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# **Sub-Category A-vi: Forensic and Investigative Methods**

**COMPENDIUM OF RESEARCH ON VIOLENCE AGAINST WOMEN**

**1993-2016**

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## Category A: JUSTICE & RELATED SYSTEMS

### vi. Forensic and Investigative Methods

<b>1997-WT-VX-0008:</b>	<b>Medical Records as Legal Evidence of Domestic Violence</b>
<b>Amount:</b>	<b>\$164,025</b>
<b>PI:</b>	<b>Nancy Isaac</b>
<b>Program Officer:</b>	<b>Leora Rosen</b>
<b>Status:</b>	<b>Completed</b>

This existing researcher-practitioner partnership involving legal, medical and victim advocacy communities will evaluate the utility of medical record information as evidence of domestic violence. The project will quantify the proportion of battered women's medical charts that provide adequate documentation of abuse (by legal standards), and will enumerate the types and prevalence of various flaws in documentation. The empirical analysis will be based on a review of the medical records of a prospective series of 100 domestic violence victims assisted through the Law Clinics of the Northeastern University School of Law, in Boston, Massachusetts. For each client, all medical charts that may reflect abuse will be obtained and a semi-structured clinical interview will be performed to detail the woman's self-reported history of abuse.

**Product: NCJ# 188564**

**Documenting Domestic Violence: How Health Care Providers Can Help Victims (2001) – N. Isaac, P. Enos**

This study described from a legal perspective, how domestic violence is being documented in abused women's medical charts. Ninety-six medical charts of 86 battered women covering 722 visits were reviewed. The subjects were referred through a law clinic and partnering organizations that serve battered women. In 24% of these visits, detailed information was abstracted on the medical record documentation because of an indication of domestic violence, or injury, or both. The study found significant shortcomings of current medical charts as legal evidence including poor handwriting, insufficient use of photographs and body maps, the use of legal jargon that could damage the victim's case such as alleged abuser, failure to use excited utterances (an exception to the hearsay rule) in medical history-taking, and to document details of the incident such as the name of the perpetrator, the time and place of the assault, and the demeanor of the victim. The study contains recommendations regarding relatively minor changes that could be made in record-keeping that would substantially enhance the value of medical records as legal evidence in domestic violence cases. Such records could even be used in the absence of direct testimony from the medical provider.

**Additional NCJ Citations: 184528, 184530, 195076**

<b>1998-WT-VX-0027:</b>	<b>Impact Evaluation of a SANE Unit in Albuquerque, New Mexico</b>
<b>Amount:</b>	<b>\$262,853</b>
<b>PI:</b>	<b>Cameron Crandall</b>
<b>Program Officer:</b>	<b>Leora Rosen</b>
<b>Status:</b>	<b>Completed</b>

The project will conduct a comprehensive impact evaluation that will address four areas; victim advocacy, law enforcement, prosecution, and health care services, devoting considerable attention to their interconnectedness. The evaluation will use a quasi-experimental design, comparing perceptions before and after the implementation of the collaborative. Project researchers will measure the impact of programs in the four areas of interest, using a variety of techniques, including telephone and mail surveys; review of case files, court records, and medical charts; and semi-structured interviews. To foster ongoing collaboration on UNM researchers with community leaders, key individuals from the four interest areas will be identified and invited to attend collaborative meetings with investigators. The project will conduct a stratified random sample of adult women, ages 18 and older at the time of the survey, who have received SANE services at the Albuquerque Collaborative. To provide a measure of comparison, the project will collect data from a group of historical controls. Analysis procedures will include several standard statistical techniques, including both standard non-parametric and parametric techniques such as the Wilcoxon rank sum chi-square and t-test procedures will be used to test statistical significance. Qualitative data will be compiled and analyzed using content analysis methods.

**Product: NCJ# 203276****Impact Evaluation of a Sexual Assault Nurse Examiner (SANE) Program (2003) – C. Crandall, D. Helitzer**

The experiences of women who sought services at the University of New Mexico Health Sciences Center in the two years prior to the inception of SANE (1994-1996) were compared with the experiences of women who sought services at the Albuquerque SANE Collaborative after inception (October 1996) through the end of 1999. Information was also obtained from 28 key informants. Ten qualitative and quantitative methods were used. Qualitative methods included an advocate focus group, victim services interviews, health care interviews, law enforcement interviews and prosecution interviews. Quantitative methods included reviews of pre-SANE medical charts, SANE medical charts, law enforcement records, and a victim telephone survey. Post SANE victims received more medical services for sexual assaults and a greater number and more comprehensive referrals to victim services. More SANE victims reported to police, and had more evidence kits collected. Police filed more charges post SANE, had higher conviction rates and longer sentences. The data strongly suggest that a SANE unit greatly enhances the healthcare quality of women who have been sexually assaulted, improves the quality of forensic evidence, improves law enforcement's ability to collect information and to file charges, and increases the likelihood of successful prosecution.

<b>2000-WT-VX-0014:</b>	<b>An Intervention to Improve Documentation of Domestic Violence in Medical Records</b>
<b>Amount:</b>	<b>\$220,817</b>
<b>PI:</b>	<b>V. Pualani Enos</b>
<b>Program Officer:</b>	<b>Catherine McNamee</b>
<b>Status:</b>	<b>Completed</b>

This project will develop, implement, and evaluate a protocol and practitioner training intervention that will improve documentation of abuse in health care settings. The project's goal is to increase the frequency with which the medical charts of abuse victims contain information that can be used to their legal benefit. The training intervention will be based on prior research findings and will be informed by the expertise of an interdisciplinary practitioner-researcher partnership and by focus groups of survivors and medical providers (e.g., physicians, nurses, and social workers). In the early stages of the project, three sets of focus groups will provide information for effective training. The process evaluation will provide a complete description of how many sessions of the intervention were delivered, with what content, and to which audience. For the impact evaluation, post-intervention sessions will be assessed at each intervention site and will be compared to a series of pre-intervention records. The charts of women who have documented DV will be reviewed and information will be abstracted using a tool developed in the previous research project.

**Product: NCJ# 207146****Intervention to Improve Documentation of Intimate Partner Violence in Medical Records (2004) – V. Paulani Enos, J. Linden, L. Tieszen, J. Bernstein, J. Brown**

This project developed, implemented, and evaluated an intervention designed to improve the abuse documentation practices of health care providers by encouraging them to apply diagnostic and documentation skills traditionally understood to fall within the medical realm of professional competence and responsibility. This project builds upon the previous work of a unique medical-legal, researcher-practitioner collaboration by addressing assessment and response to IPV in medical setting and then developing a training program focused primarily on the documentation of intimate partner violence. The research team developed a training that presented a recommended response to IPV that emphasized documentation employed a patient empowerment model and relied on an interdisciplinary team approach. The curriculum development was conducted through focus groups with emergency medical technicians, paramedics, nurses, and residents from each study site. A separate focus group was conducted with IPV survivors, IPV advocates, social workers, and hospital administrators. The curriculum development team formulated a 50-minute training for each provider group using a team-based approach that describes the benefits of a health care response to IPV, presents concrete strategies for assessment and documentation of IPV, and details a limited intervention that all providers can deliver within a 5-minute interaction regardless of patient disclosures or readiness to take action. The findings related to the effectiveness of the training remain inconclusive due to the small number of IPV records written by providers who had attended the training. While some changes in practices did occur, further study of the intervention is needed to fully ascertain its potential. The evaluation speaks to the feasibility of IPV training in an emergency medical setting and the challenges related to evaluating provider practices.

