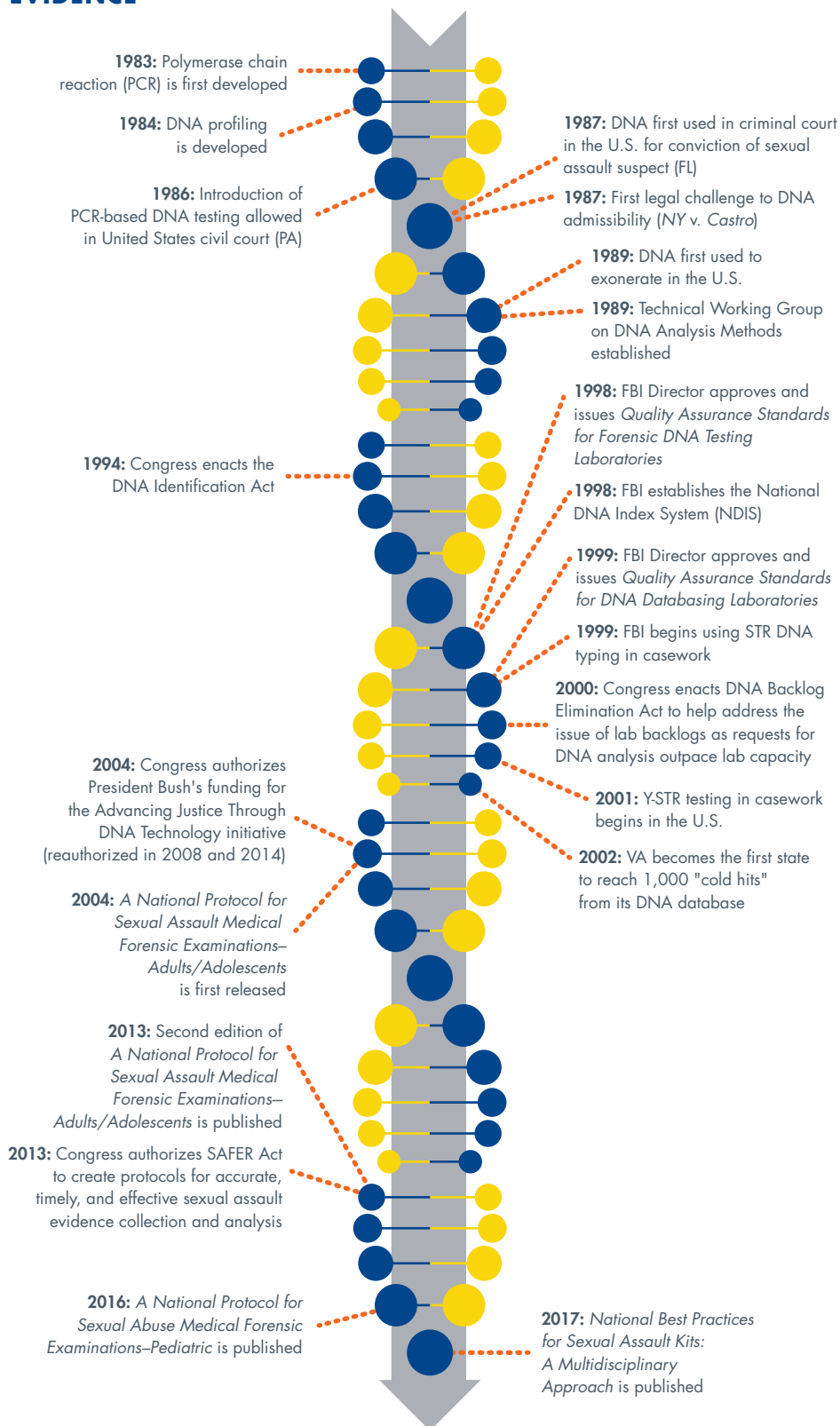


EXHIBIT 1: HISTORY OF DNA ANALYSIS AS FORENSIC EVIDENCE



approach, understanding that communities may be limited by funding, infrastructure, or existing legislation in implementing this guidance in total. The goal is to move beyond crisis management and develop a standard practice to address unsubmitted SAKs to include a systematic and efficient process for evidence collection, tracking, storage, laboratory submission, and analysis. While these efforts are not fully realized until the case investigation considers the forensic results and pursues adjudication, this document will focus predominantly on the process from evidence collection to analysis in the laboratory.

This document recommends best practices to improve the response to sexual assault from initial victim disclosure through laboratory testing. By outlining the optimal approach to evidence collection, tracking, storage, submission, and analysis, all involved disciplines (medical-forensic, law enforcement, victim advocacy, and forensic laboratory) are encouraged to work together to develop a strategy for processing SAKs in a timely and effective manner in their jurisdiction. A coordinated and collaborative approach to sexual assault provides reassurance and support to the victims of sexual violence, improves victim engagement to facilitate healing, and increases the potential for the just resolution of these cases. Justice will mean different things to different victims and may not always equate to a successful prosecution. Procedural justice refers to the fairness in the processes and demonstration of the legitimacy of the system to those who are victimized as well as the public at large. Victims find many paths to healing and justice, both inside and outside the criminal justice system.

Multidisciplinary Approach



Where Do We Start?

A collaborative multidisciplinary process is beneficial for the implementation of trauma-informed protocols to effectively and comprehensively respond to sexual assault cases.¹⁰ Fragmented, ineffective, or nonexistent communication among stakeholders (including victims, victim advocates, health care providers, sexual assault nurse examiners, law enforcement, forensic laboratories, prosecutors, and other professionals involved in the community's response, such as campus, military, and tribal agencies) about the collection, storage, and analysis of SAKs leads to unnecessary duplication of or gaps in efforts, and delays in exchanging critical information. A functioning multidisciplinary team, such as a Sexual Assault Response Team (SART), helps mitigate these issues. Community protocols should address the needs and desires of both the victims who choose to engage with the criminal justice system and those who do not.¹¹ Bringing professionals together as part of a SART is a critical first step, but initial and ongoing education is necessary among the members to increase understanding, communication, and conflict-resolution skills in the effort to build a cohesive working group.¹²



RECOMMENDATION 1:

A collaborative multidisciplinary approach should be implemented for sexual assault cases.

¹⁰ M.R. Greeson and R. Campbell, "Community Efforts to Respond to Sexual Assault: A National Study of Sexual Assault Response Team Implementation," *Journal of Interpersonal Violence*, 30(14) (2015): 2470-2487; M.R. Greeson and R. Campbell, "Sexual Assault Response Teams (SARTs): An Empirical Review of Their Effectiveness and Challenges to Successful Implementation," *Trauma, Violence & Abuse*, 14(2) (2013): 83-95.

¹¹ For information about developing protocols addressing victims who choose anonymous or non-reporting options, see *Alternative Reporting Methods: Developing a Multidisciplinary Protocol*, <https://www.evawintl.org/Library/DocumentLibraryHandler.ashx?id=594>. See also, Office for Victims of Crime, *Achieving Excellence: Model Standards for Serving Victims and Survivors of Crime* (August 2016), NCJ 250080, <https://www.ovc.gov/model-standards/index.html>.

¹² J. Cole and T.K. Logan, "Interprofessional Collaboration on Sexual Assault Response Teams (SART): The Role of Victim Alcohol Use and a Partner-Perpetrator," *Journal of Interpersonal Violence*, 25(2) (2010): 336. For more information about SARTs, including creation, sustainability, and leadership, refer to the interactive SART Toolkit, <http://ovc.ncjrs.gov/sartkit>.

Working as part of a multidisciplinary group of stakeholders (e.g., a SART) is important to improving the process. Victims interact with each partner in different ways for different needs, and the feedback received from one discipline helps inform decisions and actions by another. Consistent participation in multidisciplinary meetings by all stakeholders improves the overall system response. To maintain a high-functioning SART, it is helpful to have representatives who are rotating out of the group make introductions for their replacements prior to exiting so that there is continuity of representation.

One method for enhancing processes currently used by laboratories are business process improvement tools that are used to understand and document the flow of evidence, the laboratory's capacity, and staff assigned to each job function. This type of analysis can and should be applied to every discipline involved as part of the multidisciplinary approach for responding to and processing sexual assault cases.¹³

Trauma-Informed Approach

Those responding to sexual assault (medical-forensic health care, law enforcement, victim advocacy, and forensic laboratory) can positively impact victim engagement by adhering to a victim-centered and trauma-informed approach. Victim-centered is defined as the systematic focus on the needs and concerns of a victim to ensure the compassionate and sensitive delivery of services in a nonjudgmental manner.¹⁴ A trauma-informed approach considers the impact of trauma and victim safety considerations. This approach includes integrating provisions for prioritizing and protecting victims' privacy.



RECOMMENDATION 2:

- ✓ Educating victims, service providers, and the general community about the impact of trauma on survivors' health and well-being.¹⁵

Additionally, programs and agencies using a trauma-informed approach (1) realize the widespread impact of trauma and understand potential paths for recovery; (2) recognize the trauma reactions in victims' families, staff, and others involved with the system; (3) respond by fully integrating knowledge about trauma into policies, procedures, and practice; and (4) seek to actively resist re-traumatization. See Appendix A for some examples of research supporting trauma-informed care for the victim.

Utilizing trauma-informed and victim-centered approaches in the development and implementation of policies and procedures leads to more timely submission of evidence to forensic laboratories, enhances communications and investigative procedures, promotes better informed prosecutorial decision-making, and ultimately may reduce re-traumatization of victims by the criminal justice system. In fact, these approaches are more likely to increase victim participation and thereby support more complete investigations, increasing the overall likelihood of successful prosecutions. The use of victim advocates, whether system- or community-based, are a key factor in reducing the trauma and stress victims experience during the justice process as well as keeping them informed and engaged as the case moves through the system.

The neurobiology of trauma, and how it may affect victims, is an important part of understanding their reactions and responding appropriately. Trauma does not affect the accuracy of the memory but it may affect the organization of the traumatic memory.¹⁶ It has been proven that sleep helps to consolidate the memory after traumatic events. A multidisciplinary victim-centered and trauma-informed approach should include training in these concepts so those responding are well versed in the variety of ways individuals may react following a traumatic event, such as a sexual assault.

Victim Advocacy

Victim advocates serve an essential role in providing a victim-centered and trauma-informed response that not only promotes victim well-being but also can enable victims to remain engaged in the investigative process, which improves case outcomes. Victim advocates can be *system-based*, meaning they are employed by law enforcement or by prosecutors' offices, or *community-based*, meaning they are employees or trained volunteers with a nongovernmental community organization that provides services to victims. Not all jurisdictions



One example of a new and innovative response to sexual assault is a Family Justice Center. In Montgomery County, Maryland, this comprehensive and collaborative victim-centered approach has been adopted in an effort to provide the best possible services — all housed in one location.

The Montgomery County Family Justice Center is anchored by three main agencies: The Montgomery County Sheriff's Office, the Montgomery County State's Attorney, and the Montgomery County Police Department. This "one-stop shop" for victims allows multiple disciplines to interact in real time with the victim of a crime, discuss case information, and provide services and support, including victim advocacy, that victims may need.

¹⁵ Bullet points are quoted from the National Center on Domestic Violence, Trauma & Mental Health, "Creating Trauma-Informed Services," Tipsheet Series for Advocates. (Chicago, IL: Author, 2011), <http://www.nationalcenterdvtraumamh.org/publications-products/creating-trauma-informed-services-tipsheet-series-for-advocates/>; <https://www.ovcttac.gov/taskforceguide/eguide/4-supporting-victims/41-using-a-trauma-informed-approach>.

¹⁶ Looking Ahead: National Sexual Assault Policy Symposium, September 8-9, 2016, archive version, National Institute of Justice. For transcript of presentation, see <https://forensiccoe.org/Looking-Ahead-The-National-Sexual-Assault-Policy-Symposium>.

have both system-based advocates and community-based advocates, but including advocacy is important as early in the process as possible. Agencies should collaborate and involve victim advocates early in the criminal justice process to create a more victim-centered approach, thereby encouraging victim engagement, cooperation, and better criminal justice outcomes.



RECOMMENDATION 3:

Agencies should collaborate and involve victim advocates early in the process to create a more victim-centered approach to the criminal justice process.

The system-based advocate is a resource for both victims and investigators.¹⁷ System-based advocates work to meet the needs of both to the extent possible. They can be a consistent point of contact for the victim with the criminal justice system, acting as a link to the investigator and keeping the victim informed about the status of the criminal investigation and prosecution. They also can link the victims to other resources that can support them in their healing and recovery.¹⁸ The services of a system-based advocate offer a mechanism that may help give the victim the sense that he or she was treated fairly and with respect during the criminal justice process.

Community-based advocates can also be a consistent source of support and, in jurisdictions where there are no system-based advocates, may also be able to serve as a link to the investigator to help victims stay informed about their cases.¹⁹ The primary role of a community-based advocate, however, is to assist the victims with whatever they need to promote their health and well-being.

Exhibit 2 generally summarizes some ways in which the roles of a system-based advocate and a community-based advocate may differ, keeping in mind that jurisdictions may define different roles for these advocates.

Both system-based and community-based advocates can be invaluable assets to investigators, providing guidance and information on how trauma impacts victims or by assisting investigators in developing a trauma-informed approach to victims in general or to a specific victim in a particular case. System-based advocates will always be able to collaborate in that way, whereas community-based advocates' ability to do so in particular cases could be restricted because of confidentiality concerns. It is also possible that either system-based or community-based advocates could accompany investigators on victim

¹⁷ Some communities, such as Houston, Texas, have created a specific type of system-based advocate, the Justice Advocate. See *Victim Notification* in Chapter 5 for more information about how Houston is employing this role in responding to sexual violence in the community.

¹⁸ See James Frederick Hodgson and Debra S. Kelley, *Sexual Violence: Policies, Practices, and Challenges in the United States and Canada*. (Greenwood Publishing Group, 2002).

¹⁹ See, for example, Rape, Abuse & Incest National Network (RAINN) at www.rainn.org; and the Joyful Heart Foundation at www.joyfulheartfoundation.org.

EXHIBIT 2: ROLES AND RESPONSIBILITIES OF VICTIM ADVOCATES

Community-Based Advocates	System-Based Advocates
<ul style="list-style-type: none">• Focus is on the health and welfare of the victim.• Most often serve victims at any point in time regardless of whether they report to the criminal justice system.• Can offer victims confidentiality.• Generally associated with nongovernmental or not-for-profit agencies.• Can also provide continuity of services long after the victim's case has been adjudicated.• Communication between community- and system-based advocates is key.	<ul style="list-style-type: none">• Focus is on the health and welfare of the victim as well as keeping the victim engaged during the criminal justice process.• Generally serve victims whose cases are in the criminal justice system.• Most cannot offer victims confidential services.• Generally associated with and operating in conjunction with a government agency.• Advocate may be physically located in the criminal justice agency.• Communication between community- and system-based advocates is key.

notifications or participate with investigators in interviews, providing the emotional support that may make it more likely for victims to fully engage in the criminal justice system, and connecting them to other services to help meet the full range of each victim's needs, such as civil attorneys, financial benefits, and housing assistance.

Regardless of whether there are system-based advocates within the law enforcement agency, investigators should also collaborate with community-based advocates, particularly through SARTs and other multidisciplinary teams. Collaboration and early involvement with victim advocates create a more victim-centered approach to the criminal justice process. These advocates are also able to help victims make informed choices about their options, navigate the complexities of the criminal justice system, and potentially improve case outcomes. A valuable perspective of community-based advocates is that they work with both reporting and nonreporting victims and can provide a valuable perspective on those who choose not to engage with law enforcement as well as strategies for removing barriers to reporting.

Addressing Sexual Violence in All Communities

Although this document outlines an optimal approach to addressing sexual assault evidence collection, tracking, storage, submission, and analysis, specific communities identify unique challenges and priorities that shape their response to the victims of sexual assault. Historically, under-resourced or under-recognized populations have issues that need to be considered as part of any approach. The procedures that work for one community may not work for another community. For example, rural and remote areas invariably have different needs and challenges, and potentially different priorities, than their

INNOVATIVE ALTERNATIVES

The Houston Police Department (HPD) created a new and unique position called a Justice Advocate. This trained system-based advocate was embedded into the Sex Crimes Unit to work alongside investigators and was successful in enhancing the investigative process through increased victim participation. The Justice Advocate's duties are to:

1. Establish and maintain contact with victims in collaboration with investigators.
2. Identify victims with complex psychosocial needs and serve those needs.
3. Serve as an HPD liaison with community advocates and other organizations for needed resources.

urban and suburban counterparts. What is similar, however, is the importance of multiple disciplines working together, collaborating to address the documented challenges that have beset various jurisdictions across the country.

The multidisciplinary approach should seek out and include voices from any underserved or vulnerable populations in the community's response to sexual assault cases. At its core, responding to sexual violence cannot rest on the shoulders of a single stakeholder if victims are to obtain justice and offenders are to be held accountable.



RECOMMENDATION 4:

The multidisciplinary approach should seek out and include voices from underserved or vulnerable populations in the community's response to sexual assault cases.

The federal government has made recommendations, issued guidance documents, and implemented programs for specific populations, some of which are described in Appendix B.

With multidisciplinary involvement, implementation of a victim-centered, trauma-informed approach establishes a solid foundation for responding to sexual assault cases. Chapter 2 describes components of the medical-forensic exam and methods for the most efficient collection of sexual assault evidence.



SUMMARY RECOMMENDATIONS

Multidisciplinary Approach

1. A collaborative multidisciplinary approach should be implemented for sexual assault cases.
2. Sexual assault responders should use a victim-centered and trauma-informed approach when engaging with victims of sexual assault.
3. Agencies should collaborate and involve victim advocates early in the process to create a more victim-centered approach to the criminal justice process.
4. The multidisciplinary approach should seek out and include voices from underserved or vulnerable populations in the community's response to sexual assault cases.

The Medical-Forensic Exam and Sexual Assault Evidence Collection

Appropriately addressing a victim's post-assault medical and health care needs, both physical and emotional, should be the priority for any health care provider. Ensuring that victims have prompt access to health care is critical to mitigating health impacts.²⁰

Sample collection, although important, is but one component of the medical-forensic examination and is always an option for the victim. Collecting evidence from victims is an important part of the investigative process. This chapter focuses primarily on the process of collecting samples for the sexual assault kit (SAK). Major emphasis should be placed on continuing to support the victim through the evidence collection process, keeping in mind the impact of the assault on the victim, and balancing it with the potential impact of the forensic evidence that can be collected during the medical-forensic examination. Evidence collected during this examination can be used to aid an investigation, identify alleged perpetrators, corroborate facts, or exonerate a suspect. Therefore, alterations in the process of collecting samples may be necessary to accommodate the individual needs and wishes of victims who undergo the medical-forensic exam. Ultimately, it is the victim and not the SAK that should drive the medical-forensic encounter.

This section is not meant to supersede existing medical-forensic exam protocols, but to complement them, by identifying strategies for streamlining sample collection and processing of SAKs to provide critical forensic information in a timely manner.

Standardizing Sample Collection — Sexual Assault Kits

With input from a multidisciplinary team of stakeholders invested in the response to sexual assault, the federal government should oversee the development of

²⁰ See *A National Protocol for Sexual Assault Medical Forensic Examinations—Adults/Adolescents* (2nd Ed.) for guidelines on the medical forensic examination and access to critical health care resources for victims.

minimum standards for a national evidence collection kit.²¹ Understanding that further analysis is needed to assess the challenges of developing and implementing such minimum standards for a national kit — and that any such minimum standards would need to be in compliance with existing state, federal, and tribal laws — a federal effort to begin this process should include:

- ✓ Consensus on the minimum contents for a national SAK.
- ✓ Basic documentation components for medical-forensic examiners (to direct collection).
- ✓ Basic documentation components for laboratories (to direct analysis).

In the current absence of minimum national standards, states and territories should create a single, standardized kit for sexual assault cases in accordance with the minimum criteria specified in *A National Protocol for Sexual Assault Medical Forensic Examinations—Adults/Adolescents (National Adults/Adolescents Protocol)*. Doing so will allow for consistency in terminology, content, and structure, which will in turn reduce the variability seen in laboratory processes, thereby improving efficiencies in SAK analysis. Development of such standards by states and territories should take into consideration the following: the potential health implications of sample collection techniques and practices, including the potential risks and benefits of collection practices for the victim; and the need for supplemental kits (e.g., legal blood alcohol, urine drug screening, toxicology, buccal swab reference samples).

Minimum national standards should include the following:

- ✓ Uniform kit packaging (e.g., box, envelope) to increase the efficiency of proper storage, tracking, and retrieval.
- ✓ Unique identifier.
- ✓ Discreet labeling to protect victim privacy.
- ✓ Identification for type of kit collected (victim or suspect).
- ✓ Standardization of the medical-forensic documents.
- ✓ Standardization of wording and labeling for the sample envelopes.
- ✓ Standardization of the collection items (such as swabs, envelopes).



RECOMMENDATION 5:

Establish minimum standards for a national sexual assault kit (SAK); until that time, states and territories should create a standardized SAK for sexual assault cases that addresses the minimum criteria in the National Adults/Adolescents Protocol.

²¹ See *A National Protocol for Sexual Assault Medical Forensic Examinations—Adults/Adolescents* (2nd Ed.) at page 73, which recommends that a designated agency oversee development of a standardized kit, in part to ensure that review of and adjustments to the kit components can be made as changes in technology and practice occur; see also, J. Shaw et al., “Bringing Research into Practice: An Evaluation of Michigan’s Sexual Assault Kit,” *Journal of Interpersonal Violence*, 31(8) (2016): 1476-1500.

Each state/territory should designate an agency that will be responsible for oversight of the SAK development, revision, distribution, and training on its use.²² Multidisciplinary stakeholders, including medical-forensic examiners (e.g., clinical forensic specialists, forensic pathologists, SANEs, SAFEs), law enforcement professionals, prosecuting attorneys, victim advocates, laboratory practitioners, and local/state/tribal representatives, should work collaboratively with the responsible agency to develop the kit and review it regularly for necessary adjustments.²³

All medical-forensic examination sites and providers should have access to kits (including a user-friendly ordering process) and training on kit components, sample collection, and corresponding documentation.

Sample Collection

Research suggests that jurisdictions that use Sexual Assault Nurse Examiners (SANEs) or Sexual Assault Forensic Examiners (SAFEs) to conduct forensic examinations of sexual assault victims contribute to higher prosecution and conviction rates.²⁴ Many jurisdictions around the country (more than 600) have instituted SANE programs, which are often part of a multidisciplinary Sexual Assault Response Team (SART). SANEs and SAFEs receive intensive classroom and clinical training, which covers evidence collection, injury detection methods, chain-of-custody requirements, methods to avoid re-traumatizing a victim during an examination, and other topics related to both prosecutions and meeting the needs of sexual assault victims. This collaborative approach for responding to sexual assault has produced numerous best practices that:

- ✓ Enhance the quality of health care for individuals who have been sexually assaulted;
- ✓ Improve the quality of forensic evidence;
- ✓ Increase law enforcement's ability to collect information, file charges, and refer an investigation to prosecution; and
- ✓ Increase prosecution rates over time.

The medical-forensic exam should be performed by a health care professional specifically trained in the collection of evidence relating to sexual assault cases, such as a sexual assault nurse examiner or other appropriately trained medical professional. Sample collection by medical-forensic examiners should be guided

²² *A National Protocol for Sexual Assault Medical Forensic Examinations—Adults/Adolescents* (2nd Ed.), at page 72: https://safetasource.site-ym.com/resource/resmgr/Protocol_documents/SAFE_PROTOCOL_2012-508.pdf.

²³ See *A National Protocol for Sexual Assault Medical Forensic Examinations—Adults/Adolescents* (2nd Ed.), at page 72; J. Shaw et al., "Bringing Research into Practice: An Evaluation of Michigan's Sexual Assault Kit," *Journal of Interpersonal Violence*, 31(8) (2016): 1476-1500.

²⁴ See, for example, *Impact Evaluation of a Sexual Assault Nurse Examiner (SANE) Program* (December 2003), and *Systems Change Analysis of SANE Programs: Identifying the Mediating Mechanisms of Criminal Justice System Impact* (January 2009); see also GAO Report: *Sexual Assault: Information on Training, Funding and the Availability of Forensic Examiners* (March 2016): <http://www.gao.gov/assets/680/675879.pdf>.

