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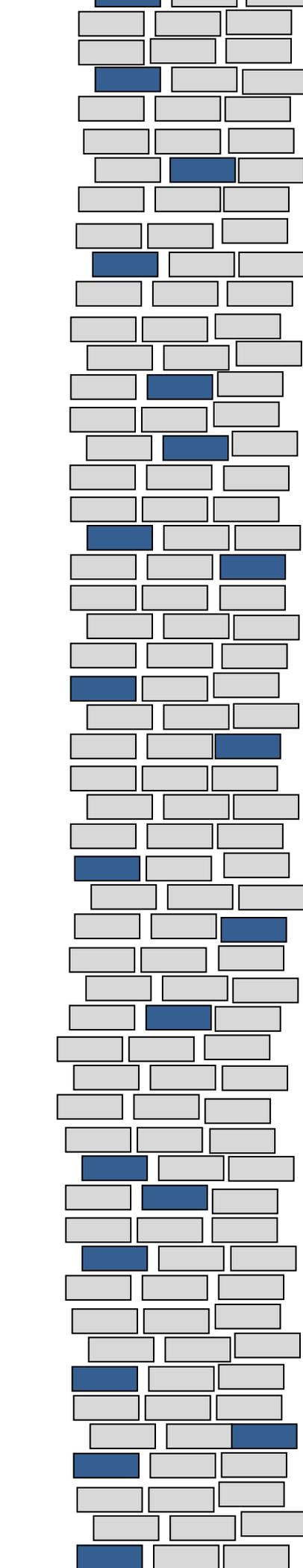
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# THE DETROIT SEXUAL ASSAULT KIT (SAK) ACTION RESEARCH PROJECT (ARP)

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FINAL REPORT—CORRECTED

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As will be explained in Chapter 1 of this report, the names of the organizations and individuals who participated in this action research project will not be released. Therefore, these Acknowledgements cannot specifically name the many people and groups who are due thanks for their diligence and commitment to this project. With those parameters in mind, the Principal Investigator of the research/evaluation team wishes to acknowledge the following:

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## EXECUTIVE SUMMARY

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Detroit, Michigan is one of a growing number of U.S. cities that have large numbers of untested sexual assault kits (SAKs). In August 2009, representatives from the local police, state police, and the prosecutor's office toured a remote property storage facility to discuss how to best manage the volume of evidence in police custody. During that tour, an assistant prosecutor noticed a large number of storage boxes on shelving units, and when asked what they were, police personnel indicated that they were rape kits. When pressed for details about the kits, police officials were not able to verify how many SAKs were in police property and how many of those SAKs had been tested.

To develop long-term strategies for resolving this problem, a multidisciplinary action research project was created, The Detroit Sexual Assault Kit (SAK) Action Research Project (ARP), which brought together researchers and practitioners from law enforcement, prosecution, forensic sciences, forensic nursing, and victim advocacy to address four primary goals:

- 1) To assess the scope of the problem by conducting a complete census of all SAKs in police property;
- 2) To identify the underlying factors that contributed to why Detroit had so many unsubmitted SAKs;
- 3) To develop a plan for testing SAKs and to evaluate the efficacy of that plan;
- 4) To create a victim notification protocol and evaluate the efficacy of that protocol.

The first goal of this project was to assess the scope of the problem by conducting a census of all SAKs in police property (current to November 1, 2009). The census took 15 weeks to complete and revealed that there were 11,303 SAKs in police custody. Post-census review of property records indicated that 84 SAKs needed to be removed from the count (typically because the SAK did not contain sexual assault medical forensic evidence; the box had been used to store other types of crime scene evidence), thereby revising the census count to 11,219. Some of these kits (2,512) had laboratory ID

numbers, indicating that they had been *submitted* for testing, but it was unclear how many had in fact been *tested* for DNA. The vast majority of the SAKs in police property (8,717) had not been submitted for forensic testing. The Detroit SAK ARP created a step-by-step summary of the census procedures used in this project to guide other jurisdictions on how to conduct a census of SAKs in police property.

The second goal of this action research project was to study the underlying reasons why Detroit had so many unsubmitted SAKs. The research/evaluation team interviewed current and former employees in all organizations, and examined publicly-available documents and internal organizational records to assess the resources available for serving rape victims (in general) and testing SAKs (specifically). The results of this historical contextual analysis indicated that all organizations in Detroit that serve rape victims have struggled for decades with chronic understaffing and resource depletion relative to other U.S. cities with similar populations, racial/ethnic compositions, and/or crime rates.

Police personnel acknowledged that budget and staffing cuts compromised investigation quality such that "*cutting corners*" became normative. An analysis of 1,268 sexual assault police reports associated with SAKs that had not been submitted for testing revealed that most cases were closed after *minimal* investigational effort. In both the stakeholder interviews and in the actual police reports, law enforcement personnel expressed negative, victim-blaming beliefs about sexual assault victims. Rape survivors were often assumed to be prostitutes and therefore what had happened to them was considered to be their own fault. Adolescents were assumed to be lying, trying to avoid getting into trouble by concocting a false story about being raped. Police said that those who had been assaulted by friends and acquaintances had "*got-what-they-got*" because they had chosen to associate with the perpetrator. Case after case was labeled "*a deal gone bad*" or otherwise dismissed as "*not really a rape,*" and these attitudes directly affected law enforcement personnel's decisions regarding whether to submit a rape kit for forensic testing. Without consistent supervision and training to challenge these practices, unsubmitted SAKs continued to accumulate. This research identified individual-level,

organizational-level, and systemic factors that may place communities at risk for developing this problem (i.e., stockpiles of untested rape kits), which can help other jurisdictions “take stock” of their past and present practices regarding sexual assault investigations and SAK testing.

The third goal of this project was to develop and evaluate a plan for testing these unsubmitted SAKs. At the beginning of this project, Detroit did not have sufficient funding to test all SAKs in police property. However, practitioners disagreed as to whether all SAKs *should* be tested, even if funds were available. Is it useful to test a SAK if the assailant is already known (non-stranger)? Does it make sense to test a SAK if the case is beyond the statute of limitations? These same questions came up in our research interviews with state and national stakeholders from the law enforcement, prosecution, forensic science, medical/nursing, and victim advocacy, so the Detroit SAK Testing plan was designed to gather data about these fundamental questions. Pooling funds 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 (which was separately funded by NIJ), the project was able to test 1,600 SAKs (1,595 actually tested). Kits were randomly sampled and placed into four Testing Groups, each one designed to address specific research questions regarding the utility of SAK testing under different case circumstances. This design allowed us to examine the utility of SAK testing for stranger-perpetrated sexual assaults (Testing Group 1), non-stranger perpetrated sexual assaults (Testing Group 2), and sexual assault cases that were presumed to be beyond the statute of limitations (SOL) (Testing Group 3). For Testing Group 4, SAKs were randomly assigned to two different DNA testing methods to examine whether an emerging testing method, selective degradation, could offer faster, less expensive testing options, without sacrificing accuracy (relative to traditional DNA testing methods). All Testing Groups were compared with respect to their rates of CODIS (Combined DNA Index System) *entries* (the SAK contained a DNA eligible profile for CODIS), CODIS *hits* (a DNA match to a profile in CODIS), and *serial sexual assault hits* (a DNA match across two or more SAKs).

In this project, 1,595 SAKs were tested, which yielded 785 CODIS eligible profiles (49% of the SAKs tested), 455 CODIS hits (28.5% of the SAKs tested; 58% of the profiles entered), and 127 serial sexual assaults (8% of the SAKs tested; 28% of the CODIS hits). A series of statistical models were evaluated that compared the probabilities of CODIS entry rates, CODIS hit rates, and serial sexual assault hit rates, accounting for the sampling differences between the four Testing Groups. Using continuation-ratio models, the results from the conditional and unconditional probability rate analyses showed no significant difference in CODIS hit rates as a function of either victim-offender relationship or SOL-status. In other words, SAKs associated with cases that were stranger-perpetrated had statistically equivalent CODIS hit rates as cases perpetrated by non-strangers; similarly, rates did not significantly differ by statute of limitations status. Some stakeholders in Detroit (as well as those at the state and national level) advocated for prioritizing SAKs for testing by victim-offender relationship (to prioritize stranger-perpetrated crimes) and/or “*skipping over*” SAKs associated with cases that are presumed to be beyond the statute of limitations; however, these results do not support such a plan because the rates of CODIS hits do not significantly differ as a function of these variables. These results indicate that there is merit in testing both stranger and non-stranger SAKs, and presumed SOL-expired and non-expired SAKs, in terms of expected yields for CODIS entries, CODIS hits, and identification of serial sexual assaults.

In Testing Group 4, two different methods of DNA testing were compared: traditional vs. selective degradation. There was no significant difference between the two groups in CODIS entry rates, indicating that the selective degradation method might yield rates equal to those obtained from customary methods, but the analyses did not provide sufficient evidence to firmly conclude that the groups had equivalent rates (they could differ by more than  $\pm 5\%$ ). Materials costs were similar across the two groups, but the selective degradation method saved 1.10 hours of staff time per SAK. These savings, when aggregated across a large collection of SAKs, may substantially reduce personnel costs. These results merit replication (preferably with larger samples) prior to broad-based implementation.

The fourth goal of the Detroit SAK ARP was to develop and evaluate a victim notification protocol. The Detroit collaborative had a two-day planning retreat to develop a victim-centered, trauma-informed notification protocol (with an accompanying step-by-step guide and sample FAQ documents for other jurisdictions). The protocol stipulated that a multidisciplinary team would review cases that had CODIS hits and discuss if and how to notify survivors, given the specific circumstances of each case. The notifications would proceed in a two-stage process, whereby the goals of the first contact were to explain to the victim that her/his rape kit had not been tested at the time s/he made the police report, but now it had been found and tested; offer an apology to the survivor that her/his SAK had not been tested; and offer a follow-up meeting to discuss the issues in more detail. At that second, follow-up meeting, an investigator and community-based advocate would provide more detailed information, discuss options, and connect the survivor to community services.

In the evaluation of this protocol, 41 cases were selected for notification by the multidisciplinary review team, and the investigators were able to find 31 survivors (2 cases were closed-out because the investigators had exhausted all possible leads trying to find the victims; 8 cases were still pending at the time the evaluation data collection period closed) (95% find rate). The average length of time between when the assault occurred and the time of notification was nine years. Most survivors (65%) could be found with relatively low investigational effort: databases searches (e.g., LEIN—Law Enforcement Information Network), plus 0-4 phone calls, and 0-1 in-person visits to 1 address. Survivors who were harder to locate wanted to participate in the prosecution of their cases at a comparable rate to those who were easier to find, suggesting that victims' "locate-ability" should *not* be a selection criterion for either SAK testing or victim notification.

The first contact with the survivors was made by investigators affiliated with the prosecutor's office (not the focal police department) and typically occurred at the victims' homes. Some survivors had strong negative reactions (16%) (e.g., anger, refusal to talk to investigators), more had strong

positive reactions (29%) (e.g., happiness, relief), and most (55%) did not exhibit strong emotional reactions—they were open to hearing what the investigators had to say, but were reserved and cautious. Most survivors (64%) wanted a follow-up meeting with the investigators and an advocate to discuss options in more detail, and in the end, most (57%) also decided that they wanted to participate in the investigation and prosecution process. This rate of re-engagement was higher than expected given the pervasive victim-blaming treatment many survivors had experienced from law enforcement personnel at the time they had filed the police report.

Victims were less likely to react positively and to re-engage the longer the period of time between the assault and the notification (beyond nine years), which highlights the importance of timely testing of SAKs and investigation of reported sexual assaults. Survivors who were 16-24 years old at the time of the assault were somewhat more likely to have had negative reactions to the notification and were somewhat less likely to want to have continued contact with the criminal justice system. Given that prior research has found that victims in this age group are at high risk for victim-blaming treatment, these girls/young women may have had difficult encounters years ago, and as such, may have been disinclined to re-engage. In this evaluation, only a small number of notifications were conducted with victims of non-stranger rape, but preliminary findings suggested that they were not as likely as victims of stranger rape to continue contact with the criminal justice system post-notification.

The results of this project were influential in creating a number of significant changes in policy and practice, including, but not limited to: a policy change in the local police department to submit all SAKs for forensic testing; training for police and other practitioners on victim-centered, trauma-informed services and offender-focused investigations; securing \$4 million from the state Attorney General's Office to test as many remaining Detroit SAKs as possible; and the passage of new state-wide legislation requiring all law enforcement agencies in the state of Michigan to submit SAKs for testing (if released for testing by the rape victim) (the Sexual Assault Kit Evidence Submission Act (PA 227)).

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## CHAPTER 1: Introduction

### The Detroit Sexual Assault Kit (SAK) Action Research Project (ARP)

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Sexual violence is a pervasive social problem: national epidemiological data indicate that 18%-25% of women are sexually assaulted in their adult lifetimes (Black et al., 2011; Fisher, Cullen, & Turner, 2000; Kilpatrick et al., 2007; Tjaden & Thoennes, 2006).<sup>1</sup> When victims turn to their communities for assistance after the assault, most are advised to have a medical forensic exam (MFE) (Campbell, 2008; Martin, 2005). The purpose of this exam is to provide health care to victims (IAFN, 2009; Ledray, Burgess, & Giardino, 2011; Lynch 2006), which includes: caring for injuries sustained in the assault, offering emergency contraception to prevent pregnancy (if applicable), and administering prophylaxis for sexually transmitted infections that might have been contracted in the assault (Department of Justice, 2013). In addition to these health care components, the medical forensic exam can include the collection of a sexual assault kit (SAK) to preserve the physical evidence from survivors' bodies to aid in the prosecution of the crime (Campbell, Patterson, & Lichty, 2005; DuMont & White, 2007; Fry, 2007; Ledray, 1999; Martin, 2005). The process of collecting a SAK is time-consuming (usually four hours long) and highly invasive for victims, as it includes: plucking head and pubic hairs; swabbing the vagina, anus, mouth, and/or breasts to collect semen, blood, or saliva; and obtaining fingernail scrapings in the event the assailant was scratched during the attack.

After a SAK has been collected by a health care professional, it is taken into custody by law enforcement personnel. Police are then responsible for submitting the SAK to a forensic laboratory for testing, which includes screening the samples in the kit for whether they contain biological evidence

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<sup>1</sup> To clarify the meaning of key terms used in this report, 'sexual violence' refers to a broad range of sexually-violating events, including 'rape' (a non-consensual act of oral, vaginal, and/or anal penetration committed by the use of force, threat of force, or when an individual is unable to provide consent) and 'sexual assault' (a broader range of non-consensual contact and non-contact sexual offenses, up to and including rape). We use the terms the terms 'victim' and 'survivor' interchangeably to reflect that sexual assault is a violent crime that takes tremendous strength and courage to survive (see Campbell & Townsend, 2011).

(i.e., bodily fluids), and if so, then analyzing the samples for DNA (see Butler, 2005, 2010, 2012 for reviews).<sup>2</sup> The resulting DNA profile can be uploaded to CODIS (Combined DNA Index System), the national forensic DNA database, which consists of reference DNA profiles from arrestees/convicted offenders and from samples obtained at crime scenes (Butler, 2005; Jobling & Gill, 2004; Stevens, 2001). The sample in the SAK is compared to those reference samples and if there is a match (termed a “hit”) then law enforcement personnel have a promising investigative lead as to the identity of the offender and/or to a pattern of repeat offending.

This multi-step process of collecting and analyzing sexual assault medical forensic evidence is long and arduous, particularly so for victims, who often characterize the experience as highly traumatic, one that leaves them feeling violated, blamed, depressed, and reluctant to seek further help (Campbell, 2005, 2009; Campbell & Raja, 2005). But for decades, rape survivors have endured the exam and evidence collection kit because they were told they had to (Martin, 2005), because they believed there was no other way law enforcement would take their case seriously (Parnis & DuMont, 2006), and/or because they wanted to keep other women safe (Patterson & Campbell, 2010). They assumed that the evidence in the sexual assault kit would be tested for DNA and the results would be utilized by the criminal justice system for the investigation and prosecution of the assault (Tofte, 2013). However, a growing number of media reports and social science studies suggest that for many rape survivors this is *not*, in fact, what happens. In both major urban cities and smaller jurisdictions, police frequently do *not* submit SAKs for forensic testing, and instead, the kit is typically placed in police property, unexamined and untested (Strom & Hickman, 2010).

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<sup>2</sup> Some police departments have their own “internal” forensic lab to analyze evidence (i.e., the lab is a unit within the police department). In other jurisdictions, the forensic lab may be regional or state-wide, whereby multiple law enforcement agencies submit kits to a single lab or to a multi-site laboratory system. Typically, these labs are also affiliated with law enforcement agencies (e.g., the state police). In 2009, a National Academy of Sciences Panel (“*Strengthening Forensic Science in the United States*”) recommended that forensic laboratories become independent from law enforcement, but these reforms have been slow to implement and most forensic labs are affiliated with the criminal justice system (Cowan & Koppl, 2010).

## Unsubmitted Sexual Assault Kits (SAKs): A Growing National Problem

In 1999, multiple media outlets reported that New York City had over 16,000 SAKs stockpiled—collected from victims, yet never tested by a crime lab (see The Weiner Report, 2002). Public outcry grew as it became clearer that several other major cities also had staggering numbers of untested SAKs.<sup>3</sup> Human Rights Watch (2009) reported that the Los Angeles Police Department, Sheriff's Department, and 47 other independent police departments in the county had 12,669 unprocessed SAKs in police storage facilities. In Illinois, only 1,474 of 7,494 sexual assault kits booked into evidence from 1995-2009 had been confirmed as tested (Human Rights Watch, 2010). Since then, large numbers of untested SAKs have been documented in major urban areas such as Houston (~4,000), San Antonio (~11,000), Cleveland (~4,000), as well as smaller cities such as Amarillo, Texas (~1,000) and Davenport, Iowa (~600).

Emerging social science data suggest these media reports may indeed be credible. In a NIJ-funded national survey of 1,692 law enforcement agencies, Lovrich and colleagues (2004) estimated that there were 169,000 rape cases dating back to 1982 that contained untested biological evidence. A more recent NIJ-funded study by Strom and Hickman (2010) surveyed 2,250 law enforcement agencies and estimated that 18% (27,595) of all unsolved rape cases since 2003 contained unsubmitted forensic evidence. Smaller-scale regional studies are yielding similar results. In a review of SAKs collected from adult victims in a Midwestern sexual assault nurse examiner (SANE) program, Patterson and Campbell (2012) found that 41% were not submitted for analysis, and Shaw and Campbell (2013) documented that 41% of kits collected from adolescent victims were also not submitted to the crime lab.<sup>4</sup>

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<sup>3</sup> Consistent with NIJ recommendations regarding appropriate nomenclature (Nelson, 2010 and Ritter, 2011), we distinguish between “backlogged” SAKs (i.e., those that *have been* submitted to a crime laboratory for testing, but still await testing) and “unsubmitted” SAKs (i.e., those that *have NOT been* submitted for testing). The focus of this report/project is unsubmitted SAKs.

<sup>4</sup> Sampling criteria excluded cases in which there was no police report; in other words, among adult and adolescent victims who had SAKs collected AND reported to the police, 41% of the time law enforcement did not submit their kits for testing.

Both national and regional studies suggest that law enforcement personnel do not consistently submit SAKs for forensic testing, which raises the question: *why* are some SAKs submitted for testing, but others are not? To date, only a handful of studies have examined this issue, and their findings suggest that police often doubt the evidentiary value of the kit. In Strom and Hickman's (2010) national survey of law enforcement agencies, 44% of the respondents indicated that they did not submit evidence if a suspect had not been identified, 24% if the suspect had already been adjudicated, 19% if the case had been dismissed, 17% if they did not think the evidence was useful, 15% if testing was not requested by the prosecutor, and 12% if the suspect had been identified but not charged. In Patterson and Campbell's (2012) study, police were less likely to submit SAKs if the victim had bathed post-assault, most likely because law enforcement believed doing so had compromised the evidence.

Whereas police may downplay the evidentiary utility of the kit, it appears that they do attune to perceived victim credibility and assault seriousness when deciding whether to submit SAKs. Shaw and Campbell (2013) found that victims aged 13-15 years were more likely to have their SAKs submitted than older victims, aged 16-17 years old, which is consistent with other research indicating that police find children more credible than adolescents and that they invest more effort in cases involving children/younger adolescents than those older adolescents and adults (Campbell et al., 2012; Cross, Walsh, Simone, & Jones, 2003). Among adult victims, Patterson and Campbell (2012) found that SAK submission was more likely in cases in which the victim was injured, the perpetrator used force, and the assault itself involved multiple sexual penetrations. Taken together, the results of these studies suggest that when victims fit stereotypically-rooted beliefs about what constitutes "good victims, "real victims," and/or "real crimes" (Caringella, 2008; Lonsway & Archambault, 2012; Spohn & Holleran, 2001; Spohn & Tellis, 2012), their kits are more likely to be submitted for testing.

If police do not submit SAKs because they doubt the evidentiary value of the kits and/or doubt the credibility of the victims, then medical forensic evidence has little chance of impacting criminal proceedings. Indeed, Peterson and colleagues have found that the evidence in rape kits is often *not* used to inform arrest decisions, and in fact, it is rarely even presented in court (Johnson, Peterson, Sommer, & Baskin, 2012; Peterson, Johnson, et al., 2012; Peterson, Hickman, Strom, & Johnson, 2013). Similarly, DuMont and White (2007) reviewed studies from the United States, Canada, and several Scandinavian countries on the impact of medical forensic evidence (e.g., injuries detected, documented presence of sperm) on sexual assault case outcomes, and found that such evidence is usually *not* influential to legal outcomes.<sup>5</sup>

However, some recent studies suggest that the impact of forensic evidence on case processing may be better characterized as an *indirect effect*, rather than a direct one. For instance, Peterson, Hickman et al. (2013) suggested that the mere existence of forensic evidence may help build momentum for a case, particularly if it corroborates key elements of the crime, which in turn can have a positive effect on case progression. Campbell, Bybee et al. (2012) tested a mediational model of the impact of sexual assault medical forensic exams on police referral decisions and found that SANE-collected exams/kits were associated with increased law enforcement effort (e.g., collecting *other* types of evidence, interviewing suspects and witnesses), which in turn predicted higher rates of case referral to prosecutors. However, if there is lag between the assault and evidence collection (e.g., more than 24 hours), such delays appear to have a direct negative effect on case outcomes (Campbell, Patterson et al., 2009), which could be because the passage of time decreases the likelihood of finding evidence (Johnson, Peterson, et al. 2012), and/or because any hesitancy by victims to report the crime may hurt their perceived credibility with police and prosecutors (Frohmann, 1997; Kerstetter, 1990).

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<sup>5</sup> It is important to note that the DuMont and White (2007) review does not address the issue of whether DNA testing and DNA evidence *specifically* is influential to case outcomes.

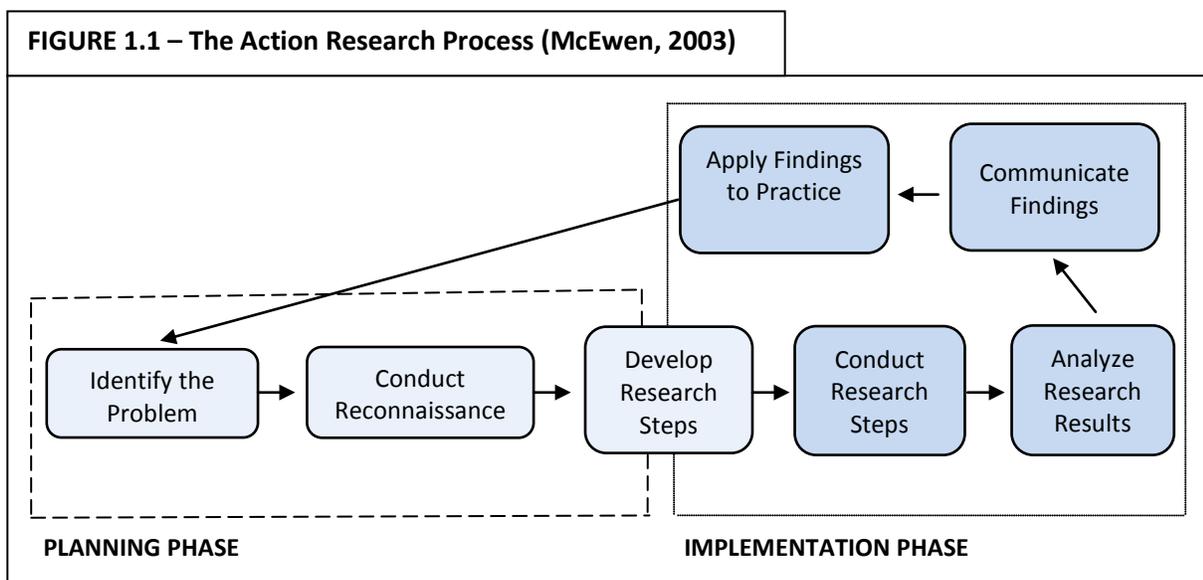
Strom and Hickman (2010) noted that when SAKs are not tested, “justice [is] denied” (p. 382) because there is no opportunity for that evidence to inform criminal proceedings, either to aid in the prosecution of a perpetrator or to exonerate someone falsely accused. Similarly, Human Rights Watch (2009) argued that the failure to test kits sends a message to survivors that what happened to them is not of societal concern, and to assailants, it sends the message that they will not be held accountable for their crimes. The lack of consistent SAK testing also makes it difficult for criminal justice system personnel to identify *serial* sexual offenders. For stranger-perpetrated serial crimes, testing could reveal the potential identity of the offender *and* DNA matches across multiple crimes (termed “case-to-case associations”). SAK testing can also help identify serial offending among non-stranger sexual assaults. For example, if assailant identity was known in Case A, police may not test the kit; similarly, if identity was known in a separate crime, Case B, again, police may not test the kit. However, if A and B were both tested, it is possible they would match, indicating a pattern of serial sexual offenses. Prior research consistently finds that most rapists are serial rapists (both stranger and non-stranger perpetrated) (Abbey & McAuslan, 2004; Abbey, Wegner, Pierce, & Jacques-Tiura, 2012; Lisak & Miller, 2002; McWhorter et al., 2009; Swarthout et al., 2011), so it is important to consider how many repeat offenders are not being identified because SAKs are not being tested.

When testing has not occurred consistently and a jurisdiction has accumulated a large number of untested SAKs, what then should a community *do* about the problem? Given the lack of research on this topic, most cities struggling with this issue have had to develop local-level solutions without the benefit of evidence-based strategies to guide their efforts. For example, New York City decided to use a “forklift approach” (Bashford, 2013), whereby all 16,000 SAKs were outsourced to private laboratory vendors for testing. On the return side, prosecutors had the challenging task of sifting through thousands of lab reports to decide which cases to pursue for prosecution. Los Angeles also decided to test all kits, which again provided a nearly overwhelming amount of data for law enforcement and

prosecutors on the return side. These high-profile case studies in New York City and Los Angeles raise a number of important issues that merit scientific study: If a community has a large number of untested SAKs in police property, how can it (relatively) quickly get an accurate count of the kits in order to gauge the extent of the problem? Should *all* SAKs be tested—what are the advantages and disadvantages of “test all” vs. “test some” strategies? If only some SAKs are to be tested, is it possible to develop empirically-based selection criteria that address the needs and concerns of diverse constituents (e.g., police, prosecutors, victim advocates, and survivors)? For the survivors themselves, when and how should they be notified about what was or was not done with their kits?

### **An Action Research Approach to the Problem of Unsubmitted SAKs**

In the past fifteen years there has been a marked shift in how researchers approach the study of complex criminal justice problems. Historically, social scientists have been on one side of the problem—the outside—working separately and independently from the practitioners and the victims on the inside (see Gaines, Worrall, & Southerland, 2003; Ekland-Olson & Martin, 1988; Hudzik & Cordner, 1983 for reviews). In their call for “a new criminal justice,” Klofas, Hipple, and McGarrell (2010) argued for a paradigm-shift, one in which researchers are engaged with local communities, working collaboratively with multidisciplinary stakeholder groups to identify evidence-based solutions. Often termed an ‘action research’ approach, the overarching goal is to integrate science and social reform such that the pursuit of change occurs simultaneously with research and evaluation in a cyclical pattern of critical reflection. Team activities are continually revised and improved as new information becomes available (Kemmis & McTaggart, 2005; McEwen, 2003). Figure 1.1 (next page) provides a conceptual overview of the action research process.



Klofas, Hipple, and McGarrell's (2010) review of successful criminal justice action research projects highlights three core defining features of this approach to social problem solving. First, action research projects are *group* projects—a multidisciplinary working group/steering committee is formed that includes local leaders, front-line practitioners, and researchers. The researchers are full, contributing members of the working group, not outside passive observers, but (usually) not the directive leaders either; typically, a practitioner is appointed as the project coordinator to provide oversight and leadership. Practitioner project coordinators are usually better-positioned to garner support and buy-in from the local community and to facilitate long-term sustainability of the initiative (see Minkler, 2012 and Minkler & Wallerstein, 2008 for reviews). For example, in the NIJ-funded Project Safe Neighborhoods initiative to reduce gun violence, each of the 93 national task forces was coordinated by their local/closest U.S. Attorney's Office (McGarrell, 2010a; McGarrell et al., 2009). Similarly, NIJ's Strategic Approaches to Community Safety Initiative also employed practitioner leaders (again, usually personnel from U.S. Attorney's Offices), and interestingly, they found that the cities in

that 10-site project that had the benefit of a full-time coordinator were more successful in achieving their goals (Roehl, Rosenbaum, et al., 2006; Rosenbaum & Roehl, 2010).

Second, action research projects include a distinct, data-driven planning phase. The ultimate goal is to create an empirically-informed intervention, and to that end, the researchers collect data about existing conditions to take stock and gauge the nature and extent of the problem—before launching into a new initiative. For example, in the one of the first NIJ-funded action research projects, the Boston Gun Project’s Operation Ceasefire, the study team gathered extensive archival records to identify the sources of guns and gun trafficking, to create maps of gun and knife slayings in Boston, and to develop social network models that illustrated gang activity (Kennedy, 2012; Kennedy, Braga, Piehl, & Waring, 2001). These data were then shared with the working group so that practitioners could reflect on this information and use it to inform next steps. All too often practitioners have to make decisions based on impressions and anecdotes; the action research paradigm provides empirical data that reflects their local conditions so that they have an accurate picture to guide intervention development.

Third, this commitment to data-informed decision making continues as the intervention is developed and evaluated. Researchers are active participants in creating the program, bringing their knowledge about empirical best practices to the table. As the program is implemented, the researchers (typically) collect both process and outcome data regarding its effectiveness, sharing interim findings with the multidisciplinary working group so that mid-course adjustments can be made (if necessary). In traditional research projects, results are shared after the completion of the project, and although an “after the fact” analysis of what worked and what did not work is certainly helpful, it is often more useful to know what’s not working when there is still opportunity to create change. For instance, in Project Safe Neighborhoods, the local researchers/evaluators provided continuous feedback to their task forces for on-going revisions and improvement of their gun violence reduction programs (McGarrell, 2010b).

Several projects that have followed these core principles of group collaboration, data-driven planning, and on-going evaluation have achieved successful outcomes. The Boston Gun Project saw a 63% reduction in youth homicides per month and a 25% decrease in gun assaults per month (Kennedy et al., 2001). In the Strategic Approaches to Community Safety Initiative, five cities reported dramatic decreases in their target crimes (e.g., homicide, youth violence, fire arms violence) (Rosenbaum & Roehl, 2010). The jurisdictions participating in Project Safe Neighborhoods experienced an 8% decline in violent crime (relative to comparable cities not part of the initiative) and federal prosecutions increased 60% (McGarrell, 2010a). These high-profile projects highlight the promise of the action research model, though it is important to note that such projects are often characterized as high-stress, high-stakes endeavors (see Kennedy, 2012), and that researcher-practitioner partnerships provide no guarantee that an initiative will be successful in meeting its aims (see Minkler, 2012 and Minkler & Wallerstein, 2008). Nevertheless, in all of these projects, complex, seemingly intractable crime problems were systematically whittled down and fundamentally changed in the context of sustained multidisciplinary collaborations between researchers and practitioners.

Given these successes, an action research approach may be a promising strategy for addressing the growing national problem of unsubmitted SAKs. Though law enforcement personnel typically have the responsibility of submitting a SAK for forensic testing, they work within a multidisciplinary network of sexual assault responders, including prosecutors, forensic scientists, victim advocates, and medical/nursing providers. Each of those disciplines has unique roles and responsibilities regarding post-assault services for rape victims. Bringing these different professions together to examine critically the purpose and utility of SAK testing may be a fruitful strategy for understanding why so many kits are not being submitted for testing and how this problem can be remedied. To that end, NIJ released a solicitation in October, 2010 to fund three-to-five jurisdictions with substantial numbers of untested kits

to conduct a multi-year action research project (*Strategic Approaches to Sexual Assault Kit Evidence: An Action Research Project*). The solicitation highlighted two primary goals:

*“The purpose of this study is two-fold. First, NIJ is interested in learning about the underlying factors that contribute to this unsubmitted SAK evidence. Second, based on what is learned, promising strategies will be developed and implemented to reduce and eliminate the untested kits in that jurisdiction. Through monitoring and assessment, all strategies will be evaluated for their effectiveness and sustainability.”* (p. 4.)

This solicitation stipulated that the formal applicant must be a state or local unit of government (e.g., police agency, crime lab, prosecutor’s office) and that *“each site should demonstrate a team approach that includes an effective partnership between the practitioner agencies and a research organization or partner”* (pp. 5-6). Consistent with core principles of the action research paradigm (Klofas et al., 2010; McEwen, 2003), the grant would provide funding for a six-month, data-driven planning phase, and then sites would re-apply for second phase of work to implement their plans.

### **One City’s “*Shocking Discovery*.” The Problem of Unsubmitted SAKs in Detroit**

When NIJ released the SAK Action Research Project Solicitation in October, 2010, the city of Detroit was still trying to make sense of what many termed a *“shocking discovery.”* On August 17, 2009, representatives from local police, state police, and the prosecutor’s office toured a remote police property storage facility to discuss what to do about the volume of evidence in police custody and how it should be best managed. The issue of forensic evidence had been a critical concern in Detroit ever since the police department crime lab had been closed on September 25, 2008 due to a high error rate in ballistics testing and broader systemic concerns regarding its processing of crime scene evidence (Baker, 2009). During the tour, an assistant prosecutor noticed dozens of storage boxes and asked what

they contained: rape kits, approximately 10,000 rape kits. The assistant prosecutor pressed for details—How many kits? Have they been tested? Police personnel did not have immediate answers.

After the tour, the assistant prosecutor informed the Elected Prosecutor, who then made repeated efforts to get the answers to those fundamental questions. Phone calls and meetings between the Chief of Police and the Prosecutor, and then more meetings, looping in more local stakeholders, did not produce the answers. Formal memos from the Prosecutor to the Chief requesting the immediate production of a list of the kits in question (and their testing status) and requesting an independent audit of the contents of the property storage room went unanswered. The Prosecutor continued to press this issue, so a state government violence against women agency organized a multidisciplinary team, including prosecutors, law enforcement, medical professionals, and community advocates—none of whom were employed by the local police or prosecutor’s office—to begin an independent, in-depth review of the problem.

With federal funding from the Office of Violence Against Women (OVW), *The 400 Project* began in April, 2010: 400 SAKs were randomly selected from police property, all were outsourced for testing, and then project staff began the laborious process of tracking down the records associated with each case to get the story behind each kit. By late Fall of 2010, preliminary findings suggested that indeed, most SAKs in police property probably had *not* been tested. Based on their sample of 400, they had ascertained that some kits had been tested and then re-filed in property, but the vast majority did *not* appear to have been tested. Some SAKs were associated with cases that had already been adjudicated (some of which had been adjudicated without testing the kit); some SAKs were associated with cases that were beyond the statute of limitations; and a still undetermined number of SAKs were associated with cases that could still be prosecuted. Though *The 400 Project* final report was (at that time) many months away, it was already clear that Detroit had a long, long road ahead.

When the NIJ Solicitation for action research projects on unsubmitted SAKs was released—which was, by happenstance, about the same time Detroit practitioners were trying to absorb the early findings from *The 400 Project*—stakeholders readily agreed this was an excellent opportunity for the community and the prosecutor’s office would be the local unit of government to apply. The Director of the state government agency leading *The 400 Project* connected the Elected Prosecutor to a sexual assault researcher at Michigan State University, who had conducted several NIJ-funded studies on the criminal justice response to sexual assault. A small working group of researchers, representatives from the prosecutor’s office, and the state government violence against women agency came together to prepare the grant application. On April 8, 2011 the Department of Justice, Office of Justice Programs issued a press release announcing that Wayne County, Michigan and the City of Houston, Texas, had been awarded grants under the solicitation.<sup>6</sup>

## **An Overview of the Detroit Sexual Assault Kit (SAK) Action Research Project (ARP)**

### ***Project Goals***

The Detroit SAK ARP began April 1, 2011 and project activities ended September 30, 2013 (2.5 years/30 months). Consistent with McEwen’s (2003) action research approach, the first six months was a data-driven planning phase; the remaining 24 months focused on completing reconnaissance tasks initiated during the planning phase and then implementing the response plan. Specifically, the Detroit SAK ARP had four primary goals:

- 1) To obtain an accurate count of the number of SAKs in police property through a complete census of every SAK in police property (up to November 1, 2009);

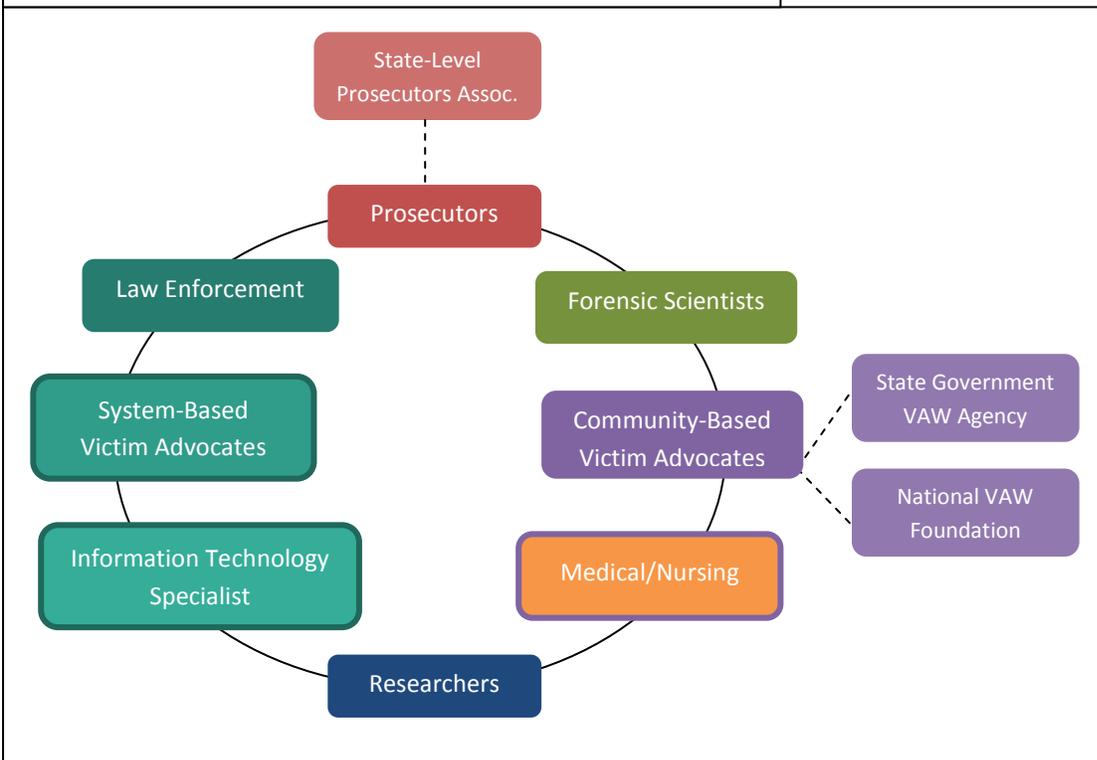
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<sup>6</sup> See section “A Special Note About Identity, Confidentiality, and Privacy” (later in this chapter) for more details regarding how this report will handle identifying/potentially identifying information associated with this project and its participants.

- 2) To identify the underlying factors that contributed to why Detroit had so many unsubmitted SAKs in police property;
- 3) To develop an empirically-based plan for testing SAKs and to evaluate the efficacy of that plan;
- 4) To create a victim notification protocol (i.e., when and how victims would be notified regarding the status/findings of their kits) and to evaluate the efficacy of that protocol.

### *The Collaborative Team*

Figure 1.2 (next page) depicts the eight disciplines represented within the Detroit SAK ARP (spanning nine organizations). Representing the prosecutorial perspective, assistant prosecuting attorneys from the local prosecutor's office (one of whom was the project coordinator for the majority of the project) and one member of a state-level prosecuting attorneys association were team members. Local police were represented, including front-line detectives from the sex crimes unit, the unit's supervisor, and higher command staff (up to the level of Deputy Chief). The local police department had an internal victim advocacy program (often termed a 'system-based' advocacy program), staffed by MSW-level social workers. These systems-based advocates were not initially involved in the project, but once police command staff brought this oversight to the team's attention, they were included as well. During the planning phase, it became abundantly clear that the team needed the assistance of information technology specialists; the local police department had a City of Detroit IT staff member "on call" to them, and so that individual was asked to join the collaborative. For the forensic sciences perspective, members of the forensics division of the state police were team members; as noted previously, the local police department's crime lab closed in 2008 and after that, forensic evidence for Detroit was handled by the state forensic science labs. It was not clear at the beginning of the project

**FIGURE 1.2 – The Detroit SAK ARP Collaborative Partners**

NOTE: Team members from Law Enforcement, System-Based Advocacy, and Information Technology Specialists were from the same organization (local police, teal outline). Two Community-Based Advocacy organizations participated in this project: one was a combined domestic violence/sexual assault program, the other was a combined Sexual Assault Nurse Examiner (SANE)/sexual assault program (purple outline).

that the local police department still had a forensic science coordinator, and once that was known, that individual was also asked to participate in the collaborative. Detroit has two community-based advocacy programs that provide sexual assault services and both of which were partners in the project: one was a combined domestic violence/sexual assault social service agency; the other was a combined Sexual Assault Nurse Examiner (SANE) program/sexual assault advocacy (members of the SANE “wing” of that organization represented the medical/nursing perspective in the collaborative). The state government violence against women agency that oversaw *The 400 Project* was also involved, as was a national non-profit violence against women foundation with a long-standing interest in the issue of unsubmitted sexual assault kits. The research team consisted of one principal investigator and one co-investigator (both Ph.D.-level), three M.A.-level research associates, and three Ph.D.-level statisticians.

Each of the nine organizations in the collaborative typically had 1 to 4 representatives on the team; thus, at any one point in time, the collaborative had between 9 to 36 members (most meetings—see below—were attended by 9 to 18 members).

### ***The Collaborative Partnership Process***

The Detroit collaborative met on-site at the prosecutor's office twice a month (for two hours each meeting) for 30 months; additional phone/in-person meetings were held as needed to attend to urgent issues. In addition, the team had an extended two day retreat to develop the victim notification protocol, and a separate Victim Notification Review Team (NRT) was then formed (see *Chapter 5: Developing & Evaluating a Victim Notification Protocol*). The bimonthly team meetings were facilitated by the project coordinator (a representative of the prosecutor's office); formal meeting minutes were taken, which were reviewed/approved at each subsequent meeting. Though the focus of meetings varied throughout the project, in general, each discipline did a "report out" regarding its activities since the last meeting and then there was usually time allocated to discuss current problems and challenges. The decision making process was participatory in the sense that all disciplines had input (or had the opportunity to provide input) into the issues at-hand, but final authority rested with the senior-most official within each participating organization (e.g., Elected Prosecutor, Chief of Police).

### ***Research/Evaluation Component***

The action research paradigm stipulates a markedly different role for researchers than what is typical in traditional social science research projects. As noted previously, the researchers were full members of the Detroit collaborative team, tasked with collecting formative data to guide the planning process, providing substantive input regarding the development of the response plan, and evaluating its efficacy. Though there are long-standing debates in the evaluation literature regarding whether it is

appropriate for researchers to be involved with the development *and* evaluation of an initiative (see Alkin, 2004; Cousins & Chouinard, 2012; Patton, 2011; Scriven, 1997 for reviews), the action research paradigm squarely locates the researchers' role on the side that it is not only acceptable to have dual tasks, but necessary to help guide empirically-based decision making (see Klofas, Hipple, & McGarrell, 2010 for a review). For three of the four main project goals, such a blended role was relatively straightforward to envision and enact: the researchers would be involved in the planning and executing data collection from the SAK census and analyzing the data; would help create a SAK testing plan and evaluate its efficacy; and would participate in the development of the victim notification protocols and evaluate their impact.

However, the NIJ SAK action research project solicitation also stated, "*NIJ is interested in learning about the underlying factors that contribute to this unsubmitted SAK evidence*" (p. 4). Understanding how and why Detroit has so many unsubmitted SAKs requires an in-depth look within each organization at its leadership, staffing, resources, and decision-making, as well as an examination of the relationships among organizations over time. Essentially, this is a study of how and why key individuals and organizations did not do what was expected of them—by victims, by other organizations in the community, by society at large. In such situations—meaning, those that are ripe for controversy and discord—the scholarly literature is less divided on the nature of the researcher's role, as collaborative processes can sometimes undermine the quality and credibility of the work (see Scriven, 1997). As Chelimsky (1997) noted, "*[the evaluator's job] is to make objective information available, especially in a hostile political climate*" (p.57). Echoing the importance of independence and objectivity, Stake (1997) emphasized how rigorous methodology is all the more critical in politically-charged environments because "*science has traditional mechanisms for validation, for exposing ideology and purging misrepresentation*" (p. 474). Notwithstanding the academic debate as to whether science is in fact neutral and value-free (see Eagly & Riger, 2014 and Hesse-Biber, 2007 for reviews), independent

data collection, analysis, and verification can help stakeholders “step back” and look at challenging information in a new and often less emotionally-charged way, which can facilitate problem-solving and systemic change (Patton, 2011). Therefore, for this particular project goal (identifying underlying factors), the researchers worked independently from the larger group, but, consistent with the action research model, interim findings were shared with the collaborative partnership for feedback in hope that group discussion would suggest new avenues for further study, and more importantly, bolster efforts to change these underlying factors to prevent the reoccurrence of this problem.

The four goals of this project span diverse substantive topics (e.g., SAK testing, victim notification) and methodological aims (e.g., basic research and evaluation), which necessitated the use of multiple methods of data collection. Below is a brief summary of each of the four data collection methods used in this project—ethnographic observations, interviews, archival records, and focus groups—highlighting why each technique was selected and how it was implemented in this action research project. Table 1.1 (following pages) summarizes how these four methods were used to assess each of the four main project goals; Table 1.2 (following pages) summarizes the quantity of data collected (organized by method). *Appendix B: Project Methodology* provides complete details regarding the project’s sampling, measures, data collection procedures, analytic techniques, and verification/authentication processes.

**Ethnographic Observations.** Ethnographic methods were the primary data collection technique in this action research project. Real-time observations of events as they are happening offer unparalleled capacity for capturing time-sensitive events (Atkinson et al., 2001; Fetterman, 2010; Wolcott, 2005). Moreover, ethnography is particularly useful in situations where the researcher/evaluator will be deeply involved in the context, and when a holistic, long-term approach is necessary to understand the phenomenon of interest (Langhout, 2003). Ethnographies are also well-suited for capturing processes over time, especially when significant events, transitions, and conflicts are

expected (Smith, 2005). Interestingly, ethnographic methods have not been a mainstay in criminal justice action research projects (see Kennedy et al., 2001; McGarrell et al., 2009; Roehl et al., 2006); however, formalizing observations of group process into the ethnographic field notes allows for documenting key questions, dilemmas, decisions, and lessons learned. Given that there is no “roadmap” for communities struggling with large numbers of untested SAKs, ethnographic methods are well-suited for capturing each step along the way—and its associated challenges and solutions.