<b>2002-WG-BX-0007:</b>	<b>Criminal Justice Effects of Rape Services</b>
<b>Amount:</b>	<b>\$159,614</b>
<b>PI:</b>	<b>Peg Langhammer &amp; Andrew Klein</b>
<b>Program Officer:</b>	<b>Catherine McNamee</b>
<b>Status:</b>	<b>Completed</b>

Various rape law reforms and rape service reforms have been initiated since the 1960's. The intersections of these reforms can provide critical points of leverage in the judicial pursuit of rape accountability. Ideally, the forensic exam, accompanied by support of the police command structure, effectively standardizes the development of rape evidence and the early involvement of victim services and the prosecutor. Unfortunately, there have been few rigorous studies of the effects of these services. The current view is that, taken together, studies have shown limited reform effects. Studies of the criminal justice effects of rape services have been anecdotal and unsupported by case outcomes data. The Sexual Assault and Trauma Resource Center of Rhode Island (SATRC) in partnership with BOTEK Analysis Corporation is undertaking, during a two-year study period, an evaluation of the criminal justice outcomes of the sexual assault response team initiated by SATRC. A quasi-experimental comparative change design is proposed. It is hypothesized that an integrated, interagency sexual assault response team will produce higher rates of criminal investigations, arrest and convictions.

**Product: NCJ# 210584**

**An Evaluation of the Rhode Island Sexual Assault Response Team (SART) (2005) – D. Wilson, A. Klein**

The SART process in Rhode Island is a coordinated effort between the victim, the Sexual Assault Trauma Resource Center (SATRC), the police department, and the Rhode Island Department of the Attorney General. The SART program was initiated in January 2002. The evaluation covers assaults from September 2002 through August 2003, which includes 238 sexual assaults. These cases were followed until July 2004. The program has demonstrated positive effects as there is demand among sexual assault victims for SART services. Victims who seek SART services have significant odds of being assaulted by a friend, acquaintance or relative, have had a subsequent forensic exam, and believe that the offense was first degree sexual assault. The evaluation found that the estimated probability of a victim choosing to be a SART client, whose assault is without these assault characteristics and the police find probable cause is 3%, while the probability of a victim seeking SART services with all of these assault characteristics and the police do not initially find probable cause is 89%.

<b>2003-IJ-CX-1027:</b>	<b>Visiting Fellowship Program: Police Investigation of Rape: Roadblocks and Solutions</b>
<b>Amount:</b>	<b>\$149,942</b>
<b>PI:</b>	<b>Martin Schwartz</b>
<b>Program Officer:</b>	<b>Leora Rosen</b>
<b>Status:</b>	<b>Completed</b>

The project will look into the views of police officers on the frustrations and obstacles to the successful completion of a rape investigation. Through a survey methodology at least 150 patrol officers and sheriff's deputies will be queried about the problems inherent to rape investigations, and their responses will be examined against a highly validated rape myth scale. They will then be asked for their views on ways that they or others have overcome these obstacles and successfully completed investigations. The second group to be studied will be 25 experienced investigators, who will be asked similar questions, only in a qualitative format in more depth and covering more issues, such as female offenders, false reports, false confessions, male victims, and lesbian rape. These investigators will be asked about marginalization, stress, time management, and other problems. They will be asked what techniques that they use in addition to basic police work, such as team investigation or profiling. The goal of this research is not only to discover what police officers themselves see as the problems that they have in carrying out their duties but also to highlight their successes in overcoming problems.

**Product: NCJ# 232667**

**Visiting Fellowship Program: Police Investigation of Rape: Roadblocks and Solutions (2010) – M.D. Schwartz**

One conclusion from the findings is that most police officers, whether detectives or first responders, are aware of the basic, well-known "rape myths" and the "politically correct" answers that challenge those myths; for example, they know that women who dress revealingly can be raped, that women can be raped by men with whom they have previously had consensual sex, and that it is wrong to assume that women share some blame for being raped. Still, the

findings from administering the rape scale to the officers indicate that, despite many years of training, a large number of police officers still hold attitudes and opinions that undermine their ability to treat rape victims well. The officers were almost unanimously opposed to changing to a system of investigation and case processing that gives priority to protecting victims. Although this study had the objective of identifying “best practices” in police investigations of rape, the study concludes that there are no “best practices” worthy of replication or widespread use. Among the police officers in this study, there was virtually no interest in and some strong resistance to examining innovative and improved ways of investigating and managing rape cases. The dominant theme in current investigative techniques is the presumption that victims are lying and that the initial job of the investigators is to expose it. The study recommends that police training in rape investigations be based on solid research and be related to the types of cases most often encountered, i.e., acquaintance rapes rather than stranger rapes. Interviews were conducted with 49 detectives who specialized in sexual assault. Samples of campus and municipal police officers were included in interviews with first responders.

<b>2003-WG-BX-1003:</b>	<b>Testing the Efficacy of the SANE-SART Programs</b>
<b>Amount:</b>	<b>\$275,000</b>
<b>PI:</b>	<b>M. Elaine Nugent</b>
<b>Program Officer:</b>	<b>Nicole Gaskin-Laniyan</b>
<b>Status:</b>	<b>Completed</b>

The goal of the study is to establish the efficacy of SANE-SART as a tool in the criminal justice system. Primary research objectives are to determine whether SANE-SART interventions have an impact on rates of arrest, prosecution, and conviction. The research will also examine whether SANE-SART involvement has an impact on the frequency of guilty pleas, the charges at case disposition, and sentencing. From the population of adult female rape cases reported to the largest law enforcement department in each jurisdiction, the research team will select a random sample comprising equal numbers of SANE-SART and non SANE-SART cases. Data will then be drawn from case records on the dependent variables of criminal justice outcomes, and on selected intervening or control variables that may impact on outcomes, including relationship between perpetrator and survivor, length of time between incident and report, race of survivor and perpetrator, use of weapons, perpetrator’s prior criminal record, and survivors’ participation in the process. Study findings will contribute to the discussion concerning the expansion of SANE and SART programs to jurisdictions that do not have these programs currently. In addition, it is hoped that those locations that do have the programs will be able to use the results to improve and enhance existing efforts.

**Product: NCJ# 214252**

**Testing the Efficacy of SANE-SART Programs: Do They Make a Difference in Sexual Assault Arrest and Prosecution Outcomes? (2006) – M. Nugent-Borakove, P. Fanflik, D. Troutman, N. Johnson, A. Burgess, A. Lewis O’Connor**

The goal of this study was to test the efficacy of SANE-SART programs as a tool in the criminal justice system. The American Prosecutors Research Institute and Boston College tested whether SANE-SART exams increase arrest and prosecution rates for sexual assault. Five questions were asked: 1) is the arrest rate higher in cases where a SANE-SART exam is performed when compared with cases in which no exam is performed; 2) is the indictment/charging rate higher in such cases; 3) are guilty pleas more likely to be entered in such cases and are pleas likely to be to the existing charge or to a lesser charge; 4) is the conviction rate higher in such cases; and 5) is the sentence more severe in such cases. The project team randomly selected up to 125 sexual assault cases in which there was a SANE or SART intervention and 125 cases in which there was no SANE-SART intervention—which resulted in a total of 262 SANE-SART cases and 268 non-SANE-SART cases. Case information was collected from SANE-SART prosecution files in Monmouth County, NJ, Sedgwick County, KS, and Suffolk County, MA. The results indicated that compared to non-SANE-SART cases, SANE-SART cases are reported more quickly, have more evidence available (particularly DNA), and have more victim participation. SANE-SART intervention: a) was a factor in the identification and arrest of a suspect; b) the strongest predictor that charges will be filed; and c) helped increase the likelihood of a conviction. Insufficient information was available to determine the impact of SANE-SART intervention on penalty and length of sentence. Overall, the findings are supportive of SANE-SART programs and their efficacy as a tool in the criminal justice system.