INNOVATIVE ALTERNATIVES

Some jurisdictions do not have access to trained SANEs, SAFEs, or SARTs because of distance and lack of resources. Rural and tribal communities are particularly prone to these challenges. Even when professionals in these communities have received training, it can be very difficult to maintain an adequate number of trained medical personnel. Often, there are too few cases being reported to maintain a satisfactory level of training and competency. Telemedicine offers an alternative solution to problems associated with providing health care at a distance. Telemedicine technology uses video conferencing, remote monitoring equipment, and electronic health records to link patients in remote areas to medical providers located elsewhere. A study conducted by the University of California-Davis found that the use of telemedicine to assist in the examination of sexually assaulted children in rural communities resulted in significant positive changes in the methods of examination and evidence collection.

The Office for Victims of Crime, with assistance from the National Institute of Justice, issued a solicitation in 2012 to develop a national telemedicine center for sexual assault victims and provide support to a number of pilot sites. The goal of this project was to create an entity that could provide a community of support for sexual assault clinicians to increase their confidence, competence, and retention and to develop quality care for sexual assault patients. After 2 years of training, protocol development, and equipment purchases and testing, the National Sexual Assault TeleNursing Center (NTC) formally opened its doors in the fall of 2014. The NTC now provides 24/7 remote clinician-to-clinician assistance. The ultimate goal is to ensure that all victims of sexual assault have access to a trained SANE or SAFE and receive a medical-forensic exam performed by experts, with compassionate care.

by the victim's history of the assault. In the absence of a complete history, examiners should obtain the full complement of samples, assisted by the physical assessment.²⁵

RECOMMENDATION 6:

The medical-forensic exam should be performed by a health care professional specially trained in the collection of evidence relating to sexual assault cases such as a sexual assault nurse examiner or other appropriately trained medical professional.

Community SART teams or responders should ensure that consent issues are fully explained to the victim and the appropriate consent is obtained by the responsible individual. Ultimately, informed consent for the medical-forensic examination must be obtained by the health care provider. As part of the informed consent process, to be completed before sample collection, victims should be advised of the following:

²⁵ See *A National Protocol for Sexual Assault Medical Forensic Examinations—Adults/Adolescents* (2nd Ed.), pp. 87, 99; available at https://safetasource.site-ym.com/resource/resmgr/Protocol_documents/SAFE_PROTOCOL_2012-508.pdf; "Examiners typically ask patients to provide a medical forensic history after initial medical care for acute problems and before the examination and evidence collection. This history, obtained by asking patients detailed forensic and medical questions related to the assault, is intended to guide the exam, evidence collection, and crime lab analysis of findings" (p. 87); and "Trained examiners should use the medical forensic history and the physical assessment of the patient to guide the evidence collection process." (p. 99).

- ✓ The purpose of collecting samples for the kit.
- ✓ How the kit may be used in the investigative process.
- ✓ That consent can be given or withdrawn by the victim to individual parts or the entire medical-forensic exam.
- ✓ The processes and associated time frames for testing kits.
- ✓ Victim notification of kit testing results (e.g., DNA).

Timing of Sample Collection in Living Victims

Forensic DNA evidence deteriorates with time. Therefore, it is imperative that sexual assault evidence be collected as soon as possible.²⁶ This evidence should be collected regardless of the victim's post-assault activities (e.g., showering, urinating, douching, swimming, sexual activity, eating, or drinking). Sexual assault samples should be collected from any victim seeking care as soon as possible and up to five (5) days or longer post-assault.²⁷ Due to advancements in technology, emerging research indicates there may be potential to extend the time frame to nine (9) days post-assault in the living patient.²⁸ Regardless of the time frame, reimbursement should be provided for the medical-forensic exam.²⁹ Because laboratories have varying capabilities, the forensic laboratory designated to conduct the DNA testing should be consulted.

RECOMMENDATION 7:

Guided by the victim history, sexual assault samples should be collected from any victim seeking care as soon as possible and up to five (5) days or longer post-assault. Regardless of the time frame, reimbursement should be provided for the medical-forensic exam.

Although the detection and characterization of body fluids in a forensic laboratory has not changed considerably over time, DNA testing has dramatically increased in sensitivity. Based on the victim's history, potential body fluids should be collected from those areas where DNA of the possible perpetrator may have been left. Each of these collection areas has a different

²⁶ It should be understood that time frames for sample collection do not extend to medical care. There is no time limit for a victim to present for medical care post-assault, for concerns related to sexually transmitted infection exposure, pregnancy, and/or other health consequences of sexual assault.

²⁷ While time frames for sample collection tend to fall between 96 and 120 hours in the majority of jurisdictions, the Department of Defense currently extends their collection period to 7 days (Victim Instructions, DD2911, p. 1). See also, *A National Protocol for Sexual Assault Medical Forensic Examinations—Adults/Adolescents* (2nd Ed.), at page 8; *SWGDAAM Recommendations for the Efficient DNA Processing of Sexual Assault Evidence Kits*.

²⁸ P. Speck and J. Ballantyne, *Post-Coital DNA Recovery* (December 2014), NIJ grant no. 2009-DN-BX-0023; available at <https://www.ncjrs.gov/pdffiles1/nij/grants/248682.pdf>.

²⁹ In some jurisdictions, legislation exists that creates limitations to the medical-forensic exam provision in that it ties reimbursement to narrower time frames than are otherwise indicated by national guidance, health care recommendations, or current research (e.g., collection of samples beyond 72 hours post-assault).

EXHIBIT 3: RECOMMENDED TIME FRAMES FOR EVIDENCE COLLECTION

Type of Assault	Collection Time
Vaginal	Up to 120 hours (5 days)
Anal	Up to 72 hours (3 days)
Oral	Up to 24 hours (1 day)
Bite marks/saliva on skin	Up to 96 hours (4 days)
Unknown	Collect respective samples within the time frames listed above

Note: For the references used to formulate this exhibit, see Appendix C. See also Scientific Working Group on DNA Analysis Methods, *SWGDM Recommendations for the Efficient DNA Processing of Sexual Assault Evidence Kits* (Quantico, VA: Federal Bureau of Investigation, December 2016): http://media.wix.com/ugd/4344b0_4daf2bb5512b4e2582f895c4a133a0ed.pdf.

DNA persistence time. Please refer to Exhibit 3 for recommended time frames for evidence collection in sexual assault cases. It is important to note that there may be case-specific circumstances that support sample collection beyond any standardized collection period.³⁰

Recommendations for Sample Collection

For oral and anogenital sample collection,³¹ the samples from the same body area do not need to be collected and packaged separately based on each individual anatomical structure. Doing so is unnecessary and results in additional laboratory processes. Collecting more than two swabs from an anatomical area may result in a diluted sample. To recover as much DNA foreign to the victim as possible during the evidence collection process, measures should be taken to concentrate the foreign material by using the fewest number of swabs necessary for the collection site. To ensure laboratory efficiency, if multiple swabs are used during the collection, they should be collected concurrently and, if not concurrently taken, it would be beneficial to note the order of the swabs collected. Based upon current evidence retention policies/law, it is recommended that, when more than one swab is collected from an area,

³⁰ Evidence collection times are offered only as a benchmark for consideration and should not be used as the basis to deny medical-forensic care to any sexual assault patient.

³¹ For example, swabbing the vaginal vestibule (including labia minora, clitoris, hymen, fossa navicularis, and posterior fourchette) would require a separate set of swabs than the vaginal vault; however, *each aspect* of the vaginal vestibule would not require its own set of swabs. To do so would dilute the sample, making it more difficult to obtain a potential DNA profile. Refer to Exhibit 4 for additional information.

these swabs be collected consistently (e.g., in the same manner, such as with moistened swabs).³²

RECOMMENDATION 8:

Examiners should concentrate the collection of evidentiary samples by using no more than two swabs per collection area so as not to dilute the biological sample.

Creating slides and smears at the medical exam site from oral and anogenital samples is unnecessary and should be eliminated, since the slides prepared during the medical exam generally have more epithelial cells, bacteria, and other debris.³³ Additionally, any presumptive or confirmatory testing for semen should be conducted in the forensic laboratory and not during the sample collection process.³⁴

Finally, as standardized kits are developed, the practice of collecting control swabs during the medical-forensic exam should be eliminated. Collecting control swabs (e.g., samples of water, saline, or water-soluble lubricant used during the medical-forensic exam) may create an additional workload in the forensic laboratory and jurisdictions may want to consider eliminating them.

Use of Water-Soluble Lubricants

The use of a minimal amount of water-soluble non-spermicidal lubricant, water, or saline during the vaginal and/or rectal exam is an acceptable practice and promotes patient comfort. The use and type of lubricant should be a routine component of examination documentation. Additionally, if the lubricant contains lidocaine, a control sample of the lubricant may be required, in accordance with jurisdictional policy.³⁵

Collection Recommendations

Exhibit 4 describes recommendations for collecting swabs and other samples during the medical-forensic examination. The guiding principle for the evidentiary sample collection will be based on the victim's history of the assault.

Samples that are no longer recommended for collection are described in Exhibit 5.

³² This section is consistent with the SWGDAM *Recommendations for the Efficient DNA Processing of Sexual Assault Evidence Kits*: http://media.wix.com/ugd/4344b0_4daf2bb5512b4e2582f895c4a133a0ed.pdf.

³³ Please see the text box, "A Consideration on the Identification of Sperm," in Chapter 5: Processing Sexual Assault Kits in the Laboratory, for additional information.

³⁴ This section is consistent with the SWGDAM *Recommendations for the Efficient DNA Processing of Sexual Assault Evidence Kits*: http://media.wix.com/ugd/4344b0_4daf2bb5512b4e2582f895c4a133a0ed.pdf.

³⁵ W.F. Griffith et al., "Vaginal Speculum Lubrication and Its Effects on Cervical Cytology and Microbiology," *Contraception* 72(1) (2005): 60-64; A. Agarwal et al., "Effect of Vaginal Lubricants on Sperm Motility and Chromatin Integrity: A Prospective Comparative Study," *Fertility and Sterility* 89(2) (2008): 375-379.

EXHIBIT 4: COLLECTION OF SWABS AND OTHER ITEMS

Swab Type	Adult/Adolescent	Pediatric ^a
Anus/Perianus	Use lightly moistened swabs, packaged together, unless the history indicates otherwise.	Same in children.
Clothing	Clothing should be packaged separately from the SAK and labeled, with each item in its own paper bag. Please note that the examination of clothing should only occur in the forensic laboratory.	Same in children.
Hair: combing, cutting	Combing of pubic hair may be beneficial; components for combing should be standard in all kits. Matted pubic hair may be clipped or swabbed with lightly moistened swabs. For victims without pubic hair, samples from the mons pubis collected with two moistened swabs may be considered. If reference samples are collected, they should only be collected by cutting.	Same in children.
Hands	Use one lightly moistened swab to concentrate any potential DNA recovery. Swab the entire palmar surface of each hand separately, and then package and label each envelope separately as left palm or right palm.	Same in children.
Nails	Swab the underside of the fingernails with a lightly moistened swab, unless the victim's history (scratching) indicates that nail clippings would yield additional DNA. One swab should be used for each hand to concentrate the potential for DNA yield. Package and label swabs separately as right and left hand and/or right and left feet (per victim history). Use of tools to scrape underneath the fingernails should be avoided, as it is a potential source for injury and/or infection to the victim.	Same in children.
Nails (clippings)	As indicated by a history of scratching the assailant: package and label separately as right and left hand and/or right and left feet (per victim history). In the alternative, swabbing the nails is acceptable.	Collect if a nail was broken during the abuse/assault and follow the same procedures as with adult/adolescent victims.
Oral cavity	Use two dry swabs to swab/rub over the oral cavity (e.g., around teeth, cheeks, and gums). Dentures and body jewelry from the mouth and lips of the victim can be removed and swabbed if they can't or won't be collected.	Same in children.
Penis and scrotum	Use a total of two lightly moistened swabs from the shaft, glans (including under the foreskin and around the corona), and scrotum, unless the history indicates otherwise; be careful to avoid the urethra (which will yield the DNA of the person being swabbed).	Same in children.
Products of conception (POC)	Tissue samples from the POC are the preferred sample, not just blood from the specimen. Formalin or other preservatives should not be used, as these substances can negatively impact laboratory analysis. ^b Multidisciplinary teams should develop policies to address identifying an appropriate lab for analyzing the specimen if the local lab does not; the collection, handling, and packaging of the specimen; chain of custody; and laboratory analysis.	Not applicable.

EXHIBIT 4: COLLECTION OF SWABS AND OTHER ITEMS (CONT.)

Swab Type	Adult/Adolescent	Pediatric ^a
Rectum	Use two lightly moistened swabs, packaged together, if indicated per patient history (these should be collected separately from the anus/perianus swabs).	Rectal swabs are not recommended, except in cases where injury is significant enough to require sedation or anesthesia.
Skin (from bite wounds or oral contact)^c	Use two lightly moistened swabs, from each affected area, packaged per jurisdictional policy. ^d	Same in children.
Skin (for touch DNA)	Use two lightly moistened swabs across the affected area (as in cases of strangulation), packaged per jurisdictional policy. ^e	Same in children.
Tampons, condoms, and other wet materials	Tampons, condoms, and foreign objects may be a potential source of DNA and should be preserved and packaged per jurisdictional policy. Diapers, pull-ups, or other absorbent padding may also be potential sources of DNA. Specific drying and/or preservation and packaging techniques recommended by individual forensic laboratories may differ, so local sample collection practices and associated protocols should be developed. ^f	Diapers or other absorbent padding may also be potential sources of DNA. Collect these items if used during or after touching or any genital copulation. Dry, package, and submit as per jurisdictional policy. Follow jurisdictional policies for packaging items too wet to dry at the exam facilities and for refrigerated storage.
Vaginal vault (including posterior fornix, cervix/cervical os)	Use two dry swabs, packaged together, unless the history indicates otherwise.	Routine internal vaginal swabs are not recommended except in cases where injury is significant enough to require sedation or anesthesia.
Vaginal vestibule (including labia minora, clitoris, hymen, fossa navicularis, and posterior fourchette)	Use two lightly moistened swabs, packaged together, unless the history indicates otherwise.	Same in children. However, extreme care should be taken to avoid inserting the swabs into the introitus.
Underwear	Underwear from the victim should go in the SAK.	Same in children.

EXHIBIT 4: COLLECTION OF SWABS AND OTHER ITEMS (CONT.)

^a The majority of pediatric recommendations are from Office on Violence Against Women, *A National Protocol for Sexual Abuse Medical Forensic Examinations—Pediatric* (Washington, DC: U.S. Department of Justice, April 2016); available at <https://www.justice.gov/ovw/file/846856/download>. Pediatric recommendations specifically refer to prepubescent victims.

^b See *The Biological Evidence Preservation Handbook: Best Practices for Evidence Handlers*, Technical Working Group on Biological Evidence Preservation, NISTIR 7928, April 2013, available at <http://nvlpubs.nist.gov/nistpubs/ir/2013/NIST.IR.7928.pdf>, stating that “[A] fetus (or other product of conception) may be placed in plastic, sealed, and frozen.” (p. 15). See also Ladd and Lee, *The Use of Biological Evidence and DNA Databanks to Aid Criminal Investigations* (in Hammer et al., *Forensic Nursing*, 2nd Ed.): “In the event of an abortion, tissue samples should be placed in a specimen jar and submitted for forensic testing as soon as possible. It is vital that the specimen *not* be put in any preservative, such as formalin, which will seriously degrade DNA.” (p. 289).

^c Samples from areas of bite wounds or oral contact should be collected per victim history as soon as possible and regardless of a history of bathing/showering (*A National Protocol for Sexual Assault Medical Forensic Examinations—Adults/Adolescents*, 2nd Ed.).

^d If bite mark impression evidence is to be collected, it should be done by an expert in forensic odontology, forensic dentistry, or a professional specially trained in the collection of such evidence (e.g., CSI personnel, clinical forensic specialists) for both the living and deceased patients/victims. If this is not feasible, the aforementioned experts should be consulted as to the collection of this evidence.

^e With the advent of more sensitive DNA testing techniques, which are able to detect smaller amounts of genetic material, touch DNA should be considered another potential source of DNA evidence and included as a component of a standardized SAK. When developing and/or revising standardized kits, envelopes and swabs specific for the collection of touch DNA samples should be included. In addition, protocols should be developed that clearly define touch DNA and the conditions when such samples should be collected. See also, E.A. Graham and N.G. Ruty, “Investigation into ‘Normal’ Background DNA on Adult Necks: Implications for DNA Profiling of Manual Strangulation Victims,” *Journal of Forensic Science*, 53(5) (September 2008): 1074-1082.

^f See *A National Protocol for Sexual Assault Medical Forensic Examinations—Adults/Adolescents* (2nd Ed.): “Jurisdictions should have policies for handling evidence that cannot be dried thoroughly at the exam site (e.g., wet clothing, tampons, sanitary napkins, tissues, diaphragms, and condoms), as well as for liquid evidence such as urine and drawn blood samples.” (p. 75); see also, *The Biological Evidence Preservation Handbook: Best Practices for Evidence Handlers* (<http://www.nist.gov/forensics/upload/NISTIR-7928.pdf>), stating, “Plastic bags can be used temporarily to store wet evidence but must not be used for long-term storage because of the possibility of bacterial growth or mold. Exceptions include plastic bags that contain desiccant, a drying agent that prevents condensation and the subsequent growth of fungi or bacteria, and breathable plastic bags (Tyvek) that can be used for damp items and swabs.” (p. 10).

EXHIBIT 5: SAMPLES NOT RECOMMENDED FOR COLLECTION

Swab Type	Adult	Pediatric
Emesis	Typically, emesis is not useful for human DNA recovery, and there is no research supporting the practice of its collection or analysis after an oral sexual assault. ^a	Same in children.
Flossing (post-oral assault)	Flossing teeth should not be used as a sample collection technique in the living patient secondary to concerns about infection risk. ^b	Same in children.
Nares/nasal cavity	There is insufficient research at this time to support routinely collecting these samples following oral assault.	Same in children.
Nasal washes/flushes and other types of nasal sampling	Nasal washes or flushes should not be a standard practice for post-oral assault sample collection secondary to infection risk to the patient. ^c In regard to other types of nasal sampling, such as having victims blow their nose into a sterile 4x4 gauze or orally producing an oral collection of nasal secretions and depositing onto a sterile 4x4 gauze, there is no research to support or refute this practice. In addition, there should be a discussion with the victim regarding the unknown risk potential.	Same in children.
Plucked or pulled hair	There is insufficient research at this time to support routinely collecting these samples, and collection in this manner causes the victim unnecessary pain.	Same in children.
Vaginal aspirates/rinses/washes	Vaginal aspirates, rinses, and/or washes from the vagina or vaginal canal should not be a standard practice for post-sexual assault sample collection secondary to the potential health risks to the victim. ^d	Should not be done in the pediatric patient.

^a Emesis may have application in toxicological analysis. If case-specific collection is indicated, preservation and packaging should be done in consultation with the toxicology laboratory professionals.

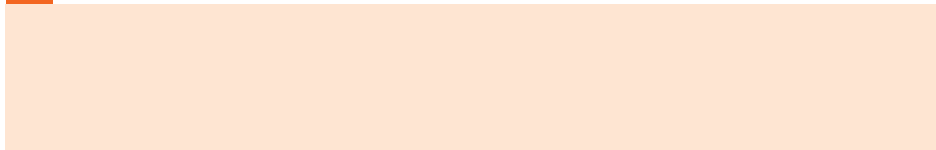
^b Preliminary research and support from multiple agencies indicates that although potential DNA evidence of an oral assault may be obtained from dental floss, the potential health risk to the patient/victim in the form of foreign cellular material carrying significant infection potential poses excess risk to the patient/victim, which outweighs the potential benefit of collecting DNA evidence. See *DNA Evidence Collection from the Oral Cavity* (2013) for additional information and related references: https://c.ymcdn.com/sites/www.forensicnurses.org/resource/resmgr/Position_Papers/DNA_Evidence_Collection_From.pdf.

^c Although there may be potential for DNA evidence of an oral sexual assault in the nasal cavity, there is potential health risk to the victim if foreign cellular material carrying significant infection is forced into the sinuses. Additionally, iatrogenic injury to the nasal mucosa may also create exposure risks for the victim, which outweighs the potential benefit of DNA evidence.

^d The potential health risk to the victim includes exposure to foreign cellular material carrying significant infection potential and risks for ascending infection secondary to this exposure. Such exposure may pose excess risk to the victim and can impact the victim's reproductive health. Note: Most testing laboratories do not recommend or ask that this sample collection technique be used for potential DNA evidence. However, a few laboratories have reported success with the vaginal aspirate being a source of DNA evidence. If it is determined that vaginal aspirate samples should still be collected, it is essential that a sterile pipette be used, and proper training for the collecting health care professional be conducted. It is also essential that the patient be informed of potential risks of infection from the procedure and be given the opportunity to decline. (L. Myer, L. Kuhn, Z.A. Stein et al., "Intravaginal Practices, Bacterial Vaginosis, and Women's Susceptibility to HIV Infection: Epidemiological Evidence and Biological Mechanisms," *The Lancet: Infectious Diseases* 5 (2005): 786-794; N. Low, M.F. Chersich, K. Schmidlin et al., "Intravaginal Practices, Bacterial Vaginosis, and HIV Infection in Women: Individual Participant Data Meta-Analysis," *PLOS Medicine* 8(2) (2011): e1000416. doi: 10.1371/journal.pmed.1000416). See also, T. Henry, "Post Mortem Sexual Assault Examinations," in *The Color Atlas of Sexual Violence*, ed. T. Henry (St. Louis: Elsevier, 2013): 115.

Unreported SAK Collection or Anonymous SAKs

Sample collection should be an option for all sexual assault victims who present for a medical-forensic exam, including those who choose not to report (unreported) or report anonymously.³⁶



the ultimate objective in collecting the SAK is to preserve evidence and maintain a proper chain of custody, should the victim decide to report in the future. Law enforcement agencies can anonymize the SAK for storage, such as through the use of a barcode, with no other personal identifying information on the outside of the SAK; that barcode can be provided to the victim for purposes of future reporting.

Victims Who Cannot Provide a History

Exam facilities should have policies in place to address consent for treatment in cases in which victims are unconscious, intoxicated, or under the influence of alcohol or drugs and are therefore temporarily unable to give consent.³⁸ If a victim who is unable to provide a history requests a medical-forensic exam, or if sample collection is going to be completed based on jurisdictional policy, then it is recommended that the following samples be collected as a part of the medical-forensic evaluation:

- ✓ Peri-oral area, lips, and oral cavity
- ✓ Posterior fornix and cervix (in the post-pubertal female)
- ✓ Peri-anal folds, anus, and rectum
- ✓ External anogenital structures (male or female)
- ✓ Neck
- ✓ Breasts
- ✓ Palms of hands
- ✓ Fingernails
- ✓ DNA reference samples
- ✓ Areas that fluoresce under alternate light source (ALS)
- ✓ Debris or foreign materials
- ✓ Toxicology³⁹ (e.g., urine, blood)

³⁸ A *National Protocol for Sexual Assault Medical Forensic Examinations—Adults/Adolescents* (2nd Ed.), p. 45. See also J. Pierce-Weeks and P. Campbell, “The Challenges Forensic Nurses Face When Their Patient Is Comatose: Addressing the Needs of Our Most Vulnerable Patient Population,” *Journal of Forensic Nursing*, 4(3) (2008):104-1010. doi: 10.1111/j.1939-3938.2008.00018.x. [“It is the responsibility of the practicing forensic nurse, understanding the nature of sexual assault, to ensure development and implementation of institutional policy to address the needs of the comatose patient population” (p. 108). Additionally, some states have addressed the evidence collection needs of unconscious victims, such as in Maine: “If an alleged victim of gross sexual assault is unconscious and a reasonable person would conclude that exigent circumstances justify conducting a forensic examination, a licensed hospital or licensed health care practitioner may perform an examination in accordance with the provisions of this section.”]; 2013 Maine Revised Statutes, 24 § 2986. “Performing forensic examinations for alleged victims of gross sexual assault,” available at <http://law.justia.com/codes/maine/2013/title-24/chapter-2-21/section-2986>. See also, New Hampshire protocol, at page 19: <http://doj.nh.gov/criminal/victim-assistance/documents/acute-care-protocol.pdf>.