In this project, the research team members were participant-observers in all SAK collaborative meetings: one research team member was designated “observer-only” and that individual transcribed the discussions at the meetings as they were occurring, and one (or more) researchers engaged in the discussions and also took notes. All members of the SAK collaborative were briefed individually and as a group regarding IRB procedures for ethnographic observations so that they understood that their remarks would be written down. In accord with the methods outlined by Emerson, Fretz, and Shaw (1995), fieldnotes were written within 72 hours of an observation; these notes included direct quotes, timelines and sequences of events, key decisions made by the group, and rich descriptions of the interactions; a separate transcript of each meeting was also preserved.

**Individual Interviews.** Interview methods are commonly used in action research projects to obtain individual team members’ thoughts, experiences, and opinions (Greenwood & Levin, 2006; Stringer, 2013). Interviews are also an integral part of ethnographic projects to create private spaces for individuals to discuss key issues with the researchers (Adler & Adler, 2002; Heyl, 2001; Wolcott, 2005). Typically, such interviews are qualitative in nature: open-ended questions within a semi-structured interview guide that changes in response to the information provided by the participants (Patton, 2002; Rubin & Rubin, 2011). Longitudinal interviewing is valuable when there is reason to expect that individuals’ beliefs and perceptions will change over time as a result of sustained interactions with other stakeholder groups in their environment (Britten, 2007; Saldana, 2003; Seal, Eldrige, & Kacanek, 2007).

In this project, individual interviews (both cross-sectional and longitudinal) were useful for all of these reasons, plus they helped focus the collaborative team meetings on developing response strategies, rather than taking the entire group's time for gathering research-related information.

In this project, the research team conducted both formal and informal individual interviews. "Formal" interviews followed standard interviewing procedures: separate written requests were made to multiple individuals within each participating organization (law enforcement, prosecution, forensic sciences, medical/nursing, systems advocacy, and community-based advocacy), asking them to participate in a confidential one-on-one interview that would be audio recorded and transcribed. Formal interviews were also conducted with national stakeholders from criminal justice/forensic science and violence against women organizations to gain a broader (less Detroit-centric) perspective on SAK testing, sexual assault investigations, and victim notification (see Tables 1.1 and 1.2).

In ethnographic research, it is also typical that researchers have contact with individuals outside of formal meetings/settings, and these interactions are often opportunities to ask questions about current events. These "informal" interviews provide another way of documenting events throughout a project. Under IRB consent for ethnographic observation, the researchers had on-going informal interviews with representatives from each participating Detroit-area organization (see Tables 1.1 and 1.2). These conversations were often a mix of factual project updates with disclosures that were private (e.g., venting frustrations, personal reflections); therefore, consistent with standard practice in ethnographic research (see Fetterman, 2010; Wolcott, 2005), only factual information was recorded, unless the researcher specifically asked permission to make note of the other content.

**Archival Records.** The unsubmitted SAKs in Detroit police property dated back to the 1980s, so studying a problem three decades in the making poses unique methodological challenges. For example, many of the key personnel in each organization who could speak to policies and procedures have long since retired or moved on to other positions. Current personnel may or may not be aware of key

historical shifts within their organizations over time. In such situations, researchers often turn to archival records to piece together events of years ago, though it is not uncommon that such documents are incomplete and disorganized (Corti, 2007; Hill, 1993; Singleton & Straits, 2010). Records may be publically available through Freedom of Information Act (FOIA) requests, or internal/private and therefore accessible only at the discretion of key stakeholders. Thus, archival research requires extensive relationship-building so that organizations will invest the effort to find key documents and disclose them, which may be difficult to negotiate if there is a risk that the information could be incriminating or otherwise disparaging. In other words, the challenge in this project was not just trying to document thirty years of history, but to document thirty years in which some (and perhaps many) of those years might not be viewed favorably, by both those inside the Detroit community as well as outsiders looking in.

The action research paradigm was helpful in addressing these issues. The multidisciplinary team approach provided a structure for stakeholders to air differences in a constructive setting and to set expectations for full disclosure, transparency, and change. This approach also allowed practitioners to work closely with the researchers and to discuss how the requests for archival records fit into the “big picture” of the project. As such, the research team’s requests for public records *and* internal records regarding leadership, staffing, resources, and decision-making regarding SAK testing for the years 1989-2009 were fulfilled. Similarly, requests were granted to review police reports associated with SAKs that were not submitted for testing, which enabled the researchers to explore whether there common features about the victims, assaults, and/or investigational practices in these cases. However, it is important to note that Detroit-area organizations have not been able to develop and maintain comprehensive, well-organized information systems, so there are numerous gaps in the archival record (e.g., staffing records over time are spotty, police reports could not be found for all SAKs). Furthermore, in all forms of archival research, it is difficult—if not impossible—to gauge the completeness of the data

because there may be records researchers are not even aware of and hence cannot request. Therefore, in this project, archival records were used as a supplemental data source to triangulate findings generated through other methods (e.g., interview data, ethnographic observations) (see *Appendix B: Project Methodology* for full details regarding data triangulation).

**Focus Groups.** Focus groups can be a useful supplement to individual interviews in that they provide opportunities for participants to share perspectives and react to ideas presented by others, which is often helpful for generating new ideas, clarifying issues, and revealing differences of opinion (Krueger & Casey, 2008; Morgan & Krueger, 1997; Stewart, Shamdasani, & Rook, 2006). In group-based ethnographic research, to some extent every meeting is a focus group of sorts, but there is a difference between observing and recording what a group is naturally doing and asking the group to engage in a specific discussion explicitly for research purposes. Thus, a true focus group follows standard procedures of the methodology, including, but not limited to, a formalized protocol for the discussion, scripted questions, established rules for the discussion, a formal moderator, and facilitated guidance throughout (see Krueger & Casey, 2008). In this project, focus groups were used sparingly (three total), and all occurred in the final months of the action research project as a technique for gathering “lessons learned” about each main component (census, testing, victim notification, and overall project issues).

<b>TABLE 1.1 – Overview of the Detroit SAK ARP Data Collection Methods</b>				
	<b>DATA COLLECTION METHODS</b>			
	<b>Ethnographic Observations</b>	<b>Individual Interviews</b>	<b>Archival Records</b>	<b>Focus Groups</b>
<b>Goal 1:</b> Conduct a Census of SAKs in Police Property	<i>Document the Discovery of the Unsubmitted SAKs and Events That Occurred Prior to the Beginning of Census</i>			
	Observe group discussions about the discovery of the unsubmitted SAKs and the inter-organizational communications thereafter	Interview Detroit stakeholders about the discovery of the kits and the events thereafter	Review inter-organizational memos re: the discovery of the kits & intra-organizational investigations/audits  Review media reports about the discovery of the kits	(NA)
	<i>Document the Process of the SAK Census</i>			
	Observe the process of conducting the census for key questions, issues, and decisions	Interview Detroit stakeholders about the successes, challenges, and lessons learned from conducting a census	Review records in the police property database  Review records in the police forensic laboratory testing spreadsheet	Discuss successes, challenges, and lessons learned re: conducting a census
<b>Goal 2:</b> Identify the Underlying Factors Re: Why Detroit Has Unsubmitted SAKs	<i>Document Historical Context in Detroit Sexual Assault Organizations</i>			
	Observe group discussions about policies, practices, and resources available in each organization over time	Interview Detroit stakeholders from each discipline re: daily operations/ services provided; staffing levels; and reporting structure, training and supervision  Interview public officials in four comparable cities re: services & staffing levels	Review records re: leadership, staffing, & resources in Detroit organizations (1989-2009)  Review records re: leadership, staffing, & resources from sexual assault organizations in four comparable cities (Philadelphia, Dallas, Baltimore, & New Orleans)	(NA)

<b>TABLE 1.1 (continued)</b>				
	<b>DATA COLLECTION METHODS</b>			
	<b>Ethnographic Observations</b>	<b>Individual Interviews</b>	<b>Archival Records</b>	<b>Focus Groups</b>
<b>Goal 2 (continued)</b>	<i>Examine Front-Line Services &amp; Decision Making in Sexual Assault Cases</i>			
	Observe group discussions about standard operating procedures & decision making in sexual assault cases	Interview Detroit stakeholders from each discipline re: decision-making processes in sexual assault cases	Review criminal sexual assault police reports (1989-2009) re: investigational practices and decision making	(NA)
<b>Goal 3:</b> Develop SAK Testing Plan and Evaluate Efficacy	<i>Document Process of Developing Testing Plan</i>			
	Observe the process of developing a SAK testing plan re: key questions, issues, and decisions	Interview Detroit stakeholders and stakeholders in national organizations concerned with criminal justice, forensic sciences, and violence against women regarding the purpose & utility of SAK testing	(NA)	Discuss successes, challenges, and lessons learned re: developing a testing plan
	<i>Evaluate Testing Plan</i>			
	Observe group discussions re: testing results and the implications of the findings	(NA)	Review police files associated with SAKs tested in this project for victim, assailant, and case characteristics  Document number and type of CODIS hits associated with SAKs tested in this project	(NA)

TABLE 1.1 (continued)				
	DATA COLLECTION METHODS			
	Ethnographic Observations	Individual Interviews	Archival Records	Focus Groups
<b>Goal 4:</b> Develop Victim Notification Protocols and Evaluate Efficacy	<i>Document Process of Developing Victim Notification Protocols</i>			
	Observe the process of developing victim notification protocols re: key questions, issues, and decisions	Interview Detroit stakeholders and stakeholders in national organizations concerned with criminal justice, forensic sciences, and violence against women regarding how and when victims should be notified about testing results	(NA)	Discuss successes, challenges, and lessons learned re: victim notification and the utility of a formalized Victim Notification Review Team
	<i>Evaluate Victim Notification Protocols</i>			
	Document the processes and decisions of the Victim Notification Review Team	(NA)	Track investigators' efforts to locate victims for notification and perceptions regarding the notifications  Document community-based advocates' (de-identified) perceptions regarding the notifications	(NA)

**TABLE 1.2 – Overview of the Quantity of Data Collected in the Detroit SAK ARP**

METHODS	DATA QUANTITY
Ethnographic Observations	<p>N = 81 observations, ~186 hours of observation</p> <p>↓</p> <p>n = 53 collaborative team meetings, ~106 hours of observation</p> <p>n = 18 impromptu meetings, ~32 hours of observation</p> <p>n = 6 shadowing observations of stakeholders conducting their jobs, ~18 hours of observation</p> <p>n = 1 planning retreat, ~12 hours of observation</p> <p>n = 3 Victim Notification Review team meetings, ~18 hours of observation</p>
Individual Interviews	<p>N = 42 formal interviews with Detroit stakeholders (16 one-time/cross-sectional interviews; 26 longitudinal interviews → 10 people interviewed two times, 2 people interview three times)</p> <p>N = 187 informal interviews with Detroit stakeholders (30 people, number of interviews varied)</p> <p>N = 5 interviews with national criminal justice/forensic science stakeholders</p> <p>N = 5 interviews with national violence against women organization stakeholders</p> <p>N = 35 interviews with public officials in comparables cities</p>
Archival Records	<p>N = 2 databases reviewed re: the number of unsubmitted SAKs: police property data base (~11,000 entries) and police forensic sciences testing spreadsheet (~2,500 entries)</p> <p>N = 5 intra- and inter-organizational records (and N = 6 media reports) re: discovery of the unsubmitted SAKs in August, 2009</p> <p>N = 93 (publically-available and internal) from Detroit organizations re: leadership, staffing, resources, services provided, and policies &amp; procedures over time</p> <p>N = 33 records (publically-available) from organizations in comparable cities re: leadership, staffing, and resources</p> <p>N = 1,268 police reports reviewed re: investigational practices and decision-making in sexual assault cases and coded for victim, assailant, &amp; case characteristics</p> <p>N = 1,595 SAK DNA testing results reports</p> <p>N = 31 investigator records and N = 18 community-based advocate records re: victim notifications conducted in this project</p>
Focus Groups	<p>N = 3 focus groups re: successes, challenges, and lessons learned</p>

## A Special Note About Identity, Confidentiality, and Privacy

In research on sensitive topics, extra care is warranted regarding both the conduct of the research/evaluation itself as well as the reporting of its findings (for reviews, see: Decker et al., 2011; Dickson-Swift, James, & Liamputtong, 2008; Liamputtong, 2007; Lee, 2000; Miller, Forte, Wilson, & Greene, 2006; Renzetti & Lee, 1992). The data collection and analysis procedures used in this project conformed to the American Psychological Association's guidelines for the ethical treatment of human subjects in research, and were reviewed and approved by the Michigan State University Institutional Review Board (IRB) (the institution of the lead researcher/evaluator). To define the parameters regarding identity, confidentiality, and privacy when reporting the results of this project, multiple expert sources were consulted: Michigan State University's IRB and Office of the General Counsel; the National Institute of Justice; the ethical standards of the American Psychological Association and the American Evaluation Association; nationally-recognized evaluation ethicists and legal ethicists; the academic literatures on ethics in action research, ethnography, and research with vulnerable populations; and the individuals and organizations who participated in this action research project. Below is summary of how this report will attend to these three ethical elements.

**Identity.** In social science research, "identity" or "identification" refers to whether the names and/or other identifiable information about the specific site, city, setting(s), organization(s), and/or individuals who participate in a project will be protected or released (Belmont Report, 1979; Bernard, 2011; Sieber, 2004; Singleton & Straits, 2010). Historically, many criminal justice action research projects have revealed the names of participating cities, organizations, and specific individuals who were involved in the initiative (e.g., Kennedy et al., 2001; McGarrell et al., 2009; Roehl et al., 2006). However, in ethnographic research, there is a well-established norm that identities must *not* be revealed, or that only macro-level information (e.g., the name of the city or geographic region in which the work was conducted) can be shared (Fetterman, 2010; Murphy & Dingwall, 2001; Wolcott, 2005).

In this project, the identity of the city in which this work was conducted was released by the Department of Justice, Office of Justice Programs, via a press release naming the two sites that were awarded grants under the Sexual Assault Kit Action Research Project Solicitation. As such, this report has thus far and will continue to make reference to the city of Detroit as the community in which this work is conducted. The identities of the specific organizations and individuals who were involved in this action research project will *not* be revealed (regardless of whether they are public/elected figures), per the requirements, recommendations, and/or preferences of the individuals, groups, and doctrines consulted regarding these matters (see list above). The specific organizations in Detroit that serve victims of sexual assault are, of course, public record, but a key principle in ethnographic research is that the particular city/community/organization and its specific history is often not the point of the research; the point is the resulting findings regarding human, social, and/or organizational behavior and their generalizability to other contexts (Fetterman, 2010; Johnson, 1990; Wolcott, 2005). Because the problem of untested SAKs is a growing national problem, the issue is not so much what happened in X Police Department, Y Prosecutor's Office, Z Forensic Laboratory (and so on), but what can be learned about how to bring multidisciplinary organizations together to resolve large quantities of previously unsubmitted SAKs and to prevent the reoccurrence of the problem.

**Confidentiality.** In social science research, "confidentiality" refers to protecting the identity of the participant/data source, which typically involves removing names and other identifying information from the data and from any distribution of the data and/or findings (often termed de-identifying the data) (Belmont Report, 1979; Bernard, 2011; Sieber, 2004; Singleton & Straits, 2010). In action research projects, researchers need to consider carefully what could be 'identifying information' because those "outside" a project or community could read a de-identified interview excerpt and have no idea who provided the information, but those "inside" could look at the same 'de-identified' excerpt and

recognize its source (by the content, word choice, speech mannerisms, etc.). Therefore, protecting confidentiality can become quite complex in close-knit group projects.

To address these challenges, confidentiality guidelines were created for each of the four main types of data collected in this project. The ethnographic observations yielded rich descriptive data regarding the issues, dilemmas, and decisions made throughout the project—all of which are known to the team members because they were part of that process. As such, this component of the project is necessarily known to the “insiders;” therefore, the key confidentiality task is summarizing the findings in ways that do not reveal confidential information to “outsiders.” Consequently, the presentation of these findings emphasizes the end-results of the group process (i.e., what did the group ultimately decide at each juncture and why), noting key differences of opinion at an organizational level of analysis (e.g., “representatives from the local police department expressed concerns about . . .” rather than “the local police department Deputy Chief expressed concerns about . . .”).<sup>7</sup>

The ethnographic observations also yielded direction quotations from team members—as did the individual interviews (formal and informal) and the focus groups. Statements made in team meetings and/or the focus groups were known to other collaborative partners, but comments made in individual interviews were not. Though it could be possible to distinguish quotes taken from group settings vs. individual settings in the presentation of the findings, it seemed more sensible to treat all direct-quote data as information that needed to be confidential to both “insiders” and “outsiders.” To protect the confidentiality of these data, most of the quotes selected for inclusion in this report reflected the sentiments expressed by *many* individuals (i.e., the quote could have come from one of

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<sup>7</sup> There were instances in which documenting the work of the group necessitated highlighting specific decisions made by specific individuals, as those decisions were key turning points for the project (see *Chapter 2: How Many Unsubmitted SAKs in Detroit*, Figure 2.1 “*The Step-by-Step Process of Planning and Conducting the Detroit SAK Census*” as an example). These events were already well-known to the “insiders” and revealing the title/role of those individuals does indeed reveal key information to “outsiders” as well. However, the collaborative partners concurred with the researchers that this level of detail was appropriate in these instances in order to reflect accurately what happened in this project.

many, as multiple people stated that same idea). To “outsiders” it is often helpful to have some degree of attribution for a quote (for context), and by and large, it was possible to include text such as, “*a member of the local police department noted that . . .*” or a “*forensic scientists stated that . . .*” without compromising confidentiality. Quotes attributed as “*a member of the collaborative noted that . . .*” reflect sentiments expressed by members from all disciplines/organizations, so that specifying organizational affiliation was not necessary as this particular idea was shared throughout the entire collaborative. However, there are often unique quotes—ideas not expressed by many individuals—that merit inclusion in a research report precisely because they express a divergent point of view. In these instances, attribution must be non-specific (e.g., “*an individual said . . .*”) in order to protect confidentiality. All quotes presented in this report were reviewed carefully to assess potential identifiability to those “inside” the project, and as necessary, material was lightly edited to remove distinctive speech mannerisms, turns of phrase, etc.<sup>8</sup>

Protecting the confidentiality of archival records is typically straightforward. Usually, researchers are working with publically-available records, and then any identifying information within those documents must be redacted (e.g., victims’ name and identifying characteristics must be redacted from copies of the police report and from any excerpt released of that report). For this action research project, excerpts from publically-available records followed these conventions. However, protecting confidentiality is more complex with internal organizational records. Revealing excerpts from such records must follow similar redacting rules, but *any* excerpt reveals that the researcher has the record in the first place—and for “insiders” that may be a *de facto* identification of the person who provided the documents (which may not be something that individual wishes to be known). In this report, excerpts

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<sup>8</sup> Within the qualitative research paradigm, there are differences of opinion as to whether quoted material should ever be edited (see Sandelowski, 1994). Given that this is *not* a phenomenological or hermeneutical analysis (see *Appendix B: Project Methodology*), which require verbatim text, confidentiality concerns were privileged and some quotes were lightly edited.

from internal documents (those would not be typically released through FOIA) were reviewed by the individual(s) who provided them and their permission for inclusion in this report was obtained.

**Privacy.** In social science research, “privacy” refers to persons having control over the extent, timing, and circumstances of sharing information about oneself with others (Belmont Report, 1979; Bernard, 2011; Sieber, 2004; Singleton & Straits, 2010). The Belmont Report’s (1979) principle of respect for persons stipulates that research participants have a right to privacy, which is codified in federal law (HHS and FDA Regulations (45 CFR 46.111(a)(7) and 21 CFR 56.111(a)(7)). Private information must be kept confidential, so researchers must de-identify data and take measures to ensure that the presentation of the findings does not include identifiable or potentially identifiable information (see section above). However, in some circumstances it is worth asking whether certain data should be revealed at all—even in de-identified form—because the information is *private*. In ethnographic research this is key concern because over the course of many months, or years, of contact with the participants, it is quite likely that the researchers will see/hear about experiences that are deeply personal to the individuals and/or the community more generally (Fetterman, 2010; Murphy & Dingwall, 2001; Wolcott, 2005). As such, in ethnographic research there is a long, valued tradition of respecting participants’ privacy; as Wolcott (2005) noted, “*No fieldworker ever has license to tell all*” (p. 141). But if some information will be withheld, then there will be questions—by those “inside” and “outside” the project—about what is being withheld and why. Wolcott (2005) argued that ethnographers must give their readers a sense of what is excluded because such transparency bolsters the credibility of the work and its trustworthiness among “insiders” and “outsiders.”

When deciding what should and should not be revealed, Wolcott (2005) noted that “*fieldworkers should always have in mind the boundaries of their inquiries . . . stay within the limits of the research focus*” (pp. 143-143). Events that occur over the course of the project that are directly relevant to the research aims must be reported, and those that involve highly sensitive information

should be reported with careful attention to confidentiality. However, material that is not directly relevant should not be included, though Wolcott (2005) maintained that for transparency, ethnographers should make mention of key exclusions. In this action research project, the most common “off topic” issue was the tremendous stress and strain of this work on the team members themselves. This project was not intended to be a study of vicarious trauma—there was no indication in any of the research materials or consent forms that indicated to the participants that this would be a subject of inquiry. However, participants shared, both privately with the researchers, and, to a lesser extent, publically with each other at team meetings, that sorting through all these untested SAKs took a terrible emotional, physical, and spiritual toll on them. An extended analysis of this issue is not within the scope of this project, and doing so would be a violation of the participants’ privacy. However, because this was a salient issue for team members, there are “lessons learned” regarding the importance of supporting staff members in this very difficult work, recommendations that the team reviewed and endorsed for inclusion in this report (see *Chapter 2: How Many Unsubmitted SAKs in Detroit*, Figure 2.1 “*The Step-by-Step Process of Planning and Conducting the Detroit SAK Census*” as an example). However, there will not be any sustained discussion or examples of this topic in this report.

There could also be material that is clearly within the scope of the project that perhaps should not be released out of respect for individual and/or community privacy. Wolcott (2005) argued that ethnographers have a responsibility to uphold the trust the community has placed in them: “*Ultimately, however, questions of discretion are up to each individual fieldworker. Only that individual is aware of all the professional and personal dimensions to be factored in*” (Wolcott, 2005, pp. 230). Again, the extent possible, ethnographers should let their audience know—in general terms—what “on topic” matters they have decided to withhold. In this report, the depictions of group process note that there were arguments and tensions among stakeholders—and the content of key debates that influenced later decisions are described—but specific comments, particularly those clearly made in the heat of the

moment, need not be included. It is sufficient to say that tensions ran high sometimes and paying attention to group facilitation is important (see *Chapter 5: Developing & Evaluating a Victim Notification Protocol*, Figure 5.1 “*The Step-by-Step Process of Creating the Detroit Victim Notification Protocol*” as an example). This report includes information that is not flattering, is often damning, and is nearly always heart-breaking. Not every detail could be shared—research is always a selective process—but the details that are not shared do not change the substance of the findings presented.

## About This Report

This report summarizes the findings of the Detroit Sexual Assault Kit (SAK) Action Research Project (ARP),<sup>9</sup> which is a *social science research study* on the problem of unsubmitted SAKs. To date, much of what has been written on this topic stems from investigative reporting projects, such as those conducted by Human Rights Watch (e.g., Human Rights Watch, 2009, 2010), which are markedly different in methods, tone, and style. For example, the Human Rights Watch projects have had an explicit aim of demanding public accountability and advocating for policy reform, which is consistent with their organization’s mission and purpose. By contrast, social science research studies—including those rooted in an action research paradigm—have different aims, namely understanding how and why problems occur, documenting the process of trying to change them, and evaluating the effectiveness of those strategies. As such, this report is necessarily different from those other works, and hopefully adds new information and new perspectives for the public discourse on the problem of unsubmitted SAKs.

This report was written by the research/evaluation team, based on data collected over thirty months and analyzed in a rigorous process of cross-checking, triangulation, and authentication (see *Appendix B: Project Methodology* for details). The findings for each major goal were shared with the

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<sup>9</sup> Throughout this report we will refer to this project as the “Detroit SAK ARP,” or more simply, “the collaborative,” “the collaborative team,” “collaborative partnership,” or “the team” in reference to the multidisciplinary, multi-organizational group that worked together for 30 months to develop and implement an action plan for the untested SAKs in Detroit.

collaborative partnership *throughout the project* (in formal powerpoint presentations, in small within-organization discussion groups, and with individual team members) and a draft of this report was provided to all participating organizations for comment prior to its submission to the National Institute of Justice (and subsequent release through the National Criminal Justice Reference Service [NCJRS]). The research/evaluation team reviewed the stakeholders' feedback on the draft report, re-checked each issue in question against the data, solicited new documentation/data to resolve discrepancies, and if warranted, revised the report accordingly; dissenting feedback that could not be resolved through this process is noted throughout the report. It is important to emphasize that although all members of the collaborative had an opportunity to review and comment on the findings, this report does not reflect the official positions of any participating organization.

The remaining chapters in this report are organized by each of the four major goals, followed by a discussion of the findings and a detailed methodological appendix:<sup>10</sup>

***Chapter 2: How Many Unsubmitted SAKs in Detroit*** describes how the collaborative conducted a census of all rape kits in police property **(GOAL 1)**.

***Chapter 3: Why So Many Unsubmitted SAKs in Detroit*** examines the underlying factors that contributed to why Detroit had so many unsubmitted SAKs in police property **(GOAL 2)**.

***Chapter 4: Developing & Evaluating a SAK Testing Plan*** describes how the collaborative developed and evaluated an empirically-based plan for testing SAKs **(GOAL 3)**.

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<sup>10</sup> Given the number of topics (and overall length) of this report, we have used color-coding throughout to help guide the reader through each main component of the project. **Dark red** will be used to denote **GOAL 1 (Census)**; **dark gray** for **GOAL 2 (Underlying Factors)**; **dark green** for **GOAL 3 (Testing)**; **purple** for **GOAL 4 (Victim Notification)**. Other chapters in this report (**Introduction, Discussion, Appendices**) will be in **blue**.

**Chapter 5: Developing & Evaluating a Victim Notification Protocol** explains how the collaborative developed and evaluated a victim-centered, trauma-informed victim notification protocol (**GOAL 4**).

**Chapter 6: Summary of Findings, Implications, and Community Changes** summarizes the project findings and implications for policy and practice.

**Appendix B: Project Methodology** provides technical methodological and analytic details for each component of the project.

## CHAPTER 2: The Scope of the Problem

### How Many Unsubmitted Sexual Assault Kits (SAKs) In Detroit

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One of the first tasks to be tackled when a community has large numbers of unsubmitted SAKs is determining the scope of problem. As noted in *Chapter 1: Introduction*, the focus of this report/project is kits that were never submitted by law enforcement to a forensic laboratory for testing;<sup>11</sup> therefore, an issue is how many SAKs are in police property facilities. In this era, many (but certainly not all) law enforcement agencies have computerized records regarding what has been entered into property, so it is quite likely that a jurisdiction will be able to produce a list of all SAKs in police storage—but this list may or may not answer the question of how many *unsubmitted* SAKs are in that jurisdiction.

Why? Some SAKs in police property may have already been tested, and were then re-filed; others may have been submitted for testing, and were returned to property if testing was still pending (e.g., because reference samples were needed to rule out a consensual partner); and still others may have never been submitted for testing. Therefore, one issue to be parsed out is the *testing status* of the SAKs in police property. In Table 2.1 (next page), the rows depict three possible scenarios for testing status: never submitted for testing; submitted for testing, but testing was partial/incomplete;<sup>12</sup> submitted for testing and testing is complete.

Another issue to attend to is the *adjudication status* of the cases associated with the SAKs in police property. In Table 2.1, the columns depict three possible outcomes: the case has not been adjudicated and the crime is still within the statute of limitations (SOL); the case has not been adjudicated and is likely SOL-expired; the case has been adjudicated. For example, some SAKs in police

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<sup>11</sup> As opposed to “backlog” SAKs, which were submitted to a forensic laboratory but have not yet been tested (see Nelson, 2010; Ritter, 2011).

<sup>12</sup> Examples of “partial/incomplete” testing include: testing that is incomplete/pending while awaiting reference samples; testing that was conducted in the pre-DNA era and therefore is incomplete vis-à-vis *DNA testing*.

property have been tested and their cases were adjudicated, but the kits are in property because they are being retained in the event of an appeal or are required to be retained pursuant to state law.<sup>13</sup> Some SAKs have never been tested, but the cases have been adjudicated and the kits are in property (most likely) because the agency has policies not to destroy evidence. Other SAKs have never been tested and may still be eligible for prosecution. In other words, the SAKs in police property are likely a jumble of different situations and scenarios, and sorting these out is critical for determining the scope of the problem and identifying the focus of a response project.

TABLE 2.1 — SAKs in Police Property: Understanding Testing Status and Adjudication Status				
		ADJUDICATION STATUS		
		NON-ADJUDICATED		ADJUDICATED
		Still Within SOL	SOL-Expired	
TESTING STATUS	Never submitted for testing	KEY FOCUS	KEY FOCUS *	Defense counsel may seek review of these SAKs/cases
	Submitted for testing, but testing was “partial” (e.g., DNA testing not performed, testing paused while waiting for reference sample)	POSSIBLE SECONDARY FOCUS		Defense counsel may seek review of these SAKs/cases
	Submitted for testing, testing complete	SAKs were re-filed in police property		

\* The Detroit SAK ARP included unsubmitted presumed SOL-expired SAKs in its primary focus, though other jurisdictions may choose not to prioritize these cases in the same manner.

<sup>13</sup> For example, in Michigan, MCL 770.16(12) requires that the investigating law enforcement agency preserve any biological material identified during the investigation of a crime or crimes for which any person may file a petition for DNA testing under this statute.

Testing status and adjudication status may or may not be information fields in a police property computer system. If that information is tracked within the property system, then assessing the exact status of each kit is a simple database query; if not, then it is necessary to link police property records to forensic testing and court records. Again, depending on the quality of the information systems in a particular jurisdiction, this could be fairly straightforward computer task, or it could become an arduous manual search for information.

Detroit is one of many resource-strapped communities in the United States that has not been able to invest in state-of-the-art criminal justice information systems. The property computer system generated a list of the SAKs in police property—but key stakeholders questioned the completeness and accuracy of that information (see *“The Discovery of the Kits and Initiating a Census”* below). Linking the property records to forensic testing records seemed impossible because the police crime lab did not have a centralized evidence submission and testing database, and it was several months into the project before the collaborative learned that a crime lab staff member had in fact been tracking SAK testing—in a stand-alone Excel spreadsheet. Linking property records to adjudication records was not straightforward because the computerized court records did not interface with the police property database. Furthermore, adjudication status could not always be determined from the computerized records, and so it was necessary to perform manual searches of hand-written police logbooks. In short, counting the number SAKs in police property and discerning their testing status was a complicated, painstaking, 15-week task, consuming approximately 2,365 hours of staff time.

The purpose of this chapter is to describe how the Detroit SAK ARP collaborative determined how many unsubmitted SAKs were in police property and to present the results of that months-long process of locating, sorting, and connecting records. First, by way of background, the events surrounding the discovery of the kits will be described because what happened in that tour of police property and the months thereafter had a direct effect on key decisions regarding the task of counting the SAKs in

police property. This context is essential for understanding why the Detroit collaborative conducted the census in the way that it did. Second, the process of conducting the SAK census will be described, highlighting the key questions, issues, and decisions made by the collaborative. This section may be particularly helpful to other jurisdictions that need to plan and execute a census. Finally, the results of the census will be presented, highlighting how many SAKs were found in Detroit.

## **The Discovery of the Kits and Initiating a Census**

How does a community know whether it has large numbers of unsubmitted SAKs? Given the increasing national attention to this problem, some jurisdictions are now proactively checking the contents of police property facilities, but for many of the first high-profile cities, the discovery was accidental and unexpected. For instance, in New York City, a re-organization of police property brought the problem to light: rape kits that had been previously dispersed throughout storage had been located and grouped together, which revealed that they had a very large stockpile (Bashford, 2013; Tofte, 2013). The New York City police informed their prosecutors, forensic scientists, and Mayor's Office about the discovery, and then they worked together to develop an action plan for testing all kits.

Detroit's discovery was similar in some ways to New York's: in 2002, police initiated a massive re-organization of property evidence, which included pulling rape kits that had been in stored in bins alongside other evidence (e.g., ballistics evidence, crime scene evidence), putting them together in banker-style boxes, and moving them to an off-site storage facility. However, unlike New York City's discovery, the police did not reach out to city officials, the prosecutor's office, or forensic scientists about the matter because some law enforcement personnel in Detroit did not perceive this to be a problem and others thought the problem did not merit alarm and immediate reaction (see below for

further discussion).<sup>14</sup> The boxes continued to accumulate in property for approximately seven more years, until August 17, 2009 when representatives from local police, state police, and the prosecutor's office toured a remote police storage facility to discuss what to do about the staggering volume of evidence in police custody and how it should be best managed. During the tour, an assistant prosecutor noticed those boxes:

*"We're walking through, I see these like steel shelving units with boxes and I say, 'What are those?' They said, 'Those are rape kits.' I said, 'Rape kits! What are all these rape kits doing here?' I estimated . . . 10,000 or more . . . And [I asked], 'Are they tested or untested?' And the officers [said], 'I don't know.'"* (emphases in original).

After the tour, the assistant prosecutor informed the Elected Prosecutor, who made repeated efforts to ascertain the status of these kits. Exhibit 2.1 (next page) and Exhibit 2.2 (next page) are excerpts from letters sent by the Prosecutor to the then Chief of Police. The first letter requests that an independent body conduct a full audit of the contents of the police storage facility; the second letter requests an itemized list of the SAKs in question and their testing status. It does not appear that the Chief provided a written reply to either letter (i.e., the research team asked the police for such records and none were provided, and the prosecutor's office has no record of a written reply to either letter).

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<sup>14</sup> There are other key historical/contextual differences between New York's and Detroit's SAK discoveries that may also explain, in part, why police chose to disclose (or not disclose) the existence of thousands of untested SAKs. In New York City, the discovery occurred in the late-1990s, when the city's coffers had sufficient funds to test all the kits and the then-Mayor was promoting tough-on-crime initiatives (Tofte, 2013). By contrast, Detroit was struggling financially and in 2008, the police department crime lab came under scrutiny for the accuracy of its work.

**EXHIBIT 2.1 — Excerpts From First Letter from Prosecutor to Police Chief**

I am writing this letter because I have recently been made aware of some alarming [REDACTED] practices in regard to the handling of evidence.

It is my understanding that over ten thousand (rough estimate) rape kits and other unanalyzed pieces of evidence are being stored in the "overflow property room" warehouse. It is my further understanding that hundreds of other pieces of evidence and records including case jackets/files are also there; some of it unmarked and not cataloged in any intelligible way.

... I urge you at this time to choose an independent entity to conduct and audit of the contents of all the [REDACTED] property storage rooms. I also suggest that you expand your investigation to include [REDACTED] information entry practices into CODIS and other that procedures as they relate to the destruction of evidence.

... Representatives from both of our offices must sit down immediately to discuss the investigation of the above captioned matters.

**EXHIBIT 2.2 — Excerpts From Second Letter from Prosecutor to Police**

Please consider this letter to be a formal request for immediate production of a list of all of the over 7,500 rape kits in question. We are receiving many inquiries about these kits on both adjudicated cases and cases that have yet to go to trial. We must know what is in that "warehouse" starting with the rape kits. We need to know the following about each kit, including but not limited to:

- Name(s) of the Victim(s)
- Date of the offense/Examination
- Evidence Tag Number w/ a List of the Chain of Custody
- Description
- Which police officer put the kit on evidence?
- Where was the kit done, i.e., what hospital or clinic?
- Who picked the kit up from the hospital or clinic?
- When was the rape kit pick up from hospital or clinic?
- Was the kit analyzed?
- If not, why not?
- Any other information that you are able to provide about the kit

I am sure that you know that these kits should not be opened to obtain this information. It is imperative that your Department move on this as soon as possible. Please provide this information to us in increments of 100 kits. In other words, we cannot wait until information is compiled on every kit. We can get started with our analysis as we receive the information.

For months, and indeed years, after the August, 2009 discovery of the kits, the police department was not forthcoming with detailed information about these kits. It does not appear that the department released a list of kits until the OVW-funded *The 400 Project* began in April, 2010 (and the list was not given to the Detroit SAK ARP Project Coordinator until four months after the start of this project). In the months since the discovery of the kits, there were numerous meetings and media reports in which police department representatives questioned what precise language should be used to describe the status of the kits. For instance, police officials objected to word ‘discovery’ as it could imply that the kits had been lost and were then found—or that they had been deliberately hidden. Police executives emphasized that the kits were never lost, were never hidden, and had always been properly accounted for. These debates about semantics were frustrating to many other Detroit-area and state-level stakeholders, as a member of the collaborative noted:<sup>15</sup>

*“Does it matter what we call it? All their arguing didn’t sit well with me, and I know it didn’t sit well with others. I mean, look at it—thousands and thousands of kits are just sitting there, ignored for years, and so your response is to argue what exact word we’re going to use to describe this incredible travesty of justice? Ok, fine, if we won’t use the word ‘discovery’ anymore, will [the police] admit there’s a problem here?”*

Police officials also steadfastly denied that there were 11,000 untested SAKs in police property, and the “numbers debate” played out in the press, as seen in Exhibit 2.3 (next page).

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<sup>15</sup> As explained in *Chapter 1: Introduction*, quotes attributed to “a member of the collaborative” reflect sentiments widely shared throughout the collaborative (i.e., across disciplines and organizations).

**EXHIBIT 2.3 — Excerpts From Media Reports Regarding the Scope of the Problem**

CBS News.com, March 4<sup>th</sup>, 2010

In Detroit, the Wayne County Prosecutor [REDACTED] recently said she is worried about 10,000 untested rape kits in the Detroit evidence storage facility. [REDACTED], spokesman for the [REDACTED] says there are really about 7,000 kits in storage with an estimated 5,800 kits that are untested. He attributes this to cases where there is a known alleged assailant, no charges being pressed, a guilty plea or insufficient evidence to proceed.

Again, other stakeholders were frustrated by the police department's focus on the numbers, particularly because documentation that could have substantiated their claims was not forthcoming; as a member of the collaborative noted:

*"If it's not 11,000 then provide some proof about how many it is then . . . on the one hand, I understand why they're arguing about the numbers because if it's not 11,000 then we shouldn't be saying it's 11,000. But they've got to come up with some documentation to show that, and they haven't."*

For other stakeholders, the "numbers debate" was frustrating because it detracted from what they felt was the real issue: thousands of unsubmitted SAKs sat in police property and the police were not acknowledging that this was a serious problem. As a member of the collaborative noted:

*"It's like a numbers game to them (the police), arguing whether this many thousand or that many thousand. Really, so if it's 7,500 instead of 10,000, it's okay? Like having 7,500 untested kits is acceptable? I don't think they see this as a problem."*

In the months after the discovery of the kits, and extending to the beginning of the Detroit SAK ARP (two years later), police officials did not make any public statements that conveyed alarm or serious concern regarding the kits in property. By contrast, as seen in Exhibit 2.3 (above) police officials

maintained that there were justifiable reasons for why SAKs had not been tested, but they did not elaborate at the time as to what those reasons might be.

An internal report that surfaced in late 2012 provided some insight as to how police officials viewed the situation and why police representatives might have responded as they did after the discovery of the kits. After the property tour in 2009, the police department launched an Internal Affairs investigation of the kits, culminating in a five-page report.<sup>16</sup> As shown in Exhibit 2.4 (next page), the Internal Affairs investigation involved selecting 36 SAKs from police property (one batch of 10 SAKs and a second batch of 26 SAKs) and then pulling the corresponding police reports to see how the respective officers in charge (OIC) characterized each case and whether they documented a reason as to why the kit was not submitted.<sup>17</sup> The Internal Affairs report concluded that there were justifiable reasons why all 36 SAKs had not been submitted for testing.

The Internal Affairs report lists—case by case—why each SAK was not submitted (see Exhibit 2.5, following page). In thirty-five of the 36 cases, the report maintains that police followed proper procedures.<sup>18</sup> In 71% of the cases, the reason listed for not submitting the kit was either a statement about the victim’s behavior or an overall judgment of the victim’s credibility. Victim behaviors that were commonly cited included refusing to cooperate with prosecution or not taking steps that would be

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<sup>16</sup> That report was not shared with the prosecutor’s office or any other Detroit-area or state-level organizations who were vested in this issue, nor was it disclosed to the Detroit SAK ARP; the report only became known to the collaborative in late 2012, when it was released to the media in response to a FOIA request from a national news organization doing a feature story on the Detroit SAKs.

<sup>17</sup> The Internal Affairs report states that the 36 SAKs were “randomly selected” from police property, but it is statistically improbable that selection was random because 33 of the 36 SAKs were collected between the years 2005-2008 (and 22 were from 2008 alone). *The 400 Project* documented that SAKs dated back to the 1980s, which was confirmed in the complete census conducted in this project (see “*The Results of the Census*” later in this chapter).

<sup>18</sup> One case from 2007 was denoted “Defendant to Locate,” meaning that the case was stalled pending identification of the defendant; in 2007, the department policy was to submit all “To Locate” cases/SAKs for testing, so even though the summary statement in the Internal Affairs report stipulates that there were justifiable reasons in *all* cases, this 2007 case was not consistent with department policy. The extent to which the other 35 cases were handled appropriately is subject to interpretation (see above and *Chapter 3: Why So Many Unsubmitted SAKs in Detroit*).

expected for victims seeking prosecution (e.g., not showing up for scheduled appointments). For some cases, the reason listed was a general statement that the victim was not credible, while for others, the report stated that the victim had been *“proven to be lying.”*

EXHIBIT 2.4 — Summary Statement from the Police Internal Affairs		
	<b>INTER-OFFICE MEMORANDUM INTERNAL AFFAIRS</b>	
To:	Chief of Police [REDACTED]	
Subject:	<b>FINDINGS OF THE PRELIMINARY INVESTIGATION INTO THE ALLEGATION THAT UNTESTED RAPE KITS ARE BEING HELD AT THE SECONDARY PROPERTY ROOM</b>	
<p>In an effort to ascertain whether or not the untested Rape Kits required testing, I randomly selected ten (10) Rape Kits that bore only the hospital evidence tape and were therefore not tested at the Crime Lab. The collection dates of these Rape Kits were from 2001 through 2008. The evidence tags documented the corresponding Sex Crimes case number and the complainant's name.</p> <p>...</p> <p>Upon inspection, it was revealed that for all ten (10) cases there were justifiable reasons for these kits being untested. These ranged from the complainant's refusal to prosecute, the complainant's refusal to cooperate (no contact) and in two cases the defendants plead guilty and therefore physical evidence was not needed.</p> <p>...</p> <p>[REDACTED] Again, it was determined that there were justifiable reasons why all twenty-six of these Rape Kits had not been tested by the Crime Lab.</p>		

### EXHIBIT 2.5 — Reasons Why SAKs Were Not Submitted

- E [REDACTED] Case #05 [REDACTED]  
Complainant refused to prosecute
- E [REDACTED] Case #08 [REDACTED]  
Complainant failed to show for scheduled appointments
- E [REDACTED] Case #08 [REDACTED]  
Complainant refused to contact OIC.
- E [REDACTED] Case #08 [REDACTED]  
Complainant proven to be lying about rape
- E [REDACTED] Case #08 [REDACTED]  
Complainant stated she was a prostitute and did want to pursue matter
- E [REDACTED] Case 08 [REDACTED]  
Complainant refused to cooperate
- E [REDACTED] Case #08 [REDACTED]  
Complainant refused to provide statement
- E [REDACTED] Case #08 [REDACTED]  
Complainant not credible

As noted in *Chapter 1: Introduction*, prior research has found that police inaction in sexual assault cases is often attributed to some fault of the victim (Caringella, 2008; Lonsway & Archambault, 2012; Spohn & Tellis, 2012). Furthermore, the seemingly neutral label ‘complainant refused to prosecute’ may not reflect what actually happened given that multiple studies have found that victims frequently withdraw from the investigation due to insensitive, victim-blaming treatment (Human Rights Watch, 2013; Kelley & Campbell, 2013; Patterson, 2011a, 2011b). This content of this Internal Affairs report is certainly suggestive of these patterns. Police may not have seen reason for alarm or provided detailed information about the kits because they felt they had looked into the matter and concluded that testing was not warranted in these cases.<sup>19</sup> The thoroughness and validity of the internal investigation is certainly subject to debate, but it does shed some light as to how police officials were viewing the issue at the time.

<sup>19</sup> It seems likely that this kind of internal auditing is what the Elected Prosecutor sought to prevent when calling for an independent audit of the SAKs in police property (see Exhibit 2.1, above).

This internal affairs report, as well as any other details about the SAKs, was not shared with other stakeholders, and so for months, the prosecutor's office, state police, and advocacy organizations had very little information about the status of these kits. In the absence of information, it is perhaps not surprising that by the time the Detroit SAK ARP began, there was a strong sentiment among many stakeholders that the police were not being transparent and forthcoming. Furthermore, the sustained debate about the number of kits in property raised concern about the accuracy of any information supplied by the police, given that it seemed to other Detroit stakeholders that the police were minimizing the extent of the problem. Therefore, when the ARP began and the first task was to assess the scope of the problem, the Prosecutor decided that the only certain way to know how many SAKs were in property was to haul them out, one by one, and count them.