<b>2005-WG-BX-0003:</b>	<b>A Systems Change Analysis of SANE Programs</b>
<b>Amount:</b>	<b>\$389,925</b>
<b>PI:</b>	<b>Rebecca Campbell</b>
<b>Program Officer:</b>	<b>Karen J. Bachar</b>
<b>Status:</b>	<b>Completed</b>

The proposed project adds to the current literature by determining the circumstances and contexts under which SANE programs increase prosecution by identifying the mediating mechanisms that explain how and why SANE programs affect case outcomes. Using a systems change theoretical perspective, the proposed project has the following five objectives: It will (1) compare prosecution charging rates and court outcomes for cases examined in a SANE program (intervention group) to a sample of adult sexual assault cases examined using standard hospital protocols in the same community prior to the implementation of the SANE program (comparison group); (2) identify victim, case, and forensic medical evidence characteristics that predict prosecutors' charging decisions; (3) examine SANEs impact on police as a mediating pathway to increased prosecution rates; (4) explore how the emotional support provided to victims/survivors by the SANE program and victim advocates increased their participation during investigation and prosecution; and (5) create a practitioner-oriented program evaluation toolkit that can be used by other communities to assess post-SANE systems change. A series of studies are planned to address these objectives, which will include rigorous quantitative, quasi-experimental designs and in-depth qualitative interviews with prosecutors, police, and victims/survivors. This study will examine the interrelationships between SANEs, legal professionals, victim advocates, and victims/survivors, as these linkages may be critical in explaining how and why SANE programs increase prosecution rates.

**Product: NCJ# 226497**

**Systems Change Analysis of SANE Programs: Identifying the Mediating Mechanisms of Criminal Justice System Impact (2009) – M. Greeson, R. Campbell, S. Kobes**

The first goal of this project was to determine whether adult sexual assault cases in a Midwestern community were more likely to be investigated and prosecuted after the implementation of a Sexual Assault Nurse Examiner (SANE) program, and to identify the "critical ingredients" that contributed to that increase. The second goal of this study was to understand why there was an increase in criminal justice system case progression after the implementation of the SANE program. This twelve year analysis of criminal justice system case outcomes revealed that more cases were moving through the system to higher levels of disposition (i.e., guilty pleas or guilty convictions) after the implementation of a SANE program. The authors were able to conclude that these effects are reasonably attributed to the efforts of the SANE program and not due to other changes over time in this community. The SANE programs' work with law enforcement and their patients, though separate and philosophically distinct, is mutually reinforcing and provides instrumental resources for successful case prosecution.

**Product: NCJ# 226499**

**Step-by-Step Practitioner Toolkit for Evaluating the Work of Sexual Assault Nurse Examiner (SANE) Programs in the Criminal Justice System (2009) – M. Greeson, R. Campbell, S. Kobes**

Based on the findings of NCJ #226497, the authors developed a practitioner-oriented Toolkit. This Toolkit outlines a step-by-step process for other communities to assess what kinds of changes have taken place post-SANE and what factors are most critical in their communities that attributed to that success. The goal of this Toolkit is to assist SANE program staff in evaluating how their program affects the reporting, investigation, and prosecution of sexual assault cases in their community. The focus of this Toolkit is the impact of SANEs on the progression of sexual assault cases through the criminal justice system.

**Additional NCJ Citations: 226498, 228354, 228355**

<b>2005-WG-BX-0010:</b>	<b>Developing, Testing, and Evaluation of the Use of Polygraphs to Combat Violence Against Women</b>
<b>Amount:</b>	<b>\$324,877</b>
<b>PI:</b>	<b>Douglas Wilson</b>
<b>Program Officer:</b>	<b>Christine Crossland</b>
<b>Status:</b>	<b>Completed</b>

DeKalb County Georgia Probation Department is developing an innovative program to test the application of polygraph technology to supervise, contain, and treat high risk misdemeanor abusers who are in the community. This

24-month experiment will have three parts: Phase I will initiate the implementation of the program and the random assignment of batterers to experimental (polygraph) and control (no polygraph) groups, and pre-test the operation of the program with a small number of polygraph tests with appropriate probationary follow-up; Phase II (operations) will last until the 18th month. It is expected that 240 high risk offenders (120 treatment and 120 controls) will be identified by DeKalb Probation, assigned to the cooperating batterer treatment program (Riveros Counseling Services), and their victims interviewed by the Victim Liaison employed by Riveros, Court procedures applied to both groups will remain unchanged to avoid confounding the outcomes (measures of post-conviction criminal behavior will include interview data from victims and criminal record data; and Phase III (analysis) will involve analysis of process and outcome data, using cross-tabulations, survival analysis, and logistic regression.

**Product : NCJ# 222115**

The findings indicate that polygraph testing can assist probation departments in managing the risky behaviors of domestic-violence probationers who have an elevated risk of repeated criminal behaviors as specified in this study (illegal drug use other than marijuana; the possession or handling of firearms; and involvement in additional physical abuse, regardless of gender). The polygraph's identification of these risky behaviors predicted subsequent arrests within the study period. Such polygraph findings can inform appropriate interventions that can modify the risky behaviors. Thus, the use of polygraph testing for high-risk, domestic-violence probationers can assist in interdicting specific behaviors in supplementing curricula of family violence programs. For this study, the DeKalb County State Court Probation Department (Georgia) identified 321 high-risk, domestic violence probationers who had a mix of previous violent and nonviolent misdemeanor convictions. These probationers were allocated to a family violence intervention site and 10 analogous control sites in the county. At the conclusion of 1 month of psychoeducational classes, the treatment facilitator asked the enrolled men if they would volunteer for a polygraph test and, if they continued their enrollment, asked them again to take a second polygraph test at the end of the fourth month of classes. The treatment and control group samples balanced the demographic and criminal characteristics of the men at the treatment site and control sites across 11 demographic and criminal-record variables. Forty-three of the 87 men assigned to the treatment site completed at least 1 polygraph. (7 tables, a 26-item bibliography, and appended Victim History of Domestic Violence Survey)

**2006-DN-BX-0094 (Supplement): Sexual Assault Kit Backlog Study**

<b>Amount:</b>	<b>\$100,000</b>
<b>PI:</b>	<b>Joseph Peterson</b>
<b>Program Officer:</b>	<b>Katharine Browning</b>
<b>Status:</b>	<b>Completed</b>

Although law enforcement and hospitals have improved and expanded procedures to gather SAK evidence, scientific resources and procedures to test such evidence have not kept pace, and the resulting backlog of untested SAKs has become a major problem throughout the United States. In 2008, the untested SAKs in the city and county of Los Angeles reached 10,895. In 2009, the city and county law enforcement agencies announced that all backlogged kits would be tested. The untested sexual assault kit problem in Los Angeles, coupled with the fact that agencies had decided to test all such kits for the presence of DNA evidence, presented a unique research opportunity. The Sexual Assault Kit Backlog Project at CSULA was funded by NIJ in 2009. The two primary goals in the L.A. study were to look at a random sample of nearly 11,000 kits to (1) assess the efficacy of DNA testing and (2) determine the criminal justice outcomes (arrest, charge, conviction) within the first 6 months after the kits were DNA tested. The findings with respect to the study's second goal were surprising to many. In a randomly selected sample of 371 SAKs, there were no new arrests, new charges were filed in one case, and there were two convictions in the first 6 months after these kits were tested. In fact, it is probable that the DNA testing was not responsible for the single filing or the two convictions.