³⁹ If alcohol or drug-facilitated sexual assault is suspected, toxicological specimens should be collected; additional details on the toxicology kit are explained in *A National Protocol for Sexual Assault Medical Forensic Examinations—Adults/Adolescents* (2nd Ed.), at page 107 et seq., https://safetasource.site-ym.com/resource/resmgr/Protocol_documents/SAFE_PROTOCOL_2012-508.pdf.

What is the best practice for collecting a victim reference sample?

Collection of a buccal sample should be the standard mechanism for obtaining DNA for victim reference samples.* Use two swabs to swab/rub over the inner aspect of each cheek. Collect the buccal swab as the victim’s DNA standard after the oral swab is obtained — rinse mouth after the oral swab is obtained (for evidentiary purposes) and before collection of the buccal swab (the reference standard).**

Occasionally, there may be a medical situation precluding the collection of buccal samples such as injury or disease in the oral cavity, injury to the structures of the face, or intubation. Should a blood sample be required for use as a reference sample, the least invasive method of collection should be used, such as collecting in conjunction with other phlebotomy procedures or a finger stick.

* A *National Protocol for Sexual Assault Medical Forensic Examinations—Adults/Adolescents* (2nd Ed.).

** A. DeJong, “The Medical Evaluation of Acute Sexual Abuse or Assault in Children and Adolescents,” in *Medical Response to Child Sexual Abuse: A Resource for Professionals Working with Children And Families*, eds. R. Kaplan, J. Adams, S. Starling, and A. Giardino (St. Louis, MO: STM Learning, Inc., 2011).

Post-Mortem Considerations

Forensic pathologists, coroners, SANEs, and other personnel who provide post-mortem medical-forensic exams for sexual assault should be forensically trained in normal post-mortem changes. If there is limited expertise in evidence collection of this type, there should be collaboration with a forensic pathologist for the collection of these samples.

Timing limitations for sample collection post-sexual assault are irrelevant for the deceased victim; regardless of the age of the victim or how long it has been since the assault, samples should be collected. If there is any suspicion of sexual assault or abuse, specimen collection and examination should be performed, regardless of the state of decomposition. Unlike the living victim, where the history guides what samples are to be collected, all possible samples should be collected from the deceased victim, to include dental flossing, pulled scalp hair, pulled pubic hair, and swabs of the neck, breasts, mouth, external genitalia, vagina, cervix, anus, and rectum. SAKs should be submitted for analysis in a timely matter, consistent with recommendations for those collected from living victims (see Chapter 3 for additional information).

Suspect Sample Collection

As with victims of sexual assault, the bodies of suspects can yield DNA that may assist in the investigation. Suspects can be male or female, thereby requiring very different sample collection and evaluation processes. Sample collection from the suspect may corroborate the victim's history of the sexual assault or refute the suspect's account of the sexual assault. Keeping all legal considerations in mind for the collection of evidence, suspect examinations should be performed, when appropriate, given the type and time since the assault, as a part of the investigative process. Specific reference samples may be collected from a suspect by law enforcement personnel in accordance with a lawful court order.

Except for the routine reference sample collection (usually in the form of a buccal swab), a full medical-forensic examination or other suspect sample collection should ideally be completed by a medical-forensic examiner or appropriately trained individual. Conducting suspect examinations is not in conflict with providing medical-forensic care to victims, but protocols are needed to guide practice and outline the parameters of the examiner's involvement.^{40,41} In the absence of a trained health care professional, suspect samples should be obtained by a health care provider and/or in conjunction with law enforcement.

⁴⁰ If the medical forensic examiner is, by jurisdictional protocol, the agency that will complete suspect evidence collection, then a formal protocol outlining that procedure should be in place. See the Office for Victims of Crime for protocol development considerations: <https://www.ovcttac.gov/saneguide/expanding-forensic-nursing-practice/suspect-examinations>.

⁴¹ There is wide variation in how suspect exams/sample collection are conducted across the country. In some jurisdictions (and within the Department of Defense), full exams are completed, similar to what victims undergo. However, in other jurisdictions, interactions with suspects may be limited to specific sample collection, such as buccal swabs and swabs of the penis and scrotum, and may not entail any physical assessment whatsoever.

RECOMMENDATION 10:

Suspect sample collection should ideally be completed by a medical-forensic examiner or appropriately trained individual.

For suspect exams, examiners should avoid completing the suspect exam/sample collection in the same room the victim's exam was conducted to avoid potential cross-contamination.⁴² Any individual collecting suspect samples should be mindful of the need to avoid cross-contamination with victim samples. For example, when possible, the examiner can conduct the examination in a different room than where the victim exam was conducted. If the same examiner collects both victim and suspect samples, that examiner must take steps to avoid cross-contamination, such as changing lab coats and gloves, wearing masks, and thoroughly washing hands between exams, etc.⁴³

In instances where the alleged perpetrator has been identified but a suspect exam will not be conducted, law enforcement personnel should obtain a buccal swab (reference sample) from that individual for comparison purposes. The reference sample must be packaged separately from the victim SAK and be clearly labeled as a suspect reference sample.⁴⁴

Contamination

In accordance with *A National Protocol for Sexual Assault Medical Forensic Examinations—Adults/Adolescents* (2nd Ed.), every precaution should be taken to avoid contamination of potential DNA evidence during the medical-forensic exam while still maintaining a victim-centered approach. Due to the increased sensitivity of DNA technologies, health care and law enforcement professionals collecting samples from victims and/or suspects should maintain ongoing communication and training with the forensic laboratory to determine if current collection procedures are adequate to minimize the potential for DNA contamination.

All efforts should be taken by the health care professional to minimize the potential for contamination of the collected sample by using single-use tools and/or lubricants, limiting the number of people in the room to the essential exam personnel and the support person of the victim's choosing, and positioning the support person away from the sample collection, such as at the head of

⁴² Where this is not possible, a policy should be in place that outlines cleaning procedures between exams; examiners should be prepared to clearly articulate these procedures in court.

⁴³ M. Carr, "Suspect Examinations," in *Evaluation and Management of the Sexually Assaulted or Sexually Abused Patient* (2nd Ed.) (Irving, TX: American College of Emergency Physicians, 2013): 109, <http://www.acep.org/workarea/DownloadAsset.aspx?id=93246>.

⁴⁴ See Scientific Working Group on DNA Analysis Methods, *SWGDM Recommendations for the Efficient DNA Processing of Sexual Assault Evidence Kits* (Quantico, VA: Federal Bureau of Investigation, December 2016): http://media.wix.com/ugd/4344b0_4daf2bb5512b4e2582f895c4a133a0ed.pdf. See also National Information Exchange Model: <https://www.niem.gov/aboutniem/Pages/history.aspx>.

the victim.⁴⁵ Additionally, a discussion between the examiner and the person accompanying the victim (e.g., advocate, family member) is needed prior to the exam to ensure an awareness of the potential for sample contamination.

The National Pediatric Protocol noted that “due to the sensitivity of evolving DNA testing methods, it is important to stay current on additional measures to avoid contaminating specimens (e.g., wearing a mask and limiting talk during the collection of specimens).”⁴⁶ Accordingly, due to increased sensitivity in DNA technologies, gloves should be used by all medical-forensic care providers and others in the collection and packaging of evidence.⁴⁷ Masks should also be worn during the collection and packaging of intimate samples and swabs. Universal blood and body fluid precautions must also be taken. It is important for the health care professional to explain the need for these precautions to the victim when collecting the evidence during the medical-forensic exam.

RECOMMENDATION 11:

Due to increased sensitivity in DNA technologies, masks and gloves should be used by all medical-forensic care providers and others in the collection and packaging of evidence, especially during the collection of intimate samples.

Medical-Forensic Exam Records

The collection of samples for the SAK often establishes the first link in the chain of custody. The health care professional who has collected the samples should record an inventory of each item as part of the medical-forensic documentation.

Documentation in the medical-forensic record is critical not only for victim care in the aftermath of sexual assault but also in the investigation of the crime and processing of any evidence collected during the exam. Regardless of whether documentation is completed in paper or electronic format, it should include the following, as outlined in *A National Protocol for Sexual Assault Medical Forensic Examinations*:⁴⁸

⁴⁵ Essential exam personnel would consist of examiners, chaperones (per institutional policy), victim advocates, and precepting clinicians. Law enforcement should not be in the exam room for victim exams, although they should be present for suspect exams. In these cases, the law enforcement personnel should also be positioned away from the sample collection, such as at the head of the exam table, although safety and security should also play a role in determining where they should position themselves.

⁴⁶ Office on Violence Against Women, *A National Protocol for Sexual Abuse Medical Forensic Examinations—Pediatric*. (Washington, DC: U.S. Department of Justice, 2016): 150, http://c.ymcdn.com/sites/www.kidsta.org/resource/resmgr/Docs/national_pediatric_protocol.pdf.

⁴⁷ See, R.A.H. van Oorschot et al., “Activities Between Activities of Focus — Relevant When Assessing DNA Transfer Probabilities,” *Forensic Science International: Genetics Supplement Series* 5 (2015): e75-e77. See also United Parcel Service website, “Infectious Substances” web page: <https://www.ups.com/content/us/en/resources/ship/hazardous/responsible/diagnostic.html?WT.svl=SubNav%2520>.

⁴⁸ See generally, *A National Protocol for Sexual Assault Medical Forensic Examinations—Adults/Adolescents* (2nd Ed.).

- ✓ Date and time of the examination
- ✓ Date and time of the sexual assault(s)
- ✓ Pertinent patient medical history
- ✓ Recent consensual sexual activity
- ✓ Post-assault activities by the patient
- ✓ Assault-related patient history
- ✓ Suspect information, if known
- ✓ Nature of the physical assault
- ✓ Detection of drug- or alcohol-facilitated sexual assault
- ✓ Description of the sexual assault(s)
- ✓ Physical examination findings
- ✓ Additional laboratory or diagnostic testing
- ✓ Discharge and follow-up information, including medications.

The medical-forensic record includes personal health information; therefore, if released, compliance with all federal and state privacy protections, including the protections of the Health Insurance Portability and Accountability Act (HIPAA), are required.

Electronic Medical Records (EMRs)

Medical-forensic examiners have limited access to electronic records management systems that are not only compliant with HIPAA but also allow for efficient and appropriate documentation, retrieval of information, electronic communication with multidisciplinary stakeholders, and data analysis to inform best practices. Medical-forensic programs should explore the potential to develop electronic records management systems with the capacity to:

- ✓ Be HIPAA compliant, with appropriate security features.
- ✓ Be specific to the medical-forensic exam, and not simply incorporated into the EMR system of the Emergency Department as a whole, with the potential to document narratively rather than charting by exception.
- ✓ Securely transfer pertinent information to law enforcement agencies and prosecutors, as appropriate.
- ✓ Allow for quality assurance, quality improvement, and peer review processes.
- ✓ Generate data for program support and potential program expansion.


EXHIBIT 6: RECORD RETENTION REQUIREMENTS

Federal Requirement	State Requirement	Accreditation Requirement	American Health Information Management Association (AHIMA) Recommendations
"Medical records must be retained in their original or legally reproduced form for a period of at least 5 years." (42 CFR 482.24(b) (1) Conditions of Participation: Medical Record Services)	State requirements vary. See https://www.healthit.gov/sites/default/files/appa7-1.pdf for an overview of the statutes and regulations for each state. Note: Per AHIMA, "Organizations and providers should compare state retention requirements and statute of limitations with legal counsel when developing a record retention schedule."	"The retention time of the clinical record is determined by its use and organization policy, in accordance with law and regulation." (Joint Commission RC.01.05.01)	Patient health and medical records: Adults: 10 years after the most recent encounter. Minors: Age of majority plus the statute of limitations period.

Medical-Forensic Record Retention

There is no single standardized medical-forensic examination record retention schedule for organizations and providers to follow. There are a variety of retention requirements that should be reviewed and considered when creating a record retention policy for medical-forensic exam records, as noted in Exhibit 6.⁴⁹

Limited time frames for retention may be problematic in terms of the needs of the criminal justice system, specifically where there are issues of delayed reporting, delayed processing of SAKs, CODIS hits, cold cases, and appeals. Because of this, policies for medical-forensic record retention should be created in accordance with statutes of limitations and other criminal justice needs rather than with the traditional parameters for medical record keeping, storage, retention, and destruction. Policies should ensure that retention of all records related to the medical-forensic exam, including written and photographic documentation, meet or exceed criminal justice needs rather than merely complying with the health information standards for general retention of records.

 **RECOMMENDATION 12:**

Policies for medical-forensic record retention should be created in accordance with statutes of limitations and other criminal justice needs rather than with traditional parameters for medical record keeping, storage, retention, and destruction.

⁴⁹ Table adapted from American Health Information Management Association, *Retention and Destruction of Health Information Practice Brief* (Updated 2013), available at http://library.ahima.org/xpedio/groups/public/documents/ahima/bok1_049252.hcsp?dDocName=bok1_049252.

Following the sexual assault medical-forensic exam, any samples collected from the victim should be transferred to law enforcement. The following chapter reviews the role of law enforcement in the transfer and storage of SAKs and other evidence, and identifies strategies to increase transparency, accountability, and ultimately reduce the numbers of unsubmitted SAKs.

SUMMARY RECOMMENDATIONS

The Medical-Forensic Exam and Sexual Assault Evidence Collection (continued from page 12)

5. Establish minimum standards for a national sexual assault kit; until that time, states and territories should create a standardized SAK for sexual assault cases that addresses the minimum criteria in the National Adults/Adolescents Protocol.
6. The medical-forensic exam should be performed by a health care professional specially trained in the collection of evidence relating to sexual assault cases such as a sexual assault nurse examiner or other appropriately trained medical professional.
7. Guided by the victim history, sexual assault samples should be collected from any victim seeking care as soon as possible and up to five (5) days or longer post-assault. Regardless of the time frame, reimbursement should be provided for the medical-forensic exam.
8. Examiners should concentrate the collection of evidentiary samples by using no more than two swabs per collection area so as not to dilute the biological sample.
9. Sample collection should be an option for all sexual assault victims who present for a medical-forensic exam, including those who choose not to report (unreported) or report anonymously.
10. Suspect sample collection should ideally be completed by a medical-forensic examiner or appropriately trained individual.
11. Due to increased sensitivity in DNA technologies, masks and gloves should be used by all medical-forensic care providers and others in the collection and packaging of evidence, especially during the collection of intimate samples.
12. Policies for medical-forensic record retention should be created in accordance with statutes of limitations and other criminal justice needs rather than with traditional parameters for medical record keeping, storage, retention, and destruction.

Transparency and Accountability of Law Enforcement for SAKs



As a result of the investigation, law enforcement agencies repeatedly come in contact with DNA evidence throughout its life cycle, from collection to analysis to post-analysis and beyond. However, one area where law enforcement's role is particularly critical is in the timely submission of sexual assault evidence to a forensic laboratory and its long-term storage and preservation. Therefore, creating an infrastructure to improve upon law enforcement's ability to carry out these functions is key.

This chapter explores the procedural issues for evidence storage and submission, with an in-depth look at chain of custody, tracking, and auditing.

Chain of Custody

Chain of custody is critical in establishing authentication and relevance for purposes of admissibility of the evidence in court. A properly documented chain of custody identifies all persons who have had custody of the evidence and tracks the location of that evidence in chronological order from collection to destruction. The collection of samples for the SAK often establishes the first link in the chain of custody. When maintained properly, whether via electronic tracking systems, paper-based systems, or a combination of the two, chain of custody records should demonstrate an unbroken chain of evidence movement from person to person⁵⁰ or person to location. All personnel who handle evidence should be aware that court testimony may be expected as part of their interaction with the evidence. Recommendations for criteria to be tracked as part of the chain of custody are listed in Exhibit 7.

Tracking of SAKs


Agencies responsible for the custody of evidence should have a system to track evidence, preferably an electronic tracking system. The evidence should be tracked from the time of collection of the SAK, custody of the evidence by the law enforcement agency, submission to and analysis by the forensic laboratory, through disposition/storage or destruction.

⁵⁰ For example, movement of the evidence within the laboratory from person to person must be documented and tracked.

EXHIBIT 7: RECOMMENDATIONS FOR TRACKING CHAIN OF CUSTODY

Chain of custody	<ul style="list-style-type: none">• Date/time/identity of individual who collected evidence.• Any person(s) in possession of the evidence at scene and during transport.• Date/time/identity of person who submitted the evidence.• Date/time/identity of property/evidence custodian who accepted/received the evidence.• Date/time/identity of any person to whom the evidence was released and from whom it was returned.
Unique item identification	<ul style="list-style-type: none">• Description of item.• Unique number identifier (e.g., unique and scan-capable barcode).• Evidence items created from analysis or separated from the original evidence item should be documented to show the linkage between it and the original evidence.
Location of item in property/evidence storage room or other external location(s)	<ul style="list-style-type: none">• Location (e.g., shelf number or bin) where evidence is stored.• Date/time/identity of person who stored the evidence.• System should have the means to identify items or evidence that has not been returned according to agency policy.

Many jurisdictions do not currently appropriate funding that would allow for robust information technology (IT) purchase and sustainment.⁵¹ There may also be obstacles to sharing data across agencies due to differences in types of information. For instance, a lack of information sharing agreements and transaction protocols that would allow data from a laboratory’s evidence management system to speak to the Law Enforcement Case Management System (LECMS) frequently results in printed copies of forms being hand carried between agencies as the SAK is transferred. Law enforcement agencies and laboratories should partner to use one evidence tracking system. Additionally, the creation of national standards for information and evidence management systems will allow for more efficient exchange of information and the opportunity for interoperability among criminal justice agencies

 **RECOMMENDATION 13:**

Law enforcement agencies and laboratories should partner to use one evidence tracking system.

⁵¹ “A recent National Institute of Justice (NIJ) survey found that 4 in 10 (43%) of the nation’s law enforcement agencies do not have a computerized system for tracking forensic evidence, either in their inventory or after it is sent to the crime lab ...” N. Ritter, *The Road Ahead: Unanalyzed Evidence in Sexual Assault Cases*. (Washington, DC: National Institute of Justice, 2011): 6. <https://www.ncjrs.gov/pdffiles1/nij/233279.pdf>.

The federal government should develop an Electronic Evidence Exchange Standard, a standardized taxonomy for all data sets within an evidence management system, for the data standards associated with physical forensic evidence. As an example, the “National Information Exchange Model (NIEM) is a community-driven, standards-based approach to exchanging information. It was started by a handful of organizations supporting state and local government to overcome the challenges of exchanging information across state and city government boundaries.”⁵² The data standard for physical forensic evidence needs to be NIEM compliant and support the law enforcement community at each level of government. Once a data standard is developed, all of the forensic information management system developers can ensure that individual applications adhere to the standard, thereby making the exchange of information technically feasible and enhancing interoperability.



RECOMMENDATION 14:

The federal government should develop an Electronic Evidence Exchange Standard for the data standards associated with physical forensic evidence.

Transfer to Law Enforcement Agencies

Subject to applicable law, the hospital or clinic should transfer the SAK to the law enforcement agency as soon as possible after collection. Many jurisdictions have enacted legislation specifying the turnaround time for collection of the SAK once the law enforcement agency is notified of such evidence (see Exhibit 8 for a sampling of state laws defining turnaround times for the transfer of SAKs).⁵³ The hospital or clinic should notify their pre-arranged law enforcement point of contact of evidence available for retrieval within 24 hours, if they are not already involved in the investigation. SAKs should be received by the local law enforcement agency⁵⁴ from the hospital or clinic as soon as possible, ideally, no later than three (3) business days from the collection of the kit, or as specified by statute.



RECOMMENDATION 15:

SAKs should be received by the local law enforcement agency from the hospital or clinic as soon as possible, ideally, no later than three (3) business days from the collection of the kit, or as specified by statute.

⁵² See generally, the National Information Exchange Model at <https://www.niem.gov/aboutniem/Pages/history.aspx>.

⁵³ See also www.endthebacklog.org for additional information on state laws relating to the submission of SAKs.

⁵⁴ Note: In some jurisdictions, the hospital or clinic submits the SAKs directly to the forensic laboratory, as is the case in Sacramento, California.

EXHIBIT 8: SAMPLE OF STATE LAWS ON THE TRANSFER OF SAKs TO LAW ENFORCEMENT AND LABORATORIES

State	From Collection to Law Enforcement	Law Enforcement Submission to Laboratory
Arizona AZ Rev. Stat. § 13-1426(B), (C)	“A law enforcement agency that receives notice pursuant to subsection a of this section must take possession of the sexual assault kit evidence from the health care facility within five business days after notification.”	“The investigating law enforcement agency must submit the sexual assault kit evidence to a public accredited crime laboratory for forensic analysis within fifteen business days after its receipt in all cases in which a victim reports to law enforcement and law enforcement determines that a crime occurred.”
California CA Penal Code § 680(b)(7)	“A law enforcement agency... should do one of the following...: (i) Submit sexual assault forensic evidence to the crime lab within 20 days after it is booked into evidence; (ii) Ensure that a rapid turnaround DNA program is in place to submit forensic evidence collected from the victim of a sexual assault directly from the medical facility where the victim is examined to the crime lab within 5 days after the evidence is obtained from the victim.”	“A law enforcement agency... should do one of the following...: (i) Submit sexual assault forensic evidence to the crime lab within 20 days after it is booked into evidence; (ii) Ensure that a rapid turnaround DNA program is in place to submit forensic evidence collected from the victim of a sexual assault directly from the medical facility where the victim is examined to the crime lab within 5 days after the evidence is obtained from the victim.”
Colorado CO Rev. Stat. § 24-33.5-113; 8 CCR 1507-29		“..., all forensic medical evidence received by a law enforcement entity must be submitted to the Colorado Bureau of Investigation or an accredited crime laboratory for analysis within 21 days of receipt of such evidence except under the following circumstances...”
Connecticut CT Gen. Stat. § 19a-112a(d)	“After the collection of any evidence, the health care facility shall contact a police department to receive the evidence.”	“Not later than ten days after the collection of the evidence, the police department shall transfer the evidence, in a manner that maintains the integrity of the evidence, to the Division of Scientific Services within the Department of Emergency Services and Public Protection or the Federal Bureau of Investigation laboratory. ”
District of Columbia D.C. Code § 4-561.02(a)(1)	“Within 7 days after a sexual assault victim makes a report to the MPD (Metropolitan Police Department), the MPD shall retrieve the kits and specimens and deliver: (1) the sexual assault forensic examination kit to the DFDFS...”	“Within 7 days after a sexual assault victim makes a report to the MPD [Metropolitan Police Department], the MPD shall retrieve the kits and specimens and deliver: (1) the sexual assault forensic examination kit to the DFDFS...”
Florida FL Stat. § 943.326(1)		“A sexual offense evidence kit,... must be submitted to a member of the statewide criminal analysis laboratory system under § 943.32 for forensic testing within 30 days after: (a) Receipt of the evidence by a law enforcement agency if a report of the sexual offense is made to the law enforcement agency; or (b) A request to have the evidence tested is made” by specified individuals.

EXHIBIT 8: SAMPLE OF STATE LAWS ON THE TRANSFER OF SAKs TO LAW ENFORCEMENT AND LABORATORIES (CONT.)