### **The Process of Conducting the Census in Detroit**

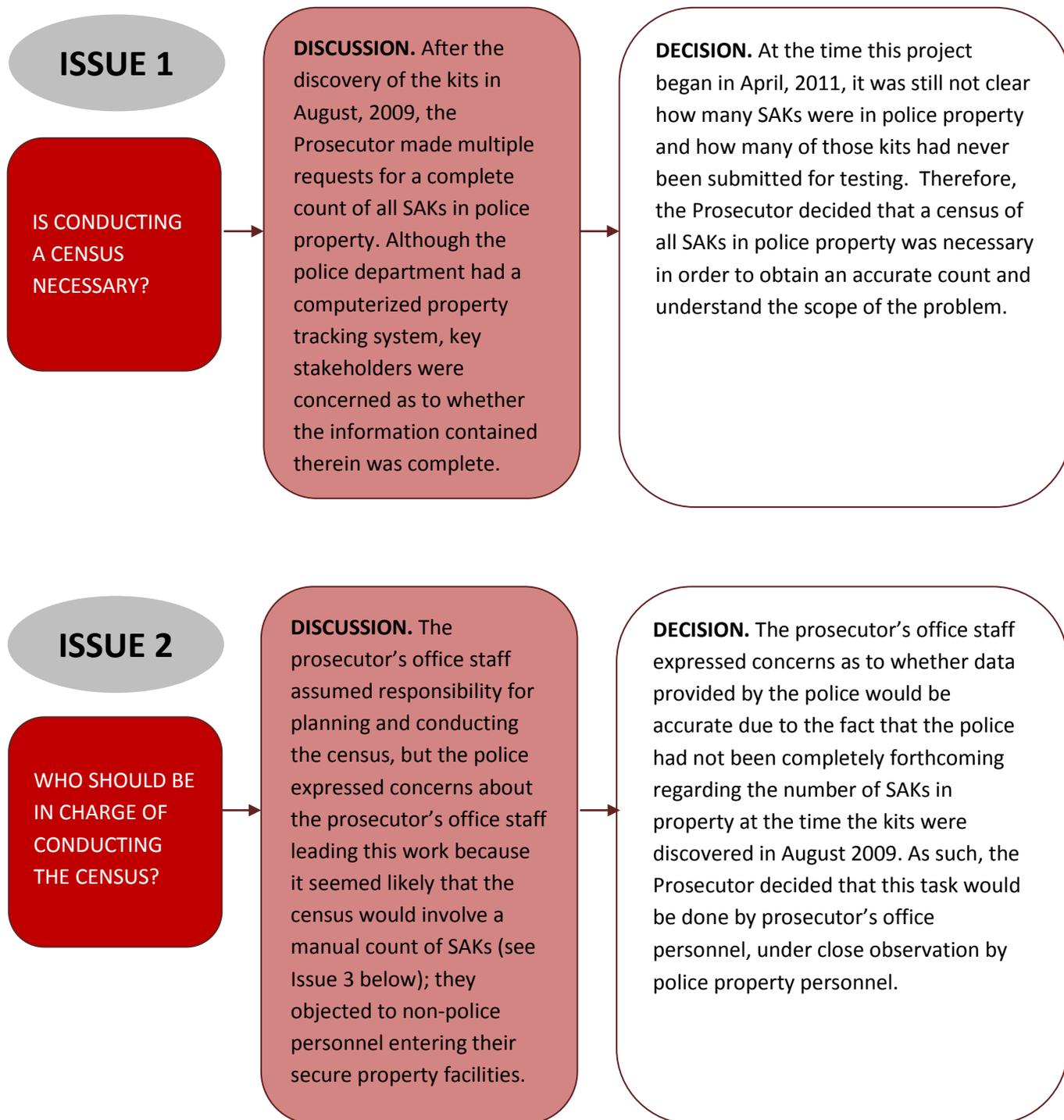
As noted previously, for some jurisdictions, determining the number of unsubmitted SAKs in police property could be accomplished by querying computer databases; however, if computerized records do not exist and/or there are concerns about the accuracy and completeness of those records, then a manual census may be necessary. In Detroit, there were strong concerns among stakeholders about the quantity and quality of information provided by the police, so a manual count was seen as the best way to determine the true scope of the problem. However, such an endeavor is time-consuming, resource-intensive, and fraught with numerous logistical challenges, including (but not limited to):

- Accessing the SAKs → Police property facilities are limited-access and only certain personnel may enter in order to maintain the security and integrity of the contents. Sending in teams of staff and volunteers to count kits was not possible; rather, the kits would need to be brought out and counted on-site, under the supervision of property officers;

- Marshalling the person-power for a manual census → Individuals selected to participate in the census must be trustworthy to conduct the work accurately and respect the integrity of the task. Furthermore, each organization participating in the census would need to free-up staff members' time to conduct and/or supervise the work.
- Determining what information to collect during the census → Defining the scope and purpose of the census was critical—is the goal merely to count how many SAKs are in property? Or, is the goal to try to extract as much information as possible about each SAK (e.g., victim name, date of offense, testing status—if known, adjudication status—if known) while in the process of counting the kits? SAKs cannot be opened during the census (they can only be opened at the testing facility), so it would be necessary to determine what information was available about each case based on the documentation on the outside of the box;
- Recording and tracking information → If a manual census is being conducted, then it is likely that computerized records do not exist or there is concern about the completeness and accuracy of the records. As such, the census provides an opportunity to create new data systems for collecting, tracking, and sharing information.

Figure 2.1 *“The Step-By-Step Process of the Detroit SAK Census”* (following pages) describes how Detroit tackled these issues and many other issues in the process of conducting its census. Figure 2.1 lists each issue that had to be resolved, a summary of the discussion and debate about how best to address each issue, and decisions made by the collaborative team (and why they decided what they did). The census was indeed a long, pain-staking process, but it produced high-quality, credible data that answered the key question regarding how many unsubmitted SAKs were in police property; these findings will be presented in the following section (*“The Results of the Census”*).

**FIGURE 2.1 — The Step-by-Step Process of Planning and Conducting the Detroit SAK ARP Census**



### ISSUE 3

CAN THE CENSUS BE CONDUCTED ELECTRONICALLY OR WILL THE COUNT HAVE TO BE DONE MANUALLY?

**DISCUSSION.** The project coordinator reviewed what information was available in the police property database to ascertain whether it would be sufficient for the purposes of the census. The database tracked limited information (e.g., evidence tag number, case number, name of original officer in charge of the case, seize date, victim name).

**DECISION.** At the time that the census was being planned, it was not yet known that the former police crime lab had an Excel spreadsheet documenting which SAKs had been submitted for testing (which could have helped narrow down which kits had/had not been submitted for testing). Therefore, based on the information available, it appeared that the census could not be conducted electronically and that the SAKs would need to be manually counted.

### ISSUE 4

IF THE CENSUS HAS TO BE DONE MANUALLY, WHO CAN HAVE ACCESS TO THE KITS AND HOW WILL ACCESS BE MANAGED?

**DISCUSSION 4A.** A manual count of the SAKs would require the assistance of *many* individuals, if that task was to be completed in a reasonable period of time; therefore, it was important to consider who could be allowed to have access to the SAKs.

**DECISION 4A.** The project coordinator developed a staffing plan whereby the census would be conducted by a pool of prosecutor's office staff (assistant prosecuting attorneys) and volunteers (law students).

**DISCUSSION 4B.** The police voiced concerns about having non-police personnel enter their secure property facility to count the SAKs because each SAK contained potential evidence for a criminal trial and because the property facility contained other evidence related to other cases.

**DECISION 4B.** Because non-police personnel could not enter the police property room to count the SAKs, the SAKs were brought out in batches and counted in a secure room within police headquarters by the prosecutor's office personnel, under constant supervision of police property personnel. This decision satisfied security concerns, but it was logistically burdensome and took considerable police time.

## ISSUE 5

ARE ALL THE SAKs TO BE COUNTED IN ONE PHYSICAL LOCATION OR ARE THEY STORED IN MULTIPLE PLACES?

**DISCUSSION.** Some SAKs were stored in an off-site property storage facility; some SAKs were in the main property room in police headquarters.

**DECISION.** All SAKs were moved to the main police department property storage at police headquarters prior to beginning the census.

## ISSUE 6

HOW WILL THE TEAM BE ABLE TO DISTINGUISH OLD SAKs (THE FOCUS OF THE CENSUS) FROM CURRENT SAKs?

**DISCUSSION 6A.** The prosecutor's office staff expressed concern that because the SAKs were dispersed throughout the property room and stored amongst other types of evidence, it made it more difficult to ascertain the extent of the problem. Also, the cut-off date for the project's census had been set at November 1, 2009, so SAKs before & after this date needed to be distinguished.

**DECISION 6A.** The police agreed to restructure their storage facility to group SAKs and to separate the pre-2009 SAKs (those in the scope of this project) from post-2009 SAKs. Pre-2009 SAKs included in the census were labeled and stored separately.

**DISCUSSION 6B.** As the police personnel began pulling police records to assist in the census (see Issue 8 below), the prosecutor's office staff noted that these files may need to be accessed again.

**DECISION 6B.** The police sex crimes unit stored the records associated with the cases in the census separately to facilitate easy access to those files.

## ISSUE 7

HOW SHOULD SAKs BE TRACKED DURING THE CENSUS TO ENSURE THEY AREN'T COUNTED TWICE?

**DISCUSSION.** The physical logistics for the census were burdensome and many staff and volunteers from the prosecutor's office worked on the census (see Issue 4 above), so there was concern that in this complex process, some SAKs could be accidentally counted twice (or some could be missed).

**DECISION.** The project coordinator created a new labeling system such that SAKs that had already been counted in the census were tagged with a color-coded sticker to prevent duplicate counting. As the team was able to ascertain the testing submission status of each kit (see Issue 8 below), another color-coding scheme was introduced to distinguish kits submitted for testing vs. unsubmitted kits.

## ISSUE 8

HOW MUCH INFORMATION ABOUT EACH SAK/ CASE SHOULD BE EXTRACTED DURING THE CENSUS?

**DISCUSSION 8A.** The *outside* of the SAK box contained limited information about the kit/case; more detailed information was available on the paperwork *inside* the kit, but the SAKs could *not* be opened during the census.

**DECISION 8A.** The project coordinator created a form to record key information from the outside of the SAKs. The prosecutor's office staff completing the census would copy information from the SAKs to this form (which would then be entered into computer database at a later time).

**Issue 8 continued on the next page.**

## ISSUE 8

HOW MUCH INFORMATION ABOUT EACH SAK/ CASE SHOULD BE EXTRACTED DURING THE CENSUS?

**DISCUSSION 8B.** The information on the outside of the SAK was not enough to determine whether each SAK had been submitted to the crime lab for testing and/or if the corresponding case had been adjudicated. The prosecutors wanted to know how many cases had not been previously adjudicated in order to plan how many new cases they might be opening.

**DECISION 8B.** The prosecutor's office recommended a review of the police records corresponding to each SAK, as these records could hold more information about a case (e.g., if the case had been sent to the prosecutor's office for warranting). Police records may also have documentation from the medical provider and/or crime lab indicating if the SAK had been submitted for testing. (NOTE: It was still not yet known that the former police crime lab had an Excel spreadsheet documenting which SAKs had been submitted.)

**DISCUSSION 8C.** Pulling the police files for each SAK would help to ascertain testing status and adjudication status, but doing so would require extensive time by police personnel, which they expressed concerns about. Furthermore, they did not want police records taken off-site from police headquarters/unit offices.

**DECISION 8C.** The police retrieved the requested files as quickly as they could, given their staffing resources. The police allowed only the prosecutors (as opposed to prosecutors and their volunteers) to review the files. The files had to remain on-site at police headquarters/unit offices.

Issue 8 continued on the next page.

## ISSUE 8

HOW MUCH INFORMATION ABOUT EACH SAK/ CASE SHOULD BE EXTRACTED DURING THE CENSUS?

**DISCUSSION 8D.** As the police reports were pulled and reviewed, additional details about the SAKs/cases became clearer. The prosecutor's office staff felt that it was important to start capturing this information as it would likely be needed for later decisions regarding testing, investigation, and prosecution.

**DECISION 8D.** Prosecutor's office staff created two new forms to document additional information about each SAK/case (one form for the review of complaint books/warrant book log; one form for the case file review). As the prosecutor's reviewed police records, information was transferred to these forms (which would then be entered into computer database at a later time).

**DISCUSSION 8E.** As the police reports were pulled and reviewed, it became clear that these records did not consistently document whether a SAK had been submitted for testing, what testing was performed, and the results of that testing.

**DECISION 8E.** The prosecutor's office requested the crime lab reports to ascertain testing results. After this it was reported that the former police crime lab had an Excel spreadsheet tracking which SAKs had been submitted for testing. Comparing the list of kits in police property with this list allowed the team to determine which kits had been submitted to the lab.

## ISSUE 9

HOW SHOULD INFORMATION COLLECTED DURING THE CENSUS BE TRACKED AND STORED?

**DISCUSSION.** There was no single, unified database that tracked information on each SAK. It was noted that there needed to be a way to synthesize the information gathered from the variety of sources for the SAKs that were the focus of the census—and that long-term plans for better data systems needed to be created.

**DECISION.** The project coordinator created an Excel spreadsheet to track the information collected in the census. Later, an assistant prosecutor pulled that information into an Access database, as that software offered more options for data storage and retrieval. After the police IT staff member became involved in project, the Access database was expanded to accommodate new information being collected for the testing plan and victim notification.

## ISSUE 10

AS SAKs ARE BEING COUNTED, SHOULD THEY BE PRIORITIZED FOR TESTING AT THE SAME TIME?

**DISCUSSION.** As the prosecutors began reviewing police files, they became increasingly concerned about testing SAKs and moving cases forward for prosecution. They were particularly concerned about cases that were close to reaching statute of limitation (SOL). In addition, as they were examining police files, they saw many cases that they felt should have been forwarded for warranting at the time of the original report and were eager to begin investigation and prosecution of these cases.

**DECISION.** The prosecutor's office created a prioritization sorting plan in which cases nearing their statute of limitation and cases involved stranger-perpetrated crimes, were designated to be sent to the lab first. The collaborative was concerned about this plan on the grounds that it had been created without team input.

The prosecutor's office agreed to halt their initial prioritization plan and to work with the full collaborative to co-develop a testing plan.

## The Results of the Census: How Many Unsubmitted SAKs in Detroit

The manual census counted all SAKs in police property (up to November 1, 2009),<sup>20</sup> which totaled 11,303 SAKs<sup>21</sup> (see Figure 2.2 next page). The kits spanned nearly thirty years, from 1980 (the date of the oldest kit found) to 2009 (the cut-off for the census). While counting the SAKs, staff noticed that some evidence tags on the outside of the boxes had notes indicating that the contents inside were not sexual assault related evidence. For example, some tags identified the evidence in the box as “clothes,” “knife,” “bottle,” etc., and it was not clear whether the items were crime scene evidence related to a sexual assault case, or whether police personnel had used a SAK box as a container to store evidence. The SAKs could not be opened during the census, so staff made a note of these instances and counted them anyway. After the census was complete, the Project Coordinator and IT consultant for the police department worked together to determine how many SAKs were not in fact sexual assault medical forensic exam evidence and to resolve other assorted issues that cropped up in the census that could affect the overall count (e.g., possible duplicate ID numbers, transposed numbers, etc.). Based on their review of the evidence tags and supplemental information in the police property database, 84 SAKs were subtracted from the count, leaving 11,219 SAKs in the census.

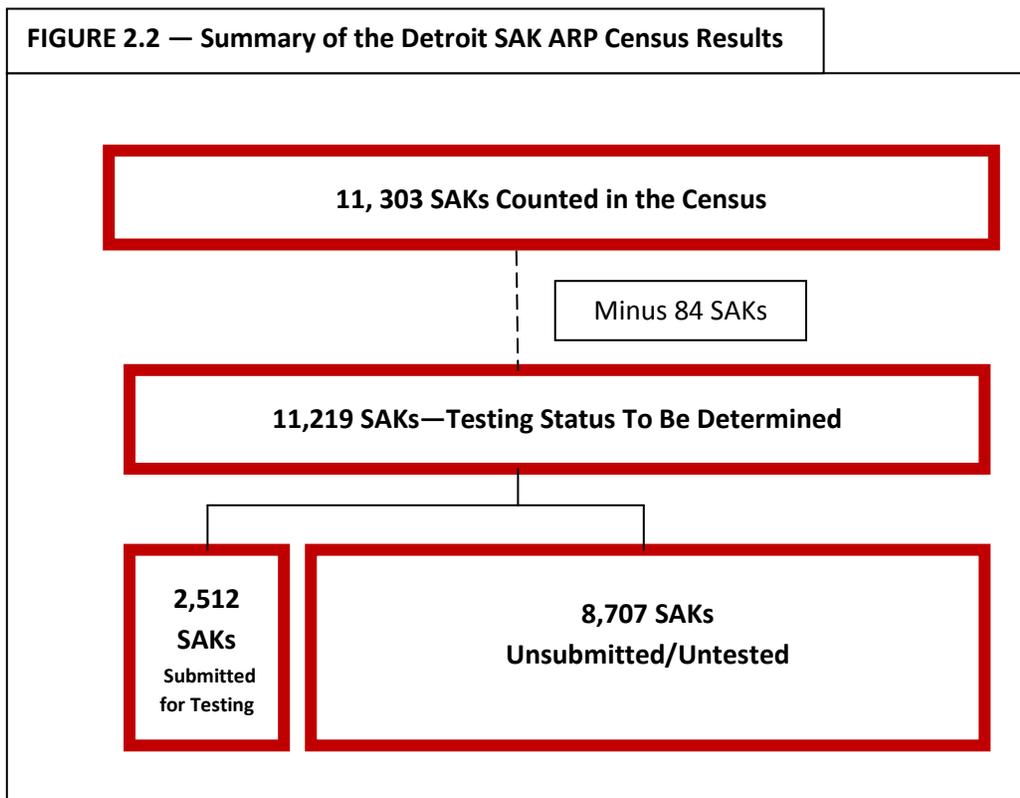
The Detroit SAK ARP collaborative then attempted to determine the testing and adjudication status of these 11,219 SAKs (see Table 2.1, above). As noted previously, although the police crime lab did not have a centralized database that could provide testing status for each kit, a forensic scientist in the unit had created an Excel spreadsheet of kits that had been submitted for testing. Based on those

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<sup>20</sup> The 400 SAKs that were randomly sampled for the OVW-funded *The 400 Project* were included in this census in order to obtain a comprehensive, complete count of all SAKs in police property, current to November 1, 2009.

<sup>21</sup> Months later, when one of the SAKs that was selected to be tested as part of the Detroit SAK ARP was opened at the lab, it contained biological samples from two different victims; thereafter, the Detroit collaborative revised the total census count to 11,304 (+1 given that the samples for another victim had been discovered).

records, it was determined that of these 11,219 SAKs, 2,512 had a laboratory ID number assigned to them,<sup>22</sup> indicating that they had been submitted for testing, though it was not clear how many kits had in fact been tested for DNA.<sup>23</sup> A total of 8,707 SAKs had never been submitted for testing.



<sup>22</sup> As noted in the *Introduction*, members of the Detroit SAK ARP reviewed a draft of this final report before it was submitted and dissenting feedback from stakeholders would be noted throughout the report. During this review, representatives from the police department provided documentation to indicate that 2,915 SAKs had laboratory ID numbers (not 2,512). When the research team compared the materials collected at the time of the census and those provided later, we noticed that the dates/time frame used for the census did not match the dates on the supplemental documents, which likely explains the differences in the numbers. In this report, we present the 2,512 number as it is the figure we could independently verify as corresponding to the exact dates/time frame for the census.

<sup>23</sup> Throughout the duration of the Detroit SAK ARP, team members from multiple organizations sought to clarify how many of the SAKs that had been submitted to the police department crime laboratory had in fact been tested for DNA. At the time this final report was prepared, this issue had not been fully resolved, but based on the data that were available, it was clear that not all of the submitted kits had been tested for DNA (though the exact number was still under review). As such, it is not accurate to assume or conclude that all SAKs submitted to the police crime lab for testing had indeed been tested for DNA.

As to the adjudication status of these kits, the labor required to obtain that information for 11,000+ kits was well beyond the time and staffing available for this project. Computerized court records did not interface with the police property database, and adjudication status could not always be determined from the computerized records, so project staff would need to conduct *manual searches of paper records* to obtain the information needed. Given the lack of integrated data systems in Detroit, the labor expenditure to screen each and every kit for adjudication was prohibitive, and therefore we were not able to determine the adjudication status for *all* SAKs in police property. The collaborative decided instead to try to screen a smaller subset of SAKs for adjudication status, specifically those that would be tested in the context of this project (see *Chapter 4: Developing and Evaluating a SAK Testing Plan*). In *The 400 Project*, all 400 randomly sampled SAKs were screened for adjudication status, and those findings suggest that most (~87%) of the 11,000+ SAKs were likely associated with non-adjudicated cases.

## **Summary & Conclusions: The Scope of the Problem**

A manual census was conducted due to concerns about the police department's transparency and engagement in the years after the August, 2009 discovery of thousands of SAKs in police property. The initial estimates made at the time of the discovery (~ 10,000 to 11,000 SAKs) were remarkably accurate, as the census results revealed that there were 11,219 SAKs were in police property (as of November 1, 2009). In this project, we attempted to determine the testing status of these SAKs, and based on the records available, 2,512 SAKs had laboratory ID numbers, indicating that they had been submitted to the police department crime lab, and 8,717 had never been submitted for testing. Not all of the SAKs submitted to the crime lab were tested for DNA, although it was not possible in the timeline of this project to determine how many were not.

In the process of conducting the census, it was clear that the number of unsubmitted SAKs was not constant over time—some years had more unsubmitted kits than others. Staff members who counted the kits noted that some years seemed to “*go on forever*” (i.e., there were a large number of kits to count that year) and other years were much quicker to count (i.e., there were fewer kits that year). Why? To pursue this issue, we began our work on the *second goal* of this project (to identify the underlying factors that contributed to why Detroit had so many unsubmitted SAKs) with a detailed historical analysis of the organizational resources and policies regarding SAKs for the crime lab, police department, prosecutors’ office, medical system, and victim advocacy—all of the organizations that have direct or indirect influence on SAK processing. In the next chapter of this report, *Chapter 3: Why So Many Unsubmitted SAKs in Detroit*, we will describe our findings from this historical analysis and then return to the census results to explore why the number of unsubmitted SAKs fluctuated over time.

## CHAPTER 3: Underlying Reasons

### Why So Many Unsubmitted Sexual Assault Kits (SAKs) In Detroit

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The second goal of the Detroit SAK ARP project was to identify the underlying reasons why there were so many unsubmitted SAKs in police property.<sup>24</sup> How does a police department accumulate 11,000+ kits over thirty years, most of them never tested? As noted in *Chapter 1: Introduction*, this project goal and its associated questions are unique from the other project aims in that they require taking a step back to understand what went wrong and why. Given that focus, the researchers worked independently from the larger collaborative team to provide, to the extent possible, an outside, independent examination of these issues.<sup>25</sup>

The purpose of this chapter is to present our findings to this fundamental question of how and why Detroit has so many unsubmitted SAKs.<sup>26</sup> Specifically, this chapter has three main sections. First, to set the stage for this research, we will describe the theoretical model that guided this inquiry: ecological systems theory. This theoretical framework is well-established in gender-based violence research (see White et al., 2011 for reviews) and it is well-suited for the current study as it provides a multi-systemic framework for understanding how interdependent organizations function over time.

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<sup>24</sup> The NIJ Solicitation specifically mentioned this as a priority topic: “NIJ is interested in learning about the underlying factors that contribute to this unsubmitted SAK evidence” (p. 4).

<sup>25</sup> This analysis is independent “to the extent possible” given that research team *was* a member of the collaborative (consistent with the action research paradigm). In an effort to separate this work as much as possible from the other project goals, the research team did not present the specific questions, methods, and results to the full collaborative until after a well-warranted set of findings had been established (see Erickson, 1986), and those findings were ready for member-checking (consistent with standard practices in qualitative and mixed methods research, see *Appendix B: Project Methodology*).

<sup>26</sup> Throughout this Chapter, the pronouns “our”/“we” refer *only* to the research team, and does not include or imply the involvement, views, or official positions of any of the organizations within the Detroit SAK ARP.

Second, to place our findings in context, we conducted a thirty-year historical analysis of all key organizations (police, police crime lab, prosecution, medical, systems-based victim advocacy, and community-based victim advocacy) to understand their policies and practices as well as resources they had available to test SAKs/respond to sexual assault victims from 1980 (the date of the oldest kit found in the census) to 2009 (the end of the scope of this project).<sup>27</sup> Using a multi-stage, sequential exploratory mixed methods design (Creswell, 2010; Creswell & Clark, 2011; Creswell et al., 2003), we collected multiple types of *qualitative* data (ethnographic observations, stakeholder interviews, and archival records) to document key turning points and changes over those thirty years in SAK submission practices (specifically) and SA services (generally) (see *Appendix B: Project Methodology*). To determine whether those historical changes affected SAK submission rates over time, we returned to the census data and using *quantitative* multi-level longitudinal modeling, we examined whether these factors (e.g., staffing cuts, policy changes) were significantly associated with the probability of SAK submissions.

Perhaps not too surprising, the results of the qualitative/quantitative historical analysis raised as many new questions as it answered. The number of unsubmitted SAKs in police property increased and decreased over time, and some of these patterns could be explained by key historical events, but overall, the key finding from this analysis was that *the vast majority* of SAKs each year were *not* submitted for testing. Therefore, in the third section of this chapter, we will present findings from an additional stage of qualitative data collection that sought to identify the front-line, on-the-ground practices in the police department and other organizations in this systemic network and to examine how those practices affected SAK submissions.<sup>28</sup> Bringing together data from ethnographic observations, stakeholder interviews, and sexual assault police reports associated with unsubmitted SAKs, we

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<sup>27</sup> It is important to emphasize that this analysis reflects *historical* practices in the organizations studied—not their current resources, leadership, policies, and practices regarding sexual assault investigations and rape kit testing.

<sup>28</sup> Again, this analysis focused on past practices (up to 2009) in the focal organizations, not their current approaches to sexual assault investigations and rape kit testing.

examined the decision-making processes and institutional norms of police personnel, as they were the entity responsible for submitting SAKs for testing. We also explored how interactions with other organizations in this interdependent system influenced police decision making regarding SAK submissions. Taken together, these qualitative and quantitative data help shed some light on the *history* of Detroit's response to sexual assault and why so many unsubmitted SAKs ended up in police property.

### **Ecological Systems Theory: Understanding Interdependent Organizations**

Our research on how and why Detroit has so many unsubmitted SAKs was informed by ecological systems theory (Bronfenbrenner, 1979, 1986, 1995; Kelly, 1966, 1968, 1971; Trickett, 1984, 1996, 2011; Trickett, Kelly, & Vincent, 1985). This theoretical model posits that human behavior and social phenomena are shaped by mutually influencing relationships among individuals and the settings in which they live and work (Bronfenbrenner, 1979; Kelly, 1970). In other words, individual behaviors and/or the collective behaviors of individuals within organizations do not occur in isolation, but are actively shaped by interactions with others and are responsive to feedback (both positive and negative), which affects subsequent behaviors (Kelly, Ryan, Altman, & Stelzner, 2000). Furthermore, setting-level factors, such as leadership, resources, and norms of an organization or community also dictate behavior (Schensul & Trickett, 2009; Trickett et al., 1972). A core tenet of this theory is Kelly's (1968) Principle of Interdependence, which states that components within a social system function in relation to each other and changes in one component of a system will produce changes in another. Because there may be expected and unexpected changes (both positive and negative), researchers must focus not only on the target population or setting, but also on extended persons/settings who have direct or secondary contact with those targets. Therefore, ecological systems research must map the local context—identify which organizations work together, determine what roles and responsibilities they have to each other and to outside parties, and examine how forces external to the system may also affect its functioning.

Ecological systems theory has been widely used in research on gender-based violence, including efforts to map the underlying etiology of victimization and perpetration (Grauerholz, 2000; Heise, 1998; White & Kowalski, 1998), develop preventive interventions (Centers for Disease Control and Prevention, 2004; World Health Organization/Jewkes, Sen, & Garcia-Moreno, 2002 and Krug, Mercy, Dahlberg, & Zwi, 2002), assess post-trauma sequelae (Campbell, Dworkin, & Cabral, 2009; Harvey, 1996; Koss & Harvey, 1991; Neville & Heppner, 1999), and evaluate victims' post-assault help-seeking experiences (Campbell, 1998; Campbell, Patterson, & Fehler-Cabral, 2010; Campbell et al., 1999; Campbell et al., 2001). Applying this model to the current context (unsubmitted SAKs) focuses the research on the system of organizations that work together to test SAKs, investigate reported crimes, prosecute criminal sexual offenses, and provide support and advocacy to survivors. Figure 3.1 (next page) depicts the "systems map" in Detroit of the organizations and linkages between organizations that were the focus of this research.

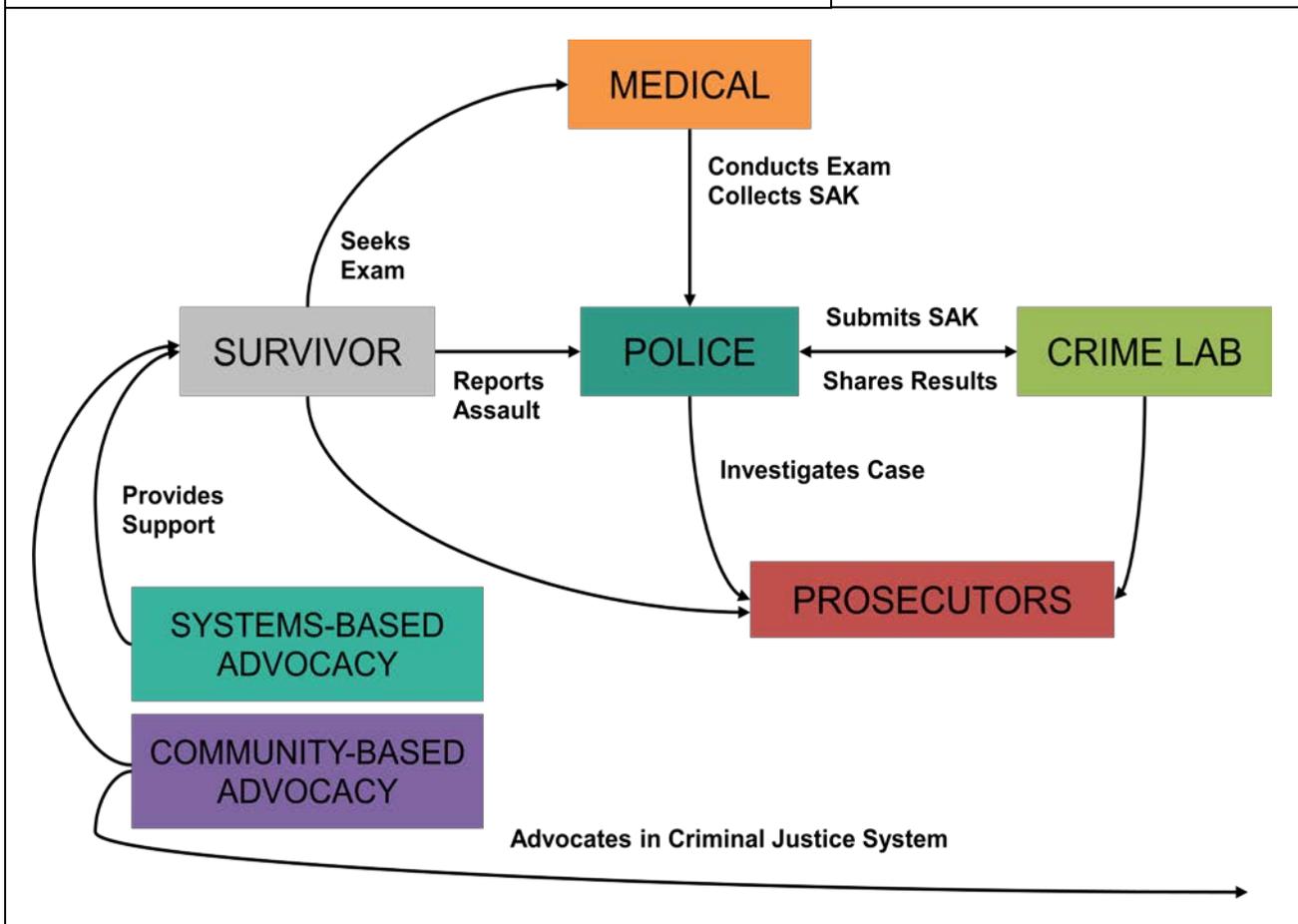
In Detroit, as in many other jurisdictions, the police (usually the sex crimes unit/sex crimes investigators) are responsible for submitting a SAK to the crime lab for analysis;<sup>29</sup> in turn, the crime lab analyzes the evidence and reports the findings back to the police.<sup>30</sup> In Detroit, the police sex crimes unit and the crime lab were within the same organization (i.e., the police department),<sup>31</sup> and both entities would be expected to be influenced by department-wide issues and problems (e.g., budget

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<sup>29</sup> Prosecutors can also request to have a rape kit tested; however, in many jurisdictions throughout the United States, the vast majority of sexual assaults reported to the police are not referred to prosecutors (Campbell, Bybee, Shaw, Townsend, & Karim, 2014), which means that prosecutors do not know that a rape kit even exists and needs to be tested.

<sup>30</sup> In some jurisdictions, testing results are also reported simultaneously to the prosecutor's office. Historically, this was not the practice in Detroit, but has since been implemented after the discovery of the unsubmitted SAKs in police property (see *Chapter 6: Summary of Findings, Implications, and Community Changes*).

<sup>31</sup> In Detroit, the police had their own crime lab until September 25, 2008; after that, forensic evidence was sent to and processed by the state police forensic lab, which is a multi-site, state-wide laboratory system. Although the current trend in forensic sciences is to establish independent crime labs (i.e., independent from law enforcement agencies) (Cown & Koppl, 2011; Edwards & Gotsonis, 2009), this model of labs-within-police departments was common in the 1990s and 2000s.

**FIGURE 3.1 – SAK-Related Inter-Organizational Systemic Map**


cuts), though the sex crimes unit and the laboratory had different chains of command. These two units are also interdependent such that police's SAK submissions policies are likely determined in part by the lab's SAK testing policies. In other words, the police can submit only what the lab will accept to test, so understanding that dynamic will be essential. The police and crime lab also interact with the prosecutor's office, as cases are forwarded for possible prosecution (e.g., warrant requests). These three units (police, crime lab, and prosecution) are interdependent such that all must work together if a case is going to be adjudicated, so understanding the patterns of communication among these three parts of the criminal justice system is critical.<sup>32</sup>

<sup>32</sup> Ecological systems theory emphasizes the importance of understanding the influence of external forces to the functioning of a system. In the criminal justice system, the work of the law enforcement, forensic sciences, and prosecution is affected by the

In that same vein, the work of legal organizations (police, crime lab, prosecutor's office) is dependent upon the medical system to conduct the medical forensic exam and collect the SAKs. Over the past twenty years, there have been radical changes in how the medical system responds to the needs of sexual assault victims and the task of forensic evidence collection. Many communities throughout the United States have implemented Sexual Assault Nurse Examiner (SANE)/Sexual Assault Forensic Examiner (SAFE) programs, whereby specially-trained nurses now provide these services (see Department of Justice, 2013; Campbell, Patterson, & Lichty, 2005; Ledray, 1999 for reviews). It is important to examine how medical forensic exams have been conducted in Detroit (i.e., whether by specially trained health care providers or "standard" hospital emergency department personnel), and how the medical community has communicated with members of the legal system over time.

Throughout the entire medical and legal process, sexual assault victims often need support and advocacy to navigate these systems and access the services they need. There are two main types of victim advocacy programs: systems-based programs (e.g., police victim advocacy programs) and community-based programs (e.g., rape crisis centers) (Department of Justice, 2006; Cole & Logan, 2008). In general, systems-based advocacy programs are organizationally embedded within the legal system (e.g., a unit within the police department) and financially tied to their host organization (e.g., staffing and supervision is typically provided by the police department). Typically, these programs cannot offer victims confidential communication, meaning that anything survivors disclose to systems-based advocates can be shared with police personnel. By contrast, community-based advocates are organizationally-based in non-profit agencies and they can assure confidentiality, such that any communication with survivors—or the fact that there even was communication—cannot be disclosed to another party, without written consent of the survivor (Department of Justice, 2006; Cole & Logan,

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norms and expectations of the judges before whom cases will be tried. In this project, we made *considerable* efforts to engage members of the Detroit judicial community in this component of the project, but all declined to participate in stakeholder interviews. As such, we acknowledge that our systemic analysis is limited and incomplete.

2008; Martin, 2005). Furthermore, community-based advocates may intervene on behalf of survivors to challenge institutional practices if the needs and wishes of the victims are not being respected (Campbell, Baker, & Mazurek, 1998; Cole & Logan, 2008; Maier, 2008; Martin, 2005). In Detroit, the police department has had a long-standing systems-based victim advocacy program, but there was limited community-based advocacy available, so understanding how these two types of advocacy programs assisted victims will be important to capture.

In most cases, this entire system of legal, medical, and advocacy services will not be pressed into duty if survivors do not first come forward to seek a medical forensic exam and/or report the assault to the police. Prior research suggests that victims' reasons for seeking help are complex (Campbell et al., 2009; Clay-Warner, & McMahon-Howard, 2009; Dumont, White, & McGregor, 2009; Patterson, Greeson, & Campbell, 2009; Paul, Zinzow, McCauley, Kilpatrick, & Resnick, 2013; Resnick, Acierno, Holmes, Dammeyer, & Kilpatrick, 2000). Some are concerned about their health (e.g., pregnancy and sexually transmitted infections) (Campbell et al., 2009; Paul et al., 2013) and are told they must have a medical forensic exam to obtain that care,<sup>33</sup> which invokes a legal component that victims may or may not have wanted (Martin, 2005; Young, Bracken, Goddard, & Matheson, 1992). Others purposely report to the police in order to protect their own safety, to try protect other women, and to try to hold perpetrators accountable for their actions (Johnson, 1985; National Center for Victims of Crime, 2008). For some survivors, the decision to contact the legal and medical system was not theirs and was instead made by someone else (e.g., adolescent victims who are brought for care by their parents/guardians; survivors who were unconscious or seriously injured and care was sought on their behalf by others) (Campbell, Greeson, Bybee, Kennedy, & Patterson, 2010; Clay-Warner & McMahon-Howard, 2009).

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<sup>33</sup> The federal Violence Against Women Act of 2005 (which went into effect in 2009) changed this practice such that victims can now obtain a medical forensic exam without filing police report/legal involvement. However, at the time that these SAKs were collected, victims were likely told that had to make a police report in order to receive post-assault health care.

The reasons and pathways by which victims enter into the legal and medical system undoubtedly affect their expectations and experiences—and in turn, affect how system personnel respond to survivors (Campbell, Greeson, Fehler-Cabral, & Kennedy, 2014). Understanding these interdependencies is critical, but practically difficult in the context of the problem of unsubmitted SAKs. As noted previously in *Chapter 2: How Many Unsubmitted SAKs in Detroit*, the Detroit SAKs date back many years—up to thirty years—and re-contacting victims raises complex legal, psychological, and ethical issues. Therefore, the research team decided, in conjunction with our Institutional Review Board (IRB), that we would *not* attempt to re-contact victims for this specific research task/project goal (i.e., researching the underlying reasons why Detroit has so many unsubmitted SAKs). Victims may need to be re-contacted by legal system personnel after their kits are tested (see *Chapter 5: Developing & Evaluating a Victim Notification Protocol*), and we did not want any prior contact with the research team to interfere with those notifications.<sup>34</sup> Therefore, the systemic analysis described in this chapter is notably missing an essential part of that the system—the survivors. We accept this limitation given possible unintended negative consequences on future prosecutions.<sup>35</sup>

In summary, an ecological systems theory perspective focuses on understanding the dynamics within and between organizations that work together as interdependent parts of a larger system. To explore our focal question—how and why does Detroit have so many unsubmitted SAKs—we examined

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<sup>34</sup> If the research team had contact with victims prior to legal notification about testing results, it is possible that the researchers could become a party to the case (i.e., a witness) and although communications with the research team would be federally protected and could not be disclosed, it would create additional complications in already complicated cases, which was a focal concern of the Elected Prosecutor. The possibility of interviewing only the victims whose cases would not be re-opened raised both practical and scientific concerns. From a practical point of view, it was impossible to know which cases might be notified and which might not (or might not be in the immediate future, but could be later) because the collaborative was still working through its victim notification protocols. From a scientific point of view, interviewing only survivors whose cases would *not* be re-opened is problematic as it is clearly a non-representative, incomplete sample. As such, the scope of our research related to this project goal was limited to system stakeholders and system archival records.

<sup>35</sup> We appreciate that not all victims may choose to participate in prosecution (or that all cases could or would be prosecuted). However, keeping options open for survivors is a key tenet of a victim-centered approach (see Sexual Violence Justice Institute, 2008), and we felt that the research methods in this action research project needed to be consistent with those aims.

the decision-making processes and institutional norms of police personnel, as they were ultimately responsible for submitting a SAK for testing. Given that the police are one part of a broader system of service providers, we also examined how interactions with the crime lab, prosecutor's office, medical system, and victim advocacy organizations influenced police decision making regarding SAK submissions.

## **Historical Context: Organizational Resources & Practices 1980 - 2009**

### **Overview**

When the research team began informal (and then formal) interviews with representatives from Detroit-area organizations about why there were so many unsubmitted sexual assault kits, stakeholders across all organizations emphasized that the problem must be placed in its proper historical context. As one member of the collaborative noted:

*"We're talking about kits from a long time ago, let's not take our 2011 expectations of DNA, CODIS, and CSI and all that, and apply today's standards to back then. We didn't have DNA testing for a long time, didn't have CODIS, we need to judge what happened based on what was possible, at what time . . . we've got to put what happened in context."*

Stakeholders also emphasized that the problem needed to be considered within the broader context of Detroit's history as a city that has struggled for decades with chronic resource depletion:

*"This is Detroit, not New York City, not Los Angeles. This is Detroit and there's no city in the U.S. that's like Detroit . . . You have to keep in mind what was possible in Detroit. What they had in other cities, you know, money, personnel, technology, well, we didn't. Everything came online here years after it did in other places. Things other cities were doing, we couldn't do. Not that we didn't want to, we didn't have the resources" (emphases in original).*

Given these important caveats, we began by examining the organizational resources of the police department and then the other organizations in the system (crime lab, prosecutor's office, medical/SANE, and advocacy) for SAK testing and victim services from 1980 (the date of oldest kit found in the census) to 2009 (the end of project's scope). In the *Appendix B: Project Methodology*, we describe the data collection and analysis procedures for this work in detail, but briefly, we drew upon three data sources: ethnographic observations, stakeholder interviews, and archival records. In the collaborative team meetings, stakeholders often discussed resource constraints and challenges, which were documented in our ethnographic fieldnotes. Building on those data, we conducted individual interviews with stakeholders across all organizations, interviewing both current and former employees in these organizations, and interviewing individuals at all levels/roles within each organization. We asked stakeholders about daily operations/services provided; staffing levels over time; and reporting structure, training and supervision.<sup>36</sup> Because memory gaps are to be expected in retrospective data collection (Bradburn, Sudman, & Wansink, 2004; Sudman, Bradburn, & Schwarz, 1996), we also conducted an extensive review of archival records within each organization. The information obtained through these three methods (observations, interviews, and archival records) was cross-checked and triangulated prior to analysis to ensure that the results were accurate and credible (see *Appendix B: Project Methodology* for details on triangulation assessments and trustworthiness of the data).

As we were collecting these data about organizational resources, we often wondered: is what we're seeing in Detroit typical? Are the resource levels in Detroit similar to other urban areas with similarly high crime rates? To address these questions, we also collected descriptive data in comparable

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<sup>36</sup> We also asked about inter-organizational communication, SAK testing policies and practices, and decision making in sexual assault investigations and SAK submissions; the data resulting from those questions were the focus of the subsequent section in this chapter ("*Underlying Factors: Front-Line Practices and Inter-Organizational Communication*").

cities to provide some context as to whether the findings in Detroit were similar elsewhere.<sup>37</sup> However, as one member of the collaborative noted above, “*there’s no city in the U.S. that’s like Detroit,*” and indeed, it was a challenge to find cities in the U.S. that have similar populations, racial/ethnic minority distributions, and crime rates as Detroit. Based on data from the 2000 Census and the 2000 FBI Uniform Crime Report (as this was the era in which SAKs were accumulating rapidly), four cities were selected as comparisons for this historical analysis, though there was no one city that was similar along all three factors (overall population, racial/ethnic composition, crime rate) (see Table 3.1, following pages):<sup>38</sup>

- Philadelphia, PA: Though Philadelphia’s population (1.5 million) exceeds Detroit’s (951,270), their *crime rates* are similar: UCR modified crime index totals are 100,581 and 97,776, respectively; adjusted per 100,000 people, the rate in Philadelphia is lower though (6,751 vs. 9,848). A substantial proportion of Philadelphia’s residents are African American (45%), though not to the same extent as Detroit (82%).
- Dallas, TX: Dallas is also larger than Detroit (1,188,580 vs. 951,270) and does not have a comparable racial/ethnic composition (25.9% of Dallas residents are African American vs. 82% in Detroit), but like Philadelphia, it has a *crime rate* similar to Detroit’s: UCR modified crime index totals are 106,460 and 97,776, respectively; adjusted per 100,000 people, the overall crime rate in Dallas remains similar to Detroit’s (9,382 vs. 9,848).

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<sup>37</sup> The scope of this action research project, as stipulated in the RFP, did not include cross-jurisdiction comparisons, but we collected as much comparable data in other cities as was feasible, though we note that we do not have perfectly parallel data across all organizations, across all cities. Some data were quite challenging to track down in Detroit and it was not practical for other cities to devote time/energy to collect parallel data, though we were successful in securing some comparative data for all organizations, across all cities.

<sup>38</sup> We did *not* select Houston, TX as a comparison city for this analysis, even though it was the other site funded in the NIJ SAK Action Research Project solicitation, because it is quite different from Detroit with respect to our key comparative factors (population, racial/ethnic composition, crime rate, and resources). We refer the reader to the Final Report from the Houston site for more information about the local context and resources of that city.

- Baltimore, MD: Baltimore is smaller than Detroit (651,154 vs. 951,270), but its racial/ethnic composition is more similar in that both cities are predominately African American (64% and 82% respectively). The crime rate in Baltimore similar to Detroit's (when adjusted for population size): UCR modified crime index totals are 65,886 and 97,776, respectively; adjusted per 100,000 people, the rates are 10,168 and 9,848.
- New Orleans, LA: New Orleans is also predominately African American (67%). It is approximately half the size of Detroit (484,674 vs. 951,270, respectively) and its crime rate is also substantially lower: UCR modified crime index totals are 34,208 and 97,776, respectively; adjusted per 100,000 people, the rate in New Orleans becomes somewhat more comparable to Detroit's (7,216 and 10,055).

Once we understood the historical context of each of the main Detroit sexual assault organizations—and how they compared to those in comparable cities—we returned to the census data to examine whether the key turning points/changes we identified (through the qualitative data) were associated with SAK submission rates over time. Using multi-level longitudinal quantitative modeling, we examined whether key historical events identified in this analysis were associated with the observed rates of SAK submissions over time.

**TABLE 3.1 – Comparable Cities: Population, Race/Ethnicity, and UCR Crime Rate**

City	2000 Census Population*	2000 Census Ethnic Minority Population*					2000 UCR Crime Statistics **			2000 UCR Crime Statistics (per 100,000) **		
		White	Black/African American	Asian	Other Race	Hispanic/Latino	Crime Index Total	Modified Crime Index Total ***	Forcible Rape	Crime Index Total	Modified Crime Index Total ***	Forcible Rape
Detroit	951,270	116,599 (12.3%)	775,772 (81.6%)	9,268 (1.0%)	24,199 (2.5%)	47,167 (5.0%)	95,761	97,776	811	9,848	10,055	83
Philadelphia	1,517,550	683,267 (45.0%)	655,824 (43.2%)	67,654 (4.5%)	72,429 (4.8%)	128,928 (8.5%)	98,000	100,581	1,021	6,751	6,929	70
Dallas	1,188,580	604,209 (50.8%)	307,957 (25.9%)	32,118 (2.7%)	204,833 (17.2%)	422,587 (32.6%)	105,050	106,460	633	9,382	9,506	56
Baltimore	651,154	205,982 (31.6%)	418,951 (64.3%)	9,985 (1.5%)	4,363 (0.7%)	11,061 (1.7%)	65,886	66,397	366	10,168	10,247	56
New Orleans	484,674	135,956 (28.1%)	325,947 (67.3%)	10,972 (2.3%)	4,498 (0.9%)	14,826 (3.1%)	34,001	34,208	227	7,216	7,260	48

\* US Census Bureau (2000)

\*\* FBI Uniform Crime Report (UCR) (2000)

\*\*\* The Modified Crime Index total is the sum of the Crime Index offenses including arson.

## ***History of DNA Testing and CODIS Access 1980 – 2009***

**Contextual Findings.** A rape kit contains multiple samples of biological evidence collected from the victim’s body, most typically oral, vaginal, and anal swabs.<sup>39</sup> Over the past thirty years, there have been revolutionary changes in how this evidence can be tested and used by the criminal justice system. It is beyond the scope of this report to review the technical evolution of DNA testing (see Butler, 2005, 2010, 2012 for reviews), but for summary purposes, it may be helpful to denote key historical developments:

- “Pre-DNA:” Prior to the development of DNA testing, the biological samples in rape kits were tested using discriminating protein markers, such as ABO blood typing; however, such methods have low discriminatory power and proteins can degrade quickly, so the utility of this information in an investigative context was limited.
- “DNA Testing, CODIS Not Yet Developed:” DNA testing is a multi-stage process that begins with a serology screening of the samples in the kit to determine if they contain biological evidence (e.g., semen, saliva, blood).<sup>40</sup> If the samples in the kit do contain bodily fluids, then the next steps in the testing process involve extracting the DNA from the samples, quantifying of the amount of DNA extracted, separating the DNA, and finally, analyzing and interpreting the results. Over the years, different methods have been developed for the extraction, amplification, separation, and analysis

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<sup>39</sup> Hair samples (head hair and pubic hair) are also usually collected in the medical forensic exam, but are rarely analyzed by forensic laboratories (Peterson, Sommers, Baskin, & Johnson, 2010). Older kits (i.e., those collected in the 1980s and 1990s) may also include a blood sample from the victim. Newer kits (i.e., those collected in the 2000s) may contain additional swabs taken from other body parts (e.g., breasts, neck) that were touched/harmed in the assault. Despite these variations (over time and jurisdictional collection policies), the oral, vaginal, and anal swab have been—and continue to be—the most probative evidence in the SAK and therefore are the primary focus in testing.