**Product: NCJ# 238500**

**Sexual Assault Kit Backlog Study (2012) – Joseph Peterson, Donald Johnson, Denise Herz, Liza Graziano, Taly Oehler**

Although law enforcement and hospitals have improved and expanded procedures to gather SAK evidence, scientific resources and procedures to test such evidence have not kept pace, and the resulting backlog of untested SAKs has become a major problem throughout the United States. In 2008, the untested SAKs in the city and county of Los Angeles reached 10,895. A study to document reasons for these untested kits found a number of organizational and resource deficiencies. Primarily, they were not the result of crime laboratory backlogs but were untested because



investigators and prosecutors had not requested that they be tested. In 2009, the city and county law enforcement agencies announced that all backlogged kits would be tested. The untested sexual assault kit problem in Los Angeles, coupled with the fact that agencies had decided to test all such kits for the presence of DNA evidence, presented a unique research opportunity. The Sexual Assault Kit Backlog Project at CSULA, funded by the NIJ in 2009, was to accomplish four primary objectives: (1) to evaluate the results of scientific tests performed by private laboratories on backlogged SAK evidence from the LASD and LAPD crime laboratories; (2) to review the sexual assault case-processing literature and the role played by evidence and other factors in solving and prosecuting such cases; (3) to determine the criminal justice dispositions of a sample of backlogged and non-backlogged cases before and after kit testing; and (4) to identify principal case and evidence characteristics that could be used by forensic laboratories to evaluate and prioritize sexual assault evidence submitted to crime laboratories. The accomplishment of these goals would aid all law enforcement agencies and crime laboratories about the value of testing backlogged SAKs and set guidelines for processing such evidence in the future.

**Additional NCJ Citations: 243685, 238483, 239709, 231977**

<b>2007-WG-BX-0003:</b>	<b>A Statewide Study of Stalking and Its Criminal Justice Response</b>
<b>Amount:</b>	<b>\$182,738</b>
<b>PI:</b>	<b>Andrew Klein</b>
<b>Program Officer:</b>	<b>Bernie Auchter</b>
<b>Status:</b>	<b>Completed</b>

The study will explore the impact of identifying and charging for the crime of stalking in the state of Rhode Island on offender accountability as measured by successful prosecution as well as victim safety, as measured by re-arrest for domestic violence within two years. Researchers will use a multi-methods approach that includes secondary data analysis of a mandated law enforcement reporting system as well as court based data regarding prosecution and qualitative interviews with select Rhode Island law enforcement officers, prosecutors, defense lawyers and court advocates for a more complete understanding of the factors influencing the criminal justice response to stalking. The researcher plans to explore answers to the question, “Does identifying the crime of stalking have an effect on prosecution outcomes, as well as longer terms outcomes in regard to subsequent arrests for domestic violence?” A sample of 1,297 incident and arrest reports where citations have been made by police for threats and harassment between January 1, 2001, and December 31, 2005, will be reviewed to extract those cases where stalking charges should have been brought against the suspects. These extracted cases will be compared with 140 cases during the same period where the suspects were actually cited for stalking. Comparisons will be made on a variety of characteristics, with the end result being the development of a more complete profile of stalkers. Qualitative interviews (group) with 30 key informants from smaller cities in Rhode Island will be conducted to assess factors that may influence the criminal justice response to stalking.

**Product: NCJ# 228354**

**A Statewide Study of Stalking and Its Criminal Justice Response (2009) – A. Klein, A. Salomon, N. Huntington, J. Dubois, D. Lang**

The study found that when police identified stalking in a domestic violence case, the offender was more likely to be arrested and prosecuted, compared with domestic violence cases in which stalking was present but not identified by police. In addition, stalkers of intimate partners without prior criminal histories who were identified by police in reported domestic violence cases were significantly less likely to be charged with new domestic violence up to 6 years after police intervention; however, the criminal justice response to stalking was compromised by the under-identification of stalkers by police, compounded by prosecutors’ charge reduction and case dismissals when police did make stalking arrests. Police, prosecutors, and judges have tended to view intimate stalkers as less dangerous than stranger stalkers or abusers arrested for physical assaults. This view was contradicted by the study's finding that victims of domestic abuse who were stalked by their former partners were more likely to report threats as well as prior assaults. This should encourage police to focus on determining whether the crime of stalking is involved in a reported domestic violence case. The study, which was conducted during 2007-2008, used a mixed-methods design. The quantitative component compared all stalking incidents identified by Rhode Island State police between 2001 and 2005 with a sample of reported domestic violence cases over the same years that involved stalking but did not involve stalking charges being brought by police.

**Additional NCJ Citations: 228355**

<b>2007-WG-BX-0011:</b>	<b>Testing the Efficacy of Judicial Monitoring a Randomized Trial at the Rochester Domestic Violence Courts</b>
<b>Amount:</b>	<b>\$335,208</b>
<b>PI:</b>	<b>Melissa Labriola</b>
<b>Program Officer:</b>	<b>Karen Stern</b>
<b>Status:</b>	<b>Completed</b>

While judicial monitoring has been shown to be effective with other criminal justice populations, few studies, and none involving a randomized control design, have been conducted with domestic violence offenders. This study will fill this gap through a randomized trial to determine the efficacy of a carefully designed, robust model of judicial monitoring. In addition to examining the impact of monitoring on official recidivism and victim reports of re-abuse, the impact on intervening offender perceptions regarding the swiftness, certainty, and severity of further sanctions in response to violations of the court's orders will also be examined.

**Product: NCJ# 247161**

**Testing the Efficacy of Judicial Monitoring: A Randomized Trial at the Rochester (2012) – Melissa Labriola, Amanda B. Cissner, Robert C. Davis, Michael Rempel**

As used in this study, judicial monitoring is “frequent ongoing court appearances to verify and motivate offender compliance” with court-mandated conditions. Overall, the findings do not generally support the positive impact of judicial monitoring, even though such monitoring has been shown to be effective with other offender populations; however, there was some evidence that, under certain circumstances, judicial monitoring may increase compliance with court mandates. Regarding the impact of judicial monitoring on offender behavior, the study determined that assignment to judicial monitoring did not have a significant impact on re-arrests, program attendance, or program completion. Regarding its impact on offender perceptions, judicial monitoring was associated with offenders being significantly more likely to believe they understood their obligations, that there would be consequences for noncompliance, and that the consequences would be severe, compared to offenders not assigned to judicial monitoring. Offenders sentenced by the judge who opted not to incentivize achievements through reductions in monitoring frequency attended significantly more program sessions and were also more likely to complete assigned programs than offenders sentenced by the other judges. This tentatively suggests that domestic violence offenders benefit from more frequent monitoring (e.g., biweekly) and from not expecting to receive praise or other incentives for following court orders. Higher scores on two of the offender perception indexes (i.e., perceptions of the consequences of noncompliance and perceptions of procedural justice) were significantly associated with attending more batterer program sessions. In addition, a higher score on the severity of response index (expecting a more severe response to noncompliance) was significantly associated with attending more substance abuse treatment sessions.