State	From Collection to Law Enforcement	Law Enforcement Submission to Laboratory
Georgia O.C.G.A. § 35-1-2(b),(c) [Act 338 of 2016]	"Law enforcement officials shall take possession of such evidence no later than 96 hours of being notified."	"It shall be the duty of every law enforcement officer who takes possession of the evidence...to ensure that such evidence is submitted to the division within 30 days of it being collected...."
Idaho ID Code § 67-2919(3)	"A local law enforcement agency that receives notice from a health care facility... shall facilitate the collection of the sexual assault evidence kit..."	"... the local law enforcement agency shall submit such kit... to the Idaho state police forensic services laboratory for testing as soon as reasonably practical, but not later than thirty (30) days after obtaining the kit."
Illinois 725 ILCS § 202/10		"Law enforcement agencies that receive sexual assault evidence... must submit evidence from the case within 10 business days of receipt of the consent to test to a Department of State Police forensic laboratory or a laboratory approved and designated by the Director of State Police."
Kentucky KY Rev. Stat. § 15.440(1)(i)	"...evidence collected as a result of an examination...be taken into custody within five (5) days of notice from the collecting facility that the evidence is available for retrieval..."	"...all evidence retrieved from a collecting facility under this paragraph be transmitted to the Department of Kentucky State Police forensic laboratory within thirty (30) days of its receipt by the department..."
Michigan MI Comp. Laws § 752.933-934	"A law enforcement agency that receives notice...shall take possession of the sexual assault kit evidence from the health care facility within 14 days after receiving that notice."	"The investigating law enforcement agency that takes possession of any sexual assault kit evidence...shall submit that evidence to the department or another accredited laboratory for analysis within 14 days after that law enforcement agency takes possession of that evidence..."
New Mexico Chapter 99 of the Laws of 2017; § 30-9-19(A)(3)		"Requires the agency to send a sample of biological material collected pursuant to a medical examination of a sexual assault victim to that agency's servicing laboratory for DNA testing as soon as practicable after receiving the sample, and, in all cases, within thirty days of the agency's receipt of the sample."
Ohio OH Rev. Code § 2933.82 (B)(2)(b)		"If an investigation is initiated... the law enforcement agency shall forward the contents of a sexual assault examination kit in the agency's possession to the bureau or another crime laboratory within thirty days for a DNA analysis..."
Pennsylvania 35 PA Stat. § 10172.3 (c)(1),(4)	"As soon as practical, the health care facility shall notify the local law enforcement agency of the jurisdiction where the reported sexual assault occurred. The local law enforcement agency shall take possession of the sexual assault evidence within 72 hours of receiving notice."	"Within 15 days of receiving written notice of consent to the testing of the sexual assault evidence, the local law enforcement agency shall submit the evidence awaiting testing to a laboratory approved by the department for testing or analysis."

EXHIBIT 8: SAMPLE OF STATE LAWS ON THE TRANSFER OF SAKs TO LAW ENFORCEMENT AND LABORATORIES (CONT.)

State	From Collection to Law Enforcement	Law Enforcement Submission to Laboratory
Tennessee TN Code Ann. § 39-13-519 (c),(d)	"Upon the conclusion of the forensic examination, the resulting sexual assault evidence collection kit or hold kit shall be released to a law enforcement agency by a health care provider for storage or transmission to the state crime lab or other similar qualified laboratory..."	"The law enforcement agency shall, within sixty (60) days of taking possession of the sexual assault evidence collection kit..., submit the kit to the Tennessee bureau of investigation or similar qualified laboratory for either serology or deoxyribonucleic acid (DNA) testing."
Texas TX Gov't. Code § 420.042		"A law enforcement agency that receives sexual assault evidence... shall submit that evidence to a public accredited crime laboratory for analysis not later than the 30th day after the date on which the evidence was received."
Utah UT Code § 76-5604 (2),(5)(a)	"Each sexual assault kit collected by medical personnel shall be taken into custody by a law enforcement agency as soon as possible and within one business day of notice from the collecting facility."	"Except for restricted kits, each sexual assault kit shall be submitted to the Utah Bureau of Forensic Services as soon as possible, but no later than 30 days after receipt by a law enforcement agency."
Virginia VA Code § 19.2-11.7-8	"A law enforcement agency that receives notice from a health care provider that a physical evidence recovery kit has been collected shall forthwith take possession of the physical evidence recovery kit."	"A law enforcement agency that receives a physical evidence recovery kit shall submit the physical evidence recovery kit to the Department for analysis within 60 days of receipt except under the following circumstances..."
Washington WA Rev. Code § 70.125.090 (1)		"When a law enforcement agency receives a sexual assault examination kit, the law enforcement agency must, within thirty days of its receipt, submit a request for laboratory examination to the Washington state patrol crime laboratory for prioritization for testing by it or another accredited laboratory that holds an outsourcing agreement with the Washington state patrol if..."
Wisconsin WI Stat. Ann. § 175.405		"Whenever a law enforcement agency collects, in a case of alleged or suspected sexual assault, evidence upon which deoxyribonucleic acid analysis can be performed, and the person who committed the alleged or suspected sexual assault has not been identified, the agency shall follow the procedures...and shall, in a timely manner, submit the evidence it collects to a crime laboratory..."

In remote, rural, or underserved areas, delays in transport are common. If the evidence cannot be physically retrieved by law enforcement from the health care agency within three days from the date of collection, a shipping method should be employed with a tracking system that includes the location with dates, times, and signatures necessary to preserve the chain of custody. Packaging should be completed with attention to preservation of the type of evidence. Frozen evidence should be packed with dry ice and dry evidence should be packaged in temperature-controlled environments that preserve the integrity of the sample and diminish degradation. The sender should follow appropriate guidance for mailing biological substances, regardless of whether wet or dry evidence.⁵⁵

Responsibilities for Transfer and Temporary Storage

The hospital or clinic is responsible for the proper storage of the SAK until it is picked up by the law enforcement agency or mailed out. Temporary storage is defined as storage of the evidence for 72 hours or less.⁵⁶ The hospital or clinic, vehicles that transport evidence to long-term storage facilities, or small property

EXHIBIT 9: SHORT-TERM STORAGE CONDITIONS MATRIX

Type of Evidence	Frozen ^a	Refrigerated ^b	Temperature Controlled ^c	Room Temperature ^d
Liquid blood	Never	Best	Less than 24 hrs.	
Urine	Best	Less than 24 hrs.		
Dry biological stained item			Best	Acceptable
Wet items (if they can't be dried)	Best	Acceptable	Less than 24 hrs.	
Hair			Best	Acceptable
Swabs with biological material		Best (wet)	Best (dried)	
Buccal swabs			Best	Less than 24 hrs.

^a Frozen: Temperature is maintained thermostatically at or below -10 °C (14 °F).

^b Refrigerated: Temperature is maintained thermostatically between 2 °C and 8 °C (36 °F and 46 °F) with less than 25% humidity.

^c Temperature controlled: Temperature is maintained thermostatically between 15.5 °C and 24 °C (60 °F to 75 °F) with less than 60% humidity.

^d Room temperature: Temperature is equal to the ambient temperature of its surroundings; storage area may lack temperature and humidity control methods.

Source: Adapted from Technical Working Group on Biological Evidence Preservation, *The Biological Evidence Preservation Handbook: Best Practices for Evidence Handlers*. (Gaithersburg, MD: U.S. Department of Commerce, National Institute of Standards and Technology, 2013), 17-18, doi: 10.6028/NIST.IR.7928.

⁵⁵ For example, see United Parcel Service website, "Infectious Substances," <https://www.ups.com/content/us/en/resources/ship/hazardous/responsible/diagnostic.html?WT.svl=SubNav%2520>.

⁵⁶ *The Biological Evidence Preservation Handbook: Best Practices for Evidence Handlers*, at page 17.

rooms at law enforcement headquarters may be temporary storage sites for the SAK. As such, the SAK should be maintained under appropriate storage conditions, in consultation with the local forensic laboratory, and in accordance with the recommendations in Exhibit 9 for short-term storage.

Transfer From Law Enforcement to Laboratories

Some states have laws governing the turnaround times for submission of the SAKs to laboratories for analysis. The time frames are also described in Exhibit 8. Law enforcement agencies should submit the SAK to the laboratory for analysis as soon as possible, ideally, no later than seven (7) business days from the collection of the SAK, or as specified by statute. If laboratory storage capacity prohibits physical submission, law enforcement should make a written request for analysis during that seven-day period, with the evidence stored by law enforcement. As noted previously, in remote, rural, or underserved areas, delays in transport are common. If the evidence cannot be physically delivered to the laboratory by law enforcement, alternative options, such as shipping, may be used, as long as that method incorporates an appropriate tracking system that includes the location with dates, times, and signatures necessary to preserve the chain of custody.



RECOMMENDATION 16:

Law enforcement agencies should submit the SAK to the laboratory for analysis as soon as possible, ideally, no later than seven (7) business days from the collection of the SAK, or as specified by statute.

Responsibilities for Long-Term Storage

Long-term storage conditions for the evidence types, listed in Exhibit 10, should be maintained to preserve evidence integrity. (See also the section on evidence retention in Chapter 6).

In order for there to be consistency of practice and to more effectively track, inventory, and/or audit SAKs, law enforcement and/or laboratories should be responsible for the long-term storage of all kits (reported and unreported), unless applicable law provides otherwise. As noted earlier, hospitals, rape crisis centers, and clinics should not be responsible for the long-term storage of the SAKs.



RECOMMENDATION 17:

Law enforcement or laboratories should be responsible for the long-term storage of all SAKs, unless applicable law provides otherwise.

EXHIBIT 10: LONG-TERM STORAGE CONDITIONS MATRIX

Type of Evidence	Frozen ^a	Refrigerated ^b	Temperature Controlled ^c	Room Temperature ^d
Liquid blood	Never	Best	Less than 24 hrs.	
Urine	Best			
Dry biological stained item			Best	
Hair			Best	Acceptable
Swabs with biological material			Best (dried)	
Buccal swabs			Best	
DNA extracts	Best (liquid)	Acceptable (liquid)	Acceptable (dried)	Less than 24 hrs.

^a Frozen: Temperature is maintained thermostatically at or below –10 °C (14 °F).

^b Refrigerated: Temperature is maintained thermostatically between 2 °C and 8 °C (36 °F and 46 °F) with less than 25% humidity.

^c Temperature controlled: Temperature is maintained thermostatically between 15.5 °C and 24 °C (60 °F to 75 °F) with less than 60% humidity.

^d Room temperature: Temperature is equal to the ambient temperature of its surroundings; storage area may lack temperature and humidity control methods.

Source: Adapted from Technical Working Group on Biological Evidence Preservation, *The Biological Evidence Preservation Handbook: Best Practices for Evidence Handlers*. (Gaithersburg, MD: U.S. Department of Commerce, National Institute of Standards and Technology, 2013), 19, accessed December 16, 2016, <http://dx.doi.org/10.6028/NIST.IR.7928>. See also, L. Langton et al., *Victimizations Not Reported to the Police, 2006-2010*. (Washington, DC: Bureau of Justice Statistics, 2012): <http://www.bjs.gov/content/pub/pdf/vnrp0610.pdf>.

As forensic science advances, the potential to develop a DNA profile increases. Due to advancements, DNA evidence from samples collected years ago may now result in generating a probative DNA profile. Communities should consider expanded time frames for storing SAKs due to potential future advancements in forensic sciences (see Chapter 6).

Inventories

Beginning with legislation enacted in Illinois in 2010, states have been addressing the analysis of SAKs, both the backlog of SAKs and the SAKs collected prospectively. Some of these new laws require an inventory or audit of SAKs within the state that have never been submitted to a laboratory for analysis. If jurisdictions have not completed an initial inventory of all SAKs, a comprehensive inventory should be conducted to determine the number, status, location, and individual descriptive information (e.g., unique kit identifier, date collected) for all SAKs. Inventories should be routinely conducted to ensure that updated information is being provided to determine how the jurisdiction is progressing, where SAKs are located, and what is the current status. A single inventory provides a snapshot of the SAKs at a point in time. Routine inventories provide the ability to establish trends, assess progress on eliminating backlogs,

RFID Technology in Forensic Evidence Management

In order to assist the community in achieving enhanced tracking and storage of biological evidence using automated identification technology (AIT), such as radio frequency identification (RFID, a “technology that provides enhanced capabilities including precise location, environmental measurements, and automatic real-time updates of the position and condition of assets in an inventory”), the following recommendations are suggested. These recommendations were developed with input from the Technical Working Group on Biological Evidence.

To facilitate the adoption of AIT, federal, state, and regional agencies should establish the following:

- Numbering standards
- Evidence-labeling standards
- Standard data-exchange methodology.

Individual law enforcement agencies should analyze current evidence-handling processes to identify areas that can benefit from AIT adoption. Law enforcement agencies should work to optimize the use of AIT technologies, such as barcodes and RFID, by enhancing agency coordination, data-exchange methods, process management, and automation. Law enforcement agency management should use the experiences of commercial organizations to overcome barriers to adoption in law enforcement. See *RFID in Forensic Evidence Maintenance* for more information: <http://nvlpubs.nist.gov/nistpubs/ir/2014/NIST.IR.8030.pdf>.

and ensure appropriate timelines for movement, analysis, storage, and destruction.



RECOMMENDATION 18:

A comprehensive inventory should be conducted to determine the number, status, location, and individual descriptive information (e.g., unique kit identifier, date collected) for all SAKs.

Audits

In addition to a tracking process or system, jurisdictions should also develop a process to audit their respective SAKs. Many jurisdictions, based on their state laws, have already had to engage in an inventory or audit of unsubmitted SAKs in their possession (law enforcement agencies, laboratories, and hospitals). Law enforcement agencies should perform an annual audit verifying that all SAKs in the property room are present and in their specified location. Law enforcement policies and protocols should also include a mechanism to track and account for any evidence not in the possession or custody of the law enforcement property room (e.g., sent to the laboratory or checked out for court) during the audit.



RECOMMENDATION 19:

Law enforcement agencies should perform an annual audit verifying that all SAKs in the property room are present and in their specified location.

The next chapter goes beyond law enforcement's responsibility for the SAK and explores investigative considerations for the sexual assault case, including the advantages of testing all SAKs, the significance of a CODIS hit, and law enforcement challenges.



SUMMARY RECOMMENDATIONS

Transparency and Accountability of Law Enforcement for SAKs (continued from page 31)

13. Law enforcement agencies and laboratories should partner to use one evidence tracking system.
14. The federal government should develop an Electronic Evidence Exchange Standard for the data standards associated with physical forensic evidence.
15. SAKs should be received by the local law enforcement agency from the hospital or clinic as soon as possible, ideally, no later than three (3) business days from the collection of the kit, or as specified by statute.
16. Law enforcement agencies should submit the SAK to the laboratory for analysis as soon as possible, ideally, no later than seven (7) business days from the collection of the SAK, or as specified by statute.
17. Law enforcement or laboratories should be responsible for the long-term storage of all SAKs, unless applicable law provides otherwise.
18. A comprehensive inventory should be conducted to determine the number, status, location, and individual descriptive information (e.g., unique kit identifier, date collected) for all SAKs.
19. Law enforcement agencies should perform an annual audit verifying that all SAKs in the property room are present and in their specified location.

Investigative Considerations



Law enforcement agencies play a critical role in a community's response to and prevention of sexual assault. From the initial report of a sexual assault to the investigation, to the management of evidence, to final court testimony, law enforcement officers at all levels must have the training and skill set to successfully conduct a thorough investigation. This document does not attempt to provide a detailed manual of how law enforcement should investigate sexual assault cases. Instead, it provides an essential foundation and framework for the proper response and management of sexual assault cases and the handling of forensic evidence collected, including previously unsubmitted SAKs.

Law enforcement agencies can positively impact victim engagement through a victim-centered and trauma-informed approach. This incorporates the implications of trauma, the victim's viewpoint at each step of the process, and the victim's safety. As noted in Chapter 1, law enforcement needs to recognize that victim engagement in the criminal justice system is enhanced by the presence of an advocate (system-based and/or community-based). Utilizing trauma-informed approaches helps to keep victims informed and connected to resources.

Victims may define justice in their sexual assault cases, not only through conviction but also through their voices being heard and respected.⁵⁷ Law enforcement must maintain an objective, unbiased fact-finding position; however, they can continue to support victim engagement by effectively investigating sexual assault cases, including accountability for and timely submission of the SAK.

Initial Law Enforcement Response and Preliminary Investigation

All reported incidents of sexual assault should be considered valid and documented. A thorough investigation should be conducted into each incident to assess the evidence and determine the facts of the case.

⁵⁷ See National Center for Victims of Crime, *Sexual Assault Kit Backlogs: Survivor Perspectives*. [Washington, DC: National Center for Victims of Crime, 2012]: <http://victimsofcrime.org/docs/dna-resource-center-documents/survivor-stories-summary.pdf?sfvrsn=2>.

Law enforcement should ensure the safety of the victim, provide the victim access to a medical-forensic exam, provide access to victim advocacy, identify and preserve physical evidence, and document the initial actions in an incident report. The victim's initial contact with the law enforcement first responder has a direct effect on her/his trust in the criminal justice system and may impact the victim's decision to remain engaged with the criminal justice system. Sensitivity shown to the victim during the investigative process facilitates a fair, balanced, and thorough investigation.⁵⁸

Law enforcement should ensure that the victim has access to a medical-forensic exam.⁵⁹ If the assault took place within the past nine days, it is important to get the victim to a medical-forensic examiner quickly. Law enforcement's responsibility for transferring, tracking, and submitting the SAK to the laboratory is detailed in Chapter 3.

All Reported SAKs Should Be Tested

All SAKs that the victim has consented to reporting to law enforcement should be submitted to the laboratory for DNA analysis.⁶⁰ The forensic laboratory should not refuse to accept or process the SAK based on time elapsed since the assault. Several jurisdictions already require the testing of all SAKs.⁶¹ Testing all kits can be beneficial for the following reasons:

- ✓ To establish trust between the community and law enforcement;
- ✓ To inspire confidence in the criminal justice system for the victim;
- ✓ To identify or confirm the suspect's identity;
- ✓ To enhance public safety by linking cases within and across jurisdictions (such as identifying serial offenders); and
- ✓ To corroborate or confirm the case-specific information about the crime.

⁵⁸ The International Association of Chiefs of Police (IACP) published guidelines and interview strategies for law enforcement; see *IACP Sexual Assault Incident Reports*, U.S. Department of Justice, Office on Violence Against Women, available at <http://www.theiacp.org/portals/0/pdfs/SexualAssaultGuidelines.pdf>.

⁵⁹ See Sexual Assault Survivors' Bill of Rights, P.L. 114-236.

⁶⁰ For more information about deciding which kits to test, see B. Campbell and W. Wells, *Testing Sexual Assault Kits in Cold Cases and Follow-Up Investigations: Practices Used in Agencies in the United States* (Huntsville, TX: Sam Houston State University, 2014): <http://houstonsakresearch.org/resources/documents/testing.pdf>; and R. Campbell et al., "Chapter 4: Developing and Evaluating a Sexual Assault Kit Testing Plan," in the *Detroit Sexual Assault Kit Action Research Project, Final Report* (2015): <https://www.ncjrs.gov/pdffiles1/nij/grants/248680.pdf#page=163>. See also; Office on Violence Against Women, *Sexual Assault Kit Testing Initiatives and Non-investigative Kits* (White Paper) January 2017. <https://www.justice.gov/ovw/page/file/931391/download> (The Office on Violence Against Women (OVW) recently published a white paper and "...cautions against submitting sexual assault kits (SAKs) to forensic laboratories if the person from whom the kit was collected has not chosen to report a sexual assault to law enforcement and has not otherwise consented to its submission.")

⁶¹ The Joyful Heart Foundation's End the Backlog Initiative, at www.endthebacklog.org. See, for example, CO Rev. Stat. § 24-33.5-113(4); FL Stat. § 943.326(1); and KY Rev. Stat. § 17.175(3)(a).



RECOMMENDATION 20:

All SAKs that the victim has consented to reporting to law enforcement should be submitted to the laboratory for DNA analysis.

Additionally, even if the statute of limitations has expired for an individual sexual assault case, testing the SAK and any subsequent CODIS hit can be used for the following:

- ✓ To determine if the statute of limitations can be suspended/tolled once the suspect is identified (e.g., if the suspect has been out of the state);
- ✓ For civil commitments under state sexual predator laws;
- ✓ To provide evidence of prior bad acts (404b) for future prosecutions involving that suspect;
- ✓ As relevant information for the sentencing phase (relating to the defendant's character);
- ✓ As relevant information for parole board hearings; and
- ✓ For possible closure for the victim, even though the case cannot be criminally prosecuted.

Active Investigation

All reports of sexual assault should be actively investigated, regardless of the circumstances of the incident, the status of the victim, and the status of the suspect. Generally, investigative steps should include the following: a more detailed interview of the victim, questioning witnesses, and ensuring that all relevant evidence has been collected from the victim and surrounding crime scene, all while striving to maintain victim engagement. As part of a victim-centered approach, victim engagement continues to be critical during the active investigation phase and can be facilitated by victim advocacy services.

During an active investigation, investigators should pursue leads based on the evidence initially available and an understanding of the trauma responses (see Chapter 1). A more detailed interview of the victim should be conducted after the initial interview, generally leaving sufficient time to allow for the victim's memory to organize and the physiological effects of the trauma to begin to dissipate. Use of a trauma-informed approach recognizes that each victim is different and may react differently to trauma. Interviewing all witnesses related to the assault (including outcry witnesses with whom the victim communicated

evidence from various digital media, such as 911 call files, closed-circuit TV systems, cell phones, and social media servers. If a suspect is identified by the victim or through investigative leads, a criminal history and background check can provide the investigator critical information for developing an interviewing strategy for the suspect.

Efforts should also be made to identify, collect, and submit reference samples to the forensic laboratory. Case-specific reference samples may include those from the victim, if not previously collected during a medical-forensic exam; the suspect, if known; and elimination samples (e.g., consensual sexual partner standards, or infants of nursing mothers), as needed.

Post-DNA Analysis Investigation

Although the DNA evidence may generate important investigative information for the case, the submitting law enforcement agency, in conjunction with prosecution, are in the best position to evaluate that information and its significance to the case. The law enforcement investigation us 2m7.6 Tmanual par7cance to th for the casStyleSp(y)e that iance

Reference Samples

DNA samples should be collected from known individuals such as the victim, consensual partner(s), and suspect(s), if known; these are the reference samples. The analysis of evidence may often result in DNA profiles from more than one individual. Therefore, the victim's DNA profile, and that of the consensual partner(s) if indicated in the SAK paperwork, may be used to deduce a more informative DNA profile that can be associated with a suspect. In instances where the suspect has been identified, law enforcement personnel should obtain buccal swabs (reference samples) from that individual for comparison purposes.

Understanding the Investigative Significance of a CODIS Hit

A CODIS hit is considered an investigative lead. It still requires independent confirmation by the investigator through the collection of a reference sample (usually in the form of a buccal swab) from the individual identified through the CODIS hit. This reference sample must be submitted to the laboratory for independent DNA testing, evidence comparison, and statistical analysis, as appropriate, for future use in court.

Following up on CODIS hits is important. In addition to the identification of a suspect, a CODIS hit may be beneficial for the following reasons:

- ✓ Excludes potential suspects.
- ✓ Reduces wrongful arrests.
- ✓ Assists in the exoneration of the wrongfully convicted.
- ✓ Links cases within a state and across the nation.
- ✓ Provides validation to the victim.

Law enforcement agencies should establish a system of accountability to ensure the timely follow-up on CODIS hits. This system of accountability could include the development of a policy or identification of a designated point of contact/position responsible for following up on CODIS hits. The laboratory reports and CODIS hit notifications are traditionally returned to the initial case investigator whenever possible. Due to attrition and turnovers in personnel, some jurisdictions have a designated position within the criminal justice system to receive these CODIS hit notifications. Some agencies have a succession plan in place for the transfer of that investigator's cases, such as a general email account or other email tools. Records management systems can assist in case tracking and workflow to reduce the potential for information to be inadvertently overlooked because of personnel changes.

If CODIS identifies a suspect, it is incumbent on both the law enforcement agency originating the profile in CODIS and the investigating agency submitting the recent sample to follow up on their investigations. Regardless of the time that has passed, both case files should be reviewed and the results of the analysis put into the overall context of the current investigation. The follow-up required on the original investigation when the SAK was collected will entail determining jurisdictional questions, considering the victim's safety where a suspect is identified, conducting follow-up interviews with victims and witnesses, locating and interviewing the suspect, obtaining search warrants for confirmation samples, and obtaining signed consent for the release of medical records. Early coordination with the prosecuting attorney is critical.⁶³

⁶³ Documents created and implemented by The Wayne County SAK Task Force provide direction and detail issues, procedures, guidelines, and recommendations to consider when developing a policy related to cold cases at <http://www.waynecounty.com/prosecutor/detroitrapekitproject.htm>. An additional resource is the Houston Sexual Assault Kit Research, available at <http://houstonsakresearch.org>.