<sup>40</sup> In the past decade, newer methods have been developed that allows forensic scientists to skip traditional serology screening in favor of a faster screening methods that determine if there is any male DNA in the samples (“Y-screening methods”); if so, the kit will proceed to the next stages in the process for DNA testing. See *Chapter 4: Developing & Evaluating a SAK Testing Plan* for extended discussion of the stages of DNA testing.

steps.<sup>41</sup> However, a DNA profile (however extracted) has limited utility in-and-of-itself. As Butler (2010) noted, *“a DNA profile by itself is fairly useless because it has no context. DNA analysis always requires that a comparison be made between two samples”* (p. 9). Therefore, a DNA profile extracted from a rape kit had the *potential* to be helpful to investigators, but without reference samples for comparison, the likelihood of identifying an offender was low.

- “DNA Testing with CODIS:” A national database, CODIS (Combined DNA Index System), was authorized by the federal DNA Identification Act of 1994 and provided two indexing systems: the offender index, containing the DNA profiles of convicted offenders, and the forensic index system, containing DNA profiles collected from crime scenes. With the advent of CODIS, a DNA profile extracted from a rape kit could be loaded into the database (provided it met state/federal requirements for upload) and then the database could be searched to determine if there was a match between the new profile and an existing sample (either in the offender index or forensic index). A “hit” meant that the rape kit sample matched a DNA profile already in CODIS, thereby identifying the possible offender. CODIS launched in 1998 and laboratories had to complete FBI auditing requirements and/or seek accreditation from independent forensic science organizations to access CODIS (i.e., to load profiles and compare profiles to existing reference samples). In 2004, federal regulations required that laboratories have accreditation from specified credentialing organizations (to be completed by October, 2006).

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<sup>41</sup> In the RFLP (Restriction Fragment Length Polymorphism) technique, the first method to gain wide-spread adoption in forensic settings, a DNA sample is broken into pieces by restriction enzymes, resulting in restriction fragments that are separated according to their length to evaluate different patterns across persons. In the early-to-mid 1990s, a new amplification technique, PCR (Polymerase Chain Reaction) methods, offered faster analysis with smaller samples; at that time forensic scientists also began using STR (Short Tandem Repeat) methods, in which shorter, specific units of DNA were copied and examined.

With this national context regarding DNA testing and CODIS established, we then examined Detroit's practices for rape kit testing over the years. From 1980 to 1993, SAKs submitted to the police department crime lab were analyzed with ABO blood typing methods (as was national practice at the time). From 1994 to 1997, the crime lab was doing limited scale DNA testing, but given that CODIS did not yet exist, DNA testing was not routine. When CODIS came on-line in 1998, the police department crime lab did not have access for four years (1998 – 2001), though they could appeal directly to the FBI to search DNA samples in cases of suspected serial rapists. From 2002 to 2005, the police department crime lab had secured access to CODIS by passing FBI auditing requirements, though they were in the process of seeking accreditation (per 2004 federal requirements). Stakeholders noted that the accreditation process required substantial administrative time, which reduced the number of hours that were available for "bench work" (i.e., testing kits). The lab was accredited in 2006, which remained in effect until it was closed in 2008.

**Quantitative Modeling: DNA/CODIS History.** The availability of DNA testing and CODIS are critical contextual factors that may have affected rates of SAK submissions over time. Specifically, in the pre-DNA/pre-CODIS era, fewer kits would be expected to be submitted, given the limited utility of testing at that time. After CODIS, SAK submissions would be expected to increase, given how helpful DNA testing could be to the investigational process. To explore these ideas, we returned to the census data to examine how many SAKs were submitted for testing in each of these historical eras. For these statistical models, we worked with a subsample of 10,817 SAKs (from the 11,219 census count), removing cases from *The 400 Project*,<sup>42</sup> as the data collection methods in that project (which came before the Detroit SAK ARP) did not capture data fields in the way we needed for these particular analyses. The cases that were not included in these analyses represented approximately 4% of the total census (and had been randomly selected in the first place), so it is unlikely that their exclusion would markedly affect the findings and conclusions.

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<sup>42</sup> Two additional cases were removed due to missing data (i.e., 402 cases total were removed for these analyses).

Table 3.2 (below) shows that the rates of SAK submission were lowest in the pre-DNA and pre-CODIS eras (14% and 13%, respectively). After the development of CODIS, submission rates were higher, except for the period of time in which the police department crime laboratory was seeking accreditation (2002-2005). However, once the accreditation process was complete, the submissions rates increased, whereby 35% of the SAKs in police property collected from 2006 to 2009 had been submitted for testing. However, across all eras, *most* SAKs were not submitted for testing (range of 65% to 86%).

DNA “Era”	Number of Kits in Police Property	Percentage of Kits Submitted to the Crime Lab for Testing	Percentage of Kits Unsubmitted to the Crime Lab for Testing
Pre DNA (1980 – 1993)	2,261	14%	86%
DNA Testing, CODIS Not Yet Developed (1994 – 1997)	2,751	13%	87%
DNA Testing, CODIS Exists, Crime Lab Did Not Have Access to CODIS (1998 – 2001)	2,026	33%	67%
DNA Testing, CODIS Exists, Crime Lab Had Access to CODIS, but Seeking Accreditation (2002 – 2005)	2,070	24%	76%
DNA Testing, CODIS Exists, Crime Lab Accredited (2006 – 2009)	1,709	35%	65%

Given that these descriptive analyses suggested that submission rates varied over time, we used mixed effects logistic regression (with random effects of kits nested within years) (see *Appendix B: Project Methodology* for technical details regarding these analyses) to model the probability of SAK submissions as a function of whether kit was collected during the:

- Pre-DNA Era (1980-1993)
- DNA Testing, CODIS Not Yet Developed Era (1994-1997);
- DNA Testing With CODIS—But The Crime Lab Did Not Have Access To CODIS Era (1998-2001)
- DNA Testing With CODIS—But The Crime Lab Was Seeking Accreditation Era (2002-2005)
- DNA Testing With CODIS—Accreditation Complete Era (2006-2009).

As shown in Table 3.3 (next page), DNA/CODIS era was a significant predictor of SAK submissions. SAKs from the pre-DNA era (1980-1994) and the CODIS Not Yet Developed era (1994-1997) were significantly *less* likely than kits from other eras to be submitted. In other words, when DNA testing and CODIS were not developed, SAK submissions were, as expected, significantly lower. Also as expected, kits collected in the era of DNA Testing with CODIS with lab accreditation (2006-2009) had significantly *higher* rates of submission. However, in the years in which the lab was seeking accreditation (2002-2005), SAK submissions dipped significantly—in fact, submissions were higher when the lab did not yet have CODIS access (1998-2001). The reasons why submissions were lower during the accreditation process merits more exploration, and we pursued this issue with additional data collection, which will be presented in subsequent sections of this chapter (see *“The Police and the Crime Lab: Intra-Organizational Practices & Communication”*). Overall, these quantitative results support the qualitative data regarding the importance of placing this problem in historical context—rates of submission did in fact vary as a function of what was available regarding DNA technology and access to CODIS. When DNA testing resources were fully available to Detroit stakeholders, the rates of submission were significantly higher.

**TABLE 3.3 – Multi-Level Logistic Regression Results, Predicting SAK Submission by DNA/CODIS Era**

Block		Log Odds	Odds Ratio	Confidence Interval	<i>p</i>	Log Likelihood	# Parameters	LR chi square	<i>p</i>
1	<b>Intercept</b>	-1.157	0.314	0.242 - 0.409	< .001	-15351.13	1		
2	<b>DNA Eras in which SAK was collected</b>					-15344.86	5	12.54	0.028
	Pre DNA Era (1980-1993)	-0.764	0.466	0.325 - 0.667	<.001				
	DNA but No CODIS (1994-1997)	-0.751	0.472	0.324 - 0.686	<.001				
	DNA & CODIS but Crime Lab Does Not Have CODIS Access (1998-2001)	0.440	1.553	1.074 - 2.246	0.021				
	DNA & CODIS but Crime Lab Seeking CODIS Accreditation (2002-2005)	<i>Reference Category</i>							
	DNA & CODIS and Crime Lab Accredited (2006-2009)	0.437	1.548	1.036 - 2.412	0.034				

*N* = 10,817 kits, nested within 28 years; analysis was conducted using mixed-effects logistic regression, with random effects of kits nested within years

### ***Police Department Resources & Policies 1980-2009***

**Contextual Findings.** Perhaps the most important resource for any police department is its personnel—leadership, staffing, and other professional supports (e.g., training). As in many cities, the Detroit Police Chief is appointed by the city’s Mayor and serves at the pleasure of the Mayor. Throughout the thirty years in this analysis, there were five different Mayors, which is consistent with the rates of mayoral turnover in the four comparable cities examined (Dallas somewhat higher at seven) (see Table 3.4, next page). In Detroit, those five Mayors appointed 10 different Police Chiefs, who, on average, served 2.70 years in office, which is substantially lower than national averages. The average tenure for a metro police chief in the 1990s (which was when many of the Detroit SAKs were accumulating) was 3.50 to 4.50 years (Peak & Glensor, 1996), and 4.93 years in jurisdictions with over 500,000 residents (Police Executive Research Forum, 1997; Rainquet & Dodge, 2001). However, Detroit’s turnover is not dissimilar to other urban cities with similar crime rates and/or racial compositions, though it is at the high end of the comparison (see Table 3.4). Comparable cities had 7-10 Police Chiefs in that same period of time, with average tenures ranging from 2.60 years (Baltimore, MD) to 4.00 years (Dallas, TX).

Taking a closer look at Police Chief turnover from the 1990’s to 2009—as these were the key years in which unsubmitted SAKs were accumulating—we see a slightly different pattern emerge. In Philadelphia and Dallas—two cities that, generally speaking, are better resourced than Detroit—there were four Police Chiefs, compared to nine in Detroit. In Baltimore and New Orleans—cities more similar to Detroit in racial composition and similarly lower resourced overall—there were seven and six chiefs (respectively), again, compared to nine in Detroit. The average tenure of a Detroit Police Chief from 1991 to 2009 was 2.06 years, which is the lowest among the four comparable cities, particularly so relative to Philadelphia and Dallas (4.25 and 4.20, respectively).

City	Mayoral Turnover 1980-2009	Police Chief Turnover 1980-2009	Police Chief Turnover <i>Since 1990</i> *
Detroit	5 Mayors 7.40 Years Avg. Tenure	10 Chiefs 2.70 Years Avg. Tenure	9 Chiefs 2.06 Years Avg. Tenure
Philadelphia	5 Mayors 6.00 Years Avg. Tenure	9 Chiefs 3.20 Years Avg. Tenure	4 Chiefs 4.25 Years Avg. Tenure
Dallas	7 Mayors 3.80 Years Avg. Tenure	7 Chiefs 4.00 Years Avg. Tenure	4 Chiefs 4.20 Years Avg. Tenure
Baltimore	5 Mayors 7.80 Years Avg. Tenure	10 Chiefs 2.60 Years Avg. Tenure	7 Chiefs 2.60 Years Avg. Tenure
New Orleans	4 Mayors 7.75 Years Avg. Tenure	8 Chiefs 3.50 Years Avg. Tenure	6 Chiefs 2.90 Years Avg. Tenure

\* Computations for the number of chiefs/years of tenure since 1990 varied slightly to accommodate natural variations in turnovers on/about 1990 in each city. In Detroit, the dates used were 1991-2000; Philadelphia, 1992-2009; Dallas, 1991-2009; Baltimore, 1989-2009; New Orleans, 1991-2009.

Interviews with police stakeholders in Detroit suggest that the instability in leadership has always been problematic; as one police department member noted, *“The only thing constant around here is change,”* and another commented, *“we’ve had so many re-organizations that you just can’t keep up.”*<sup>43</sup> For the work of the sex crime unit specifically, the leadership transitions were difficult because each new Chief usually meant there would be a new unit supervisor as well; in other words, the leadership changes at the top trickled down to the individual tasked with supervising the sex crimes unit.<sup>44</sup> When asked what

<sup>43</sup> In the 30 months (2.5 years) of this Action Research Project, there were three (additional) new Police Chiefs; these three are not counted in Table 3.4 because the scope of the historical analysis ended in 2009 (however, the instability continued thereafter).

<sup>44</sup> Even within a particular Chief’s tenure, it was not uncommon that there would be multiple changes in the supervision of the sex crime unit. For example, from 2005 to 2009, there were three Chiefs and five different supervising Lieutenants of the unit.

those changes did for continuity of practice, one interviewee pantomimed pulling a drawer out of desk, dumping out all the contents, then replacing the drawer:

*“I’ve seen a bunch of chiefs come in and . . . [when they] came in, they took every drawer out of the cabinet, dumped it out, put everything back in, but just in different drawers, so they moved everybody, they switched it all up.”*

Another member of the police department described the leadership transitions as such: *“We start over, every single time.”* With respect to how this instability in leadership may have affected the issue of SAKs submission specifically, stakeholders noted that the constant change made it hard to start and sustain new initiatives for the unit: *“something good, positive for the unit [gets started], and then they’re gone.”* The constant turnover also made it difficult to identify problems and low-performing investigators:

*“People can hide bad work for only so long . . . and that’s about how long any supervisor was around, so you as soon they’d figure it out, they’re moved on.”*

A senior police official summed up the negative impact of these perpetual transitions in leadership: *“Those people that have control of the day-to-day operation, when you lose those people you lose a lot.”*

In addition to the challenge of constant supervisory turnover, the number of front-line officers and detectives in the sex crime units dwindled over time. In the years of the pre-DNA/pre-CODIS era, the police department had, on average, 20-30 sex crime unit investigators and staff (e.g., a designated property officer), and that staffing level continued until early 2000’s. In 2002, the staffing levels in sex crimes were cut approximately 50% (down to 12 investigators/staff). In 2008, the sex crimes unit had another 50% cut in staffing, down to 6-8 investigators/staff. These staffing cuts fundamentally changed the way the unit operates, including as one stakeholder explained below, no longer having 24-hour service:

*“[After the budget cuts] we operate with two shifts and we used to be 24-hour operational . . . we work from 8 a.m. to 4 p.m. for days and 4 p.m. to 12 a.m. for afternoons . . . from 12 a.m. to 8 a.m. it’s a closed shift and we operate on a recall basis . . . [you get a] call in the middle of the night if we had a situation going on . . . and [then you] call a member to get them up to respond back to the scene . . . that really affects our ability to properly investigate some of these sexual assaults.”*

Both front-line police staff and command staff were well-aware that these staffing cuts were going to have a long-term negative impact on sexual assault investigations. As one senior police official commented:

*“I saw this coming (meaning problems with SAKs and sexual assault investigations). . . when we started losing manpower, I could see that corners were going to be cut because there was no way you could just keep up with the demand of cases they were getting and you want results.”*

When asked about training for sex crimes unit staff (e.g., training on DNA analysis and its utility to sexual assault cases, training on effective investigative techniques for sexual assault cases, training on working with special populations), police personnel noted that professional inservices were infrequent and a lot of their education came from *“whatever the lab folks said to us when we dropped off kits.”* When asked about training and support for burnout and vicarious trauma from constant exposure to trauma and violence, police personnel invariably shrugged and stated that was simply not part of the department’s culture. As one stakeholder noted, *“This is Detroit. Everyone has to see awful things every day.”*

Turning to the police department’s policies regarding SAK submissions over this thirty-year historical analysis, it is unclear whether in fact there were written policies—the research team was not able to verify the existence of such documentation, though police officials stated that there were written guidelines. Based on data from stakeholder interviews, it appears that from the 1980s to 1999, the practice

was to submit only those kits associated with “known suspect” SAKs.<sup>45</sup> In other words, if police had a possible suspect identified (e.g., known-offender assaults, such as acquaintance rapes, intimate partner rapes; or sufficient information about unknown-offenders such that they could be identified by police), then SAK testing might have been conducted; without the existence of CODIS or access to CODIS, a profile of an unknown offender had limited investigational utility. In 2000, it appears that the police department changed their practice, most likely due to the emergence of CODIS (though the laboratory did not yet have access to CODIS), and from that point forward both “known suspect” and “no suspect” kits were considered for testing. Again, the census data clearly show that not all SAKs were submitted for testing, but these data help contextualize why some cases were not submitted: depending on the victim-offender relationship and the year in which the SAK was collected, department practices were such that particular kinds of cases would be unlikely to be submitted for testing.

**Quantitative Modeling: Police Resources and Policies Over Time.** One of the most striking findings from the qualitative data was the high rate of turnover in police leadership; however, it was so frequent (approximately every two years) that attempting to model these changes within the multi-level logistic regression analyses was not practical because leadership transitions were essentially a constant. However, there were other key changes in resources and policy over the years that might have affected SAK submissions and could be quantitatively evaluated. The sex crimes unit faced two 50% cuts in their staffing levels (one in 2002, the other in 2008). Following such staffing cuts, it is possible that rates of SAK submission would drop significantly, as the sex crime unit struggled to respond to reported cases. However, this hypothesis was not supported in the data. After controlling for DNA/CODIS era (which prior analyses demonstrated was a significant factor affecting SAK submission rates), these changes in staffing levels were *not* significantly associated with SAK submission rates: OR = .895 (95% CI = .435 – 1.839),  $p =$

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<sup>45</sup> It is clear from the census data that indeed not all “known suspect” SAKs were in fact submitted for testing; the point here is that only “known suspect” cases were considered for submission.

.753. Thus, even though the qualitative data highlighted how difficult these cuts were to the functioning of the sex crimes unit, they were not directly related to SAK submission rates. In other words, these results suggest that the problem of unsubmitted SAKs is not simply a “person power” issue, and that other issues within a police department must be considered (see *“Police Department Front-Line Decision Making & Practices”* for additional findings on this issue).

We also examined whether the police department’s policies regarding SAK testing had a demonstrable affect on submissions. In 2000, police officials stated that their policy changed so that both known-offender and unknown-offender SAKs could be submitted for testing, which would be expected to result in a significant increase in the number of SAK submitted (given that essentially all SAKs were now eligible). However, after controlling for DNA/CODIS era, this change in practice was not associated with a significant increase in SAK submissions: OR = 1.105 (95% CI = .512 – 2.382),  $p = .792$ . As noted previously, it is unclear whether this policy was codified in writing, so these non-significant results are not entirely surprising. Indeed, they underscore the importance of delving deeper into police practices regarding SAK submission as these macro-level changes in resources and policy did not appear to have a direct effect on submission rates.

### ***Crime Laboratory Resources 1980-2009***

**Contextual Findings.** A key resource for DNA testing is, of course, personnel and funding available to conduct such testing. With respect to personnel, laboratories must have a minimum of two scientists (for quality assurance purposes), as stipulated by the FBI and professional accrediting organizations (see Butler, 2005, 2010, 2012). In Detroit, the lab typically had two-to-three DNA scientists: one position was primarily administrative, dedicated to the work of securing accreditation for the lab, so, on average, only two scientists were available for actual testing. For city of 900,000+ residents, with a high UCR crime rate, these staffing levels certainly sound low, and indeed, based on data in comparable cities, it is objectively

low. Table 3.5 (below) presents the staffing levels in the comparable cities: three cities (Philadelphia, Dallas, and Baltimore) had two- to three-times as many DNA scientists (New Orleans had similar staffing levels as Detroit, but a population approximately half that of Detroit). Put another way, Dallas had three *laboratories*; Detroit had three DNA *scientists*. We also interviewed national-level stakeholders in the forensic science profession to assess what those in the field consider to be “typical” and “reasonable” staffing levels for laboratories serving high-crime urban cities. Very large cities (populations of 2 million and up) can have 40+ DNA scientists, while smaller urban areas (500,000 to 1 million) vary tremendously, often in the 6-10 range. Detroit’s staffing levels of 2-3 scientists is considerably below this typical range of 6-10. Taken together, these data suggest that the Detroit crime laboratory was sorely under-resourced relative to its service area population and crime rate. Crime lab officials were aware that there was more demand than capacity, and in the mid 2000’s they were able to leverage some additional resources. In late 2006, the police crime lab was able to hire five additional scientists, but after the lengthy period of training new staff, they never realized the fruits of their labor because the crime lab closed in 2008.

City	Average Number of DNA Scientists Per Year 1990-2009
Detroit	2-3
Philadelphia	5
Dallas *	6 - 8
Baltimore	6
New Orleans	3

\* There were three crime labs that processed cases for Dallas (and other nearby cities); numbers reported here are ranges across the three labs.

With respect to other necessary resources for DNA testing, the police crime lab did not have fiscal support from city, county, or state sources to outsource testing to private laboratories. However, in late 2004, the police crime lab received a federal Department of Justice DNA Backlog Reduction Grant, which allowed them to start outsourcing some testing in 2005. When asked about training and support of crime lab personnel, stakeholders noted that they regularly participated in scientific training on DNA analysis, as was necessary to pass FBI audits and obtain accreditation; training specific to SAK testing was never provided, nor was any training on burnout or vicarious trauma from working on these kinds of cases over prolonged periods of time.

**Quantitative Modeling: Crime Lab Resources Over Time.** The crime lab did not have many changes in its resources over time, as they struggled with chronic understaffing/underfunding throughout this thirty-year analysis. However, one key change that might have affected SAK submissions rates was the receipt of federal DOJ DNA Backlog Reduction funds, which allowed for outsourcing of SAKs starting in 2005 (i.e., rates of submission might have increased). After controlling for DNA/CODIS era, the receipt of federal funds had *no* significant effect on SAK submission rates: OR = .731 (95% CI = .372 – 1.439),  $p = .350$ . This finding was surprising, given that stakeholders across multiple organizations emphasized the importance of the DOJ DNA Backlog Reduction funds; there may be statistical reasons for this effect (see footnote).<sup>46</sup> These grant funds may have kept the rate of submissions relatively constant, preventing a drop in rates (hence, a non-significant effect). Given that the research team was unable to determine exactly how those funds were used (i.e., how many kits, from which years were submitted for testing), it is also possible that the effect of these monies is hard to identify if they were used to test kits in a “test some here, some here, some here” across-time distribution pattern. It is also possible that the funds were used to test biological evidence from *other*, non-SAK cases (if so, there would not be an impact on SAK submission rates).

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<sup>46</sup> DOJ funds are collinear with DNA/CODIS era, so the additional effect of this variable will be difficult to distinguish from the effect of its respective era.

### ***Prosecutor's Office Resources 1980-2009***

**Contextual Findings.** As in many other jurisdictions, the Prosecutor is an elected position in Wayne County, and over this thirty-year historical review, there were four elected prosecutors, serving on average eight years in office. Comparable cities (Philadelphia, Dallas, Baltimore, and New Orleans) had a similar number of prosecutors over that same period of time (three to five) (see Table 3.6, below). The average tenure in Wayne County was somewhat shorter than the other communities, but only because there was one Prosecutor in the early 2000's who had an atypically shorter term (three years); historically, most Prosecutors in Wayne County serve 10+ years in office (as in the comparable cities).

City	Elected Prosecutor Turnover 1980-2009	Elected Prosecutor Turnover <i>Since 1990</i>
Detroit	4 Prosecutors 8.00 Years Avg. Tenure	3 Prosecutors 8.33 Years Avg. Tenure
Philadelphia	3 Prosecutors 10.70 Years Avg. Tenure	1 Prosecutor 18.50 Years Avg. Tenure
Dallas	4 Prosecutors 14.50 Years Avg. Tenure	3 Prosecutors 7.30 Years Avg. Tenure
Baltimore	3 Prosecutors 9.30 Years Avg. Tenure	2 Prosecutors 11.00 Years Avg. Tenure
New Orleans	5 Prosecutors 7.70 Years Avg. Tenure	5 Prosecutors * 7.70 Years Avg. Tenure

\*\* New Orleans's 1990-2009 turnover rates are the same as their overall rates because one prosecutor served from 1973 to 2003.

Detroit-area stakeholders invariably characterized the prosecutor's office as more stable than any other component of the local criminal justice system; as one member of the collaborative noted:

*"[The prosecutors] had to weather all those changes in police department Chief . . . that affected them too, always having to start over with new leadership over there (the police department) . . . even though they (the prosecutors) didn't change, they were forced to deal with the instability in other groups, which no doubt made it harder for them to prosecute cases."*

Speaking to this issue of how the frequent turnover in police administration affected the prosecutor's office, one prosecutor noted:

*"You never knew who got transferred where, who was going to pick up the phone, who to call to get stuff moving if they'd dropped the ball . . . and whether they were going to do what they needed to do in time . . . we never knew."*

Even though the prosecutor's office had more stability in leadership than their counterparts in the police department, they also struggled with insufficient staffing to handle cases. From 2000 to 2009, the prosecutor's office had approximately 92 trial attorneys per year, and in that period of time, they issued, on average, 17,907 felony cases (including, but not limited to, sexual assault cases). In this decade, there were substantial fluctuations in their staffing levels (overall, trending downward), dipping to a low of 82 trial attorneys due to budget cuts from County government.<sup>47</sup> It is important to note that the prosecutor's office serves the entire *county*, and that three other cities in Wayne County with populations near 100,000 also have substantial crime rates, per the 2000 FBI UCR data (Dearborn, Livonia, and Westland). However, prosecutors also pointed out that regardless of their staffing levels, they had an obligation to public safety:

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<sup>47</sup> We attempted to collect comparable data on prosecution staffing in the four comparison cities, but given that such records are often difficult/time consuming to access, we were able to obtain data from only one community: Dallas County, TX, serving the city of Dallas. From 2000-2009, the Dallas County prosecutor's office had an average of 99 trial attorneys, compared to 92 for Wayne County. However, the staffing levels in Dallas County trended upwards (ending at 108 trial attorneys in 2009), whereas Wayne County trended downwards (87 trial attorneys in 2009, which tended further downward to <80 at the time of the ARP).

*“We’ve never had enough prosecutors, especially given the crime rates in Detroit and other cities around here. . . but, we have obligation to public safety, so we have to deal with it.”*

One of the challenges stemming from chronic under-staffing was that the prosecutor’s office was only recently able to form a specialized sexual assault unit (2009 as an unfunded volunteer program; 2011 as a funded program). By contrast, three of the comparable cities we examined had the resources to form designated sexual assault units much sooner (Philadelphia, Dallas, and Baltimore; New Orleans has yet to do so) (see Table 3.7, next page). Though the exact structure and operations of such units vary, they are typically staffed by prosecutors with expertise/interest in working exclusively (or nearly exclusively) on sexual assault cases (see Beichner & Spohn, 2005; Hemmens, Brody, & Spohn, 2012; Lord & Rassel, 2008). Some programs follow “vertical prosecution” whereby one prosecutor works a case from start to finish, rather than the more typical “horizontal” method such that different prosecutors handle each step through the process (e.g., one prosecutor reviews the warrant request, another conducts the preliminary examination, while yet another conducts the trial proceedings).

The “horizontal” method was the norm in Detroit, until 2009 when the prosecutor’s office formed a volunteer sexual assault unit with vertical prosecution. Though they did not have designated funding for the unit until 2011, three APAs volunteered to be regularly assigned to these kinds of cases (in addition to their regular duties). As one prosecutor described:

*“We really needed it (a special unit) and the (Elected) Prosecutor was really open to the idea . . . the victims need special attention, they deserve it and they need it; and secondly, in order to successfully prosecute the cases, you have to really know what you’re doing with these – what issues to look for, how to present it to a jury . . . we needed experienced attorneys, experienced with these kinds of cases.”*

TABLE 3.7 – Comparable Cities: Specialized Prosecution Programs	
City	Year in Which Specialized Sexual Assault Prosecution Unit Was Founded
Detroit	2009 (unfunded volunteer program) 2011 (funded program)
Philadelphia	1977, then re-organized in 1991
Dallas	~1993 (“at least twenty years ago”)
Baltimore	1978, then re-organized in 2012
New Orleans	(NONE)

Though historically the prosecutor’s office had limited resources for in-house training, the most recent Elected Prosecutor actively encouraged APA’s to take advantage of events hosted by the state prosecuting attorney’s association and state-level violence against women agencies. As one APA noted, *“We always knew we could, and should, seek out every opportunity to learn more and it would be supported by [the Elected Prosecutor].”*

**Quantitative Modeling: Prosecutor’s Office Resources Over Time.** Stakeholders across multiple organizations noted that it would be unlikely that changes in the Elected Prosecutor would have had a direct effect on SAK submission rates, unless as part of establishing a new administration, the Elected Prosecutor established inter-agency policies regarding kit testing. As will be discussed later in this report (*Chapter 6: Summary of Findings, Implications, and Community Changes*), such policies now exist in Detroit, but from 1980 to 2009, the problem of unsubmitted SAKs was not yet known. As such, statistical modeling of prosecutor transition did not seem fruitful (and indeed, there were no effects at the univariate level). The only other significant policy change that occurred within this historical analysis that might have affected SAK submissions rates was the establishment of the vertical prosecution sexual assault unit; however, this unit began in 2009 (on a volunteer basis), which was at the end of the timeframe studied, and therefore its impact could not be evaluated quantitatively.

### **Medical System Resources 1980-2009**

**Contextual Findings.** In Detroit, victims of sexual assault typically received their medical care and forensic exams at one of three large, hospital emergency departments (EDs).<sup>48</sup> All three EDs handled high volumes of crime-related injuries, and as one ED staff member noted: *“with all the gun shots, beatings, drug overdoses, sexual assault victims were low priority . . . we had to take real emergencies first.”* Although specialized sexual assault nurse examiner (SANE)/sexual assault forensic examiner (SAFE) programs were founded in many jurisdictions in the 1990s and early 2000’s (see Campbell, Patterson, & Lichty, 2005 and Department of Justice, 2013 for reviews), Detroit did not have a SANE program until 2006, twelve years after Baltimore established the first of its two programs, and six years after New Orleans founded theirs. However, Philadelphia and Dallas established their SANE programs even later (2011 and 2012, respectively) (see Table 3.8, next page). The staffing levels in the Detroit SANE program (typically 5-6 providers) were consistent with those in New Orleans, but again, New Orleans is half the size of Detroit, with ~40% fewer forcible rapes (per 100,000). By contrast, Baltimore has approximately eight times as many sexual assault forensic examiners (across its two programs) as Detroit, but has approximately 300,000 fewer residents and ~33% fewer forcible rapes (per 100,000).

Even after the SANE program in Detroit was founded in 2006, there were still several transitional years during which many victims had exams performed by non-SANE personnel (2006 – 2009) because the program did not yet have the capacity to treat all victims in the city. Therefore, it is reasonable to infer that the vast majority of the unsubmitted SAKs in the census (1980 – 2009) were collected by *non-SANE* medical personnel. When asked about the quality of care victims received in the pre-SANE years, one medical provider indicated that it was generally quite poor:

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<sup>48</sup> Child and adolescent victims were typically treated at the city’s one children’s hospital.

*“[In the emergency department] there’s a lack of equipment and a lack of training and a lack of privacy, and no real supportive services either. No real social work . . . [so there] wasn’t always [someone] there for rape victims.”*

In terms of the forensic adequacy of the kits (i.e., whether they were collected correctly and had good forensic utility), most stakeholders we interviewed stated that they simply did not know. Indeed, most noted that the exams/kits were “*known for*” their unknown quality, so to speak; as one member of the collaborative explained:

*“Were the exams any good? Who knows? Were the kits collected correctly? Who knows? . . . it’s safe to say they were known for being kind of a crap-shoot. . . most (exams/kits) were probably rushed, you know, swab-swab, move on.”*

With respect to the training hospital ED personnel received on performing medical forensic exams, SAK evidence collection techniques, working with survivors, and burnout/vicarious trauma, one stakeholder simply said, “*None. There was no training. The instruction sheet in the kit, that was the training.*”

City	Year in Which SAFE/SANE Program Established	Average Number of SAFE/SANE Medical Providers (From Beginning of Program to 2009)
Detroit	2006	5-6 Providers
Philadelphia	2011	(Program Established after 2009)
Dallas	2012	(Program Established after 2009)
Baltimore	Program 1: 1994 Program 2: 2004	Program 1: 27-30 providers Program 2: 10-15 providers
New Orleans	2000	5-6 Providers

**Quantitative Modeling: Medical System Resources Over Time.** The key change in Detroit with respect to medical services for sexual assault victims was the emergence of the SANE program in 2006. Prior research has established that the implementation of SANE programs has positive direct effects (e.g., better quality forensic evidence collection) and indirect effects (e.g., better post-assault care and crisis intervention, which can increase victims' engagement) on sexual assault prosecutions (Campbell et al., 2009; Campbell et al., 2010). As such, we examined whether the emergence of the SANE program was associated with increased SAK submissions. After controlling for DNA/CODIS era, this effect was statistically significant such that more kits were submitted for testing after this program was launched (see Table 3.9, next page). Thus, consistent with prior research, the implementation of a SANE program can have a positive, direct effect on how the criminal justice system processes sexual assault cases, and in this instance, its impact was on submission of SAKs for forensic testing. In subsequent analyses (see *"The Police and the Medical System: Inter-Organizational Communication"*), we will examine why the SANE program may have been so influential to police decision making regarding kit submission.

**TABLE 3.9 – Multi-Level Logistic Regression Results, Predicting SAK Submission by Implementation of SANE Program**

Block		Log Odds	Odds Ratio	Confidence Interval	<i>p</i>	Log Likelihood	# Parameters	LR chi square	<i>p</i>
1	<b>Intercept</b>	-1.157	0.314	0.242 - 0.409	< .001	-15351.13	1		
2	<b>DNA Eras in which SAK was collected</b>					-15344.86	5	12.54	0.028
	Pre DNA Era (1980-1993)	-0.764	0.466	0.325 - 0.667	<.001				
	DNA but No CODIS (1994-1997)	-0.751	0.472	0.324 - 0.686	<.001				
	DNA & CODIS but Crime Lab Does Not Have CODIS Access (1998-2001)	0.440	1.553	1.074 - 2.246	0.021				
	DNA & CODIS but Crime Lab Seeking CODIS Accreditation (2002-2005)	<i>Reference Category</i>							
	DNA & CODIS and Crime Lab Accredited (2006-2009)	0.437	1.548	1.036 - 2.412	0.034				
3	<b>Year SANE was established (2006)</b>	0.596	1.814	0.992 - 3.316	0.053	-15342.74	6	4.24	0.039
	<b>Random Intercept variance</b>	<i>SD</i>	<i>df</i>	<b>Chi square</b>	<i>p</i>				
		0.231	22	119.564	<.001				

*N* = 10,817 kits, nested within 28 years; analysis was conducted using mixed-effects logistic regression, with random effects of kits nested within years

### ***Victim Advocacy Resources 1980-2009***

**Contextual Findings.** As noted previously, there are two main “types” of victim advocacy programs: systems-based programs (e.g., police department victim advocacy programs) and community-based/non-profit programs (e.g., rape crisis centers). In Detroit, the police department has had a long-standing systems-based sexual assault victim advocacy program. Founded in 1977, the program has typically had 10-14 MSW-level staff members, who provide on-site assistance in hospital emergency departments and follow-up counseling services (if requested by survivors). As shown in Table 3.10 (below), a police department-based advocacy program is somewhat unusual, as only one of the four comparable cities (Dallas) had this resource.

City	Systems-Based (Police) Advocacy Services	Community-Based (Non-Profit) Advocacy Services
Detroit	Yes—10-14 MSW-level advocates	Limited—1 Advocate Position
Philadelphia	No	Yes—18 Advocates
Dallas	Yes—2 advocates	Yes—3 Advocates/Counselors
Baltimore	No	Yes—Volunteer Advocates Only
New Orleans	No	Yes—4 Advocates

The Detroit systems-based victim advocacy program has the same chain of command as the sex crimes unit (i.e., they both report to the same senior command staff). From 2002-2009, the police department victim advocacy program provided services to 10,648 adult sexual assault victims.<sup>49</sup> Not all

<sup>49</sup> Records prior to 2002 were not available. The program serves both victims and their significant others (e.g., family/friends who may accompany victims to the hospital), so some of those 10,648 individuals served were not victims, but significant others of victims. Given how the program tracks services, it was not possible to separate number of victims vs. number of significant others; however, program staff indicated that the vast majority of those served were victims (not significant others).

of these victims had SAKs collected or filed police reports, but these data do help shed some light on the number of victims in Detroit seeking treatment in hospital emergency departments for sexual assaults, and shows that the police victim advocacy program had contact with substantial number of victims over those eight years. As recipients of VOCA (Victims of Crime Act) funding, the police victim advocacy organization participated in on-going trainings and seminars on victim services, and tried, to the extent possible, to provide support to their colleagues in the sex crimes unit, but stakeholders noted that discussions of burnout and vicarious trauma were not commonplace in the department.

Community-based advocacy in the Detroit area has a substantially shorter history. Non-profit rape crisis centers were formed throughout the United States in the 1970s and 1980s (Martin, 2005), but Detroit did not have such an organization. This is atypical, given that all four comparable cities have such agencies (see Table 3.10).<sup>50</sup> In effort to expand community-based advocacy in Detroit, in 2000, one sexual assault-designated advocate position was established within a domestic violence agency.<sup>51</sup> By contrast, community-based advocacy programs in comparable cities typically had three to eighteen sexual assault advocate positions. As to why Detroit had so little by way of community-based advocacy, one stakeholder noted:

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<sup>50</sup> Rape crisis centers typically offer: 24-hour hotlines, information and referral, victim advocacy services, assistance with crime victim compensation, and crisis counseling (among other services, per Department of Justice, Office of Victims of Crime). To this day, there is no one agency in Detroit that offers all of these core services: hotlines are operated by the domestic violence agencies; advocacy and counseling are provided by the systems-based police program (but services are not confidential) and, on a very limited scale, by the domestic violence agencies (with confidentiality). In 2010, the sexual assault forensic exam program received funding to expand their scope to include community-based advocacy services so that victims had more options for confidential advocacy and counseling.

<sup>51</sup> Archival records regarding the number of victims served by that one community-based advocate were not available, but it is reasonable to assume that the number was likely quite low.

*“It was assumed that the [police advocacy program] was taking care of it . . . they were funded to do hospital advocacy . . . they had a lot of funding for that, a lot of staff . . . and they were there [at the hospital, with victims] but were they really there? Advocating for victims, pushing back against the police, who by the way, were there employers. I don’t know . . . given how many [unsubmitted] kits we have now, it doesn’t seem likely.”* (emphasis in original)

Even though there are critical differences between systems-based and community-based advocacy, it was “*easy to turn a blind eye and not pay attention,*” as one stakeholder noted, because there was limited state-level funding available for community-based advocacy and Detroit had a long-standing, reasonably well-funded systems-based victim advocacy program. In hindsight, many stakeholders questioned whether victims were adequately served in all of their needs given that the system-based advocates could not provide confidentiality and the scope of their services (in practice) appears to have been focused on providing post-assault support to victims in hospital emergency departments, information and referral, and (if requested), follow-up counseling.

**Quantitative Modeling: Victim Advocacy Resources Over Time.** Systems-based advocacy was available throughout the thirty years in this historical analysis, and we did not document any substantial changes/reductions in staffing personnel within this program. Community-based advocacy began in 2000, albeit with only one staff position, and it seems unlikely that one advocate could have had a significant impact on SAK submission rates (indeed, at the univariate level, there was no significant association). As such, multilevel statistical modeling of the impact of advocacy resources over time was not warranted.

### ***The Impact and Legacy of Chronic Resource Depletion***

The results of this historical contextual analysis indicate that all organizations in Detroit's systemic network struggled with chronic understaffing and resource depletion over the years (see Figure 3.2, next page). The police department had major organizational changes in their leadership approximately every two years, a turnover rate that exceeds national norms and is atypical among other urban cities with comparable crime rates. The constant changes in leadership made it difficult to sustain positive initiatives—and to identify and correct problematic policies and low-performance among staff. Maintaining high performance was also difficult given that the sex crimes unit sustained two 50% cuts in their staffing levels over the years examined in this analysis. The police crime lab typically had only 2-3 DNA scientists on staff, a number substantially lower than in other urban cities with comparable crime rates. The prosecutor's office had far more stability in leadership, but given county-level budget cuts, the number of trial attorneys declined significantly over time. Sexual Assault Nurse Examiner (SANE) programs are widely considered to be best practice (see Department of Justice, 2013), but Detroit did not have such a program until 2006, and the overwhelming majority of SAKs in the census were collected by medical personnel who had no training in forensic evidence collection. The police department had a long-standing victim advocacy program, but community-based advocacy—and its promise of confidential services—was largely not available.

Taken together, these years of chronic resource depletion created what some stakeholders referred to as “The Perfect Storm:”

*“It's like The Perfect Storm . . . the conditions were ripe for this to happen . . . honestly, looking back, I think the real question isn't, how did it happen, but how could it not have happened? Not as an excuse . . . as reality—how could it not have happened?”*

**FIGURE 3.2 — Summary of Historical Context Across All Detroit Organizations**

The police department, crime lab, prosecutor’s office, medical system, and victim service agencies functioned under chronic resource depletion, which raises the question, how does working under such conditions day-in and day-out affect people and organizations? Drawing from research across multiple disciplines (e.g., psychology, sociology, economics), the literature suggests that such conditions create what is often referred to as a ‘culture of scarcity:’ a pervasive, widely-held mindset that there is far too much to do and not enough resources available, so everything simply cannot get done (Fried, 1982; Kramer, 1990; Lipsky, 2009; Mullainathan & Shafir, 2013; Roux et al., 2012; Walsh, 1961). Research on chronic scarcity has found that some people meet such challenges with tremendous resiliency and determination, and continue to be dedicated and work hard with humility and patience (see Bonanno, 2004, 2005 for reviews). However, most do not respond in that manner—and even if they could for a while, they are unlikely to sustain such commitment over time and in all circumstances

under such harsh conditions. More typically, chronic scarcity tends to bring out negative behaviors in people and organizations.

Specifically, the literature suggests that there are three main negative outcomes stemming from chronic resource depletion. First, individuals working in under-resourced organizations tend to take short-cuts to manage and limit their workloads—if the normative belief is that it is not possible to get everything done, then it becomes necessary to take measures to make it manageable (Edney, 1982; Lipsky, 2009; Mullainathan & Shafir, 2013; Roux et al., 2012; Tetlock, 2000). Workers select tasks that are perceived as emergencies, high-profile, and/or important (based on setting norms), and off-load work that is perceived as low-priority, hard, and/or complicated (due to time constraints) (Lipsky, 2009; Tetlock, 2000). Second, chronic scarcity tends to decrease individuals' empathy for others (Fried, 1982; Kramer, 1990; Lipsky, 2009; Roux et al., 2012). For those working in the helping professions, it is not uncommon that staff will dehumanize the very people they are supposed to help, disregarding their suffering and distancing themselves (Lipsky, 2009). In addition, it becomes increasingly difficult for staff to have concern and empathy for their colleagues, both within their own organization and for those working in other organizations (Lipsky, 2009). Finally, chronic scarcity tends to promote 'bunkers and silos:' individuals "bunker-down" within their own organization and function in independent silos, cutting off communication and collaboration with other groups (Fried, 1982; Kramer, 1990; Lipsky, 2009; Mullainathan & Shafir, 2013; Roux et al., 2012; Walsh, 1961).

The literature on chronic scarcity suggests that long-term resource depletion is in and of itself detrimental, but more than that, it causes individuals and organizations to change their behavior over time, changes that are often harmful, particularly to those in need of help from these over-taxed groups. Therefore, in the context of Detroit's problem with large numbers of unsubmitted SAKs, resource depletion is only one part of the explanation; the other part requires delving deeper into how professionals were approaching their work on sexual assault cases, how they were treating victims, and

how they were treating each other. Highlighting this point that resource depletion is only part of the story, one member of the collaborative noted:

*“This isn’t the whole story . . . sure, for thirty years, and even longer than that, this city hasn’t had [what it] needs to care for its citizens. But a lot of caring did happen. This didn’t. This crime (sexual assault) wasn’t cared about . . . these citizens (sexual assault victims), specifically, weren’t cared about . . . there weren’t enough resources to go around . . . what little there was, it didn’t go here (to help rape victims and test SAKs) . . . There was a choice, lots of choices, choices every day not to help a victim.”* (emphasis in original).

The results of the census indicate that *thousands* of times, there was a decision *not* to submit a SAK for testing. *Why?* To answer this question, we needed to examine the front-line, day-to-day practices in these organizations to understand how and why some kits were shelved in police property.

## **Underlying Factors: Front-Line Practices & Inter-Organizational Communications**

### **Overview**

When we asked stakeholders why they thought there were so many unsubmitted SAKs in Detroit, nearly all mentioned that gender was undoubtedly a key factor. As one stakeholder said, *“I think that’s probably the #1 reason [why kits aren’t submitted], it affects mostly women . . . if men were getting raped, I think that it wouldn’t be like that.”* Similarly, another member of the collaborative said, *“It’s not that complicated to figure out . . . this is a crime that affects women, and in this city, that means Black women, poor Black women . . . there’s a good chunk of the explanation right there.”* Sexual assault is a crime that disproportionately affects women, and therefore, because of their devalued status in society, and the more highly-valued status of their (usually) male perpetrators, this crime is unlikely to receive wide-spread societal attention (Bergoffen, 2005; Funk, 2006; Rush, 2010).

In Detroit, a city that is predominately African American (82% in the 2000 Census, and 82.7% in the 2010 Census) with a third of its inhabitants living under the poverty level (21.7% of families and 26.1% of individuals in 1999; an estimated 32.3 +/-1.9% of families and an estimated 37.6+/-1.8% of individuals in 2009), the intersecting oppressions of gender, race, and social class place many women at risk for abuse (see Davies, Francis, & Greer, 2007). Many stakeholders also noted that these factors undoubtedly affected which SAKs were submitted for testing—and which ones were not, as these three quotes illustrate:

*“Many of them are poor . . . many of them are living not only a legacy of racism but active racism, active misogyny . . . and they have multiple problems [in their lives] . . . and the criminal justice system [is just going to] exacerbate [that.]”*

*“A housewife from Grosse Pointe Shores [who] gets raped . . . that rape kit’s gonna go (for testing) and the house is going to be dusted (for prints) versus a lower middle class black woman—they’re treated differently. I think that there’s this mentality that some of these women may have caused it to happen.”*

*“If it’s not a white girl, white woman, or an affluent black person [who can make] some noise, they (the police) will feel very comfortable . . . ignoring it.”*

One member of the collaborative expressed the sentiments of many (but certainly not all) team members when s/he noted, *“you (the researchers) probably can’t prove it in the science way, but we know this has everything to do with [the fact that these are] Black women, most of them poor Black women.”*<sup>52</sup> Indeed, whether this notion could be empirically “proven” is debatable (given the homogeneity of the sample); instead, it may be more helpful to treat sexism, racism, and classism as ‘sensitizing concepts,’ which are, by Blumer’s (1954) classic definition, *“concepts that give the user a*

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<sup>52</sup> In reviewing a draft of this report, police officials expressed strong disagreement with this section (i.e., the material regarding the role of gender, race, and class in SAK submissions), highlighting that many members of the department are African American and many are female, and that among the higher leadership ranks of the department, women and ethnic minorities have been well-represented throughout the years.

*general sense of reference and guidance in approaching empirical instances*" (p. 7). In other words, sensitizing concepts provide a lens through which the data can be viewed to understand the observed processes and outcomes. Therefore, the intersecting oppressions in the lives of these survivors, and how those inequalities might manifest in their interactions with social system personnel, was an integral part of our research on the underlying reasons why Detroit has so many unsubmitted SAKs.