<b>2008-DN-BX-K220:</b>	<b>Stranger Rape Analysis Project</b>
<b>Amount:</b>	<b>\$914,471</b>
<b>PI:</b>	<b>Don Pierce</b>
<b>Program Officer:</b>	<b>Catherine McNamee</b>
<b>Status:</b>	<b>Closed</b>

This project focuses on the implementation of the quick- turnaround DNA testing pilot project, which uses public-private partnerships to increase the clearance rate for stranger rapes and sexual assaults. The project coordinator will contact every law enforcement agency and the detectives who process rape cases to educate them about the program and its processes. Information and training about the program will also be given to community based and system based sexual assault advocates and to sexual assault nurse examiners at local hospitals. After a stranger rape occurs that meets the criteria established by a group of stakeholders, a DNA sample will be obtained. The sample will be sent to a private laboratory operated by Orchid Cellmark for processing. The sample will be tested and the results returned within 30 days. The DNA analysis will be submitted to the Washington State Patrol Crime Laboratory for quality assurance testing. The Crime Lab will submit the results to state and federal DNA databases. Any resulting matches will be reported to the originating law enforcement agency. Case outcome data will be collected and analyzed in order to determine the effect of this quick turnaround DNA analysis policy.

<b>2009-DN-BX-0023:</b>	<b>Post-Coital DNA Recovery</b>
<b>Amount:</b>	<b>\$763,428</b>
<b>PI:</b>	<b>Patricia Speck</b>
<b>Program Officer:</b>	<b>Bethany Backes</b>
<b>Status:</b>	<b>Completed</b>

In most jurisdictions, post-coital samples are collected up to, but not after, 72 hours following rape. Today, recovery and analysis is improved through DNA technology — identifying individuals from sperm found 7 days after coitus. The goals of this research are to answer: (1) what is the time frame for sperm recovery post-coitus using Y-STR laboratory methods, and (2) what are physiological conditions that may impact recovery of DNA in post-coital samples? The objective of this research is to provide evidence to support or limit the expansion of the 72-hour time frame for evidence collection from the vagina and cervix after a rape event in adult females. A convenience sample of 300 sexually active heterosexual female forensic RNs older than 18 years of age with normal menstrual cycles will be asked to enroll in the study over a 3-year period of time (Year 01: ages 18-35; Year 02: ages 36-55; Year 03: older than age 55). Before the target coitus, the RN subject will abstain or use barrier methods 7 days prior to coitus. She will evaluate the appearance of her vulva/hymen and will answer online questions about her overall reproductive health and sexual activity. Before coitus, the RN will collect samples from her partner's cheek and her proximal vagina and cervix as controls. After coitus, samples will be collected at 3, 5, 7, 9 and 12-15 days post-coitus. She will abstain or use barrier methods throughout the 2-week collection period. Samples will be mailed directly to the National Center for Forensic Science DNA laboratory for indexing and Y-STR DNA analysis. This study will provide evidence necessary (or not) for expansion of the time for SART programs nationally.

**Product: NCJ 248682**

**Post-Coital DNA Recovery Study (2015)—P. Speck, J. Ballantyne**

The study found that standard Y-STR methods are insufficient to detect DNA from both the cervix and posterior formix at all post-coitus data collection times at 4, 7, and 9 days and a baseline of 10 days; however, strong data shows the use of enhanced Y-STR-enabled DNA identification from cervix and posterior formix through the first post-coitus menstruation. An association was found between diminished DNA recovery and menstruation and the use of hormonal birth control. Of 112 consenting monogamous couples, 66 completed all phases of the study protocol. Eligible participants provided consents, eligibility data, and agreement to complete a diary during four 10-day abstinent periods and collect post-coital samples at baseline and at 4, 7 or 9 days. Upon protocol completion, participants mailed samples to the forensic laboratory for Y-STR methods analysis. Secure physical environments and blinding of laboratory personnel and statisticians to all participants' information protected their personal health information.

<b>2009-MU-MU-0002:</b>	<b>Implementation of a Sexual Assault Nurse Examiner (SANE) Practitioner Evaluation Toolkit</b>
<b>Amount:</b>	<b>\$413,467</b>
<b>PI:</b>	<b>Rebecca Campbell</b>
<b>Program Officer:</b>	<b>Karen Bachar</b>
<b>Status:</b>	<b>Completed</b>

The purpose of this proposed project is to conduct an implementation evaluation of the SANE Practitioner Evaluation Toolkit. These evaluation data will be used to create a revised Toolkit and technical assistance guidelines to support national dissemination. Investigators will use stratified, national random sampling to identify five SANE programs that have organizational readiness to participate in program evaluation. They will then guide these pilot programs through the seven evaluation steps in the Toolkit (located on NCJRS). This project has three objectives: (1) They will test five different technical assistance (TA) modalities to identify which methods are useful to practitioners, producing technical assistance guidelines for national dissemination. (2) They will collect extensive implementation data as program staff work through the Toolkit's seven-step process, which will guide the development of a revised final Toolkit. Steps 1 and 2 will be accomplished using online questionnaires, focus groups and interviews. (3) They will compile the prosecution outcome data from the five pilot programs to explore across- and between-site effects regarding the impact of SANE program implementation on criminal justice case outcomes. The researchers will generate site-specific outcome reports, cross-site quantitative analyses, and qualitative findings regarding critical ingredients that contributed to positive (or negative) evaluation findings.

**Product: NCJ# 249386**

**Evaluating the Legal Impact of Sexual Assault Nurse Examiner Programs: An Empirically Validated Toolkit for Practitioners (2014) – Rebecca Campbell, Stephanie M. Townsend, Jessica Shaw, Karim Nidal, Jenifer Markowitz. *Journal of Forensic Nursing*.**

This article also provides recommendations regarding program readiness to engage in evaluation activities without compromising program sustainability and patient care. The toolkit can be used by SANE-A and SANE-P programs and their community partners to examine sexual assault prosecution rates in their local jurisdictions. Resources available to practitioners on the nature and use of the toolkit are provided.