Special Considerations for Cold Case Investigations

If the search of CODIS does not identify any suspect(s), the DNA profile will be maintained in CODIS and routinely searched with the possibility of identifying suspect(s) in the future. If there is no immediate CODIS hit, law enforcement should review the case file to ensure that all investigative leads have been pursued. Law enforcement should compile the investigative case file, ensuring inclusion of all appropriate supporting evidence, completion of interviews, documentary evidence, reference samples, and consultation with the prosecuting attorney regarding the necessity for preserving the statute of limitations (such as seeking a John Doe warrant). Victim notification protocols should also be considered.

Law Enforcement Challenges

During the investigative process, a number of potential challenges may impact the law enforcement investigation of the sexual assault, including victim engagement, staffing and leadership, appropriate training opportunities, availability of records management systems, and access to technology.



RECOMMENDATION 21:

Law enforcement agencies should establish a system of accountability to ensure the timely follow-up on CODIS hits.

Victim Engagement

Rape and sexual assault continue to be among the crimes least reported to law enforcement.⁶⁴ Even when a victim makes the decision to report to law enforcement, a variety of factors may cause the victim to disengage from the investigation.⁶⁵ There are struggles within the criminal justice system to balance the complexity and volume of sexual assault investigations and prosecutions with the need to keep victims informed and engaged in the process.⁶⁶

Working with a multidisciplinary group of stakeholders can improve the investigative and prosecutorial process, create a more victim-centered focus, and improve victim engagement (see Chapter 1). In particular, collaborating with system- and community-based victim advocates can strengthen and improve the process by (a) providing victims needed support and a central point of contact in the prosecutor's and law enforcement agency's offices, and (b) creating a bridge between victims and members of the criminal justice system for improved communication.

⁶⁴ L. Langton et al., *Victimizations Not Reported to the Police, 2006-2010*. (Washington, DC: Bureau of Justice Statistics, 2012); available at <http://www.bjs.gov/content/pub/pdf/vnrp0610.pdf>.

⁶⁵ P. Tjaden, and N. Thoennes, *Extent, Nature and Consequences of Rape Victimization: Findings from the National Violence Against Women Survey*. (Washington, DC: U.S. Department of Justice, 2006); J. Bouffard, "Predicting Types of Sexual Assault Case Closure from Victim, Suspect, and Case Characteristics," *Journal of Criminal Justice*, 28(2000): 527-542; R. Campbell, S.M. Wasco, C.E. Ahrens et al., "Preventing the 'Second Rape': Rape Survivors' Experiences with Community Service Providers," *Journal of Interpersonal Violence*, 16(12) (2001): 1239-1259; D. Patterson and R. Campbell, "Why Rape Survivors Participate in the Criminal Justice System," *Journal of Community Psychology*, 38(2) (2010): 191-205; C. Spohn, D. Beichner, and E. Davids-Frenzel, "Prosecutorial Justifications for Sexual Assault Case Rejection: Guarding the 'Gateway To Justice,'" *Social Problems*, 48(2001): 206-235; R. Campbell, D. Bybee, S.M. Townsend et al., "The Impact of Sexual Assault Nurse Examiner Programs on Criminal Justice Case Outcomes: A Multisite Replication Study," *Violence Against Women*, 20(5) (May 2014): 607-625.

⁶⁶ Victim engagement leads to improved criminal justice outcomes and may be directly impacted by their experiences with law enforcement: M.R. Greeson and R. Campbell, "Rape Survivors' Agency Within The Legal And Medical Systems," *Psychology of Women Quarterly*, 35(2011): 582-595; D. Patterson, "The Linkage Between Secondary Victimization by Law Enforcement and Rape Case Outcomes," *Journal Of Interpersonal Violence*, 26(2011a): 328-347; D. Patterson, "The Impact of Detectives' Manner of Questioning on Rape Victims' Disclosure," *Violence Against Women*, 17(2011b): 1349-1373.

Staffing and Leadership

Many sexual assault investigations require a prolonged effort, particularly older cases and cases revitalized by hits from DNA databases. Agency leadership should ensure that policies and procedures, regularly reviewed and updated, are in place to contribute to thorough, consistent investigations. These procedures should reflect best practices, addressing critical aspects of leadership and oversight, necessary training, multidisciplinary collaboration, and appropriate personnel assignment and resources. For example, avoiding the assignment of large caseloads, preparing a succession plan, and creating specialty investigative task forces of smaller or under-resourced agencies with larger agencies can help combat personnel challenges that may impact investigations.

Opportunities for Training

As with any profession, one key to proficiency is clearly defined baseline training and ongoing education on topics such as trauma-informed care and interviewing, victim engagement, DNA and other laboratory services, investigative methodology for cold and current cases, effective follow-up methods, and understanding the individuals who commit the offenses.



systems may contribute to more seamless case management through clearer documentation of case linkages, whether from DNA or other types of evidence.

Access to Technology

A lack of technology tools can impede an investigator's ability to conduct timely investigations. The new tools that exist in digital and multimedia evidence recovery can aid in obtaining electronic evidence in sexual assault cases. Mobile technologies can improve efficiencies in investigations. Law enforcement agencies should make it a priority to give officers access to, and training on, new and updated technologies and investigative innovations.



RECOMMENDATION 23:

Law enforcement agencies should implement electronic records management systems that incorporate investigative workflows to improve case investigations and communication.

Moving evidence from law enforcement storage to the forensic laboratory shifts the focus from identifying and reducing the numbers of unsubmitted SAKs to a focus on laboratories analyzing the untested SAKs and potential backlogs, as the quantity of SAKs often outpaces laboratories' capacity. Chapter 5 delves into the various ways laboratories can increase efficiencies and begin the process of reducing or preventing backlogs in evidence processing.



SUMMARY RECOMMENDATIONS

Investigative Considerations (continued from page 43)

20. All SAKs that the victim has consented to reporting to law enforcement should be submitted to the laboratory for DNA analysis.
21. Law enforcement agencies should establish a system of accountability to ensure the timely follow-up on CODIS hits.
22. All law enforcement personnel involved in sexual assault investigations should receive training in the neurobiology of trauma and specialized skills for interviewing sexual assault victims.
23. Law enforcement agencies should implement electronic records management systems that incorporate investigative workflows to improve case investigations and communication.

Processing Sexual Assault Kits in the Laboratory



A goal in processing all SAKs (see Recommendation 20 in Chapter 4) is to generate DNA profiles from crime scene evidence that is eligible for the Combined DNA Index System (CODIS).⁶⁷ CODIS is the system of DNA databases at the national (NDIS), state (SDIS), and local (LDIS) levels for storing and searching DNA records contributed by federal, state, and local forensic laboratories for law enforcement identification purposes. If a laboratory is unable to obtain an autosomal CODIS-eligible DNA profile, the laboratory should evaluate the case to determine if any other DNA-typing results could be used for investigative purposes, such as to establish sexual contact, corroboration, or to identify/exclude a suspect.



RECOMMENDATION 24:

With the goal of generating a CODIS-eligible DNA profile, if a laboratory is unable to obtain an autosomal CODIS-eligible DNA profile, the laboratory should evaluate the case to determine if any other DNA-typing results could be used for investigative purposes.

Various laboratory processes will be described, including their advantages and disadvantages, with the objective of recommending those practices that have been successful in obtaining probative evidence in a timely manner for use in the investigation and prosecution of sexual assault cases. Forensic practices in use in laboratories across the nation are included for illustrative purposes but it is ultimately the responsibility of each individual laboratory to determine what processes and practices will work effectively in its jurisdiction. To the extent that a laboratory wishes to incorporate any of these recommendations, the implementation of any technology or methodology new to that laboratory shall be preceded by the appropriate internal validation to ensure compliance with

⁶⁷ This section contains recommendations developed by a subgroup of the Scientific Working Group on DNA Analysis Methods (SWGDM), which is composed of DNA technical leaders and CODIS Administrators from international, federal, state, and local forensic DNA laboratories that evaluate emerging technologies and trends in forensic DNA analysis to provide guidance to the DNA community. This subgroup of practitioners included DNA technical leaders, from laboratories in jurisdictions confronted with unsubmitted SAKs, who have validated and implemented approaches to achieve efficiencies and maximize laboratory capabilities to address the processing and analysis of these SAKs.

Forensic DNA Analysis

Forensic DNA analysis encompasses autosomal short tandem repeat (STR) testing, Y-STR testing, and/or mitochondrial (mt) DNA testing.* All forensic DNA laboratories participating in the National DNA Index System (NDIS) conduct autosomal STR testing, which analyzes DNA that is inherited from the mother and the father. Autosomal STR testing is the most commonly used type of DNA testing in forensics. DNA profiles containing the CODIS Core Loci are uploaded to the applicable indices (e.g., Arrestee, Convicted Offender, Forensic [crime scene], Missing Person) in NDIS, where these DNA profiles are routinely searched.

Y-STR testing analyzes the STRs on the Y-chromosome which are inherited by the son from his father. Y-STRs

may be used in combination with autosomal STRs for additional information in sexual assault or missing person cases. Y-STRs are searched at NDIS for missing person cases only. Y-STR analyses may also be used for benchwork (manual) comparisons involving crime scene (forensic) DNA samples by DNA analysts.

MtDNA is found in the mitochondria of the cell and is inherited from the mother. MtDNA can be extracted from any cell but is most useful in hair, bone, and teeth. MtDNA testing is generally used in missing person cases and may be useful in cold cases and mass disasters. Similarly to Y-STRs, mtDNA is searched in NDIS, but only for missing person cases.**

* See also National Institute of Justice web page, "DNA Evidence: Basics of Analyzing," 2012, <http://nij.gov/topics/forensics/evidence/dna/basics/pages/analyzing.aspx>.

** Additional information on the various types of DNA testing is available in the CODIS brochure, Federal Bureau of Investigation, *CODIS: Combined DNA Index System*. (Quantico, VA: U.S. Department of Justice, 2015), <https://www.fbi.gov/file-repository/combined-dna-index-system-codis-brochure.pdf>; and the FBI Laboratory DNA Casework Unit website, 2016: <https://www.fbi.gov/about-us/lab/biometric-analysis/dna-casework-unit-dcu-1>.

the FBI Director's Quality Assurance Standards. All laboratories must have an internal validation that supports their decisions for specific DNA procedures.

Although most forensic laboratories are government entities, they must remain independent and neutral when evaluating evidence items to test and what methodologies to use. Forensic laboratories should have an evidence submission policy/protocol that includes the prioritization of evidentiary items. Customers and stakeholders (law enforcement, prosecution, defense, etc.) must also take into consideration the resources of the forensic laboratories. Thus, exceptions to the evidence submission policy should be a collaborative effort between the laboratory and its stakeholders. Communication between forensic laboratories and their customers/stakeholders is key to achieving success.



RECOMMENDATION 25:

Forensic laboratories should have an evidence submission policy/protocol that includes prioritization of evidentiary items.

As part of laboratory protocols, prioritization may include case-specific information to determine which samples may be most probative, based on victim accounting and the criminal investigation information. Prioritization between cases may also be taken into account when determining which case may have priority; reasons may include investigative urgency, the statute of limitations, and known vs. unknown assailants.

Crime Scenes and Other Sources of Evidence

Samples collected for the SAK are not the only sources of evidence in sexual assault cases. Jurisdictions should establish policies for the identification, collection, and preservation of all possible evidence, in addition to the SAK, from primary and secondary crime scenes.

Although the focus of this document is to concentrate on the DNA analysis of SAKs collected from sexual assault victims, it is important to consider other forms of evidence collected in these types of cases when indicated. Some of these include but are not limited to the following:

- For drug-facilitated sexual assault (DFSA) cases, controlled substance analysis on powders, pills, syringes, or beverages left at the crime scene and toxicological analysis of urine or liquid blood samples.
- Impression analysis of latent prints on victim's belongings and on weapons, bindings, or other items at the crime scene.

- Digital or other multimedia analysis of phone calls, texts, photos, GPS data, or other items that may help to place the suspect and/or victim at the crime scene.
- Chemical analysis of swabs collected from the victim's body for spermicides or other lubricants.
- Fabric separation analysis of clothing for cuts or tears and comparison to weapons.
- Firearms analysis of clothing for muzzle-to-target distance determination.

Not all forensic laboratories have all forensic discipline capabilities. Jurisdictions should contact their forensic laboratory to confirm its forensic capabilities and submission policies for evidence in sexual assault cases.

Note: See Leadership Institute on Violence Against Women, "National Law Enforcement Leadership Initiative on Violence Against Women." (Alexandria, VA: International Association of Chiefs of Police and Office on Violence Against Women, 2015): <http://www.theiacp.org/Leadership-Institute-on-Violence-Against-Women>; *Sexual Assault Response Policy and Training Content Guideline*. (Washington, DC: National Institute of Justice, 2003): <https://dnn9ciwm8.azurewebsites.net/Portals/0/documents/pdfs/IACPSexualAssaultResponsePolicyandTrainingContentGuidelines.pdf>; National Institute of Justice, *Using DNA to Solve Cold Cases, Special Report*. (Washington, DC: National Institute of Justice, 2002), NCJ 194197: <https://www.ncjrs.gov/pdffiles1/nij/194197.pdf>.

In some jurisdictions, the victim's underwear is collected and packaged in the SAK. For purposes of these recommendations, analysis of the victim's underwear is not included when referring to analysis of the SAK. The primary focus of this chapter will be the processing of the swabs submitted as part of the SAK, with the underwear as a secondary option. Other probative evidence may include evidence collected from the suspect⁶⁸ as well as the victim's and suspect's clothing, and evidence collected from the location where the assault occurred (e.g., bedding collected from the area of the sexual assault, weapons used in the commission of the assault, condoms). These types of items may provide valuable probative evidence of the crime and assist in identifying the suspect but will not be a primary focus of these recommendations.

Laboratories may employ a variety of strategies to address the analysis of SAKs: instituting evidence submission policies, employing high-throughput processing and/or seeking additional resources to expand capacity, or outsourcing. Outsourcing is not a long-term solution to address laboratory capacity but it may be able to provide laboratories additional capacity to assist with their SAK backlogs. Many factors may impact the ability of a laboratory to process SAKs in an efficient and timely manner, such as a backlog of pending evidence

⁶⁸ This document uses the term *suspect* throughout for consistency; it is the accepted term used in the criminal justice system. Professionals should continue to use the terminology (i.e., alleged suspect, assailant, perpetrator) appropriate to their discipline.

or cases and the availability of automation, personnel, robotics, and other resources.

All laboratories should also consider the volume of sexual assault cases they handle and determine whether it is worthwhile to explore a high-throughput approach to processing. With a high-throughput approach, the goal is to work the sexual assault cases in the most efficient manner to obtain eligible DNA profiles to upload and search in NDIS. Laboratories may benefit from the use of business process improvement tools to track the path of SAKs in order to understand and document the process flow of the evidence, the laboratory capacity, and the staff assigned to each step or task. Business process improvement tools are designed to assist an organization in understanding its current operations and identifying areas for change or enhancement. Business process improvement tools include process mapping,⁶⁹ root cause analysis, and visual management. Laboratories should consider the volume of sexual assault cases and use business process improvement tools to review their input/output, identify where bottlenecks occur, and determine if a high-throughput approach to processing will achieve efficiencies. In performing this exercise, deficiencies or holdups in the processing of these SAKs will be identified for improvement. By understanding and documenting the process and existing staff allocations/capacity, the laboratory will be in a better position to determine the points in the process or staffing that could be improved.



RECOMMENDATION 26:

Laboratories should consider the volume of sexual assault cases and use business process improvement tools to review their input/output, identify where bottlenecks occur, and determine if a high-throughput approach to processing will achieve efficiencies.

The following recommendations, separately or in combination, can provide laboratories with more efficient ways to process SAKs and related evidence and, ultimately, reduce the turnaround times for their analysis. Many of the suggestions, however, require the use of robotic instrumentation, automation, and appropriately trained and dedicated staff.

The high-throughput processing concept relies on the fact that most SAKs contain a single common collection substrate of swabs from various body orifices. Because serological examinations are performed on each piece of evidence individually, they are not amenable to high-throughput processing of the SAK. High-throughput processing is a standardized approach for analysis that

⁶⁹ For example, process mapping is one business process improvement tool and is described as "A structural analysis of a process flow (such as an order-to-delivery cycle), by distinguishing how work is actually done from how it should be done, and what functions a system should perform from how the system is built to perform those functions. In this technique, main activities, information flows, interconnections, and measures are depicted as a collage on a large sheet of (commonly brown) paper, with different colored 'Post-it' notes or slips of paper. This graphic representation allows an observer to 'walk through' the whole process and see it in its entirety." (BusinessDictionary.com)

includes laboratory optimization to maximize the development of evidentiary profiles, using the following:

- ✓ Laboratory Information Management System,
- ✓ Standardized case approach with consistent sample types,
- ✓ Targeted testing approach (*Direct to DNA*),
- ✓ Defined workflow,
- ✓ Automated technologies and instrumentation,
- ✓ Uniform reporting, and
- ✓ Dedicated personnel and resources.

If a laboratory will analyze a significant volume of SAKs or is looking to decrease backlogs or turnaround time, a high-throughput process should be considered. Even if a laboratory is not able to implement all of the high-throughput recommendations, by adopting several key elements in conjunction with some of the alternative approaches, a laboratory should be able to see improvements in the overall timeliness of processing SAKs. See Appendix D for a graphic showing the “Recommended High-Throughput Process Flow for Sexual Assault Kits.”

LIMS

A Laboratory Information Management System (LIMS) is able to maintain and track evidence and samples as they move throughout the laboratory. A LIMS will allow for the ability to store information about a case in an electronic manner and will record transfers of evidence. A LIMS could also be used to generate reports for the laboratory while providing the ability to track basic metrics to evaluate, assess, and continuously improve laboratory processes.

A LIMS is recommended for any laboratory that processes a high volume of samples because it is able to provide improved documentation, accuracy, and speed. A LIMS can be developed within the laboratory or purchased through a commercial vendor. Either option will be a significant investment for a laboratory. A LIMS will require training, validation, ongoing maintenance costs, security and back-up plans, and specialized information technology (IT) and technical support.

Standardized Case Approach

Most SAKs contain a single, common method of collection (e.g., swabbings) from various body orifices. By developing a laboratory approach to capitalize on the uniform samples, the variability is removed and more emphasis can be placed on the method through which the necessary genetic material from those samples is obtained for DNA processing.

Considerations for the Identification of Sperm

With a *Direct to DNA* approach, a laboratory should establish a policy regarding the identification of sperm. A laboratory may choose to bypass the identification of sperm or choose to identify sperm on a case-by-case basis. It is recognized that the transfer of bodily fluids during a sexual assault is likely. It is also recognized that the association of sperm cells with the DNA profile of the suspect can provide information relevant at a trial. If the confirmation of sperm is determined to be necessary, a laboratory may consider preparing a microscope slide during the differential extraction process prior to sperm lysis. Alternatively, a laboratory may choose to re-examine a swab for the presence of sperm following the completion of all DNA testing by resampling the remaining swab. This approach would be recommended for laboratories that choose to identify sperm only as needed on a case-by-case basis. This process would improve efficiency by eliminating the time required to prepare microscope slides during the extraction process. Slides that are prepared by the laboratory are generally easier to view than slides prepared by the health care professional during the medical-forensic exam because they contain fewer epithelial cells, bacteria, and other debris.

From a high-throughput perspective, time can be gained by processing all of the evidentiary swabs provided in the SAK with the *Direct to DNA* approach. Testing all items lends itself to consistency within a laboratory among multiple analysts, which helps to standardize the case approach by removing subjective decision points.

Direct to DNA

An integral component of high-throughput processing is to proceed directly to DNA (also known as the *Direct to DNA* approach) and then, as needed, follow up with serology, which requires the most hands-on time from an analyst. The serology tests employed by laboratories are less sensitive than modern DNA typing kits. Therefore, DNA typing only the swabs that screen positive in serology tests may miss CODIS-eligible DNA profiles. Rather than use serology to determine which swabs to subject to DNA analysis, a *Direct to DNA* approach is recommended.



RECOMMENDATION 27:

Laboratories should consider changing the order of processing the evidence by going to Direct to DNA and then, only if needed, proceed with serology.

In the *Direct to DNA* approach, DNA analysis is performed before serology to maximize the chances of obtaining CODIS-eligible profiles. This approach has the added benefit of being more efficient than performing serology followed by DNA analysis. As long as a portion of each swab is retained, serology can be performed as needed after DNA analysis is complete. Thus, the *Direct to DNA* approach allows the laboratory to analyze the evidence and obtain information necessary to search CODIS in a more timely manner. When a laboratory uses a *Direct to DNA* approach to processing the SAKs, the following issues must be addressed:

- ✓ Are all swabs going to be tested? If not, which swabs will be targeted for testing?
- ✓ How much of each swab will be used for DNA testing?
- ✓ Will a male DNA screening approach be used?
- ✓ What kit will be used for quantification? Does the internal validation permit discontinuing analysis based on the quantification value?
- ✓ What kits will be used for amplification?
- ✓ What instrumentation will be used to help increase laboratory efficiency?
- ✓ Has mixture software been considered to help the analysts interpret the data?

Initial decisions required by the laboratory for the *Direct to DNA* approach include identifying which swabs in the SAKs to carry through the DNA process, or potentially analyzing all samples. The approach of cutting all swabs for DNA processing is only a viable option if the laboratory uses automated methodologies for extraction and robotics to set up the downstream processes because of the number of samples that would be carried through at any one time. If the laboratory decides to process all swabs from the SAK, it would be impractical to take every single swab through processing individually. A portion of each swab should be cut for extraction and a portion may be left behind for potential retesting. If multiple swabs from the same area are collected, those may be combined during the extraction step and can be concentrated to obtain as much DNA as possible from the samples without proceeding with too many samples. Combining specific swabs taken from the same orifice is important to concentrate the sample and maximize the detection of potential foreign DNA.

Automation and Robotics

Automation is key to ensuring this *Direct to DNA* approach maintains a high-throughput method and does not create a backlog. Automation and robotic instrumentation are designed to achieve higher output, increase accuracy, allow multiple tasks to be performed at the same time (by the instrument and analyst), and maximize the use of laboratory personnel. Robots or automated instrumentation allows the analyst to set up for the process then walk away to complete other tasks while the instrument performs the appropriate step of the process, thereby improving the response or turnaround time. Robotics or automation should be incorporated at each step of the DNA process for the most efficient high-throughput approach.



In a case with no suspects where a *Direct to DNA* approach is adopted, the DNA results from the items analyzed in the initial round of testing can be explained in a report that addresses the following criteria:

1. Was male DNA detected on any of the items?
2. Was an unknown DNA profile generated?
3. Was the unknown DNA profile uploaded to CODIS?



RECOMMENDATION 29:

Laboratories should consider the use of standardized reporting templates, a paperless system, and specialized software to assist in the interpretation of DNA mixtures, to streamline interpretation and reporting of DNA results.

Using such a template format can provide the investigative information obtained through searches of the database more quickly and simply. This report can also provide information necessary for the next steps of the process.

It is important that the report be written in understandable language so that the submitting law enforcement agency is clear about what is contained in the report and any required follow-up (e.g., obtain a reference sample from a suspect). Additionally, if necessary, a laboratory must use a supplemental report to provide the results of the analysis of additional evidence or reference samples. The laboratory report is forwarded to the law enforcement agency and/or the case investigator identifying the items of evidence, the results and interpretation of the evidence, and a disposition of the evidence. It is critical that a process be in place for all communication from the laboratory to reach the case investigator expeditiously. One option is a laboratory report management system, so that if a case investigator has transferred or retired at the point when the report is returned, the report makes it to the investigator currently assigned to the case. Communication between the forensic laboratory and the submitting law enforcement agency is important to ensure there is a proper understanding by the investigator of the analysis results detailed by the laboratory report.