Specifically, this component of our research had two primary aims. First, we wanted to understand how chronic scarcity affected the front-line practices of police, and how, as one stakeholder noted above, there were "*choices every day not to help a victim.*"<sup>53</sup> However, the police are also part of an interdependent system of multiple organizations that respond to sexual assault victims. Therefore, our second aim was to explore investigators' interactions with other agencies in the systemic network and how those interactions may have had an indirect influence on police decision making. In other words, we wanted to understand what had been happening on the front lines *within* the police department and *between* the police and other service providers.<sup>54</sup>

To understand past police practices in sexual assault investigations and SAK submissions, we drew upon three data sources: ethnographic observations of collaborative team meetings; stakeholder interviews with police personnel, including current employees and former employees, spanning all levels of the organization (patrol, sex crimes unit investigators, supervisors, and senior command staff); and archival records (i.e., 1,268 sexual assault police reports) (see *Appendix B: Project Methodology* for details regarding data collection, data analysis, and triangulation/data credibility).<sup>55</sup>

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<sup>53</sup> Again, this analysis focused on past practices (up to 2009) in the police department, not their current approaches to sexual assault investigations and rape kit testing (which was outside the scope of the current study).

<sup>54</sup> These inter-organizational analyses were also focused on past practices (up to 2009).

<sup>55</sup> It is important to emphasize that this analysis of past practices would not have been possible without the support of the current leadership (of the sex crimes unit specifically and the department more generally). Allowing the research team access to these 1,268 police files reflects the current leadership's commitment to transparency and change, even though the information therein would likely not be flattering to the organization.

To examine how police practices might have been influenced by interactions with other organizations in the systemic network, we focused on the data in the stakeholder interviews. Our goal was to understand what messages were being communicated from one organization to another, and how were those messages being heard and acted upon. We were not trying to document what had happened in specific cases, but rather common themes in inter-organizational communications across many cases and many years of working together. Data collection was an iterative process of identifying themes in cross-organizational communication and then checking with representatives from each organization regarding how they interpreted those messages (see *Appendix B: Project Methodology*).

### ***Police Department Front-Line Decision Making & Practices***

**Reframing the Problem: The Case vs. The Kit.** In our interviews with police stakeholders, we asked specific questions about SAK submission guidelines and decisions (e.g., “*Can you tell me about why a SAK would or would not be submitted,*” “*Can you tell me about how you decide whether to submit a SAK for testing*”). In answering those questions, police personnel explained that kit submission was only one part of a larger decision-making process, as one police official explained:

*“The kit’s not the issue . . . it’s the investigation, figuring out what we could do to . . . if [there’s] something we could do, then we would. (Q: would that include submitting the kit for testing?) Depends. If it was a stranger, where we were at with CODIS, all that. So, sometimes, yes, sometimes no . . . you (referring to the research interviewer) keep asking about the kit. Wrong question. What mattered was the case and whether it was real and whether we could do anything about it.”*

Other interviews with police personnel confirmed that the decision about SAK testing was not a discrete, separate decision; whether a kit would be tested depended on *preceding* decisions and evaluations regarding the overall merit of the case, as this series of three quotes illustrates:

*“It’s not like the decision about the kit was separate or anything . . . we had to judge the case as a whole and decide what to do about it . . . whether it had merit.”*

*“Everyone’s all up [in arms] about the kits. . . from our point of view, it’s the investigation . . . a kit wouldn’t be tested if there was no case to make.”*

*“If a report is false or we can’t establish elements of the crime or it’s unfounded or the complainant refuses to prosecute, then no, we’re not taking the kit to the lab. Why would we? . . . that’s why there’s so many kits [in property].”*

In light of this information, our focus shifted to understanding the more general process of how police approach sexual assault investigations. Cases associated with unsubmitted kits were not, as a group, thoroughly investigated. In many instances, it would be difficult to claim that they were investigated at all. For instance, when we were reviewing the case files associated with one of the four testing groups (Testing Group 4; see *Chapter 4: Developing & Evaluating a SAK Testing Plan*), 84% of the reports from 2002-2005 were 1-2 pages long, consisting only of the initial police report made by the victim.<sup>56</sup> In many respects, the untested kits were a tangible sign about the dispositions of these cases—the case had been shelved, figuratively; the kit had been shelved, literally. Therefore, we wanted to understand why this happened so frequently, or as one police official put it: *“The kits [that weren’t] tested were cases that we couldn’t or wouldn’t do anything about.”*<sup>57</sup> Why would the police decide a case is something that they *“couldn’t”* or *“wouldn’t”* act upon?

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<sup>56</sup> We also saw some files associated with unsubmitted SAKs that were very thoroughly investigated, files many inches thick of documentation; however, those types of case/files were the minority of those we reviewed.

<sup>57</sup> This analysis focuses on cases in which the SAKs were *not* tested, which likely does not reflect police investigations practices in cases in which the SAKs were submitted for testing.

**“Couldn’t Do Anything About It:” The Impact of Chronic Resource Depletion.** Police officials spoke at length about how difficult it has been to sustain quality police work under decades of resources cuts. Budget/personnel cuts were particularly hard-hitting, as police did not have enough investigators to handle all the cases that were reported. As one member of the police department explained:

*“It sounds like an excuse, [and] there’s no excuse, [but] when you have fewer investigators and the same caseload, you have less time to investigate each case...[when] you don’t have enough people to investigate it, you know, that can come back to really haunt you.”*

Other police stakeholders highlighted how budget cuts negatively affect both high- and low-performing investigators. For top-notch employees, it becomes increasingly difficult to give 100% performance to all cases when they were stretched so thin; for others, slack performance is difficult to correct without adequate supervision and opportunities for training, both of which were historically lacking in Detroit. A police supervisor described how this negative dynamic emerges and how difficult it is to correct:

*“Let’s say you have a really remarkable team of people and they’re doing a great job and then [with] budget cuts they throw people in that might not be so great... they go, okay I made one phone call couldn’t get a hold of the victim, the case is closed . . . you don’t have any checks and balances on that . . . the boss saying, what did you [do] before you closed something. Because I think on some of these older ones [kits] you see . . . the lack of effort . . . They didn’t have time.”*

High case loads and chronic understaffing led to chronic burnout, which also negatively affected investigational quality, as one police stakeholder noted:

*“I do think it’s a resource issue; I do think that officers are so overwhelmed with the next case walking through the door that they take short cuts, and that they don’t do everything they should do. I think the burn-out is very high; I think people are in positions longer than they should be.”*

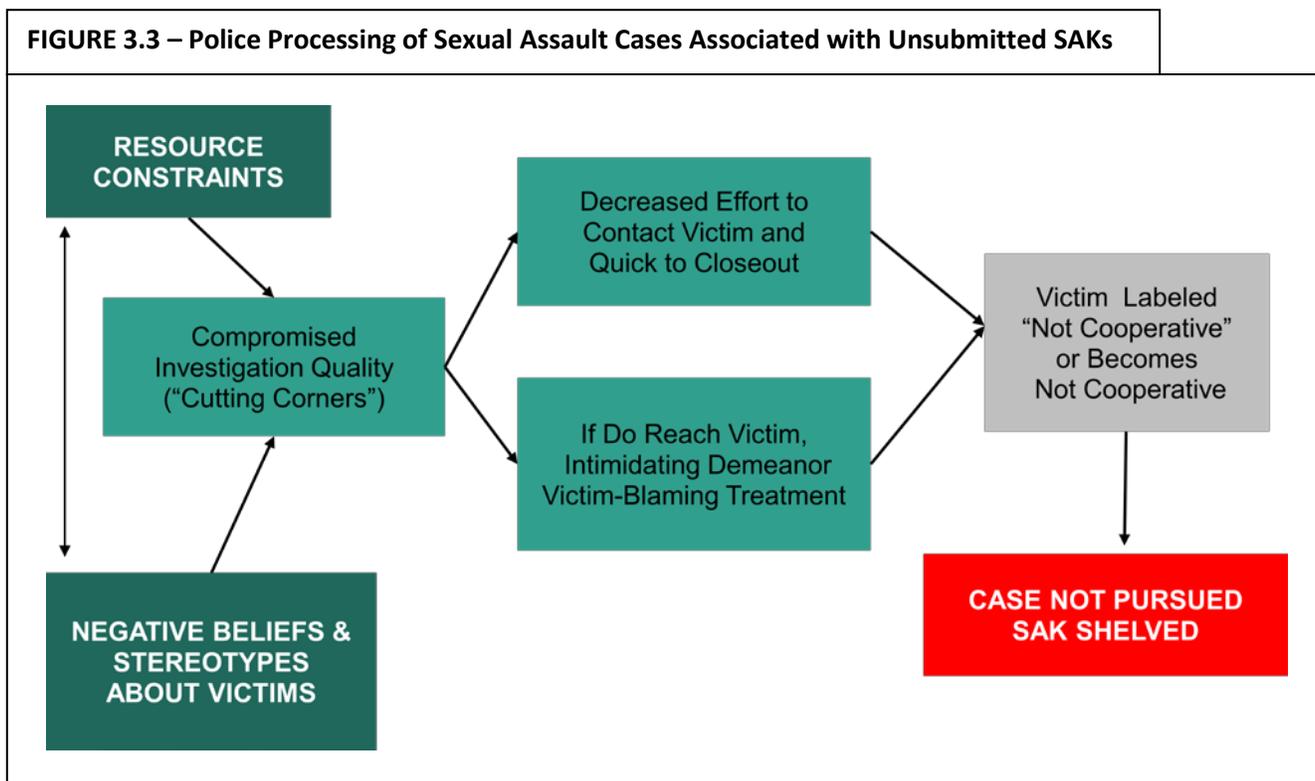
How do police approach sexual assault investigations when they are under-staffed, exhausted, and burned-out? Figure 3.3 (next page) depicts the process that emerged from our stakeholder interviews and review of 1,268 sexual assault police reports. Law enforcement officials were candid that the investigations for many of the sexual assault cases associated with unsubmitted SAKs were not thorough. One stakeholder summed up how many of these cases were handled: *“Okay, I made a couple phone calls, I threw my card in the door and that’s the end of that. Close it.”* Speaking to this issue of the thoroughness of investigation, one police official said:

*“When you have fewer investigators and the same caseload . . . the reality of it that you may not cross all your t’s and dot all your i’s. ...where do you cut? Canvassing, looking for additional witnesses ... personal contacts . . . Those are things, that’s where you’ll see corners cut or we should be reaching out more talking to people, we just don’t, we don’t have a chance to.”*

Another strategy for deciding how to *“allocate limited time for unlimited cases”* was to wait for the victim to initiate follow-up contact with the police. As one police supervisor described:

*“I get calls from victims saying my detective hasn’t called me and I’ll look in the notes and it says, I made a phone call, I called at 3 on Tuesday afternoon, there was no answer, I left a message’ . . . [the investigator] may not put in the effort that we would like to see him put in . . . he may just say, make a phone call and that’s it. Then if she wants to complain or she wants to prosecute, I’m sure she’ll be contacting me.”*

In other words, police would shift the burden to the victim to contact them and pursue the case, or as one investigator said, *“she has to prove she wants this . . . then I’ll take a look.”* When questioned about this practice, police readily acknowledged that it was not fair to victims, but that it’s one of many strategies investigators use to manage work load—if the victim is engaged, then that case might be one in which they could invest time and effort—if not, then not.



As shown in Figure 3.3, resource constraints led to “cutting corners” and decreased effort on cases; when victims did not respond to investigators’, admittedly, minimal efforts to contact them and develop the investigation, police often labeled victims as “not cooperative” or “refused to prosecute.” As one police official explained:

*“It comes down to the individual officer whether they think someone’s credible or not . . . you might have an officer who may not be particularly motivated or ambitious and who might simply mark a file that the complainant refuses to call back or refuses to appear, and that may not be accurate . . . We find that a lot of times when an officer has sort of deemed that a complainant is uncooperative, that’s not really the case. So there’s just too much discretion in that process.”*

But once a victim was labeled as not cooperative, more often than not, the case was not pursued further (including, not submitting the SAK). The term “not pursued” is used deliberately here because the final case dispositions documented in the files varied widely. Some were officially “closed” (e.g., “unable to

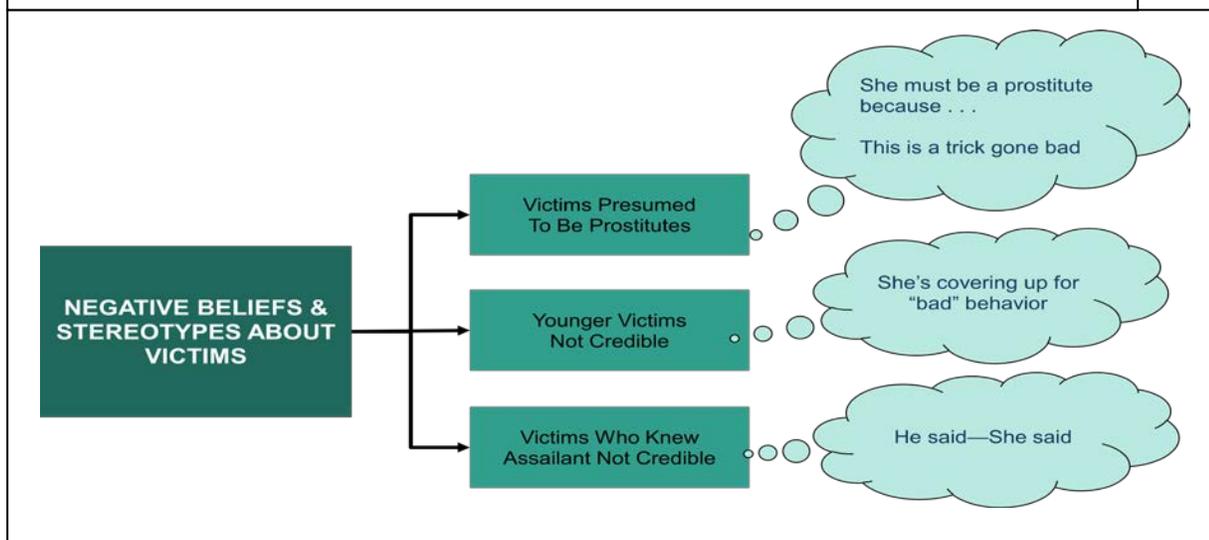
*establish the elements of the crime,” “unfounded”*), but others remained open (nearly a decade later) (e.g., *“to locate”* [meaning, offender still to be located], *“pending victim contact”*). What was common across the cases with unsubmitted SAKs was that more often than not, there was minimal documentation and minimal effort invested in the case.

**“Wouldn’t Do Anything About It:” The Impact of Victim-Blaming Attitudes.** Though resource depletion undoubtedly had a negative effect on the sex crimes unit, insufficient staffing was not the only reason why so many kits were not submitted. Indeed, the quantitative modeling presented in the prior section of this chapter found no statistical association between staffing cuts and SAK submission rates, which suggests that there were other factors at play. Police noted that there were cases they *“wouldn’t do anything about,”* and based on the data from the stakeholder interviews and the sexual assault police reports, it appears that this was due to negative beliefs and stereotypes about victims, which adversely affected the quality of the investigation, and therefore, SAK submission. As noted previously, all stakeholders noted that negative attitudes rooted in sexism, racism, and classism were contributing factors to this problem; however, when focusing specifically on the police, the stakeholder interviews and police reports highlighted three specific attitudes that appear to have negatively impacted case investigations (and ultimately SAK submissions) (see Figure 3.4, next page).

First, police personnel often assumed that victims reporting sexual assaults were engaged in prostitution/sex work. In both the stakeholder interviews and in the police reports, there were frequent references to *“deals gone bad:”*

*“[sometimes it was] a deal gone bad, she got herself caught. (Q: ‘got herself caught,’ what does that mean?) She was prostituting and she agreed to the money and he didn’t pay her ...she says it’s rape. It’s not, it’s a deal gone bad.”*

**FIGURE 3.4 – Police Attitudes in Sexual Assault Cases Associated with Unsubmitted SAKs**



Supporting their position that the report was a *'deal gone bad,'* police often highlighted the location and time of the incident, which of course should be noted in a police report, but the neighborhood/area in which the assault occurred was often heavily emphasized in the report. When asked about this practice, one investigator explained:

*"We have to note time and place—that's basic police work. (Q: I appreciate that, but why is it mentioned repeatedly in the narrative?) Because it's relevant. If she's on John R at that time of day, well what else is she doing? . . . It's kinda like code among us (the investigators), make a point about what neighborhood it happened in, and well, enough said."*

In the stakeholder interviews, we asked police how and why they suspected a victim might have been involved in prostitution, which one investigator described as:

*"It's not one thing, usually, neighborhood, street, circumstance of the assault, like if she accepted a ride with someone . . . how she looked . . . can't put your finger on it exactly, but you do this long enough, you can tell."*

When asked if women involved in sex work could indeed be victims of rape, some police officials agreed (e.g., *“of course they can be raped ... some rapists prey on them ‘cause people won’t believe them”*), but again, the overriding concern was that if it was a *‘deal gone bad,’* then they wouldn’t want to invest limited resources investigating the case. When asked if it was possible that investigators would label a case in that way in order to manage their workloads, one police official stated: *“I’d like to think that didn’t happen, but it yeah, I’m sure it did.”*

Returning to Figure 3.3, if police believed that victims may have been involved in prostitution, they readily acknowledged that they treated them differently, often acting in deliberately intimidating ways to *“test them,”* as one officer put it, to see if they were telling the truth, and sometimes to *“nudge them”* out of the system and discourage them from continued pursuit of their report:

*“I’m jaded, I come off . . . as jaded, lousy demeanor . . . she’s a prostitute but she’s still a woman and was victimized, she just says, you know what, enough of this, I’m out of here, I’ll just keep on going about my business.”*

Similarly, another police official stated,

*“I guess one of the ways you could discourage is being the jaded police professional. . . . Just coming off wrong . . . now in my mind they’re prostitutes, they’re this or that . . . my line of questioning or . . . demeanor [shows that]. You look at me and go what the hell am I doing here? [It’s] discouraging them.”*

After being treated in such a way, victims might withdraw from process or might not cooperate with the police, thereby bolstering investigators’ assessments that the case should not be pursued further.

Bringing these ideas together, Exhibit 3.1 presents a police report in which the victim is assumed to be a prostitute and that belief appears to have dictated the course of the investigation, to the point of discounting possible evidence of a crime. In this case, a 22 year-old woman was attacked outside a

liquor store by a known acquaintance, who pulled her into a vacant house, threatened her with a gun, and then sexually assaulted her. Afterwards, she ran to a nearby fire station and the staff took her to the hospital. Below are the officer’s notes from the interview conducted with the victim at the hospital:

**EXHIBIT 3.1 – Sexual Assault Police Report of Suspected Prostitution “Deal Gone Bad”**

**THE ROOM REEKED OF ALCOHOL...THE COMPL WAS ADVISED THAT SHE MUST BE TRUTHFUL REGARDING THE EVENTS THAT LED UP TO THE RAPE...SHE STATED THAT SHE DIDN’T FEEL COMFORTABLE TALKING ABOUTS THE EVENTS DUE TO THE FACT THAT HER BOYFRIEND WAS AT THE HOSPITAL, AND HE DIDN’T BELIEVE HER STORY. I EXPLAINED TO HER THAT SHE SHOULDN’T BE WORRIED ABOUT HER BOYFRIEND, SHE SHOULD BE WORRIED ABOUT TELLING THE POLICE THE TRUTH OR SHE WOULD BE CHARGED W/ MAKING A FALSE FELONY REPORT.**

**I THINK SOMETHING HAPPENED TO THE COMPL, HOWEVER WHETHER SHE WAS RAPED, OR IF THE DEAL WENT BAD IS YET TO BE KNOWN...THIS CASE SHOULD BE CLOSED IF SHE DOSEN’T MAKE ANY CONTACT W/ US. NOTE...SHE DID HAVE SCRATCHES ON HER NECK AND THROAT AREA...**

Intimidating Behavior

“Deal Gone Bad”

Burden on Victim to Make Contact

This example highlights how the “deal gone bad” assumption can affect an investigation. The victim’s concerns about discussing the assault are re-framed as duplicity on her part; though we do not know how she interpreted the investigator’s comments about filing felony charges against her, it seems likely that such actions were at the very least intimidating, and at worst, threatening. The report also shows the “let-the-victim-contact-us” strategy discussed before, whereby police appear to be managing

their workloads by expecting survivors to pursue their own cases. The report ends with a mention of physical injuries to the victim, but these facts do not appear to be influential to the investigator.<sup>58</sup>

The second common stereotype that emerged in the stakeholder interviews and police reports was that the credibility of adolescent victims was questionable and that they made claims of rape to cover up for “bad” behavior (e.g., being out late, being somewhere/with someone that they weren’t supposed to, experimenting with alcohol and/or drugs). For context, it is important to note that a substantial portion of the victims whose kits were not tested were adolescent victims (e.g., of the 1,595 kits tested in the context of this project, 43% of the victims were under 18). In the stakeholder interviews, police described their doubts about younger victims, as this series of two quotes illustrates:

*“Sometimes with the school girls . . . an experienced investigator knows more than an inexperienced one. You kind of look and go, yeah it didn’t happen like [she] said it happened.”*

*“The young girls, they say something went down so they won’t get in trouble with their mamas ‘cause they were out late or with older men or doing something they shouldn’t be doing.”*

Returning to Figure 3.3, police noted that they would “lay it on thick” with adolescent victims, describing the criminal justice system process in deliberately scary terms, warning them about negative consequences for them if they were found to be lying. One investigator stated,

*“For the girls, yeah, I’d try to warn them what’s it like . . . so if they’re telling the truth, they know what they’re up against . . . if they’re lying, they’ll know how much trouble they’ll get in.”*

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<sup>58</sup> As noted in *Appendix B: Project Methodology*, case study examples were carefully selected to reflect *typical* report characteristics, circumstances, language, experiences, etc. among the 1,268 police reports we reviewed in this project.

In this case example (Exhibit 3.2, below), a 14 year-old girl reported that she had been abducted by two men, taken to an abandoned burned-out building and raped. At the beginning of the case report (top part of Exhibit 3.2), the officer states his/her belief that the report is false—a statement that preceded any details about the assault itself. The last sentence of this report highlights that the victim was supposed to be home at 7:00pm, but didn't return until 8:30pm. The relevance of this statement is unclear, though it implies that the account may have been fabricated to cover up for being late. The investigator's supplemental notes (bottom part of the Exhibit 3.2) elaborate on these themes, highlighting how the officer did not believe the victim's account of the assault.

### EXHIBIT 3.2 – Sexual Assault Police Report of an Adolescent Victim “Covering Up Bad Behavior”

REC CASE, COMPL AND HER MOTHER CAME TO SEX CRIMES. COMPL GAVE A FALSE STATEMENT ABOUT BEING RAPED, SHE SAYS SHE WAS OBDUCTED BY TWO BLACK MALES THEN TAKEN TO A VACAT BURNED OUT DWELLING AND THEN WAS FORCED TO LYE DOWN AND SEXUALLY ASSAULTED. THE COMPL WHILE AT SEX CRIMES, NEVER HAD CHANGED HER CLOTHES. HER CLOTHES WERE VERY CLEAN FOR BEING IN A BURNED OUT DWELLING LAYING DOWN. THE COMPL ALSO SAYS SHE WAS TIED UP AFTER THE RAPE BUT SET HERSELF FREE AFTER PERPS LEFT. COMPL HAS NO ROPE MARKS ON HER WRISTS. COMPL WAS SUPPOSED TO BE HOME AT 7:00P BUT DIDN'T ARRIVE UNTIL 8:30P. THIC CASE IS CLOSED MIUTEEC

Victim Assumed to be Covering Up for “Bad Behavior”

This heffer is trippin. First of all, she comes up in here hollin at people. She claim she was abducted 5 mins. from her house by 2 B/M's in all black, wit black ski mask on, who took her to a **burned out house** “Not Far” from where she was abducted threw her on flo and took it. She was clean and smellin good, ain't no way that shit happen like she said. She knew her mama was gon be looking fo har cause she was pose to be home at 7. We found out that somebody had den seen her wit dis boy named David. The jig was up; she didn't want to talk no mo. So her mama took her to the hospital, but they got the fuck outta here.

Victim Assumed to be Covering Up for “Bad Behavior”

Case closed MIUTEEC

This case was closed (UTEEC = unable to establish elements of the crime), and it does not appear from the documentation in the file—which consists of only these two documents—that there was any attempt to review the scene of the crime, canvass for witnesses, or search for the assailants. When this case example was presented to police stakeholders (as part of the member-checking process), they expressed alarm at the tone, content, and language of the report, but they acknowledged that disbelief of adolescent victims was a pervasive problem.

The third common stereotype was to disbelieve victims who knew their assailants: police doubted victims' credibility if they knew or were even minimally acquainted with the assailant. In the stakeholder interviews, police expressed frustration about these kinds of cases because the accused perpetrators often claim that the incident was consensual, which law enforcement felt was difficult to prove or disprove: *"[it's] impossible to prove lack of consent."* When asked about why it was *"impossible,"* one investigator clarified that they can establish the elements of the crime, including lack of consent, but that it is often time-consuming to do so and time to invest in such cases is often limited.

Police personnel also questioned whether reports between two known parties were falsely made because the victim later *"regretted what she'd done."* As another officer explained:

*"I don't have time to deal with . . . wake-up and regret. You did what you did. That's that. It's not a crime and don't take up our time with it."*

Investigators emphasized that given how pressed they were to keep up with their caseloads, they were particularly frustrated and skeptical of any case that seemed, to them, like a *"revenge report,"* meaning, the victim was making an accusation of rape to *"get back at"* a friend or partner because they were upset or because they were regretting what had happened. When asked about how common it was that known associates, friends, and/or partners rape their partners, police acknowledged that it does happen, but, in their belief, not that often: *"Truly rape? Sometimes. But not most of the time."*

In terms of how police responded to victims who knew their assailants (see Figure 3.3), stakeholders acknowledged that they sometimes treated victims of non-stranger assault brusquely, as one investigator described his/her approach to known-offender cases as such:

*"I don't believe them, sure I let them know that . . . if this boyfriend-girlfriend stuff, then that's not my business and I tell them that . . . if they say never mind, ok, complainant refused to prosecute. Close it and move on to the next one."*

Other police stakeholders noted that victims ought to expect *"what they get"* if they invite someone over or agree to go somewhere with them. As one investigator stated, *"it might not be right, but it's what happens, you go over there, what do you think's gonna happen?"*

In the case example in Exhibit 3.3 (next page) , the initial responding officer's report is three detailed, hand-written pages, sequencing how a 14 year-old girl victim was threatened with being beaten up and killed, orally and vaginally penetrated by force, and subjected to attempted anal penetration by a known acquaintance in his 20's (first excerpt, handwritten); these details were condensed to the second excerpt shown in Exhibit 3.3: *"compl (complainant) invited known perp (perpetrator) over to watch TV; perp forced sexual intercourse and forced compl to perform fellatio."* The *victim's behavior* is now the leading element in case file. The initial case disposition was *"to locate,"* meaning that the assailant (who is known to the victim), needed to be found by police and interviewed.

The case was then handed off to a sex crimes unit investigator (third section, handwritten in cursive), who questions the victim's statement (*"statement and time frame has some holes in it"*). The victim provided additional details about the perpetrator, namely that he had been arrested before, but the investigator characterizes the victim as *"hostile"* when asked for more information. Given that police personnel acknowledged that they will purposely ask questions in intimidating and challenging ways in order to discourage victims' continued engagement, it seems reasonable to wonder what had transpired

in this exchange. In the end, the final case disposition changed to "unable to establish elements of the crime." There is no documentation in the file to suggest that officers ever searched for, contacted, and/or interviewed the suspect.

**EXHIBIT 3.3 – Sexual Assault Police Report of a Known-Offender Assailant**

Subj then told her to open her legs wide and if she cry he will beat her up. Subj put his penis inside compl's vaginal, Subj asked did she know how to do it doggie way and that he was going to turn her out. Subj then tried to have anal sex, but it wouldn't go in. Subj kept using his finger / penis in vaginal.

Compl invited known perp over to watch T.V. Perp forced sexual intercourse & forced compl to perform fellatio.

DISP: TO LOCATE

Establishing Victim Invited Perpetrator Into Her Home

COMMENTS:

The compl statement & time frame has some holes in it. The compl & sister are only telling what they want to be known. The compl stated the perp had been arrested before, but when I attempted to obtain more info on the arrest compl became hostile. ???

Questioning Victims' Truthfulness

Victim Labeled as Non-Cooperative or Becoming Non-Cooperative in Response to Law Enforcement Treatment

Case closed, unable to establish the elements of the crime.

Throughout this analysis of police attitudes towards sexual assault victims, we have highlighted case study reports to illustrate how these beliefs appear to be enacted in practice; however, it is important to acknowledge that police reports do not tell the full story of an investigation—either from the investigator’s point of view or from the victim’s. Yet, what *was* expressed, clearly and frequently, in the reports we reviewed was a wide-spread disbelief of victims, particularly those who might have been involved in sex work, those who were adolescents, and those who knew their offenders.

### ***The Police and the Crime Lab: Intra-Organizational Practices & Communication***

The crime lab is the organization most proximal to the police sex crimes unit in this systemic network, as both were units within the police department. Investigators and crime lab scientists interacted frequently and both parties noted that they were in regular, case-by-case communication about SAKs. Based on stakeholder interviews with crime lab personnel and police, we documented three themes in their communications regarding SAK submission. First, both entities confirmed that lab personnel routinely told police that they would not accept a kit for testing unless it was complete and properly submitted. Crime lab personnel expressed considerable frustration regarding investigators’ lack of compliance with what they considered to be basic principles, such as properly sealing evidence:

*“They bring stuff in, it’s not properly sealed, and you say, I can’t take this like this . . . Our policy is when it comes through the door, it must be properly sealed . . . [our policies] may be contrary to what your policies are, but, we’re the ones that are going to take the heat if this is wrong.”*

However, the real sticking point seemed to be lab personnel’s requirement that the kit was “complete:” by complete, they meant that if they were going to be testing for DNA, then they would need a

reference sample, so police would need to obtain and submit a buccal swab from the perpetrator and/or any recent consensual sexual partner(s).<sup>59</sup> As one forensic scientist explained:

*“I couldn’t get through [to them]—I have to have a reference sample . . . I’m not testing it unless I have it . . . you (the police) need to go get the reference sample before I can do my job. And they just wouldn’t do it.”*

In practice, it appears that crime lab personnel did sometimes accept kits without reference samples and began testing, but how often that occurred was not something we were able to determine. What is clear is that sex crime unit investigators were told repeatedly that SAK submission required not only the kit itself, but also supplemental samples to be obtained by the police themselves.

A second common theme in the communication between police and lab personnel focused on the volume of testing that the laboratory could reasonably handle. Crime lab staff told sex crimes investigators that they did not have the personnel capacity to test all SAKs. Testing was a limited resource, to be used only when needed, as one forensic scientist explained:

*“If you gave us a legitimate reason for why you needed it tested, it got tested. It got tested even if it proved we were right, it’s all victim (the DNA in the kit is only the victim’s). To me that was one of the advantages of working closely with the investigators in a small setting like this because we got to know them, we got to know how they worked, they got to know how we worked, and what we could do and what we wouldn’t do.”*

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<sup>59</sup> The research team was not able to verify the existence of any written documentation stipulating these requirements, though both police department lab personnel and police confirmed that this was their joint understanding of SAK submission practices. FBI guidelines regarding CODIS uploading have changed over time such that reference samples are no longer required (though agencies must remove a profile immediately if it later became known that that the profile was from a consensual partner). Despite this change, police officials continue to state that references samples are required prior to submitting a kit for testing.

Crime lab staff emphasized to sex crime unit investigators that testing was not something that could or should be done with every kit. Lab personnel were acutely aware that there would always be urgent cases that would demand immediate testing, so they always had to juggle their workload:

*“The investigators understand that the lab is . . . it’s a limited resource, and at times they need to call in, I don’t want to call them favors, but they understand that they need to use the resource wisely because at some point in the future they really need to prioritize something. . . . This one’s not as big of a priority as something else; I’m going to go on to a next case. And then all of a sudden if they have something that really seems like it’s a really bad crime then that’s the one that gets submitted.”*

Due to its own resource constraints, the lab was consistently giving the message that they could not keep up with demand and the volume of case work generated by a city of this crime rate, and this was particularly prevalent in the years when the lab was seeking accreditation (2002-2005, and particularly from 2004-2005, according to stakeholders in both organizations). As one forensic scientist noted, *“one [DNA scientist] was pretty much entirely on accreditation. . . functionally, those years, it’s like we [had] lost a position.”* Similarly, another noted, *“during then (the push for accreditation) it was more impossible than usual [to keep up] . . . and yeah, we told them (the police) that.”* These qualitative data are consistent with the quantitative modeling results presented earlier in this chapter. SAK submissions dipped in these years, even though the lab had CODIS access during this time (which presumably would have increased submissions, given the greater utility of testing to investigators); however, the 2004 federal requirement for independent accreditation was challenging, given the lab’s staffing levels, and the message *“don’t send us everything”* became particularly prevalent during this time. Lab personnel emphasized that this bothered them as forensic science professionals, knowing, as one said, *“what DNA could do to help these cases, these victims,”* but they did not have the capacity to test all SAKs.

A third and final common theme in the communication between crime lab personnel and police centered on which SAKs should be tested. Police crime lab staff emphasized that they had limited resources for SAK testing, and they did not want their *“time wasted on kits that shouldn’t be tested.”* One stakeholder explained what s/he viewed as the lab’s on-going dilemma:

*“So you bring in this kit (one believed not worthy of testing) and in the meantime [we] got a horrific murder, a serial rapist, limited resources, limited personnel and we’re expending our energy on this . . . and if the victim’s kind of shady . . . Just bring us the real ones.”*

It appears then that the attitudes and beliefs among crime lab personnel were similar to those of the police in that victims suspected of prostitution, adolescent victims, and victims of non-stranger rape were not deemed credible and/or worthy of investigational and testing resources. Of course, we cannot disentangle whether the attitudes expressed by crime lab personnel were due to messages they had received from the police over the years (either at an individual level or at the institutional level, given that they were part of same organization), or whether these were, more or less, their own beliefs about victims. At the very least, both crime lab personnel and police confirmed that they regularly discussed how some victims, some cases were not worthy of the investment of testing.

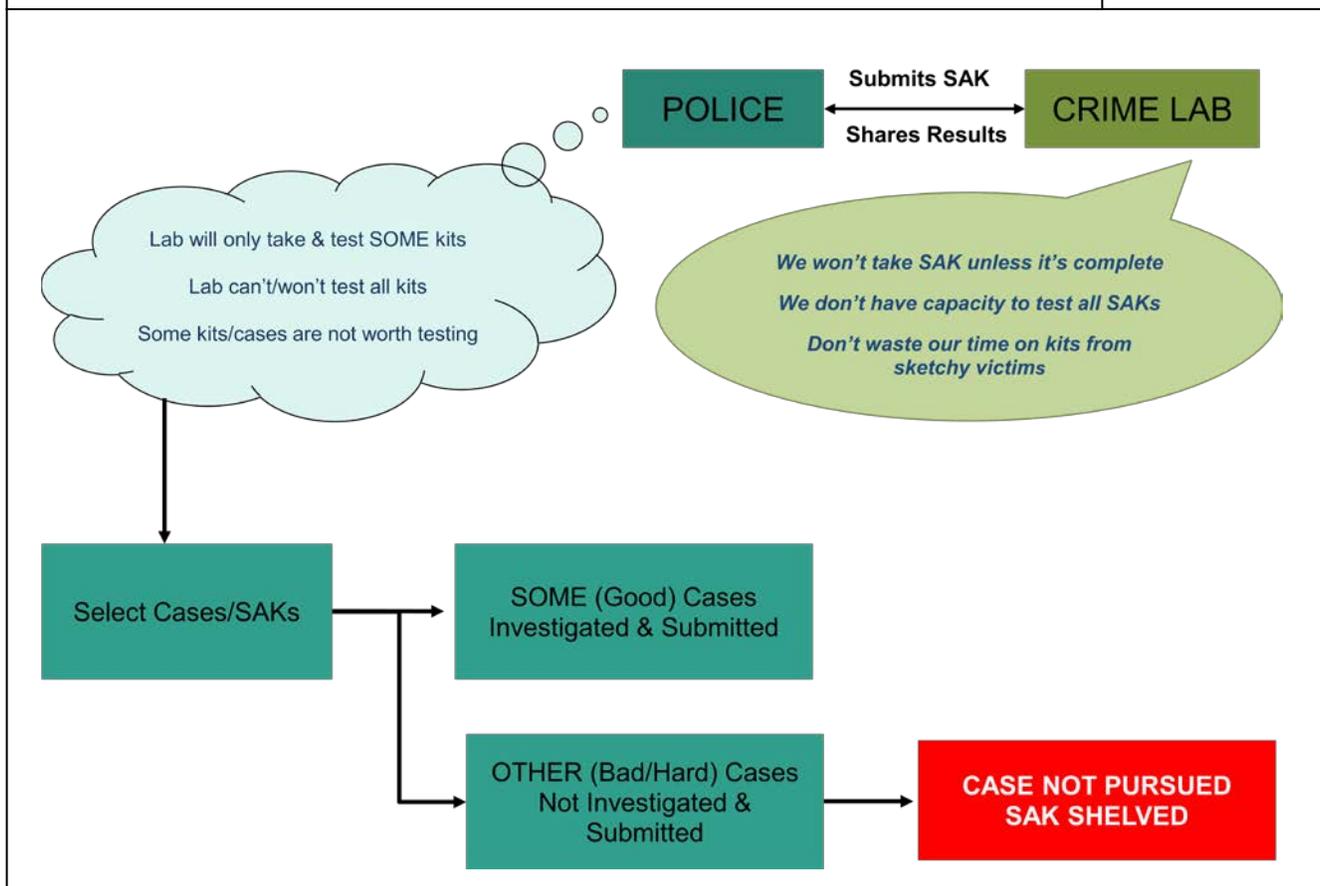
Given these communications with the crime lab personnel, how did police hear these messages? How did they interpret these remarks, in light of their own resource constraints and beliefs about victims? As shown in Figure 3.5 (next page), police personnel said that they heard these messages as confirmation that not all SAKs could or should be tested. Investigators characterized the lab’s message that kits should not be submitted unless they were “complete” (i.e., police had obtained reference samples from suspects and/or recent consensual partners) as *“push back, them putting more work on us to keep their work down.”* Another investigator expressed frustration about the lab’s practice on this: *“getting the reference sample, I don’t have time to go chase that down, can’t we get started without out? They said no.”* Police officials noted that these messages, over time, likely had a negative effect on

SAKs submission, particularly among low-performing investigators, who may have shrugged off the lab's messages and may have used it as an excuse, as one supervisor explained:

*"They hear that (the reference samples requirement) and say to themselves, this takes too much time . . . effort to submit a kit, and they (the lab) never take them anyway, so why bother?"*

Also as shown in Figure 3.5, police heard the lab's messages about limited capacity, as one police official stated, *"they told us they can't do it all, so we didn't send it all."* Therefore, the communication with the lab reinforced the police department's mindset that they *"couldn't"* or *"wouldn't"* be able to pursue all cases, and the attitudes expressed by crime lab personnel regarding certain kinds of victims/cases, bolstered police opinions about which cases should be pursued—and which one's shouldn't.

**FIGURE 3.5 – Intra-Organizational Communication Between the Police & Crime Lab**



### ***The Police, the Crime Lab and the Prosecutor's Office: Inter-Organizational Communication***

From our interviews with stakeholders across these three organizations, we identified three common themes in the front-line communications between sex crime unit investigators, crime lab staff, and assistant prosecuting attorneys (APAs) regarding sexual assault cases and SAK submissions. First, the APA's noted that when they need a kit tested depended on the circumstances of the particular case at hand. For example, consider this series of quotes from various APAs that outline different scenarios:

*"Sometimes we want it (the kit) . . . processed even before we issue a case. That happens occasionally where we really need to know what's in that kit. There are some kits that we may need tested before we can go forward with prosecution because ID may be an issue."*

*"The majority of our cases are issued well before we know what's in the sexual assault kit."*

*"It should be an automatic thing (sending the kit to the lab), if I've charged somebody, there's no reason why that kit shouldn't be sent to the lab. If I charged this defendant, that should be the first thing that happens."*

*"[If a case is going to trial] . . . that kit needs to be tested . . . because what's going to happen is the defense is going to throw out, well they didn't even test the evidence. .. I never know what the defense is going to be."*

These quotes highlight that *"it depends"*—there isn't a one-size fits all approach because sometimes a kit needs to be tested in order to identify the suspect to be charged; sometimes kit testing is necessary to rebut a defense of no-contact between the victim and offender; sometimes the kit testing simply confirms that there was contact so that the case can proceed to establish other elements of the crime (e.g., lack of consent). Thus, the message from the APA's was that SAK testing needed to be evaluated on a case-by-case basis, depending on the circumstances of the case.

Second, APA's noted that when they needed a kit tested, they often needed it immediately. If testing was being conducted to identify an offender, there was a pressing public safety concern that necessitated quick turnaround. If testing was to be presented in court, they were facing a mandated 90-day court timeline and judges who would not give continuances for SAK testing.<sup>60</sup> As one APA explained:

*"There are times when the lab has dropped everything they were doing and rushed to process rape kits because you just need a case rushed. The judge isn't going to give the adjournment."*

Indeed, police and crime lab personnel also expressed frustration at the judiciary for what felt to them like impossible deadlines and expectations. But, in the end, the investigators, forensic scientists, and APA's knew that they were going to have to juggle their workloads to accommodate urgent testing requests. One APA described it as such:

*"They (the police and lab) knew there was always the possibility of the call (Q: The call? What do you mean?) The call for: find it (the kit), test it, we need it now. That was the reality . . . we all had to accommodate the trial schedule."*

The third common theme in communications from APAs to the police (and to a lesser extent, to crime lab personnel) is that they might not approve a warrant request and move forward with a case if there were serious concerns about victims' credibility. In these two quotes below, APAs noted that, depending on the circumstances of the case, it can be difficult to decide how to proceed:

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<sup>60</sup> Briefly, the process for felony cases in this jurisdiction is as follows: 1) arrest warrant; 2) arraignment on the warrant; 3) preliminary examination to show probable cause that a crime was committed and the defendant committed it; 4) if the prosecution meets its burden in the preliminary examination, the case is bound over for trial; and 5) arraignment, which starts the 90-day timeline and all other steps (e.g., pretrial motions, subpoenas, jury trials) must be completed within 90 days.

*“When you look at it (the warrant request) and you see somebody (a victim) who has a prior (criminal offense) . . . Whether or not we should go forward [can be] hard to decide.”*

*“If you have a woman who's going out to a bar and drinking and then goes back to a house with a guy, [it doesn't] automatically mean . . . she wants to have to sex . . . Even if she went back and considered it, and said no, knowing no technically means no, but that's not people's true belief. The case is getting really difficult.”*

The APA's also noted that they differ among themselves as to whether they would issue a warrant when the victims' credibility was questionable, and that before the Sexual Assault Team was formed, there was even more variability across APAs, as this quote illustrates:

*“We have different opinions [about prosecuting when credibility is questionable]. There were others that said, I wouldn't try that, don't try that. So we differ amongst ourselves.”*

Though the examples quoted above highlight how the general public might doubt victims who have prior criminal records and/or those who had been drinking at the time of the assault, the APAs emphasized that their concerns about credibility were not rooted in common stereotypes about victims; indeed, they noted that some victims are specifically targeted by rapists because they will not be seen as credible by the criminal justice system and the public as a whole. Rather, they emphasized that their concerns about credibility were based on whether there were serious concerns about the veracity of the victim's statement and whether they could, consistent with their responsibilities as ministers of justice, move forward on a case in which there were doubts about the facts at hand.

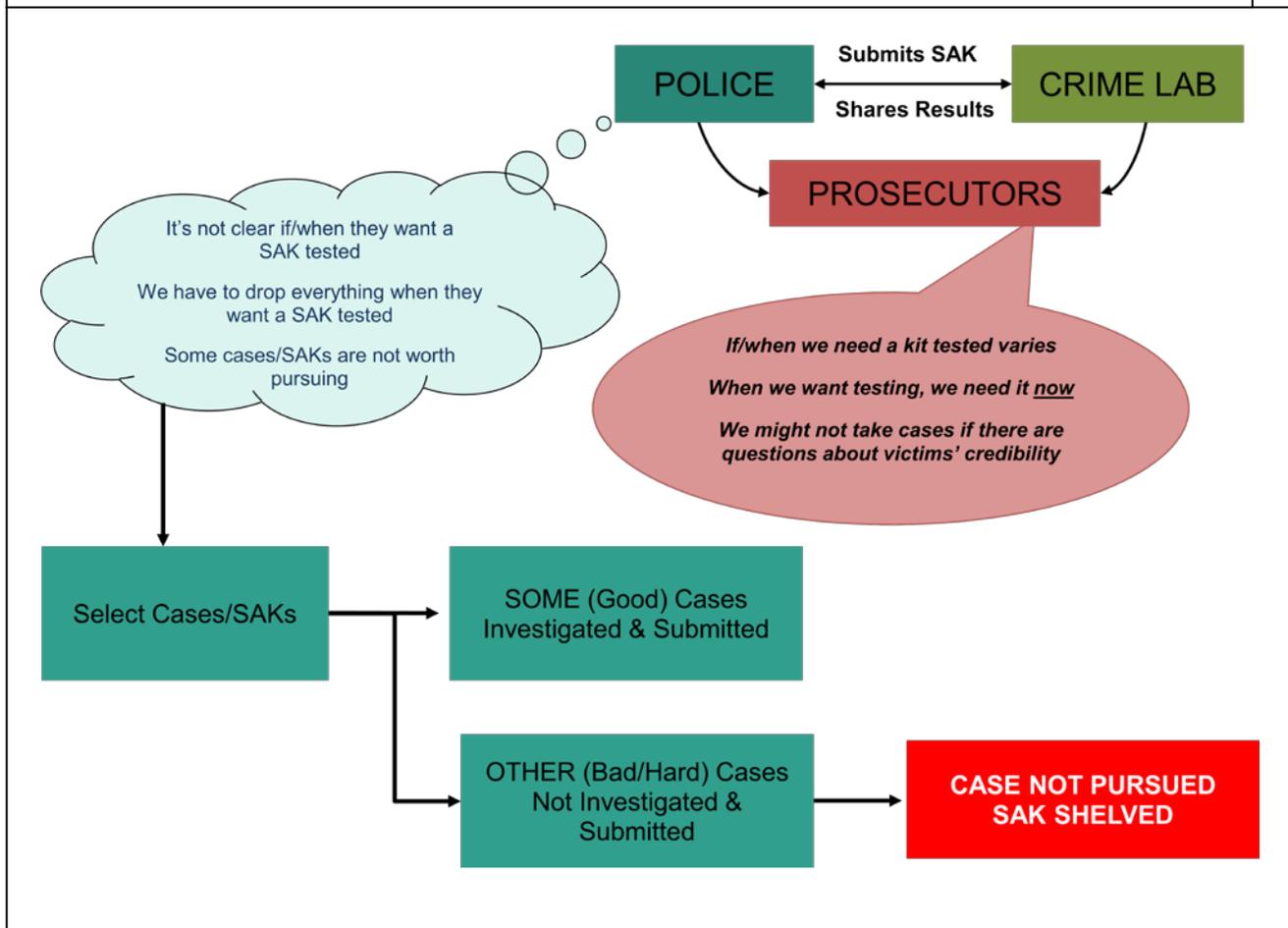
The overarching message from the APA's over time was *“it depends:”* how to proceed in a sexual assault must be evaluated on a case-by-case basis. So how then did the police interpret this message, given their own beliefs, time pressures, and resource constraints? Figure 3.6 (next page) highlights how police appear to have heard these messages and how those interpretations reinforced their own beliefs

and practices regarding sexual assault investigations and SAK submissions. Police investigators noted that the “it depends” message was confusing and contradictory, as these two quotes illustrate:

*“It wasn’t clear to us what they wanted with testing. They told us different things all the time. There wasn’t a rule about it. Sometimes we got to decide, sometimes we decided together, sometimes they called us and said, test it, now. . . . so, no, I didn’t always send everything in for testing because I didn’t know whether they (the prosecutors) wanted it . . . I figured, if they need it, they’ll be calling.”*

*“Now we’re trying to sort out what went wrong and making new policies, but truth is, part of how this happened is that it wasn’t clear who was deciding and which ones should be tested.”*

**FIGURE 3.6 – Inter-Organizational Communication Between Police, Crime Lab, & Prosecutor’s Office**



When kits were to be tested, the “*we need it now*” problem caused long-term tensions between these three organizations, as one APA noted:

*“[The crime lab] says, don’t send us a rape kit unless you’re sure you need the kit analyzed because if you send us one and it turns out we’ve done the analysis but the guy’s going to plea, that’s time and effort we spent on a rape kit that kept us from getting to one where we gotta get it to court and the judge is screaming because we’re now late.”*

Similarly, from the police perspective, the push to get kits tested for trial made it difficult for investigators and crime lab staff to manage and prioritize their workloads:

*“There were instances where the prosecutors didn’t want the kit tested or they’ll tell us when a kit is to be tested. [Sometimes] to me it seemed like the prosecutors wanted a kit tested for leverage in a court proceeding . . . to get the defendant to cop a plea, which makes more work for all of us. . . Then they (the prosecutors) call to say, well we don’t need it now.”*

Q: How does that affect your relationship with people in the crime lab?