**Additional NCJ Citations: 249613**

<b>2010-NE-BX-K260:</b>	<b>Delivery and Evaluation of Sexual Assault Forensic Examiner (SAFE) Training Programs</b>
<b>Amount:</b>	<b>\$1,424,212</b>
<b>PI:</b>	<b>Debra Patterson</b>
<b>Program Officer:</b>	<b>Bethany Backes</b>
<b>Status:</b>	<b>Completed</b>

This project will create and implement an online didactic Sexual Assault Forensic Examiner (SAFE) curriculum, taught over a 12-week period through a series of modules and followed by a 2-day clinical skills workshop. Each course will be completed in 15 weeks. The course will be offered four times for 75 people in each training wave during the grant. Overall, this project will train 300 SAFEs over the course of 15 months. All modules created for the course will be available to trainees at no cost. A major component to the SAFE training will be related to the identification, collection, preservation and analysis of DNA evidence by medical personnel. This entire project will include (1) an implementation assessment and impact evaluation of the training, (2) technical assistance provided during the training, (3) how this training may impact the sexual assault victim's participation in the criminal justice process, and (4) an assessment of the utility of the medical forensic documentation by Criminal Justice System (CJS) personnel. This training will be rigorously evaluated by the research team's strategic partners, including Wayne State University, with Dr. Debra Patterson in consult with Dr. Rebecca Campbell. Limited access to education has been identified as a major contributor to the shortage of SAFE-trained clinicians. There is no existing standardized curriculum available for SAFE training, and there is no accreditation process in place for those delivering the training. Even when states have brought in trainers, there has frequently not been the opportunity for clinicians to obtain necessary post-didactic clinical hours. This project will address those issues and others by providing accessible, standardized, evidence-based SAFE training to registered nurses, nurse practitioners, physician assistants and physicians while evaluating the training to determine whether it leads trainees to adopt the necessary skills into their practice and to identify any challenges faced by the trainees in learning and applying these skills. The proposed evaluation will assess the trainees' knowledge, skills, and abilities throughout the training and will examine their skills post-training to document whether they provided empowering patient care (from the patient perspective) and whether the quality of their medical forensic exam documentation (as assessed by national forensic nursing and CJ subject matter experts) is of the caliber required for legal proceedings.

**Product: NCJ# 247081**

**Delivery and Evaluation of Sexual Assault Forensic (SAFE) Training Programs (March 2014) – D. Patterson, S. Resko, J. Pierce-Weeks, R. Campbell**

This study evaluated the effectiveness of the International Association of Forensic Nurses' Sexual (IAFN) Assault Forensic Examination (SAFE) training programs. The evaluation's overall assessment is that the IAFN SAFE training curriculum and blended training model provides a strong foundation that can be built upon to meet the diverse learning needs of clinicians across the Nation. The training includes a didactic portion delivered online over a 12-week period and a 2-day simulated clinical skills workshop. Healthcare clinicians from across the Nation were enrolled in the training (n=198). Of these, 79.3 percent completed the training. Students were more likely to complete the training when they enrolled in the program primarily because of the 2-day clinical component. Students who worked in rural communities were more likely to complete the training than students from urban and suburban communities. The mean post-test scores on relevant knowledge were significantly greater than the mean pre-test scores for all 12 online modules. Knowledge gain was positively associated with students who had a reliable Internet connection, students who were drawn to the training because it was free, and those with higher levels of motivation. Lower knowledge gains were significantly related to having more work/personal barriers and those who were drawn to SAFE practice because they or someone close to them had personal experience with sexual assault. Lower knowledge gain was also

marginally linked to students who reported less comfort with computers. Students experienced a reduction in knowledge retention from 77.92 percent at post-test to 68.83 percent at the follow-up exam. Qualitative interviews with students suggested that the clinical training helped clarify, broaden, or solidify the content covered in the online modules. Most students reported using many approaches they learned in the training with their post-training patients.

<b>2011-DN-BX-0001:</b>	<b>The Detroit Sexual Assault Kit (SAK) Action Research Project</b>
<b>Amount:</b>	<b>\$1,515,000</b>
<b>PI:</b>	<b>Mary Morrow</b>
<b>Program Officer:</b>	<b>Bethany Backes</b>
<b>Status:</b>	<b>Completed</b>

The mission of the Detroit SAK Action Research Project is to study the problem of untested sexual assault kits (SAKs) in Detroit, MI, to develop pilot response protocols and to implement and evaluate those protocols. In Phase I the grantee will complete an audit of the 10,000+ SAKs in police property in order to have accurate information as to the scope of the problem. The completed audit revealed that there were 11,304 SAKs in the Detroit Police Department property room (through 2009), 8,505 of which had never been submitted to the crime lab. In Phase II, the grantee developed a plan for testing these kits. Leveraging resources from DOJ DNA Backlog Reduction Grants, the NIJ SAK grant, and Marshall University, it was determined that we could test 1,600 kits. Four separate research studies ("waves") were designed to address specific questions regarding the utility of SAK testing in advancing the investigation and prosecution of reported sexual assaults (Wave 1: stranger rape kits,  $n = 450$ ; Wave 3: non-stranger rape kits,  $n = 450$ ; Wave 2: comparing DNA testing methodologies,  $n = 350$ ; Wave 4: presumed statute of limitations-expired kits,  $n = 350$ ). In Phase III of this project, the grantee will complete all SAK testing and associated research analyses. The grantee will also implement and evaluate a multidisciplinary victim notification protocol. Finally, the grantee will complete a longitudinal investigation as to the underlying reasons why Detroit had so many untested SAKs. The final report will also document the processes followed in Detroit in order to develop "transportable lessons" for other communities struggling with the problem of untested SAKs.

**Product: NCJ# 248680**

**Detroit Sexual Assault Kit (SAK) Action Research Project (ARP), Final Report (2015) – Rebecca Campbell, Giannina Fehler-Cabral, Steven J. Pierce, Dhruv B. Sharma, Deborah Bybee, Jessica Shaw, Sheena Horsford, Hannah Feeney**

This final report on the Detroit Sexual Assault Kit (SAK) Action Research Project (ARP) addresses the following project goals: to assess the scope of the problem by conducting a complete census of all SAKs in the police property inventory; to identify the underlying factors contributing to so many unsubmitted SAKs; to develop a plan for testing SAKs and to evaluate the efficacy of that plan; and to create a victim notification protocol and evaluate the effectiveness/efficiency of that protocol. First, the study found that there were 11,219 SAKs in police custody as of November 1, 2009. A total of 2,512 SAKs had laboratory ID numbers, indicating that they had been submitted for testing, but it was unclear how many had actually been tested for DNA. The Project developed a step-by-step summary of the census procedures used in the project to assist other jurisdictions in conducting a similar census of SAKs in police custody. Second, the underlying reasons for the large number of untested SAKs pertained to chronic understaffing and resource depletion compared to other U.S. cities of similar size, composition, and crime rates, as well as police personnel victim-blaming attitudes in sexual assault cases, without consistent supervision and training to challenge these attitudes and related practices. Third, the project developed and evaluated a plan for funding the testing of uncommitted SAKs. Funds were pooled from the Detroit SAK ARP budget, the State police department's NIJ DNA Backlog Reduction Grants, and the resources of a university-based forensic laboratory that was separately funded by NIJ. Under this funding, the project tested 1,600 SAKs. Fourth, the project developed and evaluated a victim notification protocol that provided a structure for processing sexual assault cases accompanied by victim notification of completed processing steps.