Organization and Staffing

An organized approach on how to best handle the caseload in a laboratory requires the laboratory to review its input and output to identify where bottlenecks occur.⁷⁰ As noted previously, the use of business process improvement tools such as process mapping is an exercise designed to chart

⁷⁰ R.A. Wickenheiser, "Forensic Laboratory Efficiency and Funding," in *The Encyclopedia of Forensic Sciences*, ed. J.A. Siegel and P.J. Saukko, (San Diego: Elsevier Academic Press, 2013), vol. 1, 344-350.

the flow of the evidentiary items and staffing allocations through the laboratory, providing a complete picture of how the laboratory handles the SAK. Using the information obtained through this type of exercise, the laboratory should dedicate appropriately trained staff to specific tasks when the need exists to eliminate a potential buildup of cases through optimization of process flow.

Many laboratories have implemented a system of batching samples in the laboratory because of the automation available. Staff may also be organized into teams to enhance communication and throughput. This approach could potentially free up analyst time to focus on interpretation and reporting.

Turnaround Times

Generally, a backlog in SAKs will impact the laboratory's overall turnaround time for the processing of a SAK because a backlog can lead to delays or bottlenecks in the inventory, assessment, processing, and/or analytical tasks within the laboratory. Even if a laboratory chooses to implement recommendations from this chapter to improve efficiencies, a backlog of SAKs can still impact turnaround times. Inevitably, a laboratory's capacity will continue to influence overall turnaround time for the processing of an SAK.

Several jurisdictions have instituted, through legislation, turnaround times for the analysis of SAKs once they are received in the laboratory; these time frames range from 60 days to 6 months. Exhibit 11 describes a sampling of state laws instituting time frames for the analysis of SAKs. Consistent with the intent of these state legislative initiatives and for purposes of these recommendations, turnaround time is the period of time between receipt of the SAK in the laboratory and all relevant testing of the SAK is complete, eligible DNA profiles are uploaded to CODIS, and the report is issued.

The recommendations for high-throughput SAK processing using a *Direct to DNA* approach may allow a laboratory to achieve a two- to four-week turnaround time under the defined ideal circumstances of all of the following:

- ✓ Little or no backlog.
- ✓ Implementation of a *Direct to DNA* approach.
- ✓ The use of automation.
- ✓ Appropriately trained and dedicated staff.
- ✓ A laboratory information management system (LIMS).
- ✓ Automated methodology (extraction, quantification, and amplification) with the use of robotic instruments.
- ✓ Sufficient resources for personnel, instrumentation, and consumables.
- ✓ The use of key decision points to determine the appropriate items to process in each SAK.

EXHIBIT 11: STATE LEGISLATION ON TURNAROUND TIMES FOR LABORATORY ANALYSIS

State	Turnaround Time for Laboratory Analysis	Citation
California	As soon as practically possible but no later than 120 days after receipt.	CA Penal Code § 680(b)(7)(B)(i); see also, CA Penal Code § 803(g)
Colorado	Analyze and upload within 6 months of receipt.	Assuming sufficient resources. CO Rev. Stat. § 24-33.5-113
Connecticut	Analyze the evidence no later than 60 days after the collection of the evidence or once victim consents; analyze the evidence not later than 60 days after receiving notification of the victim's report.	CT Gen. Stat. § 19a-112a(d)
District of Columbia	"The DFS (Department of Forensic Sciences) shall process all sexual assault forensic examination kits within 90 days from the date of receipt."	D.C. Code § 4-561.02(b)
Florida	Effective July 1, 2016: Testing of sexual offense evidence kits must be completed no later than 120 days after submission to a member of the statewide criminal analysis laboratory system.	The timely submission and testing of sexual offense evidence kits is a core public safety issue. FL Stat. § 943.326(4)
Idaho	Idaho State Police Forensic Services Laboratory shall test such kits and submit eligible results to the Idaho DNA database within 90 days.	ID Code § 67-2929
Illinois	If sufficient staffing and resources are available, evidence shall be analyzed within 6 months after receipt of all necessary evidence and standards by the State Police or other designated laboratory.	725 ILCS § 202/10
Kentucky	By July 1, 2018, the average completion rate for this analysis and classification shall not exceed 90 days and by July 1, 2020, the average completion rate shall not exceed 60 days ...	KY Rev. Stat. § 17.175 (3)(a)
Michigan	All sexual assault kit evidence submitted to the department or an accredited laboratory on or after the effective date of this act shall be analyzed within 90 days after all necessary evidence is received.	Provided that sufficient staffing and resources are available to do so. MI Rev. Stat. § 752.934(6)
Ohio	Perform a DNA analysis of the sexual assault examination kit as soon as possible after receiving the kit (and enter the resulting DNA record into a DNA database).	OH Rev. Code § 2933.82(B)(2)(d)(i)
Pennsylvania	Complete the testing or analysis within 6 months from the date of receipt of the evidence.	If possible. 35 P.S. § 10172.3(c)(4)
Texas	As soon as practicable.	If sufficient resources and staffing are available. TX Code § 420.042

CODIS

CODIS is the system of DNA databases at the national (NDIS), state (SDIS), and local (LDIS) levels for storing and searching DNA records contributed by federal, state, and local forensic laboratories for law enforcement identification purposes. An important objective in analyzing the SAK is to generate a CODIS-eligible DNA record from crime scene evidence that can be uploaded into CODIS and NDIS.

The Federal DNA Identification Act [“Federal DNA Act”; 42 U.S.C. § 14132(a) (2)] governs the National DNA Index System, which is administered by the Director of the Federal Bureau of Investigation. The Federal DNA Act authorizes the inclusion of DNA records in the National DNA Index System from “analyses of DNA samples recovered from crime scenes,” known as forensic DNA records. Every state participates in NDIS and contributes DNA records of designated offenders, arrestees, and/or forensic records. Pursuant to the Federal DNA Act, only criminal justice agencies may participate in NDIS.

CODIS/NDIS Eligibility

In determining eligibility of DNA profiles for CODIS and NDIS, factors to be considered are whether a crime has been committed and whether the evidence has been obtained from the crime scene, as shown in Exhibit 12. The crime scene (forensic) indexes at NDIS contain DNA profiles from forensic samples recovered directly from the victim (such as an SAK), the victim’s clothing, or the crime scene and are believed to be attributable to the suspect.⁷¹ Accordingly, in cases without a known suspect, ensuring eligibility for uploading the profile foreign to the victim is key. If a consensual partner is noted in the SAK documentation, the laboratory must document the request that an elimination sample be submitted for comparison purposes prior to entering the DNA profile generated. Elimination profiles can also be used to determine what is foreign to both the victim and consensual partner and for possible upload to CODIS.

If a hit occurs in CODIS, the name of the individual will be released to the law enforcement agency by the laboratory once the internal confirmation process is completed. It is then up to the law enforcement agency to collect a sample from the individual (known reference sample) and submit it to the laboratory for DNA confirmation testing. It is this analysis of the suspect’s DNA and comparison with the evidentiary (forensic) sample that will provide the evidence for court. Hit-tracking software can be used to electronically distribute hit reports; monitor the receipt, action, and outcomes of hits; provide data on trends; and permit follow-up.

How do CODIS-eligible DNA databases work?

“In the case of a sexual assault, a DNA profile of the suspected perpetrator is developed from the swabs in the SAK. The forensic unknown profile attributed to the suspected perpetrator is searched against the state/national databases of convicted offender and arrestee profiles (contained within the Convicted Offender and Arrestee Indices, if that state is authorized to collect and database DNA samples from arrestees). If there is a candidate match in the Convicted Offender or Arrestee Index, the laboratory will go through the confirmation procedures and, if confirmed, the **Offender Hit** will provide the identity of the suspected perpetrator to the submitting law enforcement agency. The DNA profile from the evidence (forensic unknown) is also searched against the state’s database of crime scene DNA profiles, called the Forensic Index. If there is a candidate match in the Forensic Index, the laboratory goes through the confirmation procedures and, if confirmed, the **Forensic Hit** will have linked two or more crimes together. The law enforcement agencies involved in these cases are then able to share the information obtained on each of the cases and possibly develop additional leads.”

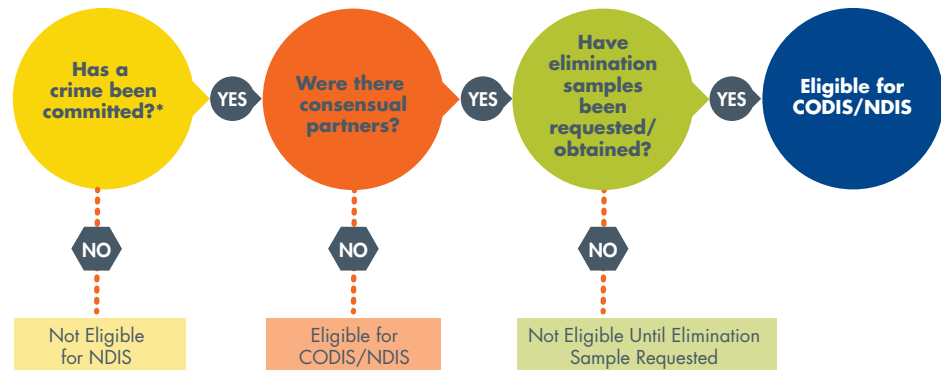
Source: Federal Bureau of Investigation, Frequently Asked Questions on NDIS and CODIS: <https://www.fbi.gov/about-us/lab/biometric-analysis/codis/codis-and-ndis-fact-sheet>.

⁷¹ Federal Bureau of Investigation Laboratory, *NDIS Operational Procedures Manual*, Section 3.1.1.1 (2016); available at <https://www.fbi.gov/file-repository/ndis-procedures-manual-ver4-approved-04272016.pdf/view>

Elimination Samples

Elimination samples are needed in a sexual assault case when the victim indicates that he/she engaged in consensual sexual relations within 5 days prior to or following the occurrence of the sexual assault. In those instances, law enforcement officials should request and document consent for a DNA sample from the consensual partner(s) in order to eliminate that partner's DNA profile from consideration as the forensic unknown(s) developed from the SAK. And, if the elimination sample obtained from a consensual partner is matched to the SAK, that forensic DNA record must be removed from CODIS and NDIS in accordance with the Federal DNA Act [42 U.S.C. § 14132 (a)(1)(C)].

EXHIBIT 12: CODIS/NDIS ELIGIBILITY CONSIDERATIONS



* Determination of whether a crime has been committed will include consideration of applicable victim consent, blind/mandatory reporting, and mandatory analysis laws.

If a profile is developed that is eligible for CODIS entry, then no further testing may be needed during the initial testing process. If multiple suspects are involved in a case, the DNA testing should continue until SAK evidence is exhausted or profiles from each perpetrator are developed. Once a DNA profile is generated from crime scene evidence attributable to the suspect and entered into CODIS, it is continuously searched in the applicable level of CODIS. The DNA profiles relating to the unsolved and solved crimes remain in the local, state and/or national DNA databases for future searches and potential hits.⁷²

Outsourcing

Forensic laboratories are already operating at capacity, with current caseloads covering all types of cases; however, the SAFER Act of 2013 has highlighted the issue of SAKs that were never submitted to a laboratory for analysis. Regardless of the reason for nonsubmission to the laboratory at the time of the crime, this attention has resulted in the identification of thousands of these SAKs for analysis — both for historical and current cases — requiring forensic laboratories to reexamine how these cases are analyzed in order to provide a more timely public service.

One option for addressing a substantial influx of cases is to outsource; however, experience shows that this is not a long-term solution and may

⁷² For information on secondary testing, refer to the *SWGDAW Recommendations for the Efficient DNA Processing of Sexual Assault Evidence Kits*.

create a significant amount of work for the originating forensic laboratory, with subsequent CODIS reviews and uploads of appropriate cases. The FBI's Quality Assurance Standards (QAS) require that DNA records are technically reviewed before being entered into CODIS or issuing a report. Thus, when the vendor laboratory completes the analysis of the SAK samples, the vendor laboratory must review the resulting DNA records before a report is provided to the originating forensic laboratory. The forensic laboratory must then review the DNA case records to determine if the results are CODIS eligible; if so, the forensic laboratory is responsible for entering the information into a CODIS database and preparing any CODIS-related reports.

If outsourcing is used, it is important to ensure the vendor laboratory's compliance with the following accreditation and quality assurance requirements of federal law so that the DNA records generated by the vendor laboratory are eligible for upload to CODIS:⁷³

- ✓ Compliance with the FBI Director's *Quality Assurance Standards for Forensic DNA Testing Laboratories* and, in particular, the provisions on outsourcing; and
- ✓ Accreditation by an approved accrediting agency.⁷⁴

An agency that stores and searches its vendor laboratory-generated DNA records in a local DNA database that is not part of the CODIS system operates such a local DNA database according to local policies for the collection and use of these DNA samples and records. Because a non-CODIS local DNA database operates in accordance with local policies and procedures and not the Federal DNA Act requirements and protections, such a non-CODIS local DNA database cannot be a participant in NDIS, nor does such a non-CODIS local DNA database have access to NDIS or the DNA records in NDIS. Thus, the DNA records in a non-CODIS local DNA database are not searched against the DNA records contributed by more than 200 submitting forensic DNA laboratories that participate in the National DNA Index System.

Analysis of the SAK is not the final step of the sexual assault investigation. Once analysis is completed, there are additional post-analysis communications that may need to take place. Chapter 6 will review important considerations for victim notification and suggest other policy issues relating to the retention of evidence and training.

⁷³ A checklist for law enforcement agencies that are considering outsourcing is provided in Appendix E to ensure that the DNA records generated by the vendor laboratory are eligible for CODIS.

⁷⁴ For a current list of approved accrediting agencies, please see Frequently Asked Questions on CODIS and NDIS, <https://www.fbi.gov/about-us/lab/biometric-analysis/codis/codis-and-ndis-fact-sheet>.



SUMMARY RECOMMENDATIONS

Processing Sexual Assault Kits in the Laboratory (continued from page 52)

24. With the goal of generating a CODIS-eligible DNA profile, if a laboratory is unable to obtain an autosomal CODIS-eligible DNA profile, the laboratory should evaluate the case to determine if any other DNA-typing results could be used for investigative purposes.
25. Forensic laboratories should have an evidence submission policy/protocol that includes prioritization of evidentiary items.
26. Laboratories should consider the volume of sexual assault cases and use business process improvement tools to review their input/output, identify where bottlenecks occur, and determine if a high-throughput approach to processing will achieve efficiencies.
27. Laboratories should consider changing the order of processing the evidence by going to *Direct to DNA* and then, only if needed, proceed to serology.
28. Laboratories should consider incorporating robotics and/or automation at each step of the DNA process for the most efficient high-throughput approach.
29. Laboratories should consider the use of standardized reporting templates, a paperless system, and specialized software to assist in the interpretation of DNA mixtures, to streamline interpretation and reporting of DNA results.

Post-Analysis Communication and Policy Considerations



Although unsubmitted SAKs and laboratory backlogs have been a focus of much scrutiny, there are additional aspects of the response that must be considered once evidence has been collected, transferred, and analyzed. How victims are notified and how long to retain the SAKs are critical components of the discussion. Additionally, communities may also need to address broader policy considerations, including how information about the process is communicated and how the statutes of limitations impact the sexual assault response.

Victim Notification

A key objective of the SAFER Act is providing victims with information related to the status of the SAK. When law enforcement agencies implement electronic evidence management systems, they should develop a mechanism that allows victims near-real time access to key information related to the status of the SAK. Some states have implemented laws that require law enforcement agencies to keep victims informed of milestones with respect to the status of processing the SAK.⁷⁵ One potential mechanism of informing the victim of the status of the SAK is through the use of an interface for the victims to access the appropriate information, as shown in Exhibit 13.

EXHIBIT 13: KEY STATUS UPDATES FOR VICTIM NOTIFICATION



⁷⁵ See, for example, CA Penal Code § 680(e),(f).

Victim notification should be undertaken with care and sensitivity, using a victim-centered and trauma-informed approach. Utilizing victim advocacy services is beneficial. Depending on how much time has passed since the assault, a victim may be in a very different stage of life and may not have disclosed past events to the people currently in her/his life. Notifications may trigger painful and emotional memories or be an unwelcome intrusion, especially in cases where the assault took place many years ago, there has been no communication between the victim and law enforcement and the notification is unexpected, or when notification may compromise the victim's privacy.

The National Institute of Justice funded action research projects in Houston, Texas, and Detroit, Michigan,⁷⁶ that specifically developed comprehensive approaches to address unsubmitted SAKs in their community. The highlights of the approaches used in those communities are summarized in Appendix F.

Jurisdictions should have a victim-centered and trauma-informed protocol⁷⁷ that includes victim advocacy involvement and support for informing victims of the status of their sexual assault cases, including cases where sexual assault kits are tested after many years. Appendix G contains 15 key principles for developing victim notification protocols. Appendix H represents a victim notification process tree illustrated to help agencies address critical components in the development of their own practices and procedures.



RECOMMENDATION 30:

Jurisdictions should have a victim notification protocol for informing victims of the status of their sexual assault cases, including cases where SAKs are analyzed after many years.

Evidence Retention

Reported Cases

In many jurisdictions, the time frame for the preservation and destruction of the sexual assault kit is governed by the state statute on biological evidence retention.⁷⁸ The majority of states have laws requiring the preservation of biological evidence, and SAKs are generally encompassed within these

⁷⁶ Complete reports on both projects can be found at <https://www.ncjrs.gov/pdffiles1/nij/grants/249812.pdf> and <https://www.ncjrs.gov/pdffiles1/nij/grants/248680.pdf> (Detroit). Highlights of the two projects are summarized in Appendix F.

⁷⁷ For a sample victim notification policy, see National Center for Victims of Crime, *Cold Case Victim Notification: Sample Policy*, (Washington, DC: National Center for Victims of Crime, 2014): <http://victimsofcrime.org/docs/default-source/dna-resource-center-documents/cold-case-victim-notification-policy.pdf?sfvrsn=2>. See also C.E. Ahrens, L. Swavola, and S. Dahlgren, *Comprehensive Technical Report of the Joyful Heart Foundation Victim Notification Project* (New York: The Joyful Heart Foundation, 2016).

⁷⁸ A majority of states have laws and policies in place for evidence preservation and disposition. See B. Ericksen and I. Knecht, *Evidence Retention Laws: A State-by-State Comparison*, for state guidance. (Washington, DC: National Center for Victims of Crime, 2013): <http://victimsofcrime.org/docs/default-source/dna-resource-center-documents/evidence-retention-check-chart-9-5.pdf?sfvrsn=2>

requirements.⁷⁹ Preservation requirements under these state laws may be initiated by the investigation of a criminal offense, conviction, incarceration, or postconviction requests. The retention periods in these state laws vary and include the following:

- ✓ The period the case remains unsolved.
- ✓ The period of the defendant's incarceration.
- ✓ During the life of the defendant.
- ✓ Completion of postconviction proceedings.
- ✓ A specified number of years.
- ✓ Permanently.

States that do not have legislation regarding evidence retention should consider legal and policy remedies to address the preservation of biological evidence.⁸⁰ Considerations in the preservation of biological evidence should include the following:

- ✓ Ability to successfully prosecute the case.
- ✓ Ability to provide answers to deceased victims' families.
- ✓ Potential for law enforcement to resolve the case and other associated cases.
- ✓ Potential for future use of laboratory findings in circumstances such as parole commission hearings, civil commitments, and placement of offenders on probation.

The Technical Working Group on Biological Evidence Preservation was convened to "create best practices and guidance to ensure the integrity, prevent the loss, and reduce the premature destruction of biological evidence after collection through postconviction proceedings."⁸¹ This working group also issued guidance for policymakers in April 2015 that included the guidelines for biological evidence retention, presented in Exhibit 14.

To ensure that, going forward, all SAKs that the victim has consented to reporting to law enforcement may be analyzed and criminal actions commenced, jurisdictions that do not have evidence retention laws should adopt biological evidence retention policies/protocols that are victim-centered

⁷⁹ See generally, Technical Working Group on Biological Evidence Preservation, *Biological Evidence Preservation: Consideration for Policy Makers* (Gaithersburg, MD: U.S. Department of Commerce, National Institute of Standards and Technology, April 2015): <http://dx.doi.org/10.6028/NIST.IR.8048>; B. Ericksen and I. Knecht, *Evidence Retention Laws: A State-by-State Comparison*. (Washington, DC: National Center for Victims of Crime, 2013): <http://victimsofcrime.org/docs/default-source/dna-resource-center-documents/evidence-retention-check-chart-9-5.pdf?sfvrsn=2>.

⁸⁰ Technical Working Group on Biological Evidence Preservation, *Biological Evidence Preservation: Consideration for Policy Makers* (Gaithersburg, MD: U.S. Department of Commerce, National Institute of Standards and Technology, April 2015). doi: 10.6028/NIST.IR.8048.

⁸¹ Technical Working Group on Biological Evidence Preservation, *Biological Evidence Preservation: Consideration for Policy Makers*, at page 2. doi: 10.6028/NIST.IR.8048.

EXHIBIT 14: EVIDENCE RETENTION PERIOD BY TYPE OF OFFENSE AND CASE STATUS

Crime Category*	Open	Charges Filed	Adjudicated	Unfounded/ Refused/Denied/ No Further Investigation
Homicide Offenses	Retain indefinitely.	Retain evidence indefinitely.	At a minimum, retain for the length of incarceration.	Dispose of evidence upon receipt of authorization.
Sexual Offenses	At a minimum, retain evidence for the length of the statute of limitations.	Retain evidence pending adjudication.	At a minimum, retain evidence for the length of incarceration.	Dispose of evidence upon receipt of authorization.
Assault Offenses, Kidnapping/ Abduction, and Robbery				
All Other Group A & Group B Offenses			Dispose of evidence upon receipt of authorization.	

*Crime categories are from the Federal Bureau of Investigation’s National Incident-Based Reporting System.
Source: Technical Working Group on Biological Evidence Preservation, *Biological Evidence Preservation: Consideration for Policy Makers* (U.S. Department of Commerce, April 2015), at page 7. doi: 10.6028/NIST.IR.8048.

and preserve evidence from uncharged or unsolved reported cases for 50 years or the length of the statute of limitations, whichever is greater.⁸² This recommendation differs from the recently enacted Federal Bill of Rights for Victims because of the need to maintain the SAK evidence for postconviction purposes.⁸³



RECOMMENDATION 31:

Jurisdictions that do not have evidence retention laws should adopt biological evidence retention policies/protocols that are victim-centered and preserve evidence from uncharged or unsolved reported cases for 50 years or the length of the statute of limitations, whichever is greater.

⁸² See generally, B. Erickson and I. Knecht, *Statutes of Limitations for Sexual Assault: A State-by-State Comparison* (Washington, DC: Office for Victims of Crime, 2013): <https://victimsofcrime.org/docs/DNA%20Resource%20Center/sol-for-sexual-assault-check-chart-final-copy.pdf?sfvrsn=2> (reporting that 29 states do not have any statute of limitations for specified rape/sexual assault offenses).
⁸³ See Survivors’ Bill of Rights Act of 2016, P.L. 114-236 (2016).

State laws on the preservation of biological evidence provide for its destruction following the expiration of statutory retention periods, or earlier in accordance with notice and if no objection is made. Criminal justice agencies should be responsible for the destruction of this evidence in accordance with applicable law. The period of time to file an objection varies, but many laws provide for a range between 60 and 120 days to file an objection to the planned destruction.⁸⁴

Unreported SAKs

Hospitals should not store SAKs. Unreported SAKs should be transferred to law enforcement agencies for storage or destruction in accordance with applicable law. Unreported SAKs should have any personal identifying information removed from the outside of the package and should not be opened prior to transfer to ensure anonymity. Unless state law provides otherwise, destruction of the evidence should be the responsibility of the agency with custody of the SAK.

Some jurisdictions have specified a time frame for the retention of unreported SAKs. For example, in Pennsylvania, if the victim has not consented to the testing of the evidence, it must be preserved and stored for at least 2 years.⁸⁵ “If a limited-time policy is implemented, it is important that patients [victims] are informed regarding the amount of time they have to decide to report and procedures for reporting. It is also critical that the period of time given to victims to decide allows them the chance to consider their decision thoroughly; a short time such as a week or a month may not be sufficient to make such a decision.”⁸⁶

For federal cases, the Survivors’ Bill of Rights Act of 2016, enacted in October 2016, provides that a sexual assault survivor generally has the right to “have a sexual assault evidence collection kit or its probative contents preserved, without charge, for the duration of the maximum applicable Statute of Limitations or 20 years, whichever is shorter,”⁸⁷ to provide the victim sufficient time to consider whether to pursue reporting to law enforcement.