*“It’s strained . . . The relationship is strained all the way around, the lab, sex crimes, prosecutor’s office. It’s strained because no one trusts each other. Everyone points the finger, everybody places the blame. This whole thing is flawed and no one trusts each other, no one wants to be on the same page.”*

The chronic strain between these organizations appears to have been further exacerbated by how police investigators interpreted APAs’ decisions not to move forward in some cases. From the police point of view, the APAs’ beliefs were similar to their own, as one stakeholder described:

*“They (the prosecutors) said it too . . . they can pretend they didn’t, but they did . . . they said they can’t warrant a case if she’s been tricking (engaged in prostitution) or using crack or whatever . . . so we knew not to bother with those.”*

Similarly, another police official noted, “*everyone knew they wouldn’t take certain kinds of cases, so we didn’t present them . . . they (the prosecutors) weren’t looking for extra work either.*” However, the prosecutors *strongly* disagreed with the notion that their beliefs were consistent with the police, as one APA noted: “*I think they heard what they wanted to hear . . . not what we actually said.*” Another APA elaborated on the differences between the police and prosecutorial view on victim credibility:

*“It’s a completely different thing to write off a case as CRPT (complainant refused to prosecute) because you think—think—she might possibly been involved in prostitution . . . to basically toss it in the trash and never even present it to an APA for consideration . . . that’s totally different than making an informed decision that you can’t warrant after a thorough interview with the victim . . . and consideration of all the evidence (emphasis in original).”*

For police who were disinclined to believe some victims, or perhaps many victims, the APA’s messages about victim credibility appear to have been heard in ways not consistent with how they were intended, and negatively affected how investigators approached certain kinds of sexual assault cases.

### ***The Police and the Medical System: Minimal Inter-Organizational Communication***

As described previously in this chapter, before the Detroit-area SANE program was founded, there was no regular communication between the police and medical community regarding SAKs, which we confirmed in our stakeholder interviews. Representatives from both the police department and the medical community stated that there was minimal contact, but what communication there was focused on two central issues. First, medical providers noted that prior to the SANE program, sexual assault cases were simply not a priority in Detroit-area hospital emergency departments (ED), a message that they communicated to victims as well to police:

*“We would tell police, don’t bother waiting around for it (the victim and the kit) . . . we’ll get to it when we get it to it . . . we have to do the real emergencies first.”*

Sexual assault patients typically do not sustain serious/life threatening injuries (see Tjaden & Thoennes, 2006), which is what ED staff considered to be “*real emergencies*.” These cases were also not prioritized because medical providers doubted the usefulness of the SAK to the police, as one physician noted:

*“I told them (the police) there wasn’t much we could do, but we’d do the kit, not that it would help them [in their investigation] . . . it wasn’t a priority for us, knowing that it wasn’t going to make a difference anyway . . . getting them (victims) the Morning After Pill and [STI] prophylaxis was the important thing.”*

When asked to clarify the comment about the exam/kit “*not making a difference anyway*,” this stakeholder went on to explain:

*“The kit just establishes that there was contact . . . sexual contact between two people . . . doesn’t tell you whether it was rape . . . and that’s what the police need to know . . . I don’t think it’s all that helpful to them. (Q: Just to clarify a bit more: Did they tell you it wasn’t helpful to them or did you communicate to them it’s not helpful?) Probably a bit of both . . . but more us (doctors) giving them (the police) our professional opinion.”*

When pressed for the basis of this opinion, this stakeholder said it was “*common knowledge*” that the sexual assault kits are not useful.

Second, medical personnel emphasized that given their own workload and demands, they did not have time to remind police to come pick up the SAKs. Stakeholders commented on how they often forgot to call the police to let them know there were kits to be retrieved, as these two quotes illustrate:

*“There was also sort of lack of communication with law enforcement with regards to when a kit was even there to be picked up and so, or someone you know would forget to call to have police pick up and so kits would sit there for you know long periods of time before police would pick them up.”*

*“I mean there wasn’t any consistent communication. It was whatever ER doctor or resident did the kit, pretty much at that point the kit was locked up wherever the designated place was and then like the nurse called the police later that day, sometimes right at that point, sometimes you know the next day or a week later when someone realized someone forgot.”*

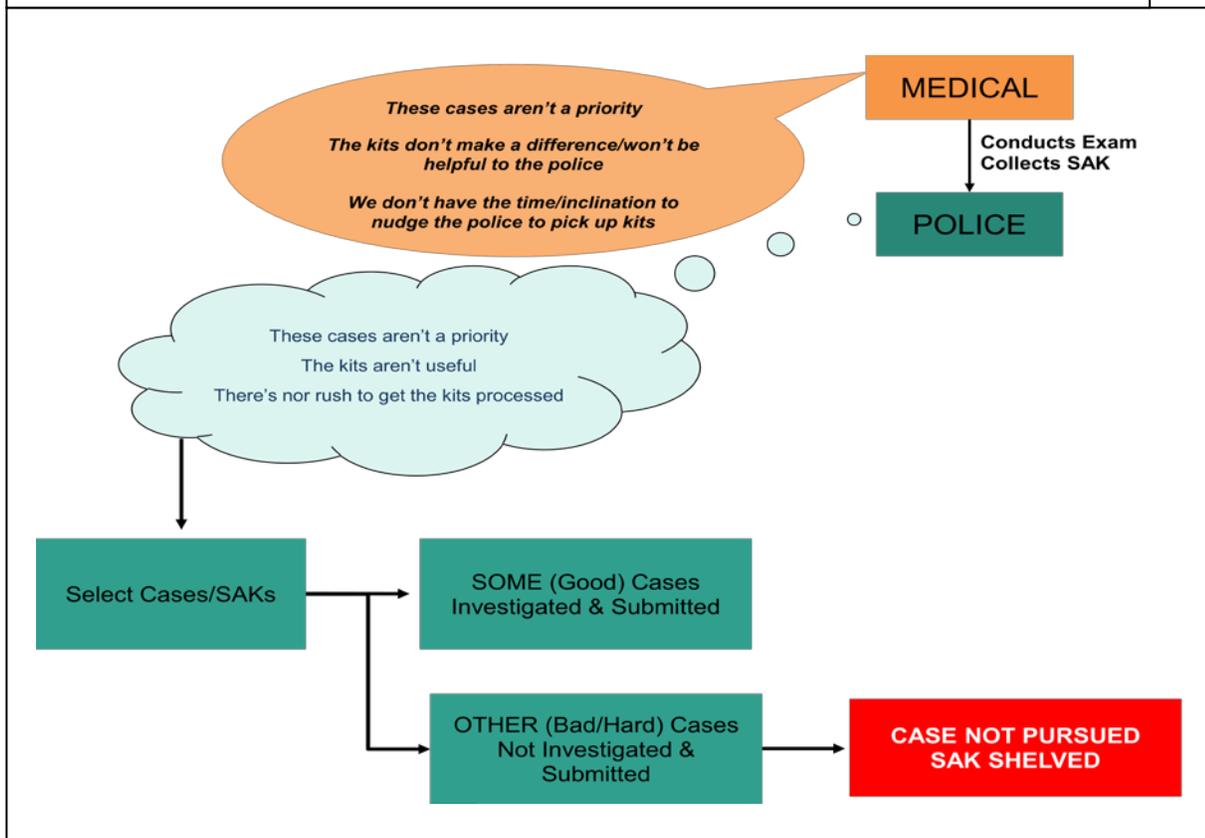
Medical personnel chided the police, telling them that they didn’t have time to “bug them” about picking up the kits, as one hospital ED staff member explained:

*“When I’d see them (the police), sometimes I’d say, hey, you guys gotta check in with us, we don’t have time to chase you down to come pick up the kits . . . sometimes I’d joke with them . . . hey, I don’t want to testify . . . so you know, don’t hurry on these.”*

This quote underscores medical providers’ ambivalence about being involved in legal proceedings, which may have been another reason for their lack of engagement and communication with police about SAKs.

How were these messages heard and interpreted by police? Prior to the implementation of the SANE program, the indifference of the medical staff about sexual assault patients was obvious to police: “[these cases] weren’t a big deal for them, we knew that, it was obvious.” As noted in Figure 3.7 (next page), their communications—though brief and infrequent—reinforced beliefs that these cases were not a high priority and the utility of the SAK was unclear, at best; pointless, at worst. If physicians were telling police that in their “*professional opinion*” the SAK was not helpful, it seems likely that such communications may have deterred police from picking up kits and submitting them for analysis. As one police official stated, “hey, if the docs say ‘there’s nothing in it’ who are we to say otherwise?” Medical system staff, in both their disengaged behavior, and their words, communicated that they did not want to be part of sexual assault cases, which also left police questioning whether they would even “*be there for them, for the prosecutors*” in the event a case went to trial. Overall, the medical system’s pervasive indifference and occasional active resistance to engaging in these cases appears to have reinforced police beliefs that sexual assault is not a priority and that SAKs have limited utility.

**FIGURE 3.7 – Inter-Organizational Communication Between the Police & Medical System**



By contrast, when the SANE program emerged in 2006, police began hearing a radically different message, namely that medical forensic evidence can be inordinately helpful to their investigations and that SANE practitioners were on-call to help not only sexual assault patients, but other practitioners in the community who wanted their professional consultation. As one investigator noted:

*“It was totally different after [SANE] . . . good service for victims . . . and the nurses know what they’re doing and we always knew we could reach them for whatever we needed.”*

These data are consistent with the quantitative results presented earlier in this chapter, which showed that SAK submissions significantly increased post-SANE. After years of minimal communication with the medical system, the open-door, collaborative approach of the SANE program appears to have made a key difference in the community.

### ***The Police and Victim Advocacy Organizations: Intra- & Inter-Organizational Communication***

The police department had a long-standing *systems-based victim advocacy* program, staffed by MSW-level advocates. In our stakeholder interviews, police personnel and advocates noted that they were in regular communication and that the advocates helped the investigators as needed; however, neither the police nor the advocates provided details or examples. When asked about how they worked together, what they said to each other, how they coordinated their efforts, the police and the advocates reiterated that they talked regularly and worked together frequently. When asked whether the communications between victims and the advocates were shared with the police, we received conflicting answers, but ultimately, police personnel clarified that advocates did provide information to investigators regarding what victims had said to them. When asked to give examples as to how, when, and why this occurred, both the police and the advocates declined to provide this information. As such, we were not able to identify consistent themes in the communication between the police and their victim advocacy program because neither group provided data as to the nature of their work together.

One form of communication that might be expected to occur is advocacy on behalf of a client—checking on the status of a case/kit, nudging investigators if things were not moving along (if a victim wanted to pursue criminal investigation and prosecution), explaining to investigators that a victim did not want to pursue the matter, challenging police personnel regarding how they responded to a victim, and so forth (see Martin, 2005). When we asked the systems-based advocates whether they engaged in such actions for their clients, program personnel were equivocal:

*“Will advocates address an officer and say, this is inappropriate? Some would and some wouldn’t. Maybe the newer ones and the younger ones would be a little intimidated.”*

When we asked police personnel whether advocates engaged in client advocacy, one said, *“No of course not, they work for us.”* Other members of the collaborative commented on the challenges posed by the organizational relationship between the police victim advocacy program and the police department itself, as one stakeholder explained:

*“How could this (the large numbers of untested SAKs) happen and they (the police advocacy program) didn’t know? . . . Victims had to be calling them afterwards . . . saying, I haven’t heard anything, nobody’s gotten back to me. What’s going on? And that’s again a perfect example of when the complaint is about your employer, how far can you push it?”*

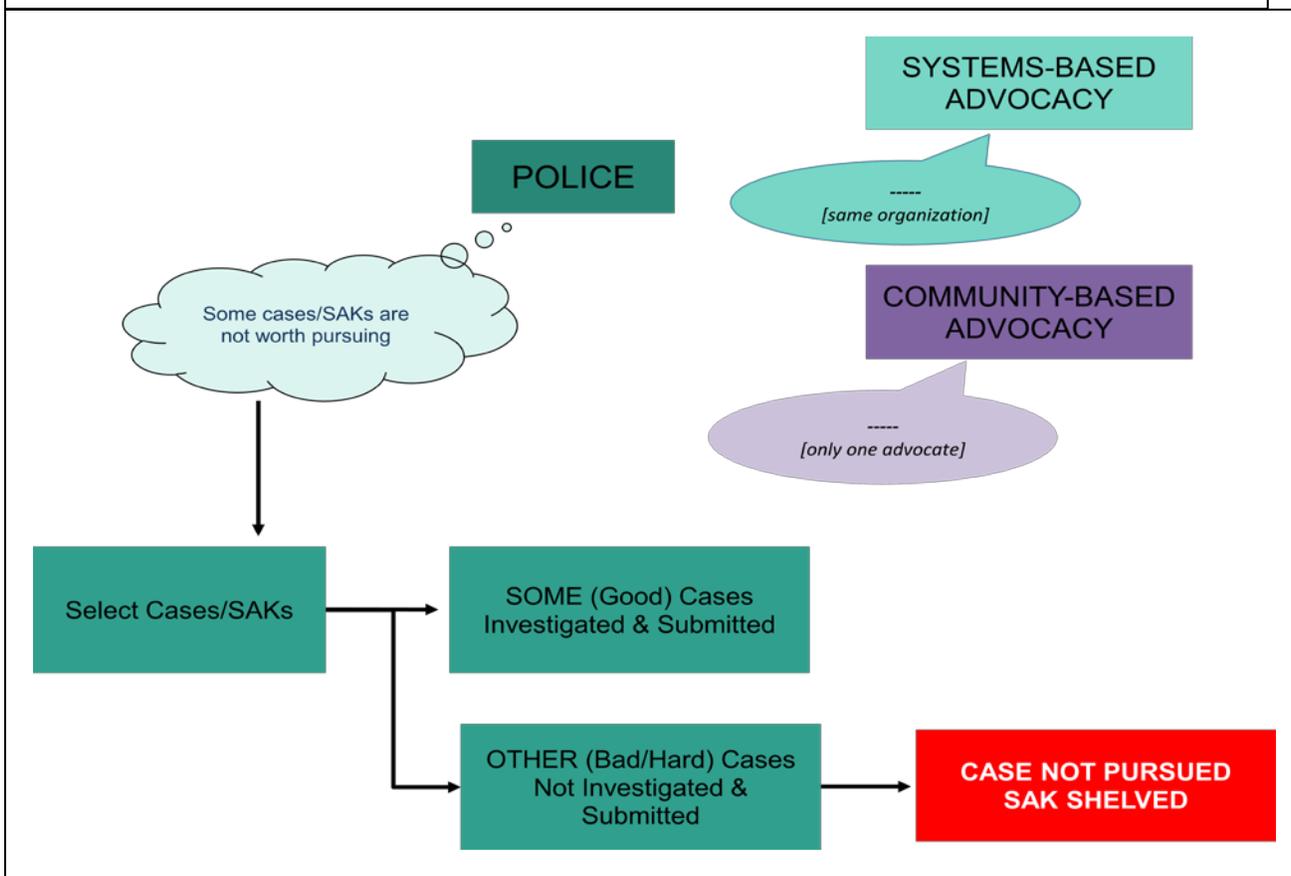
As shown in Figure 3.8 (next page), we do not know what messages were being communicated from the systems-based advocates to the police, and what effect, if any, that had on police practices in sexual assault cases. Based on the data available, it appears that the lack of advocacy on behalf of clients may have bolstered police beliefs that their approach to sexual assault investigations was reasonable and that some cases/kits were not worth pursuing.

With respect to *community-based* advocacy, we were also unsuccessful in gleaning much insight into the interactions between those advocates and police personnel, though for different reasons. As noted previously, there was only one paid staff position throughout most of the 2000’s, and as one stakeholder noted, *“One staff position can’t do much . . . certainly can’t change what was happening in [the police department] all those years.”* The absence of a strong community-based advocacy program may have indirectly contributed to the long-standing problems with how police responded to sexual assault cases, as these two quotes illustrate:

*“There were no community or nonprofit groups [providing sexual assault services], it was just easy to turn a blind eye and not pay attention . . . [If there] had there been a strong community based sexual assault program this could not have gone on for as many years as it did.”*

*“Victims will say why isn’t my case going forward? Why is nobody calling me back? What’s happening? And that’s part of the community advocate is to be rattling chains and to say, what the heck, what’s going on here? [If we had community advocacy programs] they would’ve been hearing from victims and they would’ve been asking questions of [the police] on a constant basis.”*

**FIGURE 3.8 – Intra- & Inter-Organizational Communication Between the Police & Victim Advocacy**



As shown in Figure 3.8, the absence of messages from the community based advocacy movement appears to have been detrimental, such that police beliefs and behaviors went largely unchallenged for decades.

## Summary & Conclusions: Why So Many Unsubmitted SAKs in Detroit

The police department struggled with chronic resource depletion for years, which made it challenging for the sex crimes unit to maintain stable leadership, supervision, and training. Police stakeholders noted that because of these budget and staffing cuts, investigation quality was compromised and “*cutting corners*” became normative. However, chronic resource problems are not the only reason why sexual assault investigations were routinely short-shrifted. Consistent with prior research on chronic scarcity, there was clear evidence of police treating victims in dehumanizing ways: in both the stakeholder interviews and in actual police reports, law enforcement personnel regularly expressed negative, stereotyping beliefs about sexual assault victims. Victims who were assumed to be prostitutes were considered to be at fault for what had happened to them. Adolescents were often assumed to be lying, trying to avoid getting into trouble with their families by concocting a false story about being raped. Friends/acquaintances had got-what-they-got because they had chosen to associate with the perpetrator. The fact that all of these victims had endured a lengthy, invasive medical forensic exam seemed to carry little to no weight. Because so many of these survivors were African American women, many of whom were living in poverty (based on Detroit census information), it is difficult to assess the extent to which police also held these beliefs for women of different races/ethnicity and socioeconomic statuses. At the very least, the police appeared to have no compunction expressing such opinions about African American sexual assault survivors.

Given these findings, the notion that resource depletion is the sole cause of this problem is not empirically supported. However, it is likely that resource struggles and negative attitudes became a reinforcing negative dynamic: because the police department was chronically understaffed, they felt they could not investigate all reports thoroughly, so some cases had to be “*weeded out*,” a mindset common in conditions of chronic scarcity. So which ones should be weeded out? Cases that were perceived as hard, complicated, time-consuming and/or ones in which investigators’ stereotypes made

them question the victims' credibility. Without consistent supervision and training to challenge these practices, labeling a case as "*a deal gone bad*," or otherwise dismissing it as not really rape, would likely not be challenged.

Police often referred to this process as "*prioritizing*" or "*triaging*" cases. The term 'prioritize' means to arrange or deal with in order of importance and 'triage' means to assign order based on urgency. Our analyses cannot pinpoint the defining features of cases that *were* deemed important or urgent, as this is analysis of what was deemed *not* important. However, the vast majority of cases reported each year appear to have been deemed not important. Moreover, 'prioritize' and 'triage' imply that, eventually, in the end, all tasks will be completed. There was no indication that police personnel had that mindset. Rather, based on these data, it seems more accurate to say that police were 'selecting' cases, some of which (the minority) were considered worthy of limited departmental resources and the rest (the majority) were not. The cases not selected were not pursued and the kits associated with those cases were shelved.

In their interactions with other Detroit organizations, police heard widely differing opinions about SAKs and their utility to sexual assault investigations. From the medical system, they were told that sexual assault cases were not a priority and the SAK itself was likely not going to be helpful to the investigation. In other words, medical providers, who were ostensibly the experts on the kits and their contents, were telling police that the SAKs were nearly useless. At the other end, the prosecutors were telling police that kits were essential, often drop-everything-essential, but circumstances varied across cases and testing needed to be evaluated on a case-by-case basis. In between those two extremes, investigators' colleagues in the crime lab were consistently telling them that they did not have the capacity to test all SAKs—testing was a limited resource, not to be used on "*bread-and-butter*" cases, as one stakeholder noted. Lab personnel were also telling the police that SAK submission required more

than simply dropping off the kit for testing—additional investigative labor was necessary to track down suspects and/or consensual partners to obtain DNA references samples.

These messages, when heard through the police’s own filters of resource scarcity and negative attitudes towards victims, reinforced—or could be interpreted to reinforce—their practices that not all SAKs could or should be tested. In the worst-case scenario, it appears that many police heard these messages as: SAK testing is extra work and it probably won’t matter anyway, and I don’t have time to do this, and I don’t believe the victim and no else does either, so why invest in this case? In the best-case scenario, some investigators heard these messages as: SAK testing can be useful and we have to juggle our workload and be prepared to stop what we doing at any moment to re-prioritize for an urgent case—which means something else won’t get done. Victim advocacy, both systems-based and community-based, was largely silent, and did not actively challenge police on these beliefs and practices.

From a systemic perspective, these organizations, though interdependent to each other, did not work together as a cohesive whole, with a common vision and plan for SAK testing, specifically, and post-assault services for survivors more generally. Such ‘bunkers and silos’ behavior is common among organizations working under conditions of chronic scarcity. Intra- and inter-organizational communication becomes less frequent and more strained, as individuals struggle to empathize with their colleagues and understand different points of view—or simply choose not to understand different points of view. Also consistent with prior research on chronic scarcity, the depleted resources within all of these organizations made it difficult to assist all victims, but perhaps more troubling, it allowed negative stereotypes and beliefs to go unchecked, so that many survivors were treated in re-victimizing, dehumanizing ways. These institutional practices, repeated in case after case for thirty years, resulted in substantial numbers of unsubmitted SAKs on the shelf in police property.

## CHAPTER 4: Testing Kits

### Developing & Evaluating a Sexual Assault Kit (SAK) Testing Plan

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Since the discovery of the rape kits in August 2009, figuring out if, when, and how they would be tested weighed heavily on local-level officials and state-level policy makers. The urgency was palpable at the beginning of this action research project—400 SAKs had been tested so far (in the OVW-funded *The 400 Project*), but there were still *thousands* to go. The Detroit collaborative reached out to other jurisdictions that have had large numbers of untested SAKs to seek their guidance on developing a testing plan. New York City and Los Angeles had had the financial resources to “forklift” their kits—all were boxed up and shipped *en masse* to vendor laboratories. The Detroit community had nowhere near the resources required for such a plan. Pooling funds 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 (which was separately funded by NIJ), the project would be able to test 1,600 kits—less than 20% of the kits that needed to be tested.<sup>61</sup> Therefore, the challenge before the Detroit collaborative was to figure out what to do if a community *can’t* test all their rape kits (at least initially). As one member of collaborative remarked, “*What’s that expression, ‘How do you eat an elephant? One bite at a time.’ Ok, so how do we take a bite out of this elephant? Where do we start?*”

Given that *all* SAKs could not be tested in the context of this action research project, the Detroit collaborative needed to develop a plan for testing only *some* kits, which opened-up difficult conversations about which kits should be selected, which in turn heightened frustrations that selecting only some cases was what got Detroit into this problem in the first place (see *Chapter 3: Why So Many*

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<sup>61</sup> This estimate is based on the assumption that all SAKs with a laboratory ID number had in fact been tested (see *Chapter 2: How Many Unsubmitted SAKs in Detroit*). It was not clear at the time (or at the end of project), how many of those SAKs had in fact been tested for DNA. Therefore, a less optimistic estimate is that the funds available in the action research project would test <10% of the kits that needed analysis.

*Unsubmitted SAKs in Detroit*). As one member of the collaborative noted, “*We need to find a solution and picking only some kits is the same-old-same-old . . . it’s not a solution. We need to solve this problem*” (emphases in original). The collaborative team went round and round, but always came back to the hard reality that right now, in the context of this action research project, they did not have the resources to test all kits, so it would be necessary to develop a plan to test only some. So, which ones?

Stakeholders had vastly different ideas about which SAKs should and should not be selected for testing. For example, some members of the collaborative argued that stranger-perpetrated crimes should be selected for testing, as DNA testing has the potential to identify the offender—and, some added, stranger rapes reflected the most serious threat to public safety. Other members of the team noted that DNA could be helpful in non-stranger rape cases too, and that these assaults posed just as much a threat to public safety. Some collaborative members advocated for skipping over kits associated with cases that were beyond the statute of limitations in favor of cases that were still actionable. However, the prosecutors noted that testing kits associated with cases that were presumed to be SOL-expired did have merit because once the facts of the case were fully reviewed, it was possible that there would be circumstances that would make the case still eligible for prosecution. Furthermore, even if the SOL had expired, if the offender had re-perpetrated, it might be possible to enter the evidence of the prior assault into a current case, per federal 404b rules of evidence.

These discussions and debates highlighted that SAK testing could have differential *utility*—to victims and to the criminal justice system—depending on the circumstances of the case (e.g., victim-offender relationship, statute of limitations, etc.). A CODIS hit in a stranger-perpetrated crime might reveal the identity of the perpetrator and possibly reveal a pattern of serial offending; a CODIS hit in a non-stranger perpetrated crime could confirm identity and also possibly reveal serial offending; a SOL-expired case could hit to a current case, perhaps offering the victim of the old case a chance to testify in court for the pending case (if desired). The Detroit team could articulate many *possible* scenarios

regarding the utility of SAK testing, but no one knew how often—how *probable*—any of these scenarios might be in practice. How common is it that a non-stranger case yields a CODIS hit? How common is it that a CODIS hit shows a pattern of serial sexual offending? How common is it that a presumed SOL-expired case produces a CODIS hit? No one knew—Detroit organizations had not been able to track this information, data from New York City and Los Angeles were not available, and there were no published studies in the scientific literature that could answer these questions.

Therefore, the research team encouraged the Detroit collaborative to empirically test these ideas about SAK utility under different case circumstances. In other words, we could focus the testing to be completed in the action research project on these key questions regarding the relative utility of SAK testing under different case characteristics. For the 1,600 SAKs we *could* test right now, we would be able to determine the probability that testing would result in a CODIS hit (and possible serial sexual offender associations) for different kinds of sexual assault cases. Such information could then be used to develop long-term testing plans for Detroit, as well as other jurisdictions. For example, if the probability of a CODIS hit was significantly higher for certain kinds of cases vs. others, then that information could provide empirically-based guidelines for prioritization (if prioritization was necessary due to resource constraints); alternatively, if the probability of a CODIS hit was statistically no different for certain cases vs. others, then that would suggest that such factors would not be good criteria for prioritizing cases.<sup>62</sup>

The purpose of this chapter is to summarize how the Detroit SAK ARP developed a testing plan to evaluate the utility of SAK testing under different case circumstances and to present the results from

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<sup>62</sup> Some members of the collaborative, particularly those in the medical/nursing and victim advocacy professions, noted that there are many ways to define the utility of SAK testing, and that CODIS hits are only *one* way. The utility to victims and their health, well-being, and recovery must also be considered, even if these factors are more difficult to conceptualize and assess. The other members of the collaborative agreed and the research team did explore options for multiple indicators of “utility”—including some that would tap into these health-related outcomes. However, given concerns about the research team having contact with victims pre-adjudication (see discussion in *Chapter 3: Why So Many Unsubmitted SAKs in Detroit* and *Chapter 5: Developing & Evaluating a Victim Notification Protocol*), it was necessary to focus this component of the project on CODIS hits as an index of SAK utility. As such, this project presents only *one* of many possible outcomes regarding the utility of SAK testing.

that testing. We will begin with a description of how the SAK testing plan was developed and implemented, including details regarding how the 1,600 were selected from the SAKs counted in the census (see *Chapter 2: How Many Unsubmitted SAKs in Detroit*). Then, we will present descriptive findings about the cases/SAKs that were tested in the context of this project (i.e., victim, assailant, and assault characteristics). Then we will turn our attention to the forensic testing outcome, beginning with an overview of the process of DNA testing and the types of CODIS hits that can result from DNA testing. With that background established, we will then present descriptive findings regarding CODIS hit rates and serial sexual assault rates (for the overall sample and by Testing Group). Then, we will present the results from a series of statistical models that examined the effect of victim-offender relationship and statute of limitations status on testing outcomes. Supplemental analyses that examined the effect of victim, assailant, and assault characteristics on forensic testing outcomes will also be summarized. Finally, we will present the results from an experimental design study that compared two different methods of DNA testing. Full details regarding all of these statistical analyses can be found in *Appendix B: Project Methodology*.

## The Process of Developing a SAK Testing Plan

The Detroit collaborative struggled to develop a testing plan, given the community's limited financial resources and the stakeholders' differing opinions about which kits merited testing. Therefore, the group had to work through a number of complex issues, including, but not limited to:

- Should all unsubmitted SAKs be tested → If resources weren't an issue, *should* all kits be tested? Is testing all kits the long-term goal? The group had to consider the financial costs and potential benefits (to victims, to society), the logistical complications of such an endeavor, and the possibility of unforeseen unintended negative consequences for survivors.

- What financial resources are available to test SAKs → How much money is available for testing and how many kits will those funds cover? The collaborative had to examine what sources of funding were currently available for SAK testing and determine how many kits could be tested.
- Which kits should be selected for testing → If all SAKs could not be tested, then which ones should be selected? Should kits be selected at random? Should kits be prioritized by certain criteria (e.g., victim-offender relationship, statute of limitations, other factors?). Are there empirically-based guidelines for prioritization?
- What DNA testing method will be used to test the kits → Over the past several decades, there have been significant new developments in DNA testing, so which specific testing method should be used? What are the legal implications of that choice (i.e., challenges to a particular testing method in court?)
- Which laboratories should test the SAKs → Can the testing be conducted “in house” at the state police forensic sciences laboratories or will the kits need to be outsourced to private labs?

Figure 4.1 “*The Step-By-Step Process of Creating the Detroit SAK ARP Testing Plan*” (following pages) describes how the Detroit collaborative resolved these issues to *create* a testing plan. Figure 4.1 lists each issue that had to be resolved, the discussion and debate about how best to address each issue, and decisions made by the collaborative (and why they decided what they did). Later this in chapter, we will summarize the challenges the team encountered *implementing* this plan (see Figure 4.3).

**FIGURE 4.1 — The Step-by-Step Process of Creating the Detroit SAK ARP Testing Plan**



## ISSUE 2

HOW MANY SAKs CAN BE TESTED NOW—IN THE SCOPE OF THIS ACTION RESEARCH PROJECT?

**DISCUSSION 2.** The ARP budget included some funds for testing and the state police had a separate NIJ DNA Backlog Reduction Grant. This grant supported SAK testing throughout the entire state & state police personnel expressed concerns regarding how much of their funding could/should be allocated to Detroit kits.

**DECISION 2.** Senior leadership from the prosecutor’s office and state police had separate meetings about this issue (i.e., it was not discussed in the regular collaborative team meetings). It was later announced that this issue had been resolved. Pooling funds 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 (which was separately funded by NIJ), the project was able to test 1,600 SAKs (1,595 actually tested).

## ISSUE 3

WHAT DNA TESTING METHOD SHOULD BE USED TO TEST THE SAKs?

**DISCUSSION 3.** Forensic scientists from the state police crime lab suggested that the collaborative consider newer DNA technologies that could be faster and potentially less expensive (which could increase the number of kits that could be tested in the project).

The collaborative asked the state police forensic scientists to provide a briefing to the team on any new technologies that ought to be considered.

**DECISION 3.** The state police forensic scientists briefed the group on “Y-screening” methods (an alternative to the traditional serology screening step that precedes DNA testing) and “selective degradation” methods (an alternative method for preparing samples for DNA testing) (see section “Background Context: An Overview of DNA Testing and CODIS” for details). The collaborative decided not to use the Y-screening method (in this project) because follow-up testing might be needed to discern which specific rape kits samples yielded which specific DNA testing results (details necessary for court). Although Y-screening could save testing time, there were lingering concerns about the need for follow-up testing (and the time required for that). The collaborative decided to evaluate the efficacy of selective degradation methods on a limited number of SAKs (most would be traditional testing).

## ISSUE 4

HOW SHOULD  
SAKs BE  
SELECTED FOR  
TESTING?

**DISCUSSION 4A.** Random selection was considered as a method of selecting the 1,600 kits. Yet concerns were raised about whether priority should be given to cases that were at risk for expiring statute of limitations (SOL).

**DECISION 4A.** The research team advised the group *not* to draw a simple random sample of 1,600 kits. Instead, the researchers recommend stratified random sampling, whereby the multidisciplinary team would outline key criteria for selection (such as SOL risk) and then cases would be randomly selected within those parameters.

**DISCUSSION 4B.** The team debated what criteria should be used to select cases. SOL-risk was a criterion readily agreed upon, but there were strong differences of opinion regarding other possible selection criteria. Some believed that stranger-perpetrated cases should be prioritized while others noted that non-stranger perpetrated were just as serious. The idea of prioritizing cases associated with serial offenders was also discussed.

**DECISION 4B.** The collaborative could not come to consensus on selection criteria. Given these different viewpoints, the research/evaluation team conducted a Rapid Assessment Process evaluation (RAP; Beebe, 2001) to gather data from local, state, and national sexual assault stakeholders regarding their beliefs, assumptions, and questions about the purpose and utility of SAK testing so that the selection of the 1,600 SAKs would be empirically driven. This evaluation identified many possible selection criteria; the research team suggested that the SAK ARP project could empirically evaluate multiple options, and then those results could inform the development of a long-term testing plan.

**DISCUSSION 4C.** The testing plan for this project needed to include cases at risk for expiring statute of limitations.

**DECISION 4C.** The researchers asked the prosecutors to provide a “cut-off” year for SOL-risk. It was decided that incidents that occurred in the year 2002 or later would most likely still be eligible, so this became the “cut-off.” The researchers recommended that most SAKs to be tested should be sampled cases from 2002-2009, but one sample of pre-2002 cases should be tested to explore the utility of testing cases presumed to be SOL-expired.

## ISSUE 5

WHICH SAKs  
WOULD BE  
SELECTED FOR  
TESTING?

### DISCUSSION 5A –

#### TESTING GROUP 1: STRANGER RAPE CASES.

Stakeholders disagreed whether stranger-perpetrated assaults should have priority over non-stranger assaults. Some stakeholders felt that SAK testing would be most useful in stranger cases because it can reveal the identity of the offender & some believed that these cases pose the largest threats to public safety.

### DECISION 5A –

#### TESTING GROUP 1: STRANGER RAPE CASES.

Testing Group 1 would consist of 450 randomly selected stranger assailant cases from 2002-2009. In these cases, the identity of the assailant is unknown so the best chance of solving the case would likely be DNA testing and a resulting CODIS hit. Statistical analyses would be conducted to determine the probability that a stranger SAK yields a CODIS hit. Additional analyses would examine what factors predict whether a case will yield a CODIS hit (i.e., victim, assailant, case characteristics).

### DISCUSSION 5B –

#### TESTING GROUP 2: NON-STRANGER RAPE CASES.

Stakeholders had differing opinions about the utility of SAK testing in non-stranger sexual assaults. Some felt that testing was not a prudent use of funding, as the identity of the assailant was already known. Prosecutors and advocates noted that these cases could identify serial offenders and/or refute defense claims of no-contact between the victim & alleged offender.

### DECISION 5B –

#### TESTING GROUP 2: NON-STRANGER RAPE CASES.

Testing Group 2 would consist of 450 randomly selected non-stranger assailant cases from 2002-2009. “Non-stranger” includes a wide array of victim-offender relationships, ranging from “known by sight” (or only by first name/nickname) to intimate partner sexual assault. Statistical analyses would be conducted to determine the probability that a non-stranger SAK yields a CODIS hit. Additional analyses would examine what factors predict whether a case will yield a CODIS hit.

**Issue 5 continued on the next page.**

## ISSUE 5

WHICH SAKs  
WOULD BE  
SELECTED FOR  
TESTING?

### DISCUSSION 5C – TESTING GROUP 3: PRESUMED SOL-EXPIRED CASES.

Stakeholders had different opinions about the utility of testing SAKs presumed to be SOL-expired. Prosecutors argued that testing could reveal associations to current cases, allowing the evidence of the prior crimes to be admitted to the new case, per 404(b) federal rules of evidence. Advocates noted that survivors could feel coerced to participate in the prosecution of other cases, even though theirs could not be prosecuted.

### DECISION 5C –

#### TESTING GROUP 3: PRESUMED SOL-EXPIRED CASES.

Testing Group 3 would consist of 350 randomly selected cases that occurred before 2002 (i.e., these cases are presumed to be SOL-expired), including both stranger and non-stranger cases. Statistical analyses would be conducted to determine the probability that a presumed SOL-expired SAK yields a CODIS hit. Additional analyses examine what factors predict whether a case will yield a CODIS hit.

### DISCUSSION 5D – TESTING GROUP 4: DNA TESTING METHOD.

Stakeholders were open to the idea of trying newer DNA testing methods, provided that the alternative methods did not take additional time/testing steps and that the alternative approaches would have the same accuracy as traditional methods.

### DISCUSSION 5D –

#### TESTING GROUP 4: DNA TESTING METHOD.

Testing Group 4 would consist of 350 randomly selected SAKs from 2002-2009 that were then randomly assigned to one of two different methods for preparing samples for DNA testing: traditional extraction methods vs. selective degradation methods. Rates of CODIS entry and time/costs of testing would be computed & compared across testing condition.

**ISSUE 6**

WHICH  
LABORATORY  
SHOULD TEST THE  
SAKs?

**DISCUSSION 6.** The local police department's crime laboratory was closed in 2008 and after that, the state police crime labs were responsible for forensic testing for Detroit cases (in addition to all other cities in the state).

The state police crime labs did not have the capacity to test 1,600 SAKs within the timeline of this project, so kits needed to be outsourced to other vendors.

**DECISION 6.** The state police had a contractual relationship with a well-established private laboratory. NIJ had a contractual relationship with a university-based forensic laboratory and could leverage that relationship to help support the testing of SAKs associated with this project.

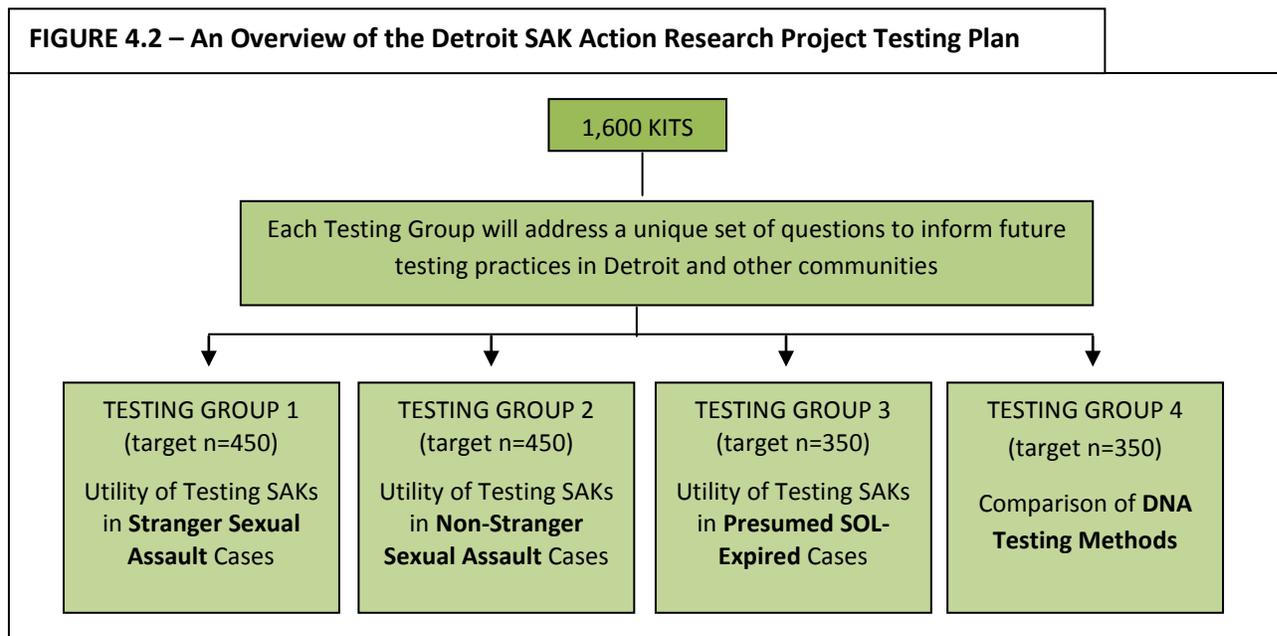
The assignment of Testing Groups to vendor laboratories was based on availability, budget, and testing capacity. Testing Group 4 (DNA Testing Methods) had to be done at the private laboratory as they were the only project vendor that had the technology available for selective degradation methods. Testing Group 1 (Stranger Rape) was also sent to the private laboratory; Testing Group 2 (Non-Stranger Rape) and Testing Group 3 (Presumed SOL-Expired) were sent to the university-based forensic laboratory.

State police forensic scientists conducted site visits at both vendors (prior to the shipment of kits) to ensure that their laboratory processes met specific standards and quality assurance procedures.

## Implementing the Detroit SAK Testing Plan

### Overview

Figure 4.2 (below) summarizes the Detroit SAK ARP testing plan. The collaborative decided to form four Testing Groups, each one designed to address specific research questions regarding the utility of SAK testing under different case circumstances. This design allows us to examine the utility of SAK testing for stranger-perpetrated sexual assaults (Testing Group 1), non-stranger perpetrated sexual assaults (Testing Group 2), and sexual assault cases that are presumed to be beyond the statute of limitations (Testing Group 3). We also wanted to examine whether newer DNA testing techniques, such as selective degradation methods could offer faster, less expensive testing options, without sacrificing accuracy (see section “*Background Content: An Overview of DNA Testing and CODIS*” for more details about selective degradation methods). Therefore, Testing Group 4 was a randomized experiment comparing SAKs tested with traditional DNA methods vs. the selective degradation method.



### ***Defining the Sampling Criteria for SAK Selection***

To select 1,600 SAKs for testing, we used four sampling criteria, which were based on both scientific aims as well as practical constraints. First, we wanted to focus on SAKs that had never been tested (“testing status criterion”). As noted in *Chapter 2: How Many Unsubmitted SAKs in Detroit*, we could make a reasonable inference as to the testing status of each SAK in police property, and based on those data, the 400 kits tested as part of the OVW-funded *The 400 Project* were excluded from our sampling frame (i.e., they were excluded from the pool of cases from which we would select the 1,600 to be tested in this project). In addition, the SAKs that had a police department crime laboratory ID numbers (see *Chapter 2*) were also excluded from the sampling frame; though we could not verify whether these kits had been tested for DNA, they had been submitted for testing and may have had at least some testing performed.

Second, we wanted the SAKs to be tested in this project to be associated with non-adjudicated cases (“adjudication status criterion”) (i.e., cases that were still potentially actionable, pending SOL determination). As described in *Chapter 2: How Many Unsubmitted SAKs in Detroit*, we were *not* able to determine the adjudication status for every kit in police property during the census because doing so required labor-intensive searching of police and court records. Therefore, we would need to add a step in the sampling design to screen each case being considered for inclusion in the project for adjudication status (i.e., rather than trying to determine adjudication status for *all* SAKs/cases, we would track down adjudication information for *only* those cases randomly selected for possible inclusion in the project). We operationally defined “adjudicated” as a case in which there had been a conviction, acquittal, or guilty plea; a case in which an arrest had been made, but charges were not filed or were dropped prior to trial/plea was coded as non-adjudicated. In practice, determining adjudication status was challenging and burdensome, given the incompleteness and disorganization of legal records in Detroit (see below for more details).

Third, the collaborative decided that the project should explore the utility of testing presumed SOL-expired cases, but *most* of the 1,600 to be selected should be within the statute of limitations (“SOL criterion”). Based on an analysis of Michigan law regarding statute of limitations for criminal sexual conduct crimes, the prosecutors’ office established 2002 as a reasonable cut-point for statute of limitations (i.e., cases prior to 1980 – 2001 were likely beyond SOL; cases 2002 – 2009 were likely within SOL). During the census, the date/year the SAK was collected was recorded, so the sampling frame could be easily sorted by date for SOL determination.

Finally, the project team decided to examine the utility of SAK testing for both stranger and non-stranger perpetrated sexual assaults (“victim-offender relationship criterion”). Again, it was not feasible in the census to determine that information for each case; therefore, we would need to add a step in the sampling design to review cases for victim-offender relationship—if such information was relevant for the formation a particular testing group (i.e., it was relevant for the formation of Testing Group 1 [Stranger] and Testing Group 2 [Non-Stranger], but it was not relevant for the other two Groups). Consistent with prior research (Campbell et al., 2009; Campbell et al., 2012), we defined stranger assaults as those in which the victim did not know the offender in any way (Testing Group 1); all other assaults were coded as non-stranger (Testing Group 2). Within the non-stranger group, we sub-coded victim-offender relationship into three categories: known by sight/nickname/street name; friend/associate/family member (but not intimate partner); current/past intimate partner. It was sometimes difficult to distinguish stranger vs. known by sight/nickname/street name, and so the prosecutor’s office staff and the research team conferred to establish consistent operationalizations.<sup>63</sup>

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<sup>63</sup> Cases were coded as a ‘stranger’ if there was no information that the police could work from in order to identify the possible assailant. For example, if the victim’s statement was that the assailant was called “John” and she knew that “he hangs out at the party store” (and the specific location of that party store was given to the police), the case would be placed in Testing Group 2 (Non-Stranger), sub-coded as “known by sight/nickname/street name.” By contrast, a case in which the victim’s statement said that she thought she heard someone else at the crime scene refer to her attacker as “Jones” but she had no physical description of her attacker and no other details about his identity and no other leads to go on, that case would be placed in Testing Group 1 (Stranger).

It is important to note that the sampling criteria did *not* include factors such as victim age (e.g., sampling on the basis of whether child/adolescent or adult) or assault characteristics (e.g., use of force, use of weapon), meaning that a case would not be included/excluded from the sample based on such factors. Therefore, all four Testing Groups include victims of varying ages, races/ethnicities, assault experiences, etc., and the evaluation of the testing plan would examine whether such factors were significantly associated with CODIS hits/serial sexual offending.