<b>2011-DN-BX-0002:</b>	<b>The Houston Sexual Assault Kit (SAK) Action Research Project</b>
<b>Amount:</b>	<b>\$1,514,890</b>
<b>PI:</b>	<b>Irma Rios</b>
<b>Program Officer:</b>	<b>Katharine Browning</b>
<b>Status:</b>	<b>Completed</b>

The goal of the Houston Sexual Assault Kit Action Research Project is to examine the problem of untested sexual assault kits (SAKs) in the Houston Police Department (HPD) property room. Specifically, this two-phase project will help to identify (1) factors inhibiting the number of SAKs forwarded to the HPD Crime Lab for analysis and (2) factors that undermine the effective use of forensic evidence in sexual assault cases. In Phase I of the project, the project team worked with HPD to conduct an audit of the more than 16,000 untested kits in the HPD evidence storage facility and found that there were far fewer untested SAKs than previously estimated. Also in Phase I of this project, the researchers conducted 146 interviews of law enforcement investigators, prosecutors, crime laboratory analysts, sexual assault nurse examiners, victim advocates, and victims. The interviews helped the team develop an in-depth understanding of untested sexual assault evidence in Houston. Phase II goals include (1) completing the research work started in Phase I, to be used to identify a feasible plan to screen, test, and use evidence contained in SAKs that have not been submitted for forensic testing; (2) implementing the strategies finalized in goal 1; and (3) evaluating the implementation and outcomes of the strategies.

**Product: NCJ# 249812**

**Unsubmitted Sexual Assault Kits in Houston, TX: Case Characteristics, Forensic Testing Results, and the Investigation of CODIS Hits, Final Report (2016) – William Wells, Bradley Campbell, Cortney Franklin**

Houston's Action Research Project Working Group, which was established under the grant from the National Institute of Justice (NIJ), was composed of representatives from multiple stakeholder criminal justice and community organizations. The Working Group's research agenda included not only the identification of factors that produced the SAK backlog but also the way sexual assault forensic evidence is used during investigations and prosecutions of sexual assaults, as well as what stakeholders should expect when large numbers of previously unsubmitted SAKs get tested. Based on its findings, the Working Group offers eight recommendations. First, jurisdictions should collect data and report results on the characteristics of cases with unsubmitted SAKs, the forensic testing results, and investigation outcomes that follow from testing. Second, future research should compare similar groups of cases that differ only in terms of whether or not a SAK was submitted and tested. Third, jurisdictions should prepare for the workload that results when labs begin testing unsubmitted SAKs, some portion of which will involve older sexual assault cases. Fourth, gather baseline information about current practices to identify strengths and weaknesses in current responses to sexual assaults. Fifth, give priority to victim engagement and participation. Sixth, consider the use of a SAK testing prioritization system even when all unsubmitted SAKs will be tested. Seventh, measure and report the criminal justice system outcomes of sexual assault cases after SAK testing. Eighth, measure a broader set of outcomes in addition to the results of criminal cases.

<b>2011-DN-BX-0003:</b>	<b>The Impact of Forensic Evidence on Arrest and Prosecution</b>
<b>Amount:</b>	<b>\$174,668</b>
<b>PI:</b>	<b>University of New Haven</b>
<b>Program Officer:</b>	<b>Eric Martin</b>
<b>Status:</b>	<b>Completed</b>

The grantee will conduct a study focused on 8 of the 10 research recommendations made in the Peterson et al. (2010) report. There are two phases of the study. Phase one will analyze a random sample of approximately 2,500 case files from 2006 through 2009 that contain forensic analyses from the Connecticut State Forensic Science Laboratory, along with corresponding police and prosecutorial case files. The goal of the proposed research is to further our understanding of how the presence of forensic evidence relates to case clearance and conviction. As with Peterson et al. (2010), this research has four research objectives: (1) Estimate the percentage of cases in which crime scene evidence is collected; (2) discover what kinds of forensic evidence are being collected; (3) track such evidence through the criminal justice system; and (4) identify which forms of forensic evidence are most efficacious, given the crime investigated. The research instrument to be used in the coding of these case files is a slightly modified version of the instrument used by Peterson et al. This instrument records up to 40 variables in three separate categories: forensic, criminal offense, and crime disposition. The proposed study will also introduce two variables not recorded in the previous study: Did any available witness name a suspect or provide a description to police? Did the suspect make a



statement? Phase two will consist of qualitative interviews regarding case files randomly selected from the sample population listed above, with approximately 270 investigative and prosecutorial personnel. These interviews will further advance our understanding of how forensic evidence affects the use of investigative and prosecutorial discretion. These interviews will be centered on four themes: the exact nature of assistance provided by physical evidence in the identification of the offender, the use of forensic evidence in the interview and interrogation process of witnesses and offenders, the utility of forensic evidence in plea negotiations, and the effect of forensic evidence on sentencing. (NCJ product publication in process)

<b>2011-WG-BX-0005:</b>	<b>Forensic Evidence and Criminal Justice Outcomes in a Statewide Sample of Sexual Assault Cases</b>
<b>Amount:</b>	<b>\$97,519</b>
<b>PI:</b>	<b>Theodore Cross</b>
<b>Program Officer:</b>	<b>Bethany Backes</b>
<b>Status:</b>	<b>Completed</b>

This study has three goals: (a) to provide a detailed description of forensic evidence in sexual assault cases, including its timing relative to criminal justice outcomes; (b) to examine the relationship of forensic evidence to criminal justice outcomes; and (c) to analyze the effect of forensic evidence in key segments of the sample: cases with child victims, cases with stranger assailants, and cases with sexual assault nurse examiners (SANEs) conducting the examination. The research objectives include (1) examining the frequency of different types of forensic evidence; (2) assessing the timing of forensic evidence availability vis-à-vis arrests and filing criminal charges; (3) assessing the relationship of forensic evidence to arrests and filing criminal charges; (4) assessing whether the relationship of forensic evidence to outcomes is stronger in cases with child victims and in cases with suspects who are strangers; (5) comparing SANE versus non-SANE medical providers on forensic evidence and on arrests and the filing of criminal charges. The proposed retrospective research will draw a random sample of 436 sexual assault cases reported in the Commonwealth of Massachusetts between 2008 and 2010 from a database of 3,000 documented sexual assault cases with medical examinations maintained by the State's Executive Office of Public Safety and Security (EOPSS). Using unique, anonymous case identifiers, data will be merged from three sources:

(1) Provider Sexual Crime Reports, a mandatory form on assault and victim characteristics filled out by medical providers and stored in the EOPSS database; (2) Non-electronic crime laboratory data, from which data on forensic evidence and injury will be abstracted and put into spreadsheets; and (3) police incident data from the National Incident Based Reporting System (NIBRS) and a Boston Police Department database, which provide information on arrest and the filing of criminal charges as well as victim, offense and assailant characteristics. Descriptive and bivariate statistics will be used to describe the prevalence and timing of different types of forensic evidence in sexual assault cases. Multivariate statistical analyses will also examine the effects of forensic evidence on case outcomes—by age of victims and by assailant-to-victim interactions—to see if the effect of forensic evidence is stronger for child victims and in cases involving strangers; and examining forensic evidence effects separately in these groups. Logistic regression will also compare SANE and non-SANE cases on forensic evidence and on arrests and the filing of charges to see if any SANEs' impact on outcomes is mediated by the forensic evidence that SANEs obtain.