RECOMMENDATION 32:

Unreported SAKs should be retained for at least the statute of limitations or a maximum of 20 years.

⁸⁴ Technical Working Group on Biological Evidence Preservation, *Biological Evidence Preservation: Considerations for Policy Makers*. (Gaithersburg, MD: U.S. Department of Commerce, National Institute of Standards and Technology, April 2015), doi: 10.6028/NIST.IR.8048.

⁸⁵ 35 PA Stat. § 10172.3(c)(4), “The Pennsylvania State Police, in consultation with the Pennsylvania Chiefs of Police Association and the Pennsylvania District Attorneys Association, shall establish policies for local law enforcement agencies relating to the storage and preservation of the evidence.”

⁸⁶ A *National Protocol for Sexual Assault Medical Forensic Examinations—Adults/Adolescents* (2nd Ed.), at page 76.

⁸⁷ See Survivors’ Bill of Rights Act of 2016, P.L. 114-236; and 18 U.S.C. 3772, Chap. 238.

“John Doe” Warrants

One alternative method, used by a number of jurisdictions to address a case nearing the end of its statute of limitations period, is to file charges through a “John Doe” warrant* that identifies the suspected perpetrator by his/her DNA profile (resulting from the analysis of the crime scene evidence) and permits cases to remain active. Although John Doe warrants are traditionally filed based on the physical description or alias of an unnamed suspect, investigators and prosecutors are now filing charges using the suspect’s DNA profile as the identifier. This innovative approach has allowed charges to be filed that toll the statutes of limitations and permit old cases to be prosecuted when the person matching the John Doe DNA profile is identified.

* See generally, Crime Scene Investigation Working Group, *Using DNA to Solve Cold Cases* (Washington, DC: National Institute of Justice and National Commission on the Future of DNA Evidence, 2002), p. 4, <https://www.ncjrs.gov/pdffiles1/nij/194197.pdf>; and C.M. Guthrie, *Killing Time: The Application of John Doe Indictments to Keep Cases Warm* (Gulfport, FL: National Clearinghouse for Science, Technology and the Law, 2007): <http://www.ncstl.org/news/GuthrieApril07>.

Laws and policies associated with the destruction of unreported SAKs are generally determined by the agency that is in possession of the SAK. As noted above, all unreported SAKs should be stored with a criminal justice agency, rather than a hospital or rape crisis center, and held for at least the statute of limitations or a maximum of 20 years. It is recommended that proactive victim notification protocols be implemented to ensure that a victim is informed about what will happen to the SAK in the event that there is no report or referral to law enforcement. The victim should be provided information on the applicable SAK destruction protocol, including an estimated date of destruction, in writing, prior to the victim’s departure from the facility where the health care professional has conducted the exam. Victims should be given contact information in order to contest/object to the SAK destruction or to obtain additional information. Contact information for victim advocacy organizations within the community should be provided, as they may be able to assist the victim in the future, regardless of whether the victim chooses to report.

Statutes of Limitations

Several states (and the Department of Defense’s Uniform Code of Military Justice) have eliminated their statutes of limitations for certain sexual assault crimes.⁸⁸ Recognizing the power of DNA analysis to not only identify suspects but also to potentially exonerate the wrongfully convicted, states that have not already done so should consider eliminating the statutes of limitations for sexual assaults.



RECOMMENDATION 33:

States that have not already done so should consider eliminating the statute of limitations for sexual assaults.

Community Engagement

As the sexual assault response is a multidisciplinary one, so too is the contribution to communication about the response. Each discipline has the potential to provide information that serves to inform community members about successful strategies to address sexual violence. A few of the potential topics that may serve as the focus of public communications include expanded medical-forensic exam time frames; enhanced victim services; longer periods of storage for anonymous SAKs; expedited processes that move evidence through the analysis process; and re-evaluation of sexual assault statutes of limitations. Disseminating information beyond the key stakeholders also provides guidance and strategies to other jurisdictions that may be experiencing similar challenges.

⁸⁸ See *Statutes of Limitations for Sexual Assault: A State-by-State Comparison* (2013): <http://victimsofcrime.org/docs/DNA%20Resource%20Center/sol-for-sexual-assault-check-chart-final-copy.pdf?sfvrsn=2>

Any such efforts for communicating the status of evidence should respect the confidentiality and privacy rights of victims.

Jurisdictions should develop a communication strategy to increase transparency and accountability to stakeholders within their communities regarding the response to sexual violence.⁸⁹



RECOMMENDATION 34:

Jurisdictions should develop a communication strategy to increase transparency and accountability to stakeholders within their communities regarding the response to sexual violence.

Other considerations for developing an effective communication strategy may include those in Exhibit 15 below:

EXHIBIT 15: CONSIDERATIONS FOR COMMUNICATING EFFECTIVELY WITH STAKEHOLDERS

Style of communication	What is the best approach to conveying the information? Live communication with stakeholders, such as a press conference? Multimedia messaging? Should the information be issued directly from the agency or organization (as a press release, or a series of social media messages), or is it best delivered through a third-party source, such as a newspaper article?
Tone	What tone best serves the information being communicated?
Spokespeople	Who are the right people to deliver the information? Is this a situation where rank or position is important to the delivery, or is the information better conveyed by frontline staff or even community members?
Credibility	Are there existing questions about the agency or organization's credibility? Is there a general climate that may impact credibility, even if it is not specific to the agency or organization delivering the message? Would outside source participation in the communication strategy bolster the credibility of the agency or organization delivering the information?
Timing	What is the best time to deliver the information? If it's an immediate issue, should it be delivered in time for it to be reported during evening news cycles? If delivering the information through social media, is it being posted at a time when more people are online and likely to comment or repost? If proactively conveying information, should it be timed to correspond with related events, such as Sexual Assault Awareness Month, or other opportunities for increased visibility?

Source: D.W. Stephens, J. Hill, and S. Greenberg, "Chapter 3: Developing Strategic Communications Plans," in *Strategic Communication Practices: A Toolkit for Police Executives*. (Washington, DC: U.S. Department of Justice, Office of Community Oriented Policing Services, 2011): <http://ric-zai-inc.com/Publications/cops-p222-pub.pdf>.

⁸⁹ For example, see Maryland, L. 2015, Ch. 37, which requires that the Attorney General prepare a report for the General Assembly that includes the following: "the number of untested sexual assault collection kits being stored by each law enforcement agency; the date that each untested sexual assault collection kit was collected; and recommendations for addressing any backlog of untested sexual assault collection kits," at http://mgaleg.maryland.gov/2015RS/chapters_noln/Ch_37_sb0498T.pdf.

Training

The importance of appropriate training was also highlighted in previous chapters relating to the medical-forensic exam and law enforcement. Training of the medical professionals who will perform the medical-forensic exam and of law enforcement personnel who will interact with victims of sexual assault are crucial to ensure the empowerment and appropriate treatment of the victim in his/her interactions with the criminal justice system.

Mandatory training for those professionals responding to sexual assault should be incorporated into every agency's strategic plan. In light of the lessons learned from those agencies that have already addressed SAK backlogs, training for law enforcement professionals in the neurobiology of trauma may assist them in their interactions with victims of sexual assault and their investigations.⁹⁰



RECOMMENDATION 35:

Mandatory training for those responding to sexual assault should be incorporated into every agency's strategic plan.



SUMMARY RECOMMENDATIONS

Post-Analysis Communication and Policy Considerations (continued from page 66)

30. Jurisdictions should have a victim notification protocol for informing victims of the status of their sexual assault cases, including cases where SAKs are analyzed after many years.
31. Jurisdictions that do not have evidence retention laws should adopt biological evidence retention policies/protocols that are victim-centered and preserve evidence from uncharged or unsolved reported cases for 50 years or the length of the statute of limitations, whichever is greater.
32. Unreported SAKs should be retained for at least the statute of limitations or a maximum of 20 years.
33. States that have not already done so should consider eliminating the statute of limitations for sexual assaults.
34. Jurisdictions should develop a communication strategy to increase transparency and accountability to stakeholders within their communities regarding the response to sexual violence.
35. Mandatory training for those responding to sexual assault should be incorporated into every agency's strategic plan.

⁹⁰ See, for example, R. Campbell, "The Neurobiology of Sexual Assault," presented at the National Institute of Justice's Translational Criminology Seminar Series., December 3, 2012: <http://nij.gov/multimedia/presenter/presenter-campbell/pages/presenter-campbell-transcript.aspx>; Office for Victims of Crime, "Training Module 4: The Neurobiology of Trauma and Sexual Assault," *Sexual Assault Advocate/Counselor Training*: <https://www.ovcttac.gov/saact/module4.cfm>.

Conclusion

Where do we go from here? The discoveries of untested SAKs will continue as jurisdictions identify and inventory untested SAKs, either on their own initiative or pursuant to statutory directives. This document was created to put forward best practices by outlining ways in which SAKs should be collected from victims, parameters for identifying and prioritizing SAKs to be tested, time periods for testing, processes for communicating information about SAK testing between stakeholders, and auditing standards for untested and backlogged SAKs. Although there is a significant amount of information contained in this document, at its core are recommendations that can provide a roadmap for a victim-centered approach that considers the best available practices for collecting, transferring, preserving, storing, and analyzing SAKs.

Initial victim engagement is a critical phase that will impact the overall sexual assault response — from the impact on the victim, through the investigative processes, to the procedural outcome. Ultimately, the sexual assault response will depend on collaboration among all of the disciplines involved, including medical-forensic providers, law enforcement, community- and system-based advocates, prosecutors, and laboratory personnel. All collaborative partners need to have a firm understanding of each other's roles and legal responsibilities, and the victim's privacy and service expectations given those roles and responsibilities. It is essential that law enforcement efforts be victim-centered and trauma-informed as well as responsive to individual victim needs to encourage victim involvement and build confidence in the criminal justice system. Beginning with the collection of the SAK, a sexual assault case intersects with many disciplines; the development of multidisciplinary teams will provide a forum for professionals to identify ways to come together and proactively look at system issues that may impact their response. Victim engagement with both system- and community-based advocates is essential to fostering the support and guidance a victim may need throughout the process. Agency leaders should prioritize their use of time and other resources to build or enhance collaborative relationships in their communities and ensure that stakeholders have this critical training.

Victims of sexual assault, regardless of whether they choose to remain anonymous or report the assault to law enforcement, should be able to receive a medical-forensic exam by a trained medical professional to obtain necessary medical treatment and appropriately preserve any potential evidence. Trained medical providers are the best option for collecting evidence from sexual assault victims and suspects; samples obtained from the human body should

be collected by sexual assault nurse examiners (SANEs) or other clinicians with specific education and experience in conducting medical-forensic exams. Further emphasizing the need for specialized education and training is the research suggesting that SANEs have a significant, positive impact on criminal justice outcomes, with greater numbers of SAKs collected from victims presenting themselves to SANE programs, and more cases moving through the criminal justice system, going to trial, and resulting in convictions or guilty pleas.⁹¹ It is important to recognize that sample collection is not the only critical evidence stemming from the medical-forensic exam; the comprehensive records created from the encounter contain vital information that can assist in moving cases forward.

The law enforcement agency should be responsible throughout the investigative process in accounting for the SAK, its proper transfer, and storage, and in working with the forensic laboratory to prioritize the testing of this evidence. If a victim chooses to report to law enforcement, jurisdictions should have victim-centered, trauma-informed, and privacy-respecting protocols in place for continued communication about the status of the case and investigation. Law enforcement officers responding to a sexual assault are in a unique and critical position, as their interactions will directly impact a victim's experience and willingness to engage with the entire criminal justice system. Training on the neurobiology of trauma as well as victim interviewing skills are critical for proper victim engagement throughout the criminal justice process. Law enforcement is encouraged to create a transparent and collaborative environment that will foster better communication, both internally with forensic laboratories and prosecutors and more directly with victims, with assistance from victim advocates and allied service professionals.

In recognition of the importance of the evidence collected in the SAK, testing all SAKs reported to law enforcement is a priority. The DNA results from the SAK may often direct the next steps of the investigation. Law enforcement plays a pivotal role in following up on CODIS hits, obtaining reference samples (as needed), and conducting additional interviews of the suspect. And, if there were no DNA results generated from the SAK, law enforcement, in consultation with the laboratory, should discuss the submission of additional evidentiary items for DNA analysis. Throughout this investigative process, law enforcement faces many challenges, including victim engagement, staffing and leadership, training, and the availability of technology as well as records management systems.

At the forensic laboratory, the objective is to analyze the SAK promptly and generate a DNA profile from the crime scene evidence that can be entered into CODIS and searched. Laboratories with a large volume or influx of sexual assault cases and seeking to achieve efficiencies in processing or to reduce

⁹¹ C. Crandall and D. Helitzer, "Impact Evaluation of a Sexual Assault Nurse Examiner (SANE) Program" (NCJ 203276). (Washington, DC: National Institute of Justice, 2003); R. Campbell, D. Patterson, and D. Bybee, "Prosecution of Adult Sexual Assault Cases: A Longitudinal Analysis of the Impact of a Sexual Assault Nurse Examiner Program," *Violence Against Women*, 18(2) (2012): 223-244.

turnaround times should consider a high-throughput approach based on the use of swabbings — the common collection component of the SAK. This high-throughput approach maximizes the use of a variety of laboratory resources, the most important of which is targeted testing or *Direct to DNA*, a process that bypasses serology to proceed to the most sensitive technique first, DNA analysis. If a CODIS-eligible DNA profile is not developed, the laboratory may conduct supplemental testing or test additional evidentiary items (such as the victim's underwear) in an effort to obtain probative evidence for the sexual assault case. In the event an investigative lead is identified through CODIS, this information must be communicated to the submitting law enforcement agency for further investigation and follow-up. The testing of these SAKs and the generation of DNA profiles for investigation/prosecution may offer some assurance to the victim that the criminal justice system is hard at work. Evidence analysis, however, is not the final step in the investigative process.

Every jurisdiction needs to establish victim notification protocols for informing victims of the status of the criminal investigation and the outcome of the analysis of the SAK, and for notifying them when there is a CODIS hit. Eliminating the statute of limitations for sexual assault crimes should be a consideration for every state, and jurisdictions should also address evidence retention where applicable statutes do not exist. Adopting policies/protocols that preserve biological evidence from uncharged or unsolved reported cases is critical, since the power of DNA analysis is not only to identify perpetrators of crime but also to potentially exonerate wrongfully convicted individuals.

Every jurisdiction has the ability to implement steps that will positively impact the sexual assault response and the experiences of victims. Implementation of these recommendations may also foster an environment that will encourage more victims to report sexual assaults, with increased confidence in the criminal justice system.

This document outlines best practices that can improve the quality of evidence collection and streamline processes in the submission and analysis of SAKs, all while keeping victims at the center of a trauma-informed, multidisciplinary response to sexual assault. The working group illuminated 35 essential recommendations to ensure that the response to sexual assault is a collaborative and ongoing process and to foster victim engagement and create a more responsive criminal justice system. These recommendations are designed to optimize the collection of DNA evidence, the development of CODIS-eligible DNA profiles, and the identification of investigative leads. Jurisdictions vary in their individual needs and resources, but these recommendations may provide a starting point for development of their plans and protocols for the untested SAKs. What cannot be forgotten, regardless of advancements in science and technology, is that behind every sexual assault case, there is a person whose life has been irrevocably altered. Responders and service providers have the ability to positively influence the person's likelihood of healing and recovering from sexual assault.

Multidisciplinary Sexual Assault Glossary

Effective communication among interdisciplinary professionals is essential. These professionals use different professional terminology from the legal, medical, and forensic science disciplines. This project served to create a resource for the community that can be used to help bridge language-related communication gaps and potential miscommunication associated with discipline-specific terminology.

Access the glossary at <https://www.cfnei.com/glossary-index>

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Campbell, R., Fehler-Cabral, G., Pierce, S.J., Sharma, D.B., Bybee, D., Shaw, J., Horsford, S., & Feeney, B.A. (December 2015 update). "Chapter 5: Notifying Victims: Developing & Evaluating a Victim Notification Protocol." In *The Detroit Sexual Assault Kit (SAK) Action Research Project (ARP), Final Report*. Washington, DC: U.S. Department of Justice, National Institute of Justice, 232-280. <https://www.ncjrs.gov/pdffiles1/nij/grants/248680.pdf#page=345>.

Houston SAK Action-Research Task Force. (2013). "Complainant Notification and Information Line Protocols." <http://houstonsakresearch.org/resources/documents/hotline.pdf>.

National Center for Victims of Crime. (n.d.). "DNA Hits in Cold Cases: Notifying Crime Victims." Office for Violence Against Women, U.S. Department of Justice. <https://victimsofcrime.org/docs/Resource%20Library/DNA%20COLDCase%20bro.pdf?sfvrsn=0>.

Appendix A: Research Supporting Trauma-Informed Care

Premise	Supporting Research
Sexual Assault Nurse Examiner (SANE) programs provide victim-centered, trauma-informed care; such care helps reduce victims' distress.	<ul style="list-style-type: none"> • Campbell, R., Patterson, D., Adams, A.E., Diegel, R., and Coats, S. "A Participatory Evaluation Project to Measure SANE Nursing Practice and Adult Sexual Assault Patients' Psychological Well-Being." <i>Journal of Forensic Nursing</i>, 4 (2008): 19-28. http://www.ncbi.nlm.nih.gov/pubmed/18387006. • Fehler-Cabral, G., Campbell, R., and Patterson, G. "Adult Sexual Assault Survivors' Experiences with Sexual Assault Nurse Examiners (SANEs)." <i>Journal of Interpersonal Violence</i>, 26 (2011): 3618-3639. http://www.ncbi.nlm.nih.gov/pubmed/21602203. • Campbell, R., Greeson, M.R., and Fehler-Cabral, G. "With Care and Compassion: Adolescent Sexual Assault Victims' Experiences in Sexual Assault Nurse Examiner (SANE) Programs." <i>Journal of Forensic Nursing</i>, 9 (2013): 68-75. http://www.ncbi.nlm.nih.gov/pubmed/24158127.
SANE programs that provide victim-centered, trauma-informed care increase cases' progress through the criminal justice system.	<ul style="list-style-type: none"> • Campbell, R., Patterson, D., and Fehler-Cabral, G. "Using Ecological Theory to Evaluate the Effectiveness of an Indigenous Community Intervention: A Study of Sexual Assault Nurse Examiner (SANE) Programs." <i>American Journal of Community Psychology</i>, 46 (2010): 263-276. http://www.ncbi.nlm.nih.gov/pubmed/20853158. • Campbell, R., Patterson, D., and Bybee, D. "Prosecution of Adult Sexual Assault Cases: A Longitudinal Analysis of the Impact of a Sexual Assault Nurse Examiner (SANE) Program." <i>Violence Against Women</i>, 18 (2012): 223-244. http://www.ncbi.nlm.nih.gov/pubmed/22433229.
Victims' empowerment and their level of engagement affects their case's progress through the criminal justice system.	<ul style="list-style-type: none"> • Greeson, M.R., and Campbell, R. "Rape Survivors' Agency Within the Legal and Medical Systems." <i>Psychology of Women Quarterly</i>, 35 (2011): 582-595. http://pwq.sagepub.com/content/35/4/582.
How law enforcement treats victims affects victims' engagement in the criminal justice system.	<ul style="list-style-type: none"> • Patterson, D. "The Linkage Between Secondary Victimization by Law Enforcement and Rape Case Outcomes." <i>Journal of Interpersonal Violence</i>, 26 (2011a): 328-347. http://www.ncbi.nlm.nih.gov/pubmed/20237390. • Patterson, D. "The Impact of Detectives' Manner of Questioning on Rape Victims' Disclosure." <i>Violence Against Women</i>, 17 (2011b): 1349-1373. http://www.ncbi.nlm.nih.gov/pubmed/22240403.

Appendix B: Federal Government Recommendations

The federal government has made recommendations, issued guidance documents, or implemented programs for the following communities and populations; this brief description is not all-inclusive and represents only the federal government's response.

Sexual Assault on College Campuses

Sexual assault at institutions of higher education presents unique needs because (1) statistics indicate that 11.2 percent of all students will experience rape or sexual assault through physical force, violence, or incapacitation; (2) sexual violence is more prevalent at college than other crimes; and (3) college-age victims of sexual violence often do not report it to law enforcement.¹ Responding to sexual assault in these settings requires coordination between the campus, local law enforcement agencies, and local community victim services. To ensure that students are safe on campus and have access to support, such as medical-forensic services and advocacy, can be challenging for the students, the institutions, and the communities in which they reside.²

The systems required for colleges to effectively respond to sexual assault involve almost every component of campus life, from student affairs divisions to law enforcement to community partners. Response systems must be fair, culturally sensitive, and coordinated. Campuses must not only be compliant with federal requirements but should also create an environment in which all campus members feel comfortable and safe coming forward if they are harmed in any way.³

¹ See "Campus Sexual Violence: Statistics" at www.rainn.org. See also the Center for Changing Our Campus Culture: www.changingourcampus.org.

² See, generally, Office on Violence Against Women, "Protecting Students From Sexual Assault" web page. (Washington, DC: U.S. Department of Justice): <https://www.justice.gov/ovw/protecting-students-sexual-assault>.

³ See the Center for Changing Our Campus Culture, www.changingourcampus.org, for additional guidance documents. See also Office of the Vice President, *FACT SHEET: Resource Guide and Recent Efforts to Combat Sexual Violence on College and University Campuses* (Washington, DC: The White House, 2015): <https://www.whitehouse.gov/the-press-office/2015/09/17/fact-sheet-resource-guide-and-recent-efforts-combat-sexual-violence>.

Sexual Assault in Indian Country

The federal government has a unique relationship with Indian Country, which includes legal responsibilities. Sexual assault in Indian Country has been referred to as an “epidemic in violence,” with unique needs that include (1) complex jurisdictional issues for the investigation/prosecution of sexual assault cases; (2) extremely high incidences of violence, such that almost 60 percent of American Indian women are sexually assaulted by spouses or intimate partners, and 33 percent of all American Indian women are sexually assaulted in their lifetime; and (3) lack of access to medical-forensic exams.⁴

The federal government has responded to this with the Tribal Law and Order Act of 2010 and the Violence Against Women Reauthorization Act of 2013. The Office for Victims of Crime developed a National Coordination Committee, which made recommendations to the Attorney General for implementation of the following federal changes:

- ✓ Meaningful collaboration and coordination among the array of federal agencies and between the state/federal/tribal responders, such as through formalized Sexual Assault Response Teams (SARTs) and other multidisciplinary teams.
- ✓ Access to medical-forensic care, including identification of appropriate SAKs for sample collection; agencies are responsible for storage of SAKs and transfer to the forensic laboratory.
- ✓ Reduction in delays in transferring evidence to forensic laboratories and in analyzing the evidence through means such as contracts with additional state forensic labs.
- ✓ Respect for cultural practices, such as sweat lodges, that may impede evidence collection; facilitation of victims’ access to cultural, spiritual, and ceremonial practices; and ensuring that victims have complete information about potential consequences for evidence collection in order to make fully informed choices.⁵

Sexual Assault in the Military

Sexual assault in the military presents unique needs because (1) sexual violence is pervasive; (2) the vast majority of cases go unreported; (3) those who report sexual assault face retaliation; and (4) the rate of sexual harassment

⁴ A. Juraska, L. Wood, J. Giroux, and E. Wood, “Sexual Assault Services Coverage on Native American Land,” *Journal of Forensic Nursing*, 10(2) (2014): 92-97.