### ***Selecting SAKs for the Testing Groups***

With these four sampling criteria established, we first sampled the SAKs for Testing Group 1 (Stranger) and Testing Group 2 (Non-Stranger).<sup>64</sup> Using the census results, we generated a list of all unsubmitted SAKs (“testing status criterion”), from the years 2002-2009 (“SOL criterion”), and put that list in randomized order, stratified by year (i.e., a randomized list of SAKs for 2002, 2003, etc.). Staff from the prosecutor’s office started with the first SAK ID number on each list and then compiled police and court records to determine whether it had been adjudicated (“adjudication status criterion”). As noted previously in *Chapter 2: How Many Unsubmitted SAKs in Detroit*, only some Detroit criminal justice system records are computerized (most are paper files), so this was a difficult and time-consuming task.<sup>65</sup> If the case had been previously adjudicated, it was set aside and the next case on the

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<sup>64</sup> It was not feasible to sample SAKs for all four Testing Groups at once because additional screening for adjudication status and victim-offender relationship was necessary, and we did not have the staffing to screen large numbers of files all at once.

<sup>65</sup> For example, the court records that were computerized required assailant name and date-of-birth (DOB) as search fields, but the SAKs were identified by victim name and victim DOB; to obtain assailant name and DOB, project staff had to request the police report (which was usually stored off-site in remote storage). If project staff were able to find enough information to complete a computerized search of court records, the search results were not always conclusive due to missing information in the database. In instances in which a computerized search was not possible (or the search had been inconclusive), project staff then had to locate arrest log books, warranting paperwork, and/or prosecution case files to determine adjudication status. It could take multiple days, involving staff from several organizations, to find and compile the records necessary to complete the adjudication status screening of one case.

list was reviewed.<sup>66</sup> If the case had *not* been previously adjudicated, then it was reviewed for victim-offender relationship (“victim-offender relationship criterion”) and placed into either Testing Group 1 (Stranger) or Testing Group 2 (Non-Stranger). Staff from the prosecutor’s office continued working down the randomized lists for each year until they had identified approximately 56 eligible cases per year, in each Testing Group, for a target overall sample size of 450 SAKs for each Testing Group. The target sample size of 450 was based on budget constraints, and a post-hoc power analysis indicated that this sample would be sufficient for the planned analyses. In practice, the final sample size for Testing Group 1 (Stranger) was 445 (rather than 450) because five kits turned out not to be eligible once they were opened at the lab (e.g., the kit did not contain any biological samples from a sexual assault). Unfortunately, we did not learn this until it was too late to send five replacement kits for testing. The final sample size for Testing Group 2 (Non-Stranger) was 449 (rather than 450) because we discovered that one SAK had been listed twice on the list of sampled cases and it was too late to send a replacement kit for testing. Table 4.1 (next page) summarizes the sampling criteria—as implemented—for each of the four Testing Groups.

After Testing Groups 1 and 2 had been sampled, we selected SAKs for Testing Group 3 (Presumed SOL-Expired). A list of all unsubmitted/untested SAKs (“testing status criterion”) from 1980 to 2001 (“SOL criterion”) was generated from the census results. For this Testing Group, we did not stratify by year (for simplicity). Based on the considerable difficulties we encountered screening for adjudication status in Testing Groups 1 and 2 (“adjudication status criterion”), the team conferred about the plausibility of completing this screening for the presumed-SOL expired cases, given that the records for these older kits would be even harder to locate—if they still existed at all. The screening of the

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<sup>66</sup> The state appellate defenders office had recently received a *different* NIJ grant to support SAK testing for previously-adjudicated cases, so the cases that screened out of the SAK action research project were set aside for that other project.

	<b>Testing Group 1 (Stranger Rape)</b>	<b>Testing Group 2 (Non-Stranger Rape)</b>	<b>Testing Group 3 (Presumed SOL Expired)</b>	<b>Testing Group 4 (DNA Testing Method)</b>
	Target N = 450 Actual N = 445	Target N = 450 Actual N = 449	Target N = 350 Actual N = 351	Target N = 350 Actual N = 350
<b>Testing Status Criterion</b>	Unsubmitted/untested	Unsubmitted/untested	Unsubmitted/untested	Unsubmitted/untested
<b>Adjudication Status Criterion</b>	Non-adjudicated	Non-adjudicated	<NOT SCREENED>	<NOT SCREENED>
<b>SOL Criterion</b>	Within SOL (2002-2009)	Within SOL (2002-2009)	Beyond SOL (1980-2001)	Within SOL (2002-2009)
<b>Victim-Offender Relationship Criterion</b>	Stranger-Perpetrated	Non-Stranger Perpetrated	<NOT APPLICABLE> (includes both stranger & non-stranger)	<NOT APPLICABLE> (include both stranger & non-stranger)

kits/cases for Testing Groups 1 and 2 indicated that most kits were associated with non-adjudicated cases (i.e., most cases fit our desired sampling criterion). It is certainly possible that the older kits (pre-2001) might be different from the 2002-2009 kits with respect to this issue, but given that pattern of findings, we decided not to screen for adjudication status for Testing Group 3, under that assumption that most would be non-adjudicated, but certainly not all.<sup>67</sup> For this group, no additional screening was needed for stranger vs. non-stranger perpetrated assaults (both were included) (“victim-offender relationship criterion”). To select the cases for this Testing Group, we drew a simple random sample of 350 kits from the list of unsubmitted/untested SAKs from 1980 to 2001. In practice, the final sample size for this Group was 351 kits. When one of the selected kits was opened at the lab, it contained biological samples from two different victims (hence +1, n = 351, not 350).

Testing Group 4 (DNA Method) was sampled last. Using the census results, we generated a list of all unsubmitted SAKs (“testing criterion”), from the years 2002-2009 (“SOL criterion”)—excluding any

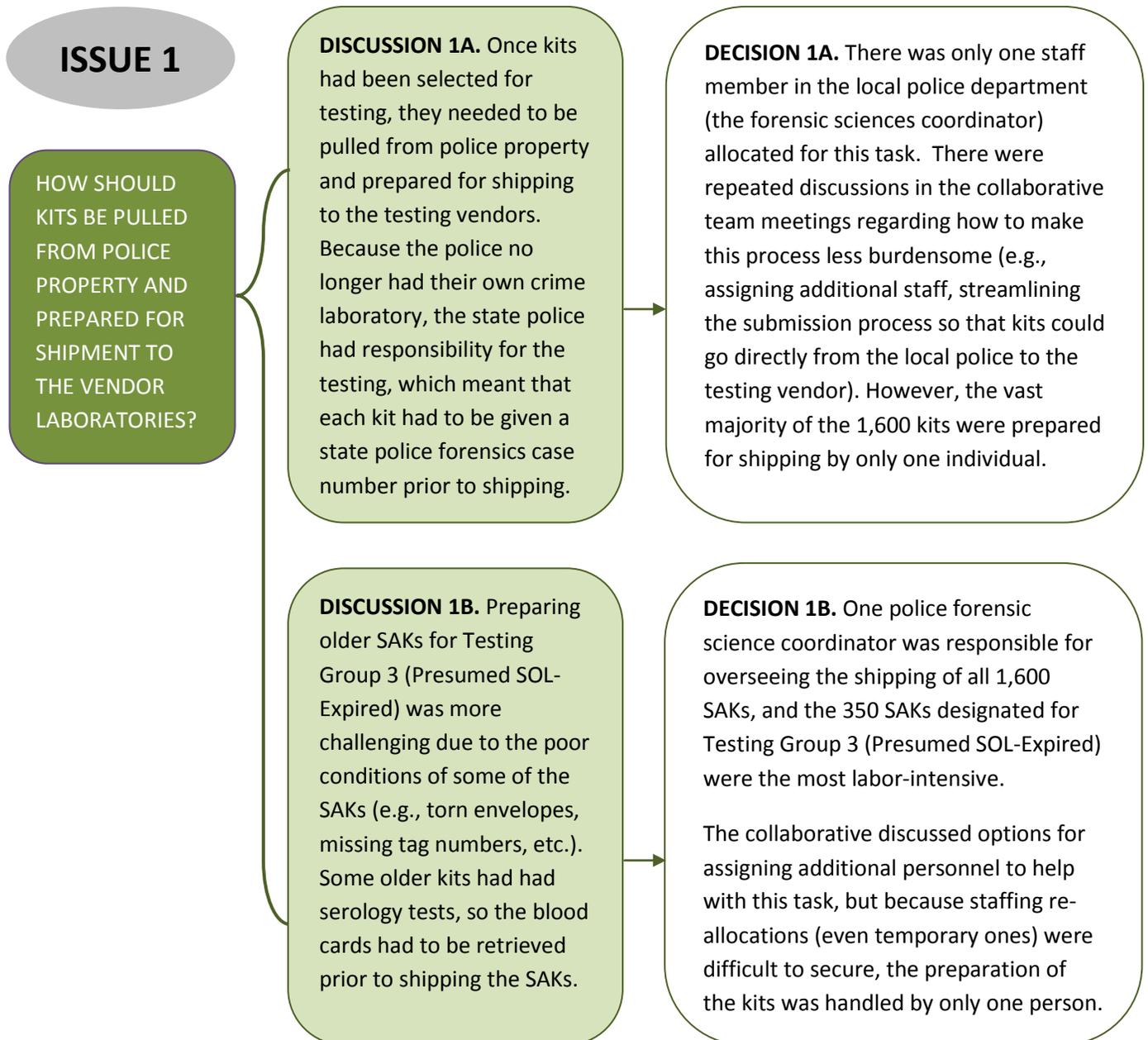
<sup>67</sup> We will discuss how we accounted for the differences in the sampling designs in our analyses for each Group in detail in the section “Evaluating the Detroit SAK Testing Plan—Inferential Findings on the Effect of Victim-Offender Relationship and Statute of Limitation Status on Forensic Testing Outcomes” (see also Appendix B: Project Methodology).

cases that had already been sampled for Testing Group 1 or 2. Given the difficulties of accessing police and court records, the Testing Group 4 cases were *not* screened for adjudication status (“adjudication status criterion”). For this group, no additional screening was needed for stranger vs. non-stranger perpetrated assaults (both were included) (“victim-offender relationship criterion”). Therefore, we generated a list of all unsubmitted SAKs, from the years 2002-2009 (for simplicity, no stratification by year), and randomly selected a sample of 350 kits. After kits were selected, they were randomly assigned to two testing conditions (traditional vs. selective degradation). To conduct the random assignment of SAKs to testing condition, a simple random sample of 175 SAKs was drawn (without replacement) using the R software package from the total sample of 350 kits.

### ***Challenges Implementing the Testing Plan and Coordinating Post-Testing Activities***

In addition to the challenges encountered during the SAK screening and selection process (described above), the collaborative had to resolve additional logistics difficulties preparing the kits for shipment, coordinating post-testing review, and communicating the testing results to the proper authorities within the criminal justice system and to members of the collaborative project. Figure 4.3 (following pages) summarizes these issues, discussions, and decisions. Although other jurisdictions may not face the same staffing shortages that Detroit encountered, which added significant delays to the process of preparing and shipping SAKs, many of these issues will likely be relevant to other communities that are testing large number of rape kits all at once.

**FIGURE 4.3 — Challenges & Solutions Encountered Implementing the Detroit SAK ARP Testing Plan**



## ISSUE 2

HOW SHOULD  
KITS BE SHIPPED  
TO THE VENDOR  
LABORATORIES?

**DISCUSSION.** To maintain proper chain of custody, each kit had to have an ID number from both the local police department and the state police forensic science division, and then a manifest needed to be prepared for each shipment. The kits needed to be shipped by overnight service (only on specific days) and receipt of the kits had to be acknowledged by the vendors.

**DECISION.** Staff from four organizations were involved in this process: local police (forensic science coordinator), state police (forensic scientists), the prosecutor's office (the recipient of the grant and responsible party for the payment of each shipment), and each testing vendor. There were frequent miscommunications between parties, particularly as these procedures were being implemented for Testing Groups 1 and 2, but by the end of the project, staff had found ways to streamline communication. However, it was not possible to complete this task without all four organizations' involvement.

## ISSUE 3

HOW SHOULD  
POST-TESTING  
RESULTS BE  
REVIEWED &  
VERIFIED?

**DISCUSSION.** The kits were in local police department's property facilities & shipped directly to testing vendors, but the results were given to the state police forensic science division as state police forensic scientists were responsible for reviewing and certifying the results.

**DECISION.** The state police forensic science division needed to develop a staffing plan for the technical review of all 1,600 SAKs within the project timeline. Distributing staff time for testing current cases (from throughout the state) & for reviewing large numbers of testing results from this project was crucial (albeit challenging as both testing vendors tended to release results in large batches).

Forensic scientists were offered overtime pay to complete the scientific technical reviews. The costs of that overtime were absorbed by the state police department's budget.

## ISSUE 4

WHICH INDIVIDUALS/ ORGANIZATIONS SHOULD RECEIVE THE TESTING RESULTS?

**DISCUSSION 4A.** Once SAK testing results were reviewed by state police forensic science personnel and entered into CODIS, the results needed to be released to the proper criminal justice system authorities.

**DECISION 4A.** The local police department and prosecutor's office had to designate specific people and/or units that should be notified re: testing results/CODIS hits. Procedures for that notification (what exact information would be shared, by what mechanism.) had to be discussed and agreed upon.

**DISCUSSION 4B.** Because this testing was occurring in the context of a multidisciplinary collaboration and research project, the group needed to consider what information could be released to the other agencies in partnership and to the research team.

**DECISION 4B.** Specific case information (e.g., case ID number, victim/offender names) could not be released to members of the collaborative who were not directly involved in the testing, investigation, and possible prosecution of the cases. However, all members of the group were interested in tracking how testing was proceeding and the number of CODIS hits that were emanating from testing.

Therefore, the research team constructed a CODIS-hits tracking tool (see FIGURE 4.7). The state police forensic science personnel provided bi-monthly updates to the multidisciplinary team for each testing group on: (a) the number of SAKs tested by each vendor lab; (b) the number of SAKs received by the state crime lab after having been tested; (c) the number of SAKs reviewed by the state crime lab; (d) the number of profiles uploaded into CODIS; (e) the number of CODIS hits including offender hits, forensic hits, and offender and forensic hits.

## ISSUE 5

WHAT STEPS SHOULD BE TAKEN FOR THE CASES THAT RESULTED IN A CODIS HIT?

**DISCUSSION.** The state police forensic sciences division alerted both the local police & prosecutors regarding every CODIS hit. When the first batches of hits arrived, the police & prosecutors began implementing their usual process for following up on CODIS hits (e.g., pulling the original police files, identifying next steps for the investigation).

However, these efforts were not coordinated and both the local police department and the investigative unit within the prosecutor's office began simultaneous efforts reviewing each case.

This duplicative effort was discovered quickly during the "report out" portion of a multidisciplinary team meeting, which prompted the group to develop a coordinated plan.

**DECISION.** The collaborative decided that the cases/hits associated with The 400 Project (which was still in progress) would be handled by the local police; the cases/hits associated with this project would be handled by the prosecutor's office investigators.

There was still no single data management system that tracked SAKs as they moved from testing into investigation and prosecution. As the ARP was ending, the multidisciplinary team was looking into options for computerized tracking of SAKs from the moment they are collected by medical personnel through forensic testing and then into investigation and prosecution.

## Evaluating the Detroit SAK Testing Plan—Descriptive Findings About the Cases/SAKs Tested in this Project

Before delving into the forensic testing outcomes for the SAKs tested in this project (next section of this chapter), we want to first ground the reader in some context about these cases/SAKs—what do we know about these survivors, their attackers, and the assaults they sustained? For each of 1,595 SAKs tested, we requested the corresponding police file so that we could code demographic and assault characteristics for each case. However, as noted previously in this report, the police department did not have a sophisticated data management system—all reports were hard copy paper files, many of which were off-site in remote storage. The sex crimes unit had moved *multiple* times over the 30 year period in which these cases spanned (as had the location of remote storage),<sup>68</sup> so it is to be expected that some records would have been lost over time. Missing data was particularly problematic for Testing Group 3 (Presumed SOL-Expired), but the police department made every effort to locate as many files as possible for the research team.

Table 4.2 (following pages) presents descriptive means and percentages for victim, assailant, and assault characteristics—for the overall sample and within each Testing Group. The valid sample size (N) and number of missing cases are noted for each variable. The vast majority of these victims were female (98%) and African-American (81%). The sample was quite young at the time of the assault, 24 years-old on average, and about one-fifth (21%) were children/adolescents under the age of 16 when they were raped. The victims whose kits were sampled for Testing Group 2 (Non-Stranger Rape) were younger (more were under the age of 16) than the survivors in other Groups. Prior studies have found that adolescents are more likely to be sexually assaulted by non-strangers than strangers (Adams,

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<sup>68</sup> For example, in the 30 months of this action research project alone, the sex crimes unit had to move to three times to three different locations (i.e., three different buildings).

Girardin, & Faugno, 2001; Jones, Rossman, Wynn, Dunnuck, & Schwartz, 2003), which may explain this age effect within this Testing Group.

Nearly all of the perpetrators in this sample were male (99.5%) and most were African American (92%). The assailants were, on average, about four years older than their victims (28 years old on average) and approximately 25% were 21 years old or younger at the time they committed this assault. The assailants in Testing Group 2 (Non-Stranger Rape) were younger (more were under the age of 22) than the assailants in the other Groups. As noted above, sexual assaults against adolescents are more likely to be committed by someone they know (rather than strangers) (Adams et al., 2001; Jones et al., 2003), and if those assailants are also more typically teens/young adults, that may explain these findings; however, such explanations are speculative and merit further research.

The assaults associated with these SAKs occurred nearly ten years ago (9.48 average), with a range of 4 years ago to 25 years ago. As expected, the assaults in Testing Group 3 (Presumed SOL-Expired) occurred longer ago than those in the other Groups (18 years on average). Victim-offender relationship was a selection/stratification variable for Testing Group 1 (Stranger Rape) and Testing Group 2 (Non-Stranger Rape). Therefore, by design, 100% of the cases in Testing Group 1 were stranger-perpetrated. All of the cases in Testing Group 2 were non-stranger-perpetrated, most of which (58%) were committed by friends, associates, or family members of the victim. In approximately 20% of the cases in this group, the victim knew the assailant by sight/street name (e.g., “John from the party store at [specific location named]).” In Testing Group 3 (Presumed SOL-Expired) and Testing Group 4 (DNA Testing Method), victim-offender relationship was not a selection/stratification criterion; each group was randomly sampled, which yielded more stranger rape cases in Testing Group 3 (Presumed SOL-Expired). As noted in the historical analysis in *Chapter 3: Why So Many Unsubmitted SAKs in Detroit*, Detroit did not have full access to CODIS until 2006, and many stakeholders in the police department and in the police department crime lab noted that stranger rape cases were less likely to be

submitted in the pre-CODIS era (because the investigational utility of the SAK was limited without CODIS/reference samples). These SAK submission practices likely explain the higher number of stranger-perpetrated assaults among the older kits (Testing Group 3: Presumed SOL-Expired).

Nearly one-quarter of these assaults (22%) were 'gang rapes' such that the victim was sexually assaulted by multiple offenders (within the same incident). Multiple-perpetrator assaults were more likely in Testing Group 1 (Stranger Rapes). Prior research has also found that gang rapes are more common in stranger-perpetrated assaults (Gidycz & Koss, 1990; Koss et al., 1988; Porter & Alison, 2006; Ullman, 2007). With respect to alcohol and drug use at the time the assault, we could discern that 29% of the assaults occurred in the context of substance use, but the documentation in the police files was not sufficiently detailed for us to be able to parse out victim vs. assailant use (or distinguish alcohol vs. drug use) (i.e., our coding reflects alcohol or drug use by either victim or assailant). The assaults in Testing Group 1 (Stranger Rapes) and Testing Group 4 (DNA Testing Method) were more likely to occur in the context of alcohol/drug use than the assaults in the other two Testing Groups. We do not have a clear understanding as to why substance use was higher in Testing Group 4 (which was randomly selected from 2006-2009), but for Testing Group 1 (Stranger Rape), there is prior literature suggesting higher rates of victim alcohol/drug use among victims of stranger rape (Koss et al., 1988; Ullman & Brecklin, 2000; however Logan, Cole, & Capillo, 2007 alcohol use by victims was more common in non-stranger assaults). When we were coding the cases in Testing Group 1 (Stranger Rape), there were many instances in which women had been in bars, at parties, in drug houses and were then abducted by strangers (likely because their substance use made them vulnerable, see Lisak, 2008).

Whereas the police files often lacked precise details about substance use, the records were more consistent with respect to whether the assailant used a weapon and/or physical force against the victim. Nearly one-third of the assaults (30%) involved the use of a weapon (e.g., gun, knife, object wielded as weapon), and consistent with prior research, weapon use was more common among

stranger-perpetrated assaults (Testing Group 1; 42%) (see Koss et al., 1988; Riggs et al., 2000; Ullman & Siegel, 1993). Most assaults (71%) involved some degree of physical force by the assailants (e.g., grabbing and throwing the victim, holding down the victim, strangling the victim) (71%). Physical force was more typical in the assaults in Testing Group 1 (Stranger Rape) and Testing Group 3 (Presumed SOL-Expired). Prior research suggests that physical force is quite common in stranger rapes (Koss et al., 1988, Ullman et al., 2006; Riggs et al., 2000), but can be just as prevalent in intimate partner sexual assaults (Logan et al., 2007; Ullman & Siegel, 1993).

After the assault, most of these victims sought medical treatment very quickly: 62% had the medical forensic exam and SAK the same day as the assault, 26% had the exam the next day, and 12% had the exam beyond one day. The victims in Testing Group 2 (Non-Stranger Rapes) were less likely to seek same-day care than survivors in the other testing Groups. Prior research has yielded mixed results with respect to the relationship between victim-offender relationship and medical help seeking: Millar, Stermac, and Addison (2002) found that victims of stranger rape were more likely to seek immediate treatment, but Logan et al. (2007) found no association between type of rape and when the victim sought medical care.

**TABLE 4.2 – The Detroit SAKs: Victim, Assailant, and Assault Characteristics**

<b>VICTIM CHARACTERISTICS</b>										
	<b>Overall Sample</b>		<b>Testing Group 1 (Stranger Rape)</b>		<b>Testing Group 2 (Non-Stranger Rape)</b>		<b>Testing Group 3 (Presumed SOL-Expired)</b>		<b>Testing Group 4 (DNA Testing Methods)</b>	
Victim Gender	Valid N	1565	Valid N	444	Valid N	446	Valid N	327	Valid N	348
	Missing N	30	Missing N	1	Missing N	3	Missing N	24	Missing N	2
	Female	97.6%	Female	97.3%	Female	97.3%	Female	98.8%	Female	97.1%
	Male	2.4%	Male	2.7%	Male	2.7%	Male	1.2%	Male	2.9%
Victim Race	Valid N	1542	Valid N	441	Valid N	440	Valid N	316	Valid N	345
	Missing N	53	Missing N	4	Missing N	9	Missing N	35	Missing N	5
	African American	80.6%	African American	78.2%	African American	81.4%	African American	82.3%	African American	81.2%
	Caucasian	17.9%	Caucasian	19.0%	Caucasian	16.8%	Caucasian	17.4%	Caucasian	18.3%
	Hispanic/Latina	1.1%	Hispanic/Latina	1.6%	Hispanic/Latina	1.6%	Hispanic/Latina	.3%	Hispanic/Latina	.6%
	Asian	.3%	Asian	.9%	Asian	.2%				
Multi-Racial	.1%	Multi-Racial	.2%							
Victim Age	Valid N	1506	Valid N	442	Valid N	439	Valid N	280	Valid N	345
	Missing N	89	Missing N	3	Missing N	10	Missing N	71	Missing N	5
	Mean:	24.44	Mean	27.37	Mean	21.93	Mean	25.49	Mean	23.04
	Std. Dev.	11.36	Std. Dev.	11.79	Std. Dev.	10.58	Std. Dev.	12.01	Std. Dev.	10.23
	Range	2-88	Range	2-72	Range	3-59	Range	5-88	Range	3-55
	<16 years old	21.3%	<16 years old	11.8%	<16 years old	30.3%	<16 years old	20.7%	<16 years old	22.6%
	≥16 years old	78.7%	≥16 years old	88.2%	≥16 years old	69.7%	≥16 years old	79.3%	≥16 years old	77.4%

TABLE 4.2 (cont.)										
ASSAILANT CHARACTERISTICS										
	Overall Sample		Testing Group 1 (Stranger Rape)		Testing Group 2 (Non-Stranger Rape)		Testing Group 3 (Presumed SOL-Expired)		Testing Group 4 (DNA Testing Methods)	
Assailant Gender	Valid N	1522	Valid N	433	Valid N	441	Valid N	313	Valid N	335
	Missing N	73	Missing N	12	Missing N	8	Missing N	38	Missing N	15
	Female	.5%	Female	0.0%	Female	.9%	Female	0.0%	Female	.9%
	Male	99.5%	Male	100.0%	Male	99.1%	Male	100.0%	Male	99.1%
Assailant Race	Valid N	1487	Valid N	410	Valid N	432	Valid N	310	Valid N	335
	Missing N	108	Missing N	35	Missing N	17	Missing N	41	Missing N	15
	African American	91.8%	African American	92.2%	African American	90.5%	African American	91.9%	African American	92.8%
	Caucasian	5.8%	Caucasian	5.6%	Caucasian	5.1%	Caucasian	7.1%	Caucasian	5.7%
	Hispanic/Latino	1.9%	Hispanic/Latino	2.0%	Hispanic/Latino	3.7%	Hispanic/Latino	.3%	Hispanic/Latino	.9%
	Arab American/ Chaldean	.2%	Asian	.2%	Arab American/ Chaldean	.5%	Arab American/ Chaldean	.3%	Asian	.3%
	Asian	.2%			Asian	.2%	Asian	.3%	Multi-Racial	.3%
Multi-Racial	.1%					Multi-Racial	.3%			
Assailant Age	Valid N	1244	Valid N	283	Valid N	418	Valid N	286	Valid N	257
	Missing N	351	Missing N	162	Missing N	31	Missing N	65	Missing N	93
	Mean	28.60	Mean	29.38	Mean	28.07	Mean	28.68	Mean	28.49
	Std. Dev.	9.69	Std. Dev.	8.46	Std. Dev.	10.75	Std. Dev.	8.84	Std. Dev.	10.01
	Range	8-65	Range	15-63	Range	8-65	Range	10-58	Range	8-61
	<22 years old	25.9%	<22 years old	17.7%	<22 years old	32.8%	<22 years old	22.7%	<22 years old	27.2%
	≥22 years old	74.1%	≥22 years old	82.3%	≥22 years old	67.2%	≥22 years old	77.3%	≥22 years old	72.8%

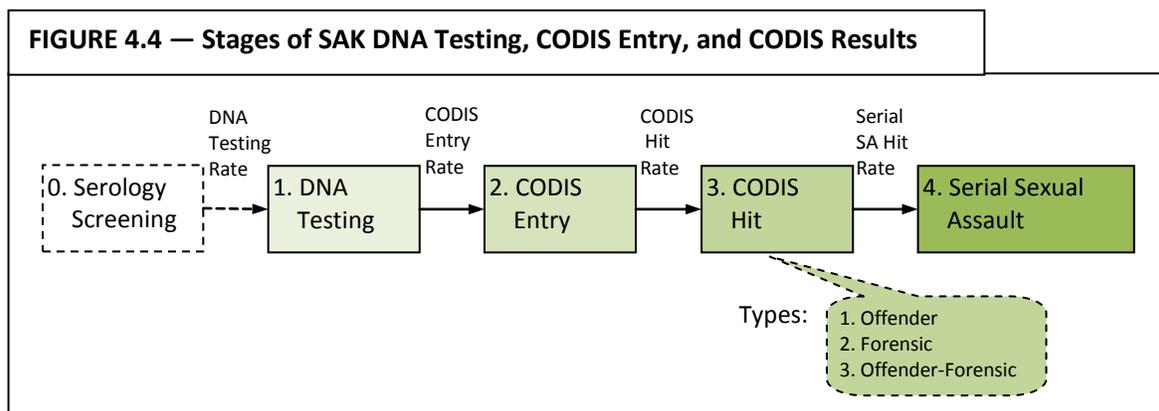
TABLE 4.2 (cont.)										
ASSAULT CHARACTERISTICS										
	Overall Sample		Testing Group 1 (Stranger Rape)		Testing Group 2 (Non-Stranger Rape)		Testing Group 3 (Presumed SOL-Expired)		Testing Group 4 (DNA Testing Methods)	
How Long Ago Assault Occurred (Years) (as of 12/31/13)	Valid N	1427	Valid N	430	Valid N	432	Valid N	285	Valid N	280
	Missing N	168	Missing N	15	Missing N	17	Missing N	66	Missing N	70
	Mean	9.48	Mean	7.77	Mean	7.47	Mean	17.98	Mean	6.55
	Std. Dev.	4.96	Std. Dev.	2.42	Std. Dev.	2.28	Std. Dev.	3.14	Std. Dev.	2.33
	Range	4-25	Range	4-11	Range	4-12	Range	10-25	Range	4-11
Victim-Offender Relationship	Valid N	1468	Valid N	445	Valid N	449	Valid N	287	Valid N	287
	Missing N	127	Missing N	0	Missing N	0	Missing N	64	Missing N	63
	Stranger	43.7%	Stranger	100%	By Sight/ Nickname Friend/Associate/	19.6%	Stranger	42.5%	Stranger	25.8%
	By Sight/ Nickname	10.5%			Family Member Current/Past	57.7%	By Sight/ Nickname	12.2%	By Sight/ Nickname	10.8%
	Friend/Associate/ Family Member	35.7%			intimate Partner		Friend/Associate/ Family Member	37.6%	Friend/Associate/ Family Member	54.7%
	Current/Past Intimate Partner	8.0%			Suspect known, but we do not know relationship	6.9%	Current/Past Intimate Partner	7.7%	Current/Past Intimate Partner	8.7%
	2.1%									
	Suspect known, but we do not know relationship									
Assault Involved Multiple Perpetrators (gang rape)	Valid N	1522	Valid N	444	Valid N	444	Valid N	286	Valid N	348
	Missing N	73	Missing N	1	Missing N	5	Missing N	65	Missing N	2
	No	77.9%	No	68.7%	No	82.4%	No	78.0%	No	83.9%
	Yes	22.1%	Yes	31.3%	Yes	17.6%	Yes	22.0%	Yes	16.1%

TABLE 4.2 (cont.)										
ASSAULT CHARACTERISTICS										
	Overall Sample		Testing Group 1 (Stranger Rape)		Testing Group 2 (Non-Stranger Rape)		Testing Group 3 (Presumed SOL-Expired)		Testing Group 4 (DNA Testing Methods)	
Alcohol and/or Drugs Involved in the Assault	Valid N	1434	Valid N	423	Valid N	444	Valid N	288	Valid N	279
	Missing N	161	Missing N	22	Missing N	5	Missing N	63	Missing N	71
	No	70.8%	No	68.3%	No	82.4%	No	82.3%	No	69.2%
	Yes	29.2%	Yes	31.7%	Yes	17.6%	Yes	17.7%	Yes	30.8%
Weapon Used in the Assault	Valid N	1429	Valid N	426	Valid N	436	Valid N	288	Valid N	279
	Missing N	166	Missing N	19	Missing N	13	Missing N	63	Missing N	71
	No	70.3%	No	58.0%	No	81.7%	No	59.7%	No	82.1%
	Yes	29.7%	Yes	42.0%	Yes	18.3%	Yes	40.3%	Yes	17.9%
Physical Force Used in the Assault	Valid N	1428	Valid N	425	Valid N	436	Valid N	288	Valid N	279
	Missing N	167	Missing N	20	Missing N	13	Missing N	63	Missing N	71
	No	29.2%	No	25.2%	No	32.3%	No	22.6%	No	37.3%
	Yes	70.8%	Yes	74.8%	Yes	67.7%	Yes	77.4%	Yes	62.7%
Time Between Assault and Medical Forensic Exam & Sexual Assault Kit	Valid N	1247	Valid N	393	Valid N	365	Valid N	248	Valid N	241
	Missing N	348	Missing N	52	Missing N	84	Missing N	103	Missing N	109
	Assault and exam same day	61.6%	Assault and exam same day	62.6%	Assault and exam same day	53.2%	Assault and exam same day	67.7%	Assault and exam same day	66.6%
	Exam next day after assault	26.4%	Exam next day after assault	25.4%	Exam next day after assault	29.6%	Exam next day after assault	25.4%	Exam next day after assault	24.1%
	Exam beyond one day	12.0%	Exam beyond one day	12.0%	Exam beyond one day	17.3%	Exam beyond one day	6.9%	Exam beyond one day	9.5%

## Evaluating the Detroit SAK Testing Plan—Descriptive Findings on the Forensic Testing Outcomes

### *Background Context: An Overview of DNA Testing and CODIS*

To set the stage for the statistical results of the forensic outcomes from the Detroit SAK testing plan, we will begin with an overview of the process by which rape kit evidence is analyzed and entered into CODIS and the type of CODIS hits that can emanate from that testing. Figure 4.4 below summarizes this multi-stage process.



Rape kit testing begins with a serology screening (Step 0). Forensic scientists examine the evidence in the SAK (e.g., the vaginal, oral, and anal swabs taken from the victim’s body) to determine whether there are bodily fluids present (e.g., semen, saliva, and/or blood). If there are bodily fluids present, then the DNA within those samples can be extracted and analyzed. Therefore a kit will pass from serology screening (Step 0) to DNA testing (Step 1) if there are probative samples in the kit for analysis (i.e., samples with biological fluids that can be analyzed for DNA).<sup>69</sup> The probability that a kit will pass from Step 0 to Step 1 can be quantified as the “DNA Testing Rate.”

<sup>69</sup> An alternate approach, the “Y-screening” method, skips the traditional serology screening stage (Stage 0). Instead of screening each swab (oral, vaginal, anal) for semen/saliva/blood, the forensic analyst takes a small cutting from each swab to determine if male DNA is present (i.e., rather than screening bodily fluids specifically, the Y-screening method checks for male

There have been major technological advances over the past two decades regarding how DNA testing (Step 1) is performed (see historical analysis in *Chapter 3: Why So Many Unsubmitted SAKs in Detroit*). Briefly, these advances have focused on the development of faster methods for DNA extraction, testing techniques that can analyze smaller samples of evidence, and automation for quicker turnaround time. In this action research project, we wanted to contribute to the growing literature on DNA testing by systematically studying two different techniques for identifying and isolating sperm cells for analysis (i.e. the “development of faster methods for DNA extraction” noted above). In this project we compared “traditional” methods with “selective degradation” methods for identifying and isolating sperm cells.

For the “traditional” method of DNA testing (Step 1), if semen is present (from the serology screen, Step 0), the forensic scientist will use a differential extraction method to separate the sperm from the other cells in the sample, most notably, the victim’s cells/DNA, which is also in the sample (typically from cells of the vaginal wall). The extraction method uses both chemical and mechanical methods of separating the sperm from the other cells in the sample. Once sperm cells are isolated, then they can be chemically broken to extract the DNA therein (using PCR-STR technology; see *Chapter 3*).

For the “selective degradation” method of DNA testing (Step 1), the forensic scientist uses a faster-acting chemical technique for isolating the sperm. After an initial removal of non-sperm DNA, chemicals are added that destroy the remaining non-sperm cells in the sample (i.e., the cells that are mixed with the sperm cells), leaving only the sperm cells (hence the term “selective degradation”). The combined chemical-mechanical separation methods used in the “traditional” approach often leave behind traces of other cells/DNA, so that the final sample to be analyzed is a mixture of multiple DNA

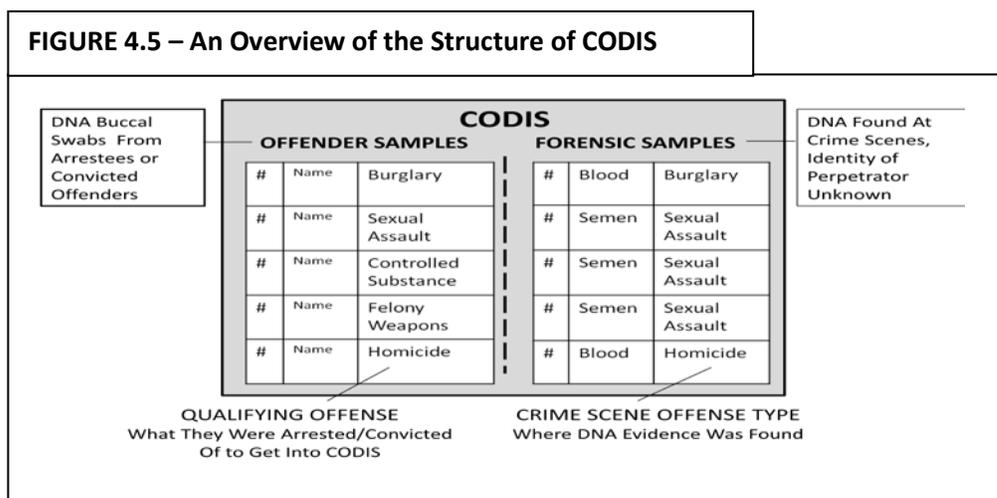
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DNA generally). If there is male DNA in the samples, then the kit will proceed with rest of testing to identify and isolate sperm cells (Step 1). If there is no male DNA in the samples, then kit does not proceed to testing (unless specific case-by-case circumstances suggest that additional testing is warranted). With the Y-screening method, there may need to be follow-up testing to determine which specific bodily fluid (semen/saliva/blood) was found on which swab, as those details may need to be presented in court (e.g., the *vaginal swab* had male DNA from *semen*).

sources (victim and suspect[s]), which makes it more challenging and time-consuming for the analyst to interpret the findings. With selective degradation, the sample that will be analyzed for DNA is “cleaner” in that method minimizes mixtures by destroying non-sperm DNA that is mixed with the sperm cells; if there are multiple male assailants, the mixture of those two DNA samples is still intact, as the method does not destroy sperm (from any source). Once the sperm cells are isolated, then the testing can proceed per usual (PCR-STR methods).

For either method, if the testing yields a DNA sample that meets minimum state requirements on completeness and eligibility for entry into CODIS, the DNA profile is uploaded into CODIS (Step 2). The probability that a kit will pass from Step 1 to Step 2 can be quantified as the “CODIS Entry Rate.”

When a profile is entered into CODIS, it is compared to existing DNA samples, which are organized in two indexing systems. The *offender index* contains known DNA profiles from arrestees/convicted offenders, obtained at their “qualifying offense” (i.e., a prior criminal offense that met legal requirements for CODIS entry). The *forensic index* contains DNA samples obtained at crime scenes that might match to samples in the offender index or might match to future samples uploaded into CODIS. Figure 4.5 (below) is a simplified depiction of the structure of CODIS.



If a newly-entered DNA profile matches an existing DNA sample in CODIS, it is referred to as a “hit”/“CODIS hit” (Step 3). The probability that a kit will pass from Step 2 to Step 3 can be quantified as the “CODIS Hit Rate.” Depending on whether the match is to a sample in the offender index or forensic index (or both), it can be sub-classified into different types of CODIS hits:

*Offender Hit* = The new profile matches the DNA of an offender profile already in CODIS (i.e., the match is to a sample in the offender index).

The offender may be a serial SEXUAL offender if both the qualifying offense and the new profile offense are both sexual assaults.

*Forensic Hit* = The new profile matches the DNA from an unknown forensic sample collected at a crime scene (i.e., the match is to a sample in the forensic index).

The offender (identity still unknown) may be a serial SEXUAL offender if the qualifying crime scene evidence and the new profile offense are both sexual assaults.

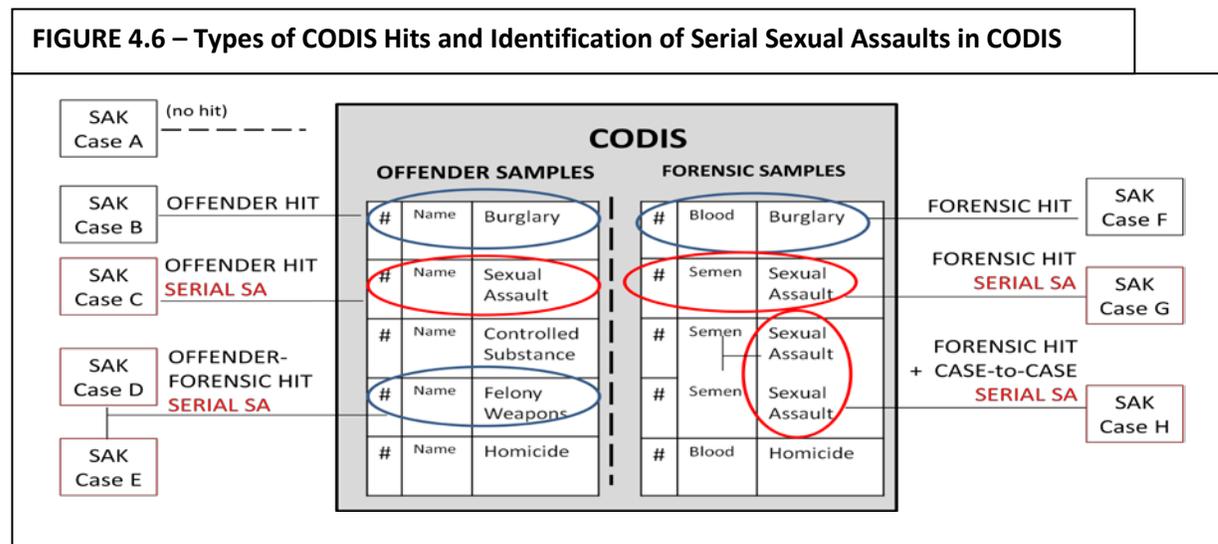
*Offender-Forensic Hit* = The new profile matches DNA that has been linked to *multiple cases* (often termed “case-to-case associations”). There are many scenarios that would qualify as an offender-forensic hit; three common examples:

- A new profile hits to DNA in the offender index and there have been multiple prior hits to the same profile in other criminal cases;
- A new profile hits to DNA that had been entered into the forensic index (first), which was later “solved” when a subsequent entry into the offender index matched the DNA; the new profile matches to both cases;
- A new profile has case-to-case associations to other new profiles, which match DNA already in CODIS. When SAKs are tested in large batches/volumes, it is possible that there will be case-to-case associations to other SAKs from the same “batch” of kits.

The offender has multiple criminal cases in which his/her DNA has been linked: the qualifying offense, other offenses, and the offense associated with the new profile.

The offender may be a serial SEXUAL offender if at least two of the linked cases are sexual assaults.

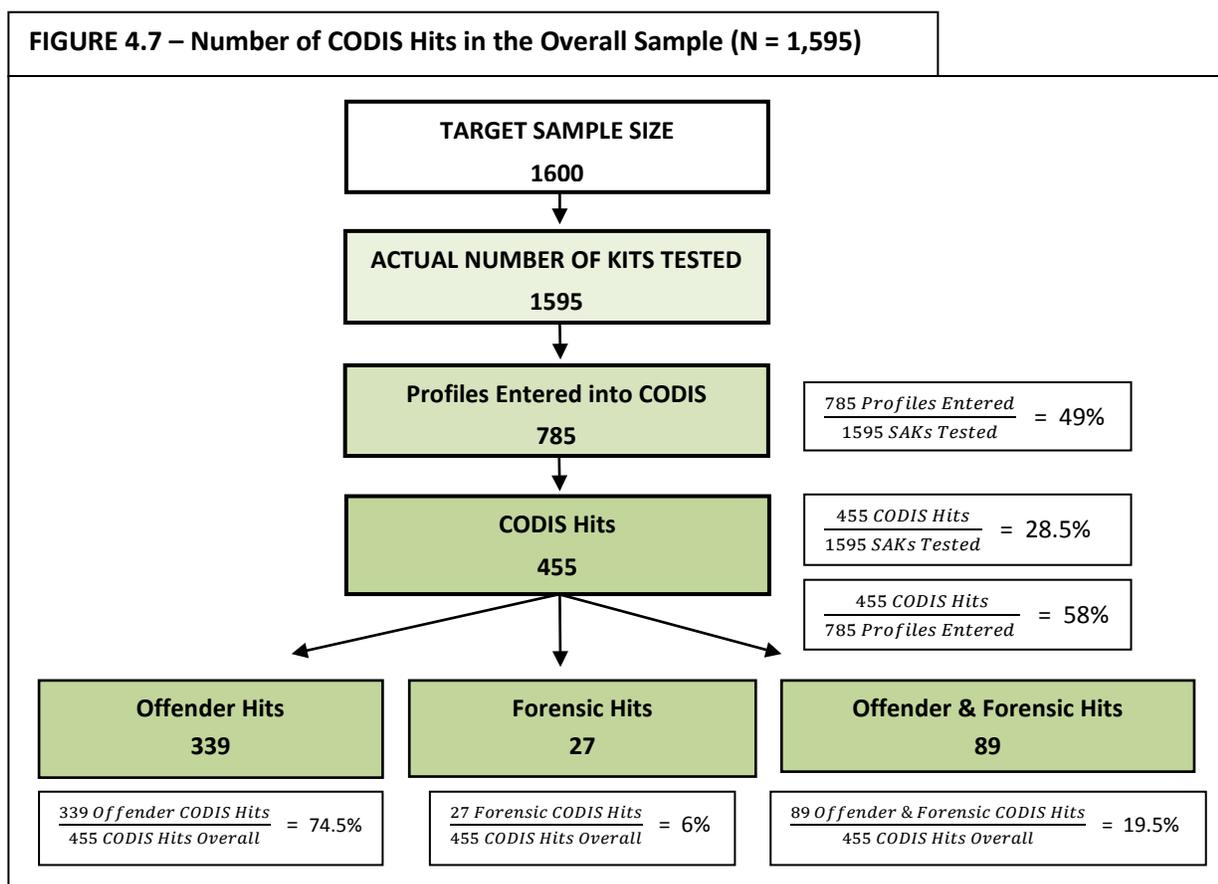
Serial sexual assaults can be identified via CODIS by examining the qualifying offense type, qualifying crime scene evidence type, or the offense type of case-to-case associations. If the DNA from a SAK matches to other sexual assault offenses (by any of the scenarios described above—offender hit to a prior sexual assault; forensic hit to a prior sexual assault; case-to-case associations to other sexual assaults), the hit reveals a pattern of serial sexual offending (Step 4). The probability that a kit will pass from Step 3 to Step 4 can be quantified as the “Serial Sexual Assault Hit Rate.” Figure 4.6 (below) depicts types of CODIS hits, highlighting how serial sexual assaults can be identified through CODIS.



With this background about the stages of DNA testing and CODIS established, we will present descriptive data (counts and percentages) regarding how many SAKs progressed through each stage, resulting in how many CODIS hits (and what type of hits and how many serial sexual assaults). We will present these descriptive data for the overall sample of 1,595 kits and then within each of the four Testing Groups. Looking ahead, the following section of this report will present statistical models that adjust for sampling differences between the Testing Groups and compare findings across the Groups.

### Descriptive Results: CODIS Hits & Serial Sexual Assaults in the Overall Sample

**Number and Type of CODIS Hits in the Overall Sample.** The CODIS hit results for the total sample of SAKs tested in the Detroit SAK ARP are summarized in Figure 4.7 (below), current through December 31, 2013.<sup>70</sup> The numbers presented in this figure are the actual counts for each type of hit, combined across the four Testing Groups; the percentages have *not* been weighted to account for the differences in the sampling designs across the four Groups (see section “Evaluating the Detroit SAK Testing Plan—Inferential Findings on the Effect of Victim-Offender Relationship and Statute of Limitation Status on Forensic Testing Outcomes” for weighted data).