**Product: NCJ 248254**

**Forensic Evidence and Criminal Justice Outcomes in a Statewide Sample of Sexual Assault Cases (2014) -- Theodore P. Cross, Ph.D.; Megan Alderden, Ph.D.; Alexander Wagner, M.A.; Lisa Sampson, MSW; Brittany Peters, M.S.; Meredith Spencer M.A.; Kaitlin Lounsbury, M.A.**

Sexual assault is a heinous crime that as many as a quarter of women nationally experience in their lifetime. Not only do victims suffer the terror and degradation of the assault but they are also at risk of further injury and a range of difficulties with mental health and functioning. Survivors are also at risk of re-victimization from informal and professional responses that question their credibility and, in effect, blame them for the assault. In this difficult context, investigative methods that increase evidence against assailants while decreasing the burden on victims are especially important, and advances in the technology and expertise of collecting and analyzing injury and forensic evidence offer promise. The study (1) examines the frequency of injury and biological evidence in sexual assault cases; (2) identifies case factors associated with the presence of injury and biological evidence; (3) analyzes how often biological evidence is processed before versus after arrest; (4) explores how injury and biological evidence as well as other factors are related to arrest; and (5) examines results for key comparisons thought to be salient for forensic evidence: Sexual Assault Nurse Examiners versus other medical examiners, strangers versus known suspects, and child victims versus

adults and adolescents. This study merged data from three sources: (1) the Massachusetts Provider Sexual Crime Report (PSCR) database; (2) forensic evidence data abstracted for the study from the two crime laboratories serving the state; and (3) data on findings, arrests and criminal charges from 142 different police agencies across the state.

<b>2013-NE-BX-0004:</b>	<b>Evaluate a Novel Fluorescent Dye to Detect Ano-genital Injury in Women of Color</b>
<b>Amount:</b>	<b>\$253,561</b>
<b>PI:</b>	<b>Kathryn Laughon</b>
<b>Program Officer:</b>	<b>Bethany Backes</b>
<b>Status:</b>	<b>Ongoing</b>

Racial disparity is a serious problem in the detection of injury during the forensic exam of sexually assaulted patients. Objective documentation of tears and abrasions to the external genitalia after sexual assault is an important part of the forensic exam. Victims with documented injury are more likely to have their cases moved through the criminal justice system, and these cases are more likely to result in a guilty verdict than cases lacking documented injury. Unfortunately, the genital injuries experienced during sexual assault are often small and difficult to visualize on visual exam. The current standard of care is to use a 1% aqueous solution of toluidine blue dye to highlight areas of unhealed trauma on the external genitalia. This technique is highly effective for light-skinned women, but far less so for women of color, resulting in unequal adjudication of cases and rates of conviction. This early stage translational research will lead to identifying a dye that will be effective on all skin colors. We plan to validate (in both mice and humans) a forensics product that deploys fluorescent dye and a widely available excitation/illumination lamp for visualizing tears and abrasion on dark skin. Two specific aims guide this study: Aim #1: Identify a suitable fluorescent dye and validate it in a murine (mouse) skin injury model. Suitable dyes will be non-toxic, adhere to damaged epithelial cells, be easily visualized using equipment already in common use among forensic examiners, and will not interfere with subsequent forensic DNA testing. Aim #2: Evaluate the safety, feasibility and efficacy of the identified fluorescent dye in women. Dyes identified as suitable from the first part of the study will be tested for safety in healthy women using skin on the forearm. The dyes will be applied to non-injured skin to ensure safety. They will then be used on the external genitalia of women within 48 hours after consensual penile-vaginal intercourse to test application procedures, ability to photograph injuries, ability to detect genital tears and abrasions, and safety (local skin irritation, patient reports of pain). These findings will serve to guide a subsequent, larger comparative efficacy trial of the identified dye. The mouse component of the study will use 24 8-week old (adult) mice. For the human component, 50 women of color, aged 18 to 45, will be recruited in an attempt to obtain 34 with sufficiently dark skin for testing.

<b>2014-NE-BX-0006:</b>	<b>Serial Sexual Assaults: A Longitudinal Examination of Offending Patterns Using DNA Evidence</b>
<b>Amount:</b>	<b>\$699,533</b>
<b>PI:</b>	<b>Rebecca Campbell</b>
<b>Program Officer:</b>	<b>Eric Martin</b>
<b>Status:</b>	<b>Ongoing</b>

Serial sexual assault is a pervasive problem: court record recidivism studies show that 10-15% of convicted sex offenders re-assault within five years, and self-report surveys suggest that 60%+ of males who have committed sexual assaults have raped more than one individual. The purpose of the current study is to document the scope of repeat perpetration using DNA evidence in sexual assault kits (SAKs) to find serial rapists. The federal criminal DNA database will be examined using a sample of previously untested SAKs from Detroit, along with rates and patterns of serial sexual assault based on DNA matches in CODIS (Combined DNA Index System). Guided by criminal career theory, serial sexual offenders, longitudinal crime patterns and the extent to which their offending varies with respect to victim-offender relationship (i.e., stranger vs. non-stranger) and victim age (i.e., child vs. adult victims) will be explored. CODIS hits emanating from a sample of N=7,393 previously untested SAKs will be examined and full adult criminal histories for all CODIS-identified offenders will be obtained to model their offending patterns over time. Practitioner partners include the Michigan State Police, who granted research access to the CODIS testing outcomes and criminal histories; and the Michigan Domestic & Sexual Violence Prevention & Treatment Board, which will advise the team on implications for survivors and victim advocacy services. Using a cross-sectional design, the rates and types of serial sexual assault CODIS hits and how those rates vary by victim-offender relationship and age will be documented. A longitudinal design will be used to explore patterns of serial sexual offending, including identifiable patterns within an offender's own criminal history and similarities between the cumulative criminal histories of

different offenders. Variability in the geographic locations of serial sexual offenders' patterns of crime will also be examined. Continuation-ratio and polytomous logistic regression models will be used to quantify the rates and types of CODIS hits. Latent variable mixture models will be used to identify subgroups with distinct patterns of offending over time. Log-linear models will be applied to transition matrices to explore the geographic mobility of offenders' crimes over time.

<b>2014-NE-BX-0009:</b>	<b>Post-Coital DNA Recovery in Minority Proxy Couples</b>
<b>Amount:</b>	<b>\$939,398</b>
<b>PI:</b>	<b>Patricia Speck</b>
<b>Program Officer:</b>	<b>Eric Martin</b>
<b>Status:</b>	<b>Ongoing</b>

The purpose of the proposed research is to explore, in monogamous racial minority couples, the presence or absence of post-coital DNA at baseline, and 4, 7, and 9 days post-unprotected coitus; and to identify variables that diminish or enhance DNA recovery. More specifically, the research aims to identify the time period in which it is possible to collect post-coital DNA in minority women using Y-STR laboratory methods; and the physiological conditions, factors or activities in minority couples that influence post-coital DNA recovery. It is hypothesized that non-white couples will have similar DNA recovery and influences as that found in the investigators' prior research of predominantly white couples. The proposed research will use a prospective, repeated measures design with subjects including dyads of non-white minority women and their partners serving as their own controls. A mixed-methods approach will be used. There are four phases to this project: (1) IRB full review for minority proxy couples; (2) recruitment, collection, and laboratory development of samples; (3) evaluation of data from laboratory and questionnaires; and (4) dissemination of the research. Criminal Justice System Improvement Evaluation of the timing of evidence collection procedures for minority proxy couples does not exist. This research will improve the criminal justice system response to racial minority victims. By validating similar DNA recovery, this research may provide the evidence for policy change for health care and criminal justice response to reporting minority women. The research may advance the decisions made by law enforcement and laboratories to process delayed-reporting cases, thereby providing evidence to support the expansion (or not) of the 72-hour limit for minority woman; evidence found in cases with delayed reporting could enhance prosecution and convictions.

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