⁵ The National Coordination Committee on the American Indian/Alaska Native Sexual Assault Nurse Examiner-Sexual Assault Response Team Initiative, *Report to the U.S. Attorney General on Improving Federal Agency Response to Sexual Violence in Tribal Nations: Issues and Recommendations* (2014): http://www.ovc.gov/AIANsane-Sart/pdf/NCC_June2014_FinalReport_508.pdf.

for members of the military is high.⁶ The Department of Defense (DOD) has implemented comprehensive programs for these unique needs by addressing how a military installation responds to a report of sexual assault. DOD created a Sexual Assault Prevention and Response Office (SAPRO), bringing together a multidisciplinary team to oversee all policy related to the military's response to sexual assault. For each military installation within each community, there is a Sexual Assault Response Coordinator (SARC) who coordinates the installation's multidisciplinary team for responding to sex crimes, including managing services for victims who wish to remain anonymous and still receive services (called "restricted reports" within the DOD) as well as those victims reporting to law enforcement agencies.

Sexual Assault in Prison

Sexual assault in prison presents unique needs because (1) almost 10 percent of prisoners incarcerated in state prisons, local jails, and post-release treatment facilities are sexually assaulted; (2) sexual victimization can increase the tendency for future violence in the institution; and (3) sexual violence can contribute to a variety of detrimental health effects to the individual inmate as well as the prison population.⁷

As a result of these unique needs, Congress passed the Prison Rape Elimination Act of 2003 (PREA),⁸ which includes the following components for a more complete victim-centered response to sexual violence in confinement:

- ✓ Investigators who have specialized training in conducting investigations in confinement settings, to include the collection and preservation of evidence.
- ✓ First responders who are able to preserve and protect the crime scene until evidence collection occurs.
- ✓ Accessible medical-forensic care that is available following the assault or abuse, whether on-site or at an outside facility, and performed by specially trained examiners where possible.

⁶ See facts on United States Military Sexual Violence: www.protectourdefenders.com. See also Rand Military Workplace Publications: www.rand.org/nsrd/projects/rmws/publications.html. For DOD and service-specific policy and references, see the Sexual Assault Prevention and Response Office home page: <http://www.sapr.mil/>.

⁷ N. Wolf, C. Blitz, J. Shi, and J. Siegel, "Sexual Violence Inside Prisons: Rates of Victimization," *Journal of Urban Health*, 83(5) (September 2006): 835-848. doi: 10.1007/s11524-006-9065-2. PMID: PMC2438589.

⁸ Additional information about the Prison Rape Elimination Act is available at the Bureau of Justice Assistance's National PREA Resource Center website on the "Prison Rape Elimination Act" web page: <http://www.prearesourcecenter.org/about/prison-rape-elimination-act-prea>.

Appendix C: The Persistence of Body Fluids and DNA

Body Fluid	References
Saliva (skin)	<ul style="list-style-type: none"> • Stark, M.M. (Ed.). <i>Clinical Forensic Medicine: A Physician's Guide, Third Edition</i> (Humana Press, 2011). doi: 10.1007/978-1-61779-258-8 • Kenna, J., Smyth, M., McKenna, L., Dockery, C., & McDermott, S. "The Recovery and Persistence of Salivary DNA on Human Skin." <i>Journal of Forensic Sciences</i>, 56(1) (2011): 170-175. doi: 10.1111/j.1556-4029.2010.01520.x
Semen (vaginal)	<ul style="list-style-type: none"> • Macaluso, M., Lawson, L., Akers, R., Valappil, T., Hammond, K., Blackwell, R., & Hortin, G. "Prostate-Specific Antigen in Vaginal Fluid as a Biologic Marker of Condoms Failure." <i>Contraception</i>, 59(3) (1999): 195-201. https://www.ncbi.nlm.nih.gov/pubmed/10382083. • Mayntz-Press, K.A. Sims, L., Hall, A., & Ballantyne, J. "Y-STR Profiling in Extended Interval (≥ 3 days) Postcoital Cervicovaginal Samples." <i>Journal of Forensic Science</i>, 53 (2008): 342-348.
Sperm/Spermatozoa (oral cavity and oral swabs)	<ul style="list-style-type: none"> • Enos, W.F., & Beyer, J.C. "Spermatozoa in the Anal Canal and Rectum and in the Oral Cavity of Female Rape Victims." <i>Journal of Forensic Science</i>, 23 (1978): 231-233. • Willott, G.M., & Allard, J.E. "Spermatozoa — Their Persistence After Sexual Intercourse." <i>Forensic Science International</i>, 19 (1982): 135-154.
Sperm/Spermatozoa (anal canal/rectal swabs)	<ul style="list-style-type: none"> • Enos, W.F., & Beyer, J.C. "Spermatozoa in the Anal Canal and Rectum and in the Oral Cavity of Female Rape Victims." <i>Journal of Forensic Science</i>, 23 (1978): 231-233. • Willott, G.M., & Allard, J.E. "Spermatozoa — Their Persistence After Sexual Intercourse." <i>Forensic Science International</i>, 19(2) (1982): 135-154.
Sperm/Spermatozoa (cervix)	<ul style="list-style-type: none"> • Silverman, E.M., & Silverman, A.G. "Persistence of Spermatozoa in the Lower Tracts of Women." <i>Journal of the American Medical Association</i>, 240(17) (1975). • Allery, J.P., Telmon, N., Mieusset, R., Blanc, A., & Rouge, D. "Cytological Detection of Spermatozoa: Comparison of Three Staining Methods." <i>Journal of Forensic Science</i>, 46 (2001): 349-351. • Hanson, E.K., & Ballantyne, J. "A Y-Short Tandem Repeat Specific DNA Enhancement Strategy to Aid the Analysis of Late Reported (≥ 6 Days) Sexual Assault Cases." <i>Medicine, Science and the Law</i>, 54(4) (2014): 209-218. doi: 10.1177/0025802413519761 • Hanson, E.K., & Ballantyne, J. "Enhanced DNA Profiling of the Semen Donor in Late Reported Sexual Assaults: Use of Y-Chromosome-Targeted Pre-amplification and Next Generation Y-STR Amplification Systems." In <i>Forensic DNA Typing Protocols</i>, ed. W. Goodwin. Methods in Molecular Biology Series, 1420 (2016): 185-200. doi: 10.1007/978-1-4939-3597-0_15

Body Fluid

References

Sperm/Spermatozoa (external and internal vaginal swabs)

- Willott, G.M., & Allard, J.E. "Spermatozoa — Their Persistence After Sexual Intercourse." *Forensic Science International*, 19(2) (1982): 135-154.
- Hellerud, B.B., Bouzga, M., Hoff-Olsen, P., & Mevåg, B. "Semen Detection: A Retrospective Overview from 2010." *Forensic Science International: Genetics Supplement Series*, 3 (2011): 391-392. doi: 10.1016/j.fsigss.2011.09.057

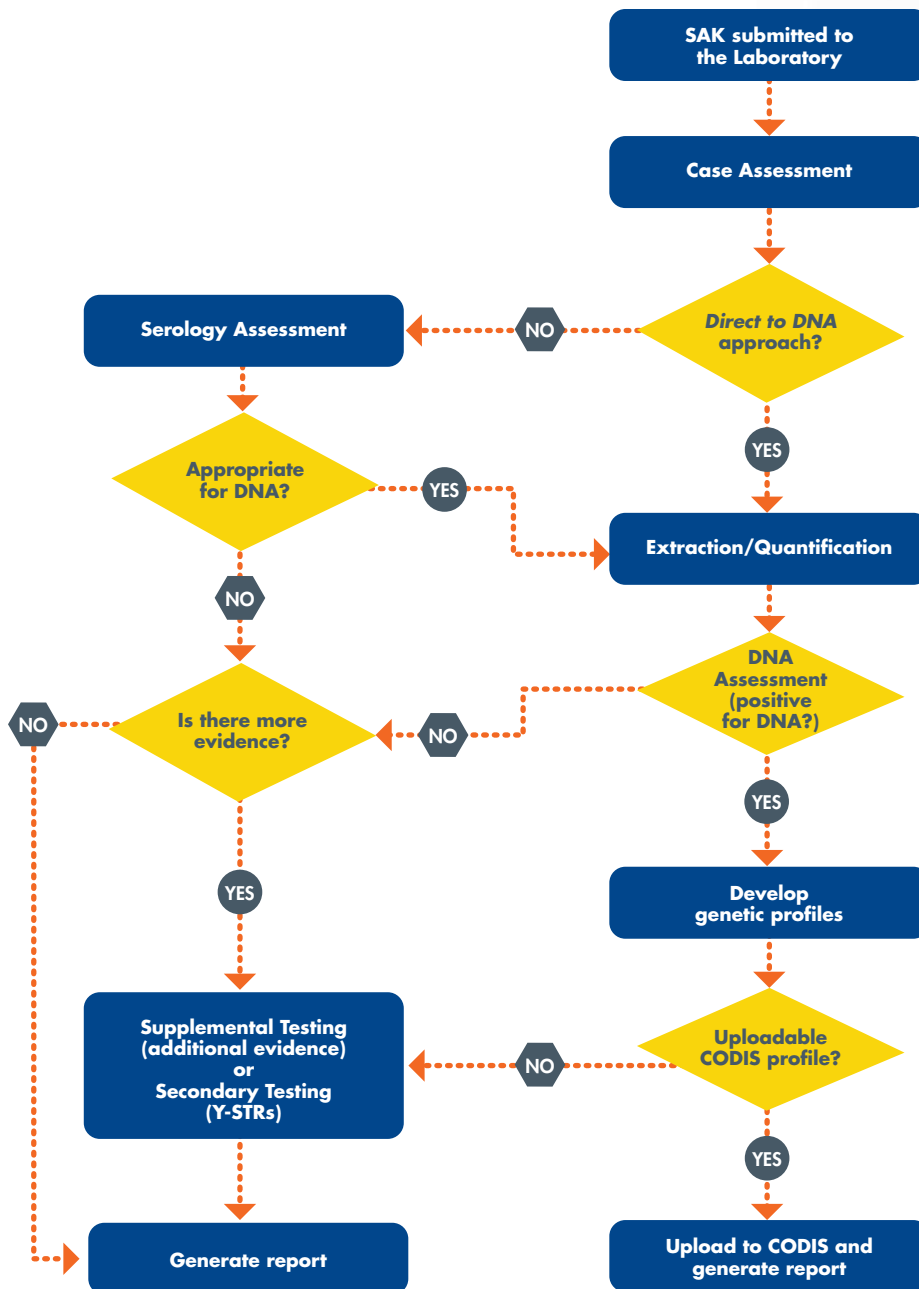
Sperm/Spermatozoa (posterior fornix)

- Hanson, E.K., & Ballantyne, J. "A Y-Short Tandem Repeat Specific DNA Enhancement Strategy to Aid the Analysis of Late Reported (≥ 6 Days) Sexual Assault Cases." *Medicine, Science and the Law*, 54(4) (2014): 209-218. doi: 10.1177/0025802413519761
- Hanson, E.K., & Ballantyne, J. "Enhanced DNA Profiling of the Semen Donor in Late Reported Sexual Assaults: Use of Y-Chromosome-Targeted Pre-amplification and Next Generation Y-STR Amplification Systems." In *Forensic DNA Typing Protocols*, ed. W. Goodwin. Methods in Molecular Biology Series, 1420 (2016): 185-200. doi: 10.1007/978-1-4939-3597-0_15

Sperm/Spermatozoa (clothing)

- Kafarowski, E., Lyon, A.M., & Sloan, M.M. "The Retention And Transfer of Spermatozoa in Clothing by Machine Washing." *Journal of the Canadian Society of Forensic Science*, 29(1) (1996): 7-11. doi: 10.1016/j.fsigen.2009.07.003.

Appendix D: Recommended High-Throughput Process Flow for Sexual Assault Kits



Appendix E: Outsourcing Sexual Assault Kits

Laboratories and law enforcement agencies may contract out (outsource) the analyses of DNA samples in accordance with state and federal law. To ensure the eligibility of the resulting DNA records for CODIS and the National DNA Index System (NDIS), these agencies must comply with the outsourcing requirements specified in Standard 17 of both the Federal Bureau of Investigation (FBI) Director's *Quality Assurance Standards for Forensic DNA Testing Laboratories* and the *Quality Assurance Standards for DNA Databasing Laboratories*. For law enforcement agencies seeking to outsource SAK (casework) samples, the technical specifications of the outsourcing agreement must have the prior approval of the technical leader of the NDIS participating laboratory taking ownership of and entering that DNA data into CODIS.

Law enforcement agencies intending to outsource DNA analysis of SAKs must obtain PRIOR APPROVAL on the technical specifications of the outsourcing agreement. The technical leader of the participating NDIS laboratory takes ownership of the DNA data, which is then eligible for entry into CODIS.

Law enforcement agencies seeking to outsource must ensure that the vendor laboratory follows the FBI's *Quality Assurance Standards* and is accredited. Standard 17 of the *Quality Assurance Standards* also requires the completion of an on-site visit of the vendor laboratory prior to the beginning of the outsourced analyses, and a technical review of the outsourced DNA records by the NDIS participating laboratory that will be taking ownership of those records. Prior to the submission of DNA samples to the vendor laboratory, agencies must ensure compliance with the following outsourcing checklist of requirements:

Outsourcing Checklist

Requirement	Law Enforcement Agency	NDIS Participating Laboratory	Vendor Laboratory
Vendor Laboratory is accredited by approved accrediting agency.	✓	✓	✓
Vendor Laboratory complies with FBI Director's <i>Quality Assurance Standards</i> .	✓	✓	✓
Vendor Laboratory is required to use same technology, platform, and typing amplification test kit as that used by NDIS Laboratory taking ownership of the DNA records.	✓	✓	✓
Technical Leader of NDIS Laboratory has approved the technical specifications of the outsourcing agreement prior to its award.	✓	✓	
On-site visit of the Vendor Laboratory occurs prior to any outsourced DNA analyses.	✓	✓	✓

Sources: Federal Bureau of Investigation, Standard 17 in FBI Director's *Quality Assurance Standards for Forensic DNA Testing Laboratories* and *Quality Assurance Standards for DNA Databasing Laboratories*. (Quantico, VA: Federal Bureau of Investigation, 2011), at <http://www.fbi.gov/aboutus/lab/biometric-analysis/codis>.

Appendix F: Highlights of the NIJ Action Research Projects in Detroit and Houston

	Victim Notification Protocol Highlights	Additional Information
Detroit	<ul style="list-style-type: none"> • In-person notification by a representative from the prosecutor's office and a system-based victim advocate. • Apology to victims for the delay in testing when SAK testing yielded a CODIS hit. • Options presented for confidential communication about case progress (including whether or when to follow up with investigators and/or victim advocates). • Referrals for targeted community services. 	<p><i>The Detroit Sexual Assault Kit (SAK) Action Research Project (ARP), Final Report, "Chapter 5: Notifying Victims: Developing & Evaluating a Victim Notification Protocol":</i> https://www.ncjrs.gov/pdffiles1/nij/grants/248680.pdf#page=345</p>
Houston	<ul style="list-style-type: none"> • Creation of a hotline for victims to obtain case status updates, including DNA testing results. • New position, the Justice Advocate, was created (and ultimately made permanent) to help sexual assault victims navigate the criminal justice system. 	<p><i>Complainant Notification and Information Line Protocols:</i> http://houstonsakresearch.org/resources/documents/hotline.pdf</p> <p><i>How to Notify Victims about Sexual Assault Kit Evidence: Insight and Recommendations from Victims and Professionals:</i> http://houstonsakresearch.org/resources/documents/IDVSA_victim.pdf</p> <p><i>Key Components of Building a Successful Victim Notification Protocol:</i> http://houstonsakresearch.org/resources/documents/IDVSA_success.pdf</p> <p><i>Sexual Assault Victims' Experiences of Notification After a CODIS Hit:</i> http://houstonsakresearch.org/resources/documents/IDVSA_CODIS.pdf</p>

Appendix G: 15 Key Principles for Developing a Victim Notification Protocol

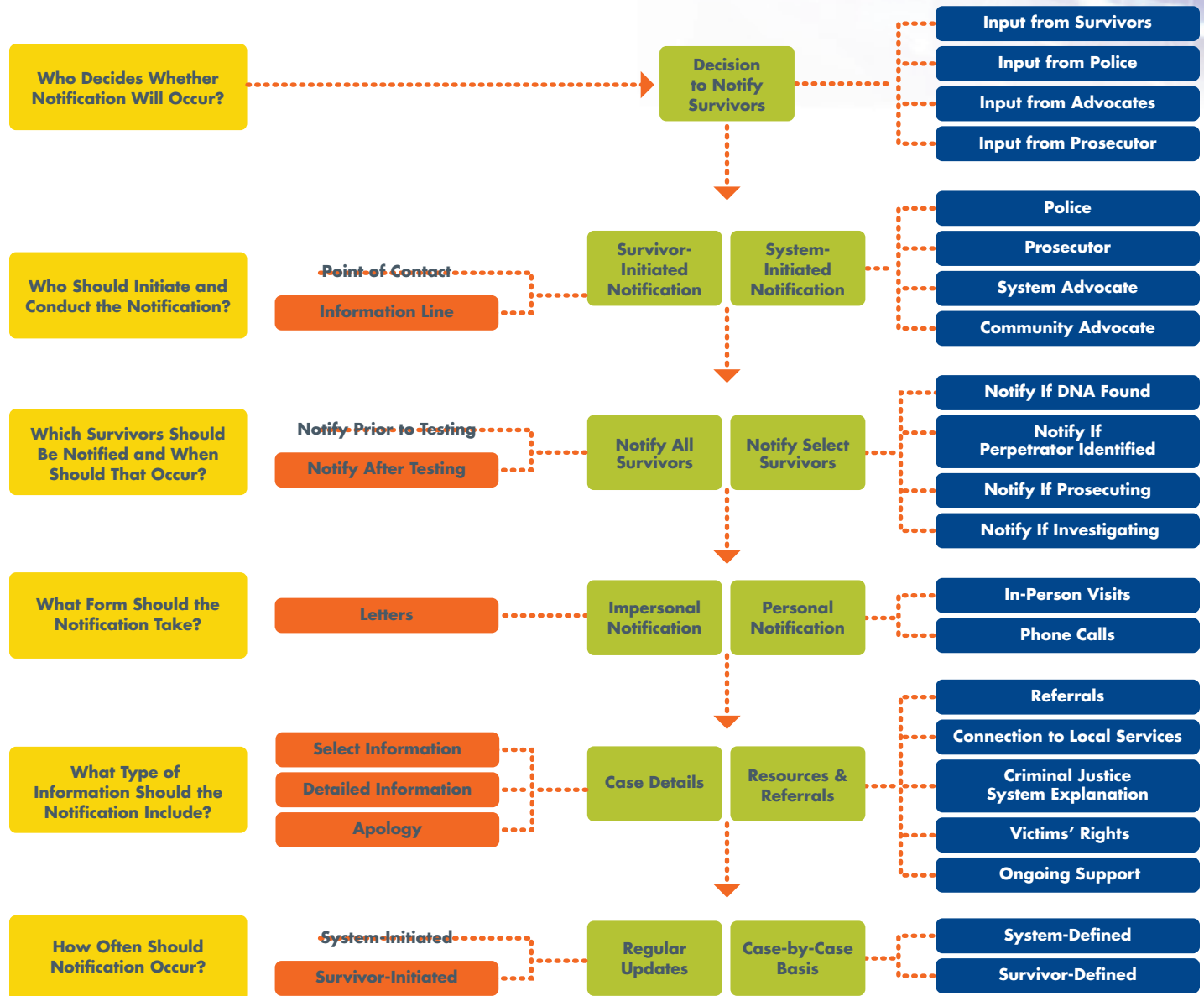
Principle	Supporting Discussion
Bring everyone to the table.	"Having a broad-based multidisciplinary team ensures that diverse perspectives will be considered at every stage of the [victim notification] process."
Clarify what decisions are — and are not — open to multidisciplinary input.	"... It is important to clarify which individuals or organizations have decision-making authority over what issues. Although some decisions may be made through collaborative discussion and consensus, others may be made solely by one discipline. However, even if decision-making authority is held by only one individual or organization, collaborative input can help inform that decision."
Connect with local, state, and national colleagues who have expertise in victim notification.	"Reaching out to other jurisdictions to hear about their lessons learned — and educating the multidisciplinary team on such lessons — can be important."
Allocate sufficient time for developing protocols.	"Although there is no standard amount of time needed to develop notification protocols, it will likely be a lengthy process, as many complex decisions must be made. It may be helpful to set aside additional meetings or retreats* to discuss victim notification issues in sufficient depth."
Expect disagreements among stakeholders.	"Team members are likely to have different opinions regarding when, how, and why victims should be notified about SAK testing. Consider using an outside facilitator (as was done in Detroit) to allow the group to reach consensus on complex issues."
Establish protocols to protect the confidentiality of the victims.	"Updates on victim notification should be limited to those directly involved with the victims, regardless of what confidentiality agreements have been signed."
Acknowledge that there is no right way to do victim notification.	<p>"Given the limited research to date regarding previously untested SAKs, empirically based best practices for victim notification have not yet been identified. Here, however, are some guiding principles:</p> <ul style="list-style-type: none"> • Because notification may be traumatic, the emotional needs of victims must be taken into consideration. • Providing victims with options and choices helps facilitate their recovery from the trauma. • Providing victims with options and choices may affect their willingness to participate in further investigation and prosecution." <p>Consider using a well-trained and victim-centered representative from law enforcement and/or the prosecutor's office alongside a victim advocate when providing in-person notification. Victims should be given the option for receiving updates on their case or opting out of being notified in the future.</p>

Principle	Supporting Discussion
Be sensitive to differing rules regarding the disclosure of confidential information.	"Set clear expectations up front regarding what information should — and should not — be divulged to the multidisciplinary team." Some communications, such as those between victims and community-based advocates, should be kept confidential.
Provide comprehensive training to all staff involved in conducting victim notification.	"These trainings should emphasize the importance of self-care and a victim-centered, trauma-informed approach to working with sexual assault survivors."
Know your community, know your population.	"Victim notification protocols should be tailored to the specific needs, resources, and realities of a community. Consider the diversity of a community with respect to race and ethnicity, social class, religion, and cultures and customs as well as the relationship that the community historically has had with law enforcement."
Start small — and be flexible.	"Develop draft notification protocols; implement them with a small number of cases; evaluate how they worked (either formally or informally through multidisciplinary team debriefings); and make appropriate changes — and then implement and re-evaluate the revised procedures. Because each sexual assault case and victim is unique, the victim notification protocols should be flexible enough to accommodate unusual or urgent situations."
If multiple practitioners will be working together to conduct a victim notification, everyone must be briefed — ahead of time — about the case.	"It is important that the practitioners who will be directly involved in the case are briefed ahead of time so that they can be aware of key issues that may come up during notification It is very important to note that the victim's privacy must be respected, and team members need to be mindful not to stereotype based on preliminary information."
Be prepared to take action when practitioners are ready.	"The timing of victim notification should be considered in light of when investigators, prosecutors, and advocates are ready and available to work on the case, including keeping the victim informed. It is important to try to avoid a delay after notification so that the victim does not need to be "re-notified." If, for some reason, a delay does occur, it is important to keep the victim informed regarding what is happening with her or his case."
Be mindful of safety concerns for both staff and victims.	"Depending on how and where the notification will take place, the physical safety of the notifying staff — and the victims — could be at risk. Developing safety plans is critical."
Develop resources for victims and providers.	"Consider developing a 'Frequently Asked Questions' (FAQ) brochure and a packet of information on community resources." When feasible, police departments or prosecutors' offices should appoint systems-based advocates to help sexual assault victims navigate the criminal justice system.

* For example, the Detroit SAK Action Research Group held a two-day retreat. For a guide to planning this type of retreat, see Appendix F and Detroit's report to the National Institute of Justice at <https://www.ncjrs.gov/pdffiles1/nij/grants/248680.pdf>.

Source: Adapted from National Institute of Justice, *Notifying Sexual Assault Victims After Testing Evidence*, Lessons Learned: Sexual Assault Kits Series. (Washington, DC: National Institute of Justice and Office for Victims of Crime, 2016): <https://www.ncjrs.gov/pdffiles1/nij/249153.pdf>.

Appendix H: Victim Notification Process



Adapted from "Navigating Notification: A Guide to Re-engaging Sexual Assault Survivors Affected by the Untested Rape Kit Backlog." *End the Backlog* [website]. (New York: Joyful Heart Foundation, 2016). <http://endthebacklog.org/information-survivors/victim-notification>.

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