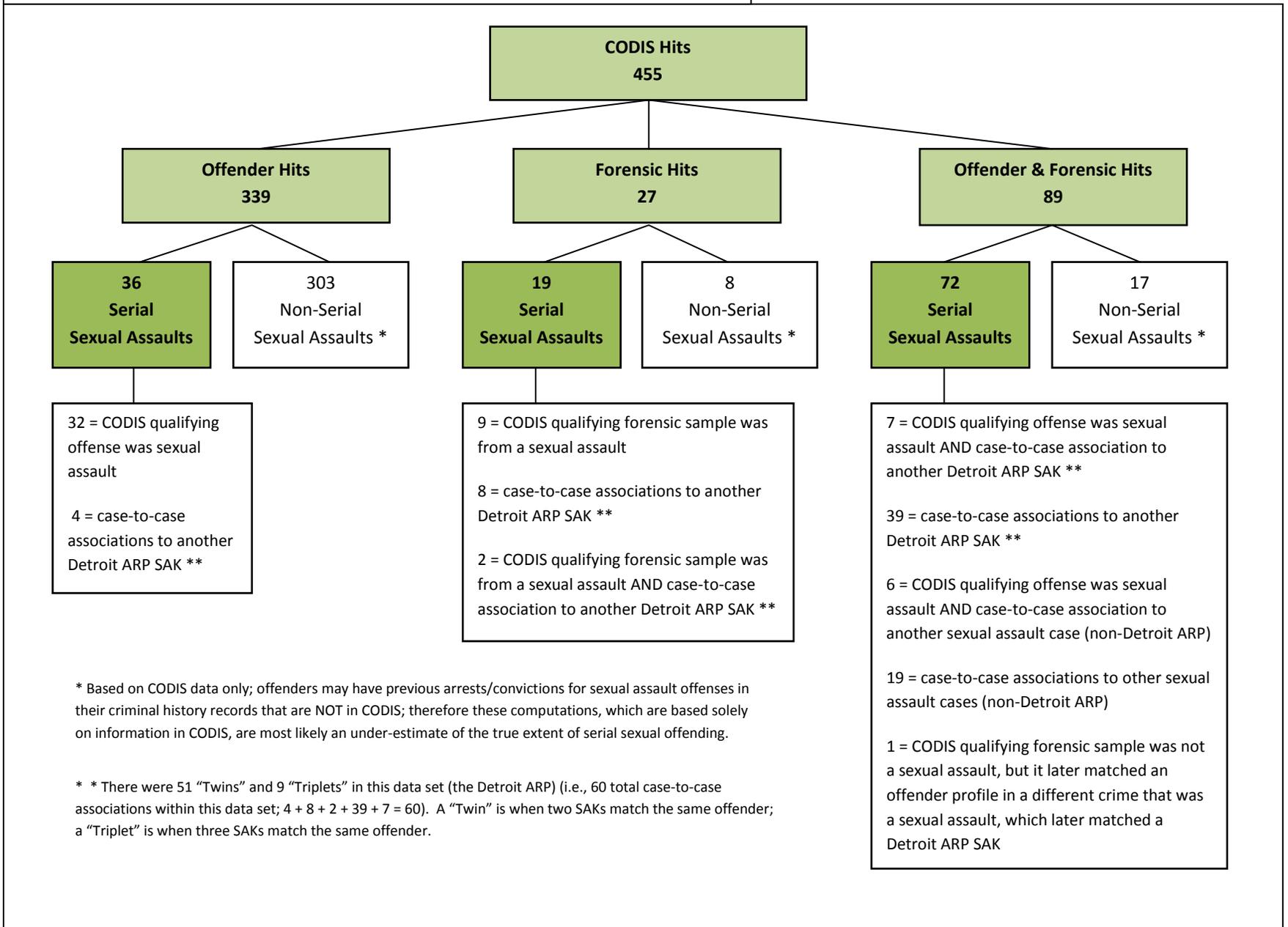
<sup>70</sup> New profiles are entered into CODIS every week, which can change the search results (i.e., a SAK DNA profile that does not result in a hit when it is first entered into CODIS could have a hit later—weeks, months, years—when a new sample is entered). In our interviews with national forensic science experts (see *Appendix B: Project Methodology*), stakeholders said that most hits occur 2-3 weeks after a profile is first entered into a state-level database. Therefore, we waited 3 weeks after the last SAK was entered into CODIS before we tabulated these counts.

Of the 1,595 SAKs tested, there were 785 eligible CODIS profiles (a 49% unweighted CODIS entry rate), which resulted in 455 CODIS hits (a 58% unweighted conditional CODIS hit rate). Most of the 455 CODIS hits were offender hits (74.5%) (i.e., the DNA in the SAK matched a profile in the offender index of database); 6% were forensic hits (i.e., the DNA matched to an unknown identity forensic sample); and 19.5% were offender-forensic hits (most of which were hits to other SAKs tested in this project). For each of these 455 CODIS hits, we examined the “qualifying offense” (i.e., for offender hits, the crime the offender was arrested for/convicted of that resulted in his/her DNA being entered into CODIS; for forensic hits, the type of crime scene from which the DNA was obtained) and the state in which the qualifying offense occurred. The 455 CODIS hits hit to crimes (including, but not limited to sexual assaults) in 23 states: Alabama, Alaska, Arizona, California, District of Columbia, Georgia, Florida, Illinois, Indiana, Kentucky, Louisiana, Maryland, Michigan (in other counties), Minnesota, Missouri, New Mexico, North Carolina, Ohio, Oregon, Pennsylvania, Tennessee, Texas, Wisconsin.

**Number of Serial Sexual Assaults in the Overall Sample.** As noted previously, there are multiple ways to identify serial sexual offending via CODIS. For offender CODIS hits, if the SAK DNA matches a profile in which the qualifying offense was a sexual assault, then the hit reveals a pattern of serial sexual assault (for forensic hits, if the SAK DNA matches a profile in which the qualifying crime scene evidence was a sexual assault; for offender-forensic hits, if at least two of the crimes that have been linked together by DNA are sexual assaults). As helpful as CODIS data can be in identifying serial rapes, it is important to note a key limitation of this data source: offenders may have committed other sexual assault offenses that are not reflected in CODIS (e.g., there was no rape kit, the rape kit was not analyzed). Therefore, CODIS data are likely an underestimate the true scope of serial sexual assaults.

With that limitation in mind, we examined each of the 455 CODIS hits to determine how many hits were serial sexual assaults. Figure 4.8 (next pages) summarizes that analysis. Overall, 127 serial sexual assaults were identified: of the 339 offender hits, 36 were serial sexual assaults (typically because

**FIGURE 4.8 – Number of Serial Sexual Assaults in the Overall Sample (N = 1,595)**



the qualifying offense in CODIS was a sexual assault); of the 27 forensic hits, 19 were serial rapes (usually because the qualifying crime scene was also a sexual assault); of the 89 offender-forensic hits, 72 were serial sexual assaults (mostly case-to-case associations within the Detroit ARP dataset).

### ***Descriptive Results: CODIS Hits & Serial Sexual Assaults, by Testing Group***

**Number and Type of CODIS Hits, By Testing Group.** We used a stratified sampling design in this project so that we could examine CODIS hit rates and serial sexual offending among different kinds of sexual assault cases. Practitioners in Detroit (as well as other stakeholders we interviewed at the state and national level) had differing beliefs about the usefulness of SAK testing for stranger vs. non-stranger rapes and for kits associated with cases that might be beyond the statute of limitations. We designed the testing plan in this project to inform these debates, and to that end, we examined the number of CODIS hits within each Testing Group (see Figures 4.9, 4.10, 4.11, and 4.12, following pages).<sup>71</sup>

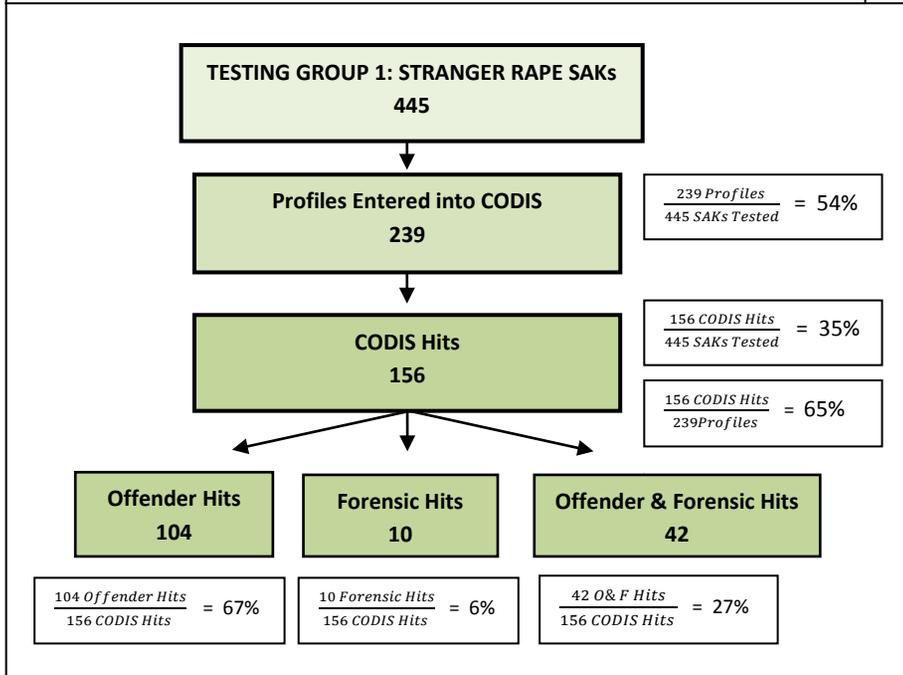
Beginning with the stranger and non-stranger perpetrated sexual assaults (Figures 4.9 and 4.10, next page), it is important to pause and consider what a CODIS hit may mean—what information it may be providing—given the nature of the victim-offender relationship in the assault. In a stranger rape, the assailant’s identity is unknown, so the 104 offender CODIS hits in Testing Group 1 mean that—potentially—104 rapes were solved by DNA testing. The ‘potentially’ caveat is critical because a CODIS hit is not confirmatory—it is information that can be used in the investigation (and for stranger rapes, it gives investigators a promising lead on the offender’s identity).<sup>72</sup> In Testing Group 1, there were also 10

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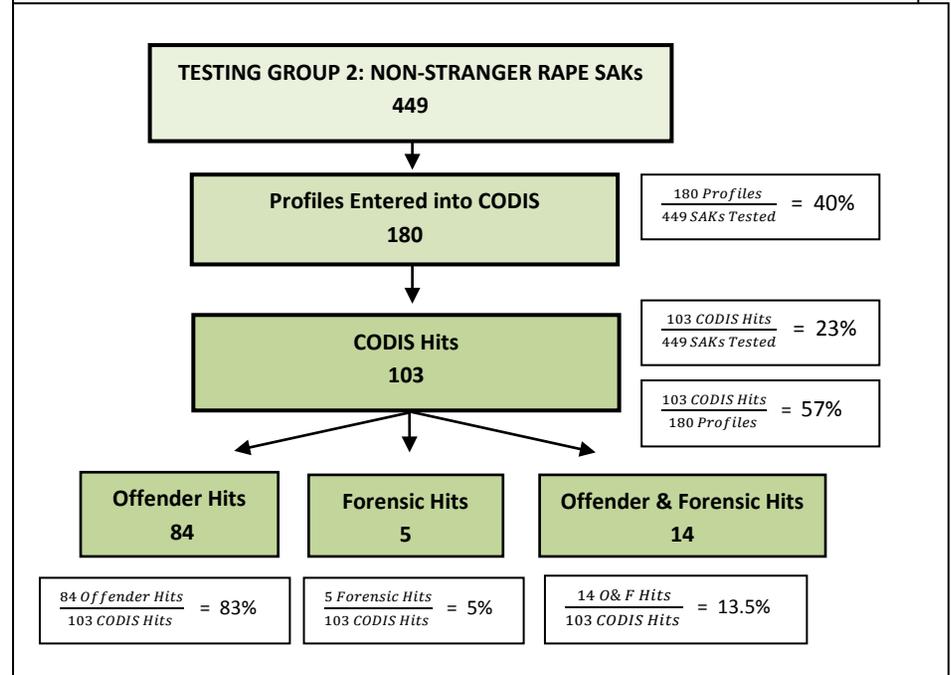
<sup>71</sup> In the following section of this report “*Evaluating the Detroit SAK Testing Plan—Inferential Findings on the Effect of Victim-Offender Relationship and Statute of Limitation Status on Forensic Testing Outcomes,*” we will pursue this issue of similarities and differences between the four Testing Groups in more detail.

<sup>72</sup> We had a case in Testing Group 1 in which the offender hit was not to the assailant, but to the victim’s consensual partner, who happened to have a criminal record and a profile in CODIS (completely unrelated to the sexual assault). The victim had had consensual sex within 72 hours (or so) of the assault, and resulting “offender hit” was to the victim’s boyfriend, not to the man who had sexually assaulted her. Therefore, the case was not “solved” by the offender hit, which highlights that CODIS hits are investigative leads that require follow-up.

**FIGURE 4.9 –Number of CODIS Hits, Testing Group 1 (Stranger) (n = 445)**



**FIGURE 4.10 – Number of CODIS Hits, Testing Group 2 (Non-Stranger) (n = 449)**



forensic CODIS hits, indicating that the offender's identity was not known in both a prior offense and in the current rape, but DNA evidence is being compiled and preserved for potential prosecution later, if the offender's identity is solved. In this Group of stranger-perpetrated rapes, there were also 42 offender-forensic CODIS hits, meaning that the identity of the offender was revealed (possibly) via testing—and there are links to multiple other crimes committed by the same offender.

Turning to non-stranger sexual assaults, stakeholders disagreed about the utility of SAK testing if the identity of the perpetrator was already known. Some practitioners argued that testing is still important to confirm identity and establish sexual contact between the victim and assailant (i.e., to rebut 'no contact' defense). Most of the 103 CODIS hits in Testing Group 2 were offender hits (i.e., testing confirmed identity) (see Figure 4.10, prior page), but there were also five forensic CODIS hits, meaning the matching forensic samples in CODIS were associated with *unknown* offenders (i.e., the match was to DNA in the forensic index). By testing non-stranger sexual assault kits (in which the identity of the offender was known), there were five other criminal cases that may have been solved (pending further investigation). The 14 offender-forensic hits in this Group indicate that these known-offenders had committed multiple crimes, which were now linked together by DNA.

Local, state, and national stakeholders also had differing opinions about whether older kits—those presumed to be beyond the statute of limitations—should even be tested, as a reasonable use of public funds. Those who advocated for testing presumed-SOL expired SAKs noted that the cases might still be eligible for prosecution after an in-depth review of the case and its circumstances, but if not, then perhaps the evidence of the sexual assault could be used in court if assailant re-offended. In other words, some of the key gains for testing older kits would manifest in the prosecution phase, but examining that stage was beyond the timeline and scope of this study. However, the utility of these kits to later prosecutions assumes that testing would yield CODIS hits, which is something that could be examined within this action research project.

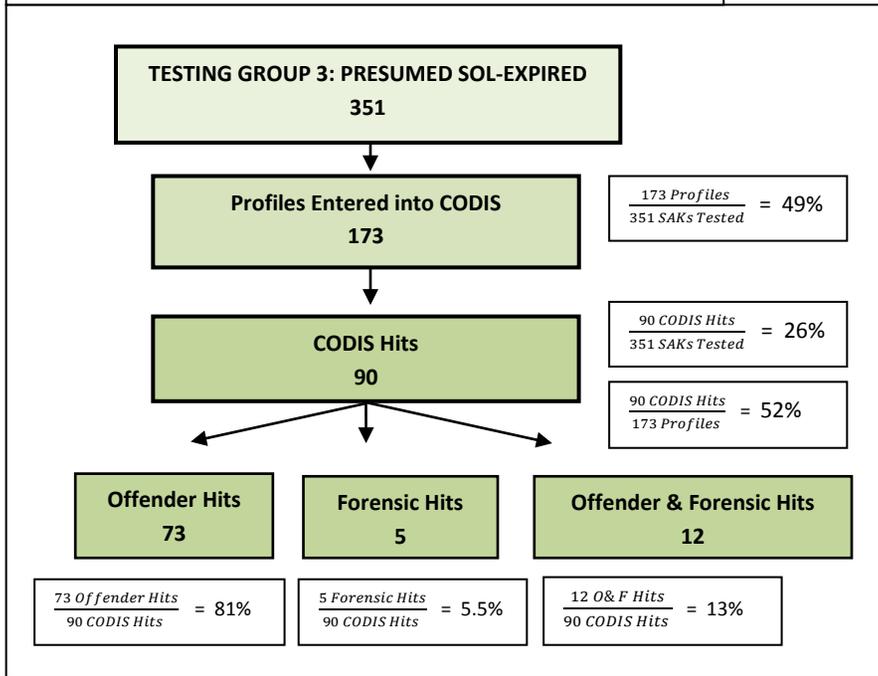
As shown in Figure 4.11 (next page), 73 of the 90 CODIS hits were offender hits. The SAKs in this Group were not *stratified* by victim-offender relationship, but we did collect this information from the police files (see “*Evaluating the Detroit SAK Testing Plan—Descriptive Findings About the Cases/SAKs Tested in this Project*”); from those additional data, we were able to discern that 24 of the 73 offender hits were stranger rapes (i.e., 24 may have been “solved” by DNA testing).<sup>73</sup> There were also 5 forensic hits in this Group, indicating what may be a long history of un-apprehended offending (given the age/date of the kits tested in this Testing Group), but the evidence is preserved in the event the case is later solved. In two of these five forensic hits, there was insufficient information in the police files to be able to determine victim-offender relationship, but in the three cases in which we could determine whether the assault was stranger vs. non-stranger, two forensic hits were to non-stranger assaults (i.e., two *other* crimes may have been solved by testing a non-stranger kit) (the other case was a stranger rape). Of the 12 offender-forensic hits in this Group, eight were stranger-rapes that were potentially solved by testing; again, whether prosecution is possible in those eight cases will have to be determined after a thorough review of the evidence.

The focus of Testing Group 4 (DNA Testing Method) is an experimental comparison of CODIS *entry rates* for two DNA testing methods; therefore, CODIS *hit results* are not a primary focus for this group, but for completeness, we have summarized those data in Figure 4.12 (next page).<sup>74</sup> Similar to the distributions in the other Testing Groups, most of the CODIS hits in Testing Group 4 were offender hits (78), and based on information in the police files, we were able to determine that most were non-stranger cases (54) and 11 were stranger-perpetrated (i.e., 11 possible rapes solved) (13 had missing data on victim-offender relationship). Of the seven forensic hits in this sample, four were non-stranger

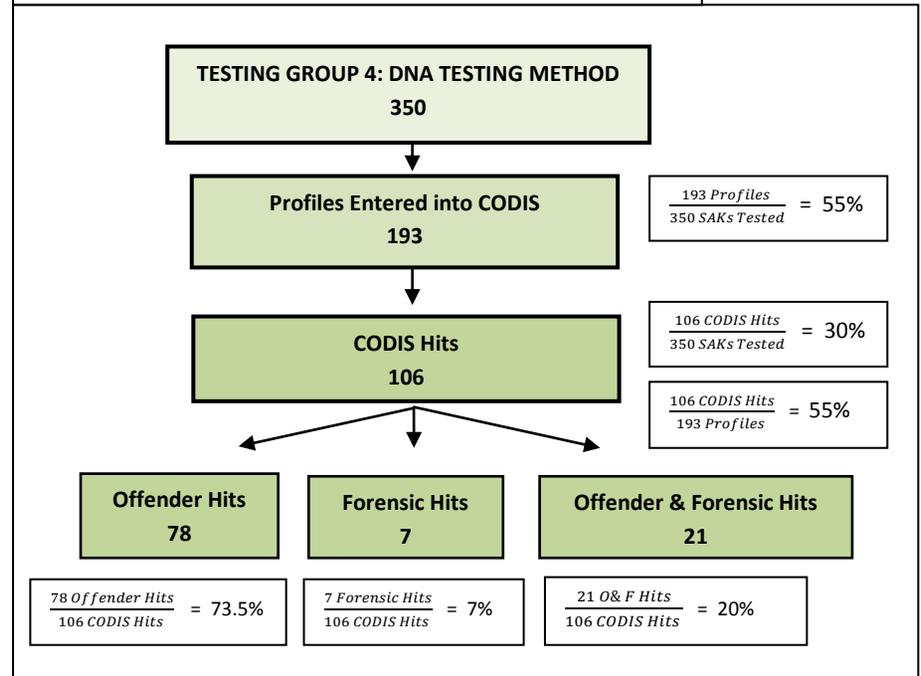
<sup>73</sup> In 15 of these 73 hits, it was not possible to determine victim-offender relationship, either because the police file was missing or because the documentation therein was so sparse that we were unable to make a determination as to the relationship.

<sup>74</sup> By way of preview, the statistical analyses in section “*Evaluating the Detroit SAK Testing Plan—Inferential Findings on the Effect of Victim-Offender Relationship and Statute of Limitation Status on Forensic Testing Outcomes*” will use Testing Group 4 as a comparison sample to contrast CODIS hits rates for presumed-SOL expired vs. non-expired cases.

**FIGURE 4.11 – Number of CODIS Hits, Testing Group 3 (Presumed SOL Expired) (n = 351)**



**FIGURE 4.12 – Number of CODIS Hits, Testing Group 4 (DNA Testing Method) (n = 350)**

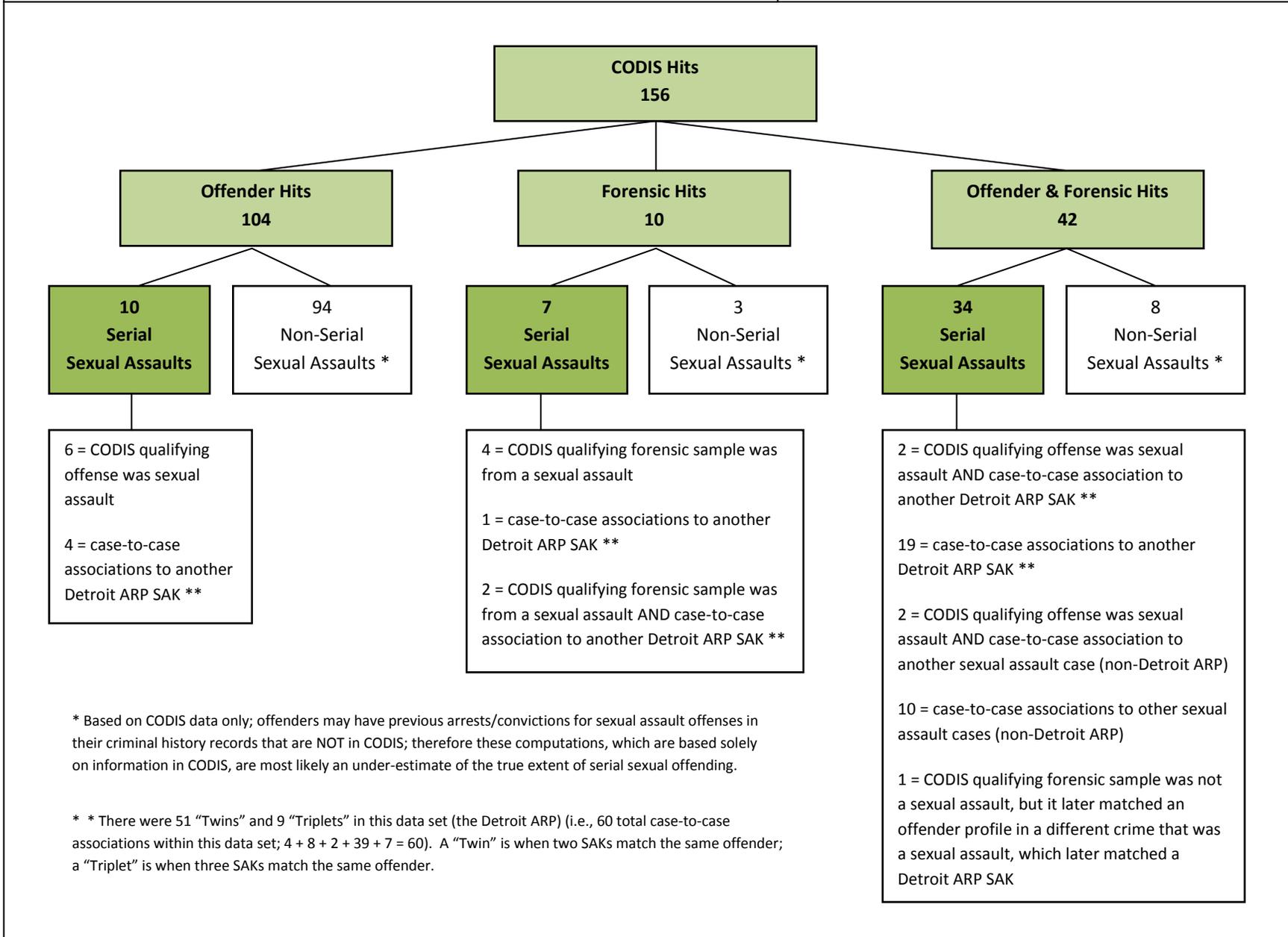


rapes, again suggesting that there may have been four other cases in CODIS that were solved by testing a rape kit in which the identity of the assailant was known. Of the 21 offender-forensic hits, nine were stranger-perpetrated, nine were non-stranger, and three could not be determined. Thus, the pattern of results in this Testing Group appear similar to Testing Group 3 (Presumed SOL Expired)—which is the other Group in which cases were not-stratified by victim-offender relationship. Most CODIS hits were offender hits, with a sizable number of hits in stranger rapes cases that were potentially “solved” by DNA testing. The forensic hits included matches to non-stranger perpetrated crimes, so that the identity of the perpetrator in *other* criminal cases may have been solved by testing. The offender-forensic hits show a pattern of multiple crimes, both stranger-perpetrated and non-stranger-perpetrated.

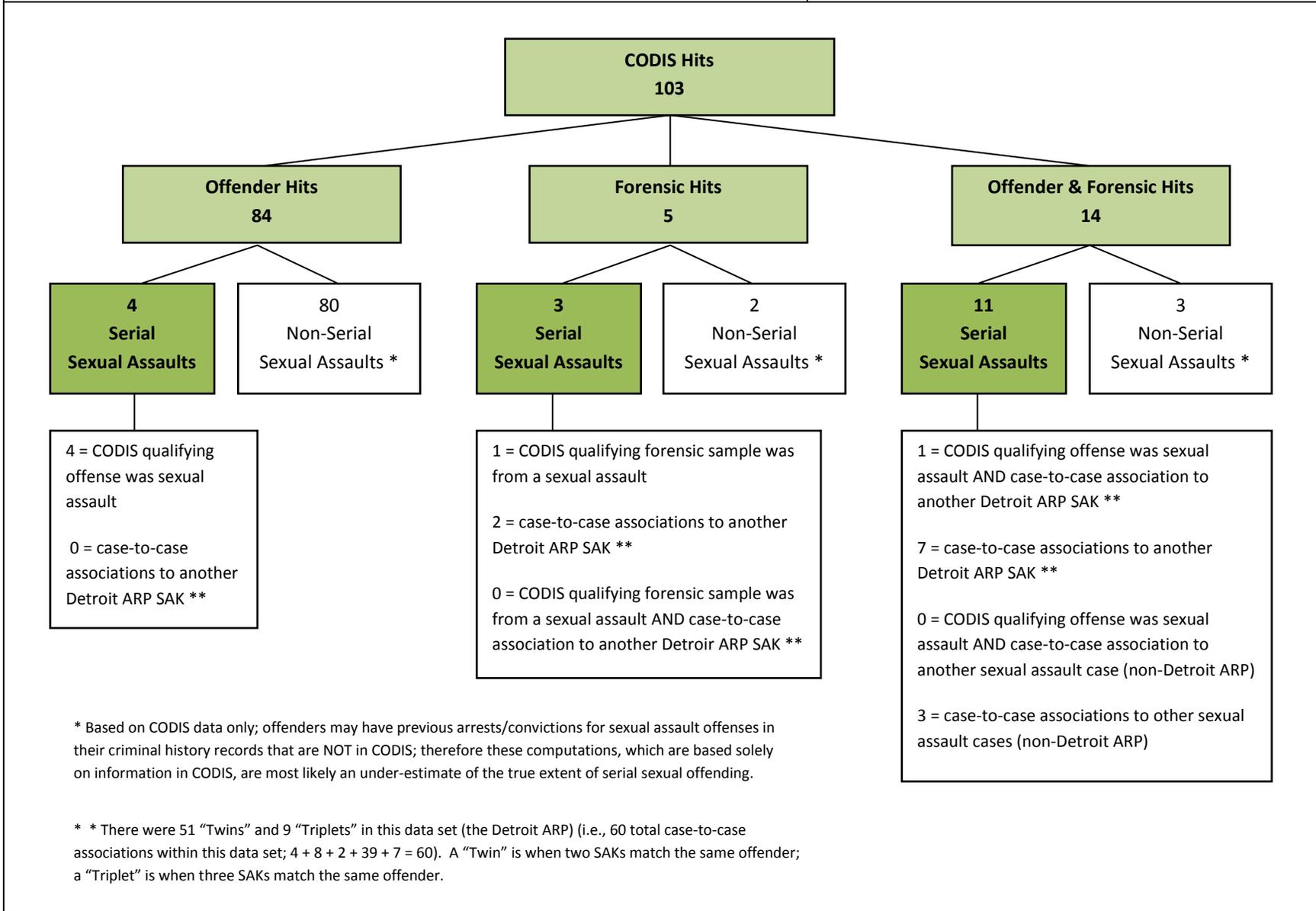
**Number of Serial Sexual Assaults, By Testing Group.** We also examined the number of serial sexual assaults within each of the four Testing Groups (see Figures 4.13, 4.14, 4.15, and 4.16, following pages). In Testing Group 1 (stranger rapes) (Figure 4.13, next page), 10 of the 104 offender hits were serial sexual assaults (most because the qualifying offense in CODIS was also a sexual assault). Among the forensic hits in this Group, 7 (of 10) were serial sexual assaults, meaning that these perpetrators had committed multiple rapes but have not yet been identified. In the offender-forensic CODIS hits, 34 (of 42) were serial sexual assaults, most were case-to-case associations to other Detroit SAK ARP SAKs.

In Testing Group 2 (non-stranger rape) (Figure 4.14, following page), four of the 84 offender hits were serial sexual assaults. The identity of these offenders was not in question—the victim knew the assailant—but by testing the SAK, it became clear that the assailant had committed previous rapes. As one Detroit stakeholder noted early-on in the project, *“it changes things from a ‘he-said, she-said’ case to a ‘he-said, she-said, she-said’ case . . . that takes away a lot of doubt in the minds of the jury [to know] that this wasn’t a one-time thing or miscommunication or whatever the defense tries to argue.”* Among the five forensic hits in this group (i.e., testing the known-perpetrator SAK may have solved the identity of offenders in five other cases), three were serial sexual assaults. In one instance, the unknown

**FIGURE 4.13 – Number of Serial Sexual Assaults, Testing Group 1 (Stranger) (n = 445)**



**FIGURE 4.14 – Number of Serial Sexual Assaults, Testing Group 2 (Non-Stranger) (n = 449)**

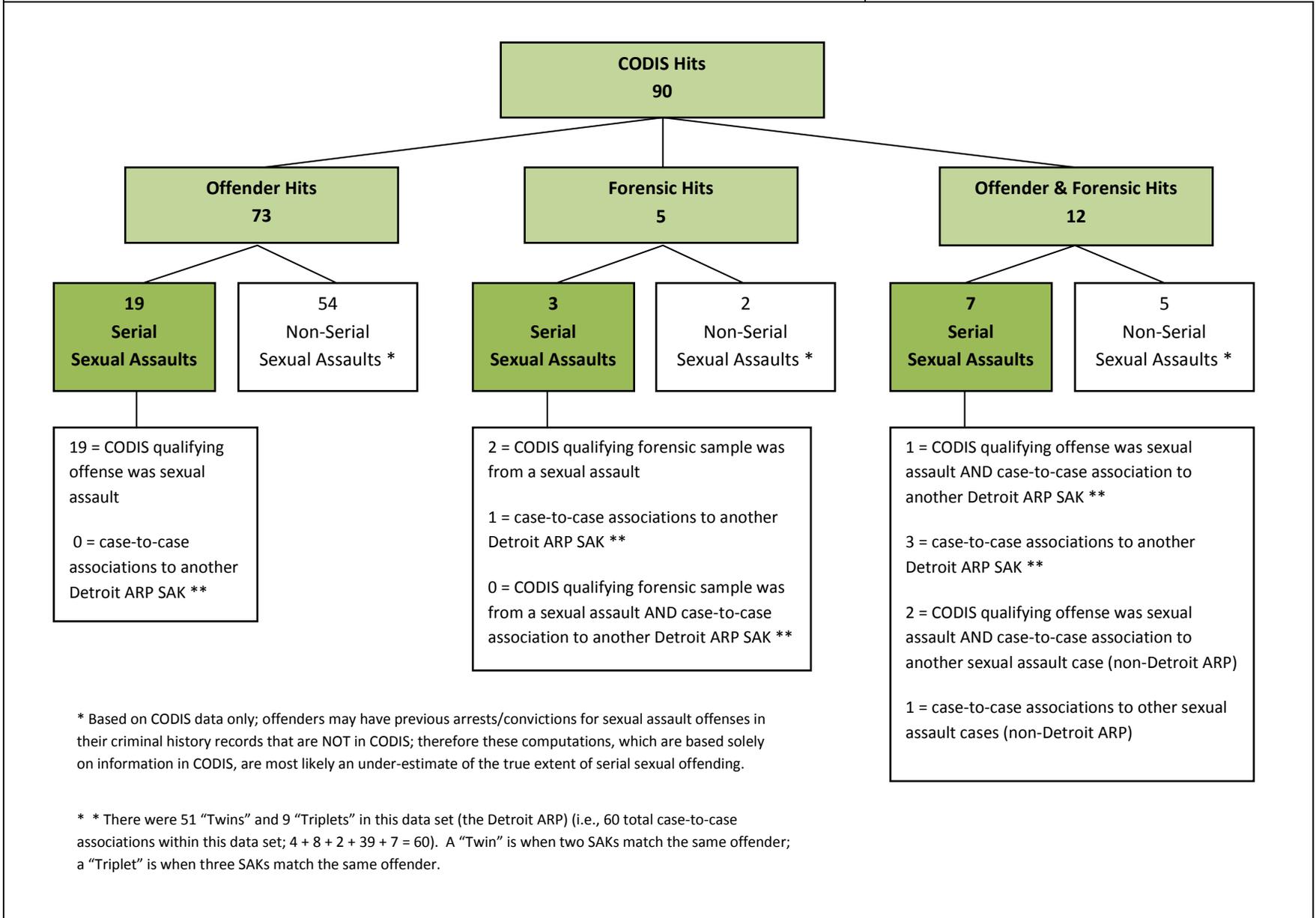


forensic sample was from a rape (i.e., a stranger rape), and the assailant re-offended—this time someone known to him—and when that kit was tested, it matched to both rapes. Of the 14 offender-forensic hits in this Group, most (11) were serial sexual assaults, largely due to case-to-case associations to other SAKs in this action research project.

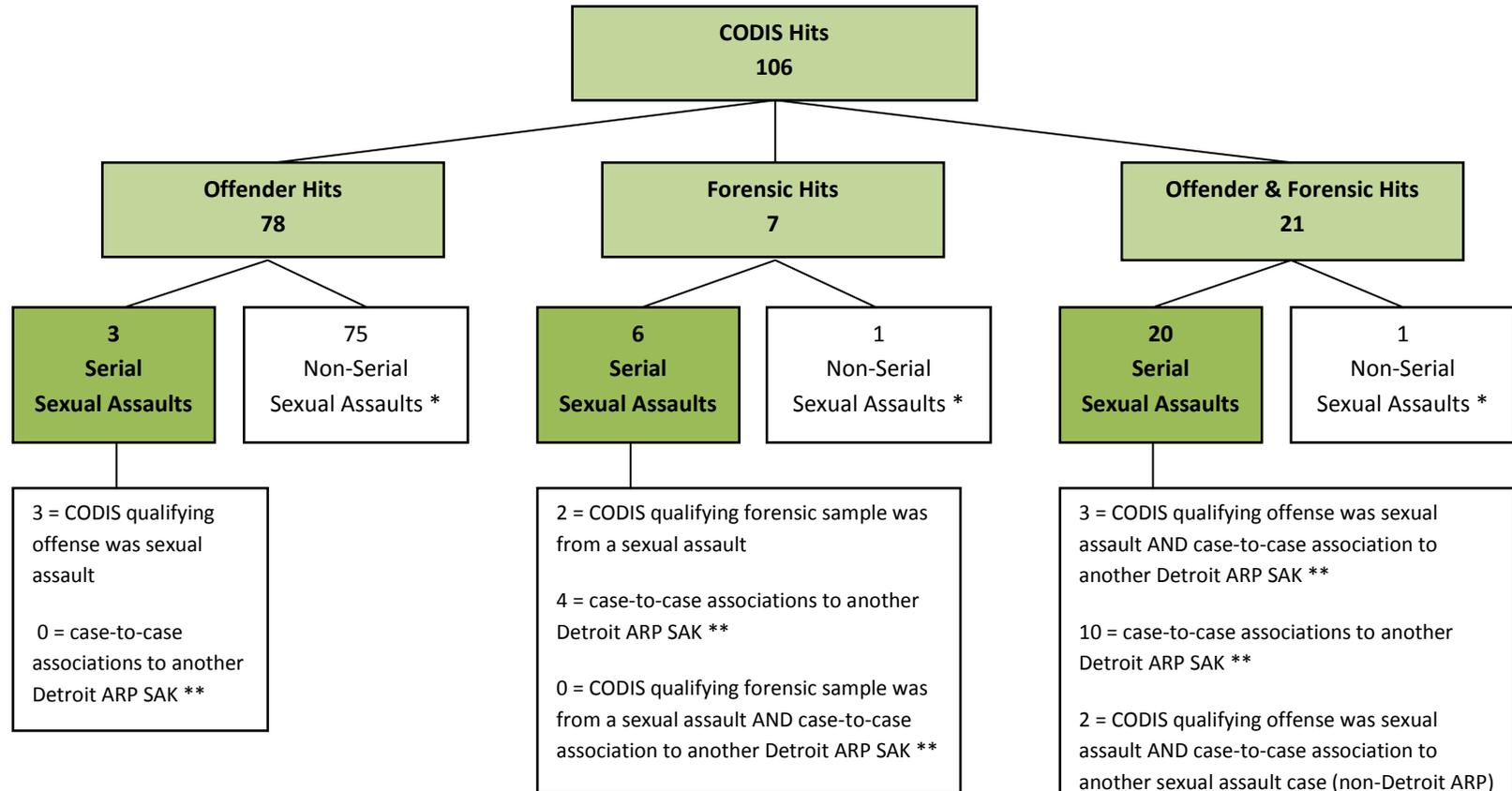
The number of serial sexual assaults in Testing Group 3 (Presumed-SOL Expired) is presented in Figure 4.15 (following page). Among the 73 offender CODIS hits in this group, there were 19 serial sexual assaults, all due to matches in the offender index in which the qualifying offenses had been sexual assaults. Of the five forensic hits in this Group, three were serial sexual assaults; two of which were instances in which the qualifying forensic sample was also a rape. Unfortunately, the police files for these cases were missing, so we were unable to determine victim-offender relationships in these cases. Most of the 12 offender-forensic hits were also serial sexual assaults (7), mostly due to case-to-case associations within the action research project sample.

In Testing Group 4 (DNA Testing Method), there were fewer serial sexual assaults within the offender CODIS hits as compared to the other Testing Groups: of the 78 offender hits in this Group, three were serial sexual assaults (all matches to cases in which the qualifying offense was another sexual assault) (see Figure 4.16, following pages). Of the seven forensic hits in this Group, six were serial sexual assaults; of those six, three were non-stranger rapes that had case-to-case associations with other Detroit SAKs, which hit to unknown forensic samples in CODIS. In other words, in three cases, testing a non-stranger rape kit yielded case-to-case associations with other sexual assaults, which linked to a previously unknown forensic sample from a different crime (i.e., potentially solving that other crime, and showing that the offender had multiple other offenses linked by DNA). Of the 21 offender-forensic hits in this Group, 20 were serial sexual assaults, most due to case-to-case associations within the action research project dataset.

**FIGURE 4.15 – Number of Serial Sexual Assaults, Testing Group 3 (Presumed SOL Expired) (n = 351)**



**FIGURE 4.16 – Number of Serial Sexual Assaults, Testing Group 4 (DNA Testing Method) (n = 350)**



\* Based on CODIS data only; offenders may have previous arrests/convictions for sexual assault offenses in their criminal history records that are NOT in CODIS; therefore these computations, which are based solely on information in CODIS, are most likely an under-estimate of the true extent of serial sexual offending.

\* \* There were 51 “Twins” and 9 “Triplets” in this data set (the Detroit ARP) (i.e., 60 total case-to-case associations within this data set; 4 + 8 + 2 + 39 + 7 = 60). A “Twin” is when two SAKs match the same offender; a “Triplet” is when three SAKs match the same offender.

In the next section of this report, we will delve deeper into the data to understand the similarities and differences between the four Testing Groups. Our primary aim in this next set of analyses is to develop and evaluate statistical models that account for the differences in the sampling designs across the Groups (i.e., weighting) to determine if the rates of CODIS entry, CODIS hits, and serial sexual assaults are significantly different between the Testing Groups. These analyses can help inform debates about whether all SAKs should be tested (including non-stranger and presumed SOL-expired SAKs) and whether it is possible to create empirically-informed prioritization guidelines for SAK testing to try to maximize the likelihood of obtaining CODIS hits.

## **Evaluating the Detroit SAK Testing Plan—Inferential Findings on the Effect of Victim-Offender Relationship and Statute of Limitation Status on Forensic Testing Outcomes**

### ***Overview***

**Key Analytic Goals.** In developing the Detroit SAK testing plan, our goal was to craft a design that could inform policy and practice debates about “test all/test some” SAKs.<sup>75</sup> As noted previously in this chapter, there are many factors to consider when developing SAK testing policies—public safety, social justice, survivors’ health—but this research focused on only one outcome: forensic testing outcomes, specifically the number of CODIS hits. If a jurisdiction did not have the resources to test all SAKs, is it possible to develop empirically-informed testing plans, whereby SAKs could be prioritized by the likelihood of yielding a CODIS hit? For example, if the probability of a CODIS hit was significantly higher for some cases vs. others, then that information could provide empirically-based guidelines for

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<sup>75</sup> The Detroit SAK testing plan also sought to evaluate a new method for DNA testing (selective degradation) because whatever prioritizations systems may or may not be used by a community, it is important to consider if there are alternative DNA testing methods that could offer faster, less expensive testing options, without sacrificing accuracy. The methods and results of that component of the testing plan (Testing Group 4—DNA Method) will be presented in the following section of this chapter.

prioritization; alternatively, if the probability of a CODIS hit was statistically no different for certain cases versus others, then that would suggest that such factors would not be good criteria for prioritizing cases. The Detroit SAK testing plan evaluated two primary selection criteria—victim-offender relationship (i.e., stranger vs. non-stranger perpetrated sexual assaults) and statute of limitation status—as these were the two factors that stakeholders at the local, state, and national level disagreed about the most (e.g., “*prioritize the stranger cases,*” “*skip the SOL expired*”). These two pieces of information are relatively easy to access pre-testing: SOL can be roughly determined by the date of the case/kit and victim-offender relationship is typically recorded in police files as a standard data field. As such, these data points could conceivably be used to screen and prioritize SAKs for testing.

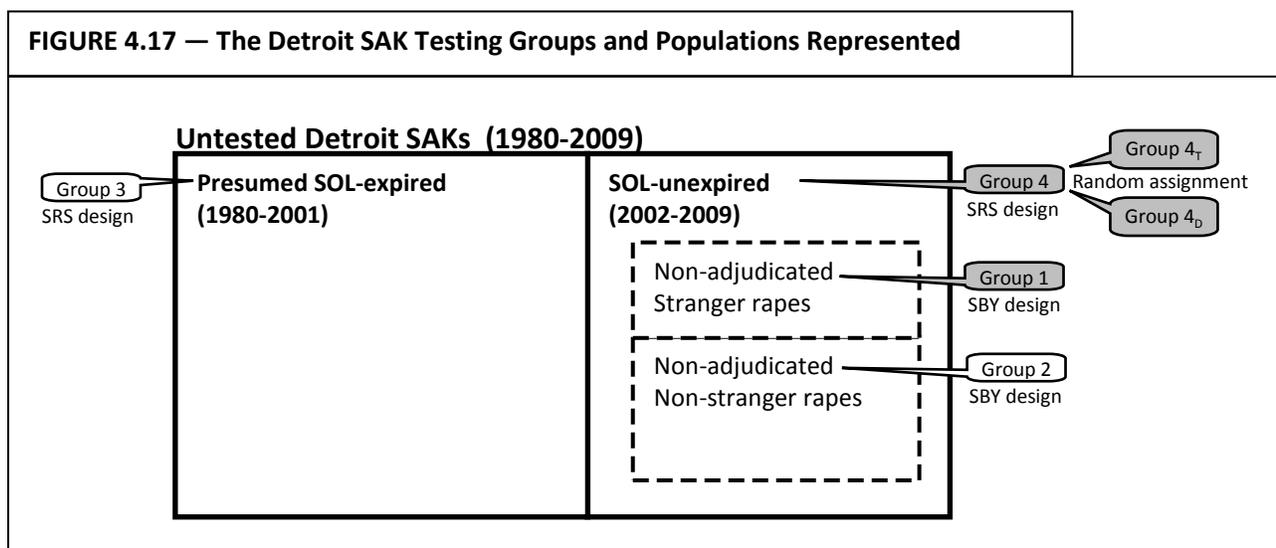
In addition to these two focal variables, stakeholders also expressed interest in assessing whether other aspects of the victim, assailant, and/or assault might be useful screening criteria (e.g., weapon use in the assault, the time between the assault and when the SAK was collected). Stakeholders generated a “wish list” of possible screening variables to consider, many of which were data fields that may not be easily/quickly accessible. Given that goal was to evaluate possible selection criteria that could be time/cost efficient to implement (and tracking down data fields that are hard to access would not be efficient), we had to focus this component of the evaluation on a limited number of variables that were relatively accessible.<sup>76</sup> In the end, we were able to code some information about the victim (e.g., gender, race, age), assailant (e.g., gender, race, age), and the assault (e.g., multiple perpetrators involved, alcohol/drug use, weapon use, time between assault and exam) to explore whether these factors were significantly associated with forensic testing outcomes.

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<sup>76</sup> We recognize that what information is “relatively accessible” varies across jurisdictions. In communities with well-developed information management systems, more information may be available about each SAK/case in order to make a SAK testing decision. Given that this was a *research* project, we decided to invest effort to code the files so that we could evaluate the predictive utility of victim, assailant, and assault characteristics on forensic testing outcomes. In practice, screening on such variables—if the results showed that such screening was warranted—would be difficult to implement in Detroit, but might be more feasible in other jurisdictions (if the results suggested that such variables were influential to forensic testing outcomes).

### Developing Statistical Models to Test the Effect of Victim-Offender Relationship and SOL

**Status on Forensic Testing Outcomes.** The broadest focal population for this study consisted of all *previously untested Detroit SAKs* and drawing conclusions about this population was the objective for some analyses. Our sampling design allowed us to obtain a representative sample of SAKs from it by combining data from multiple groups, with different sampling weights applied to SAKs from each Testing Group to account for the complex sampling design and ensure that the results would better generalize to the focal population (see *Appendix B: Project Methodology*). However, we also needed a sampling strategy that permitted drawing conclusions about more narrowly defined subpopulations. Figure 4.17 (below) illustrates the focal population of interest and the subpopulations represented by each Group.



**Figure 4.17: Relationship of Testing Groups to Subpopulations of the Detroit SAK Collection.** The large rectangle represents the population of previously untested Detroit SAKs collected between 1980 and 2009. It is divided into two smaller parts based on whether or not the statute of limitations (SOL) has presumably expired. The subpopulation of non-adjudicated, SOL-unexpired SAKs was further divided by victim-offender relationship (the rectangles have unequal sizes because non-stranger rapes occur more often than stranger rapes). Groups 1-4 are samples drawn from specific subpopulations using different sampling strategies (SBY = stratified sampling by year; SRS = simple random sampling). Groups 1 and 2 represent subpopulations of the non-adjudicated, SOL-unexpired SAKs, while Group 4 represents the broader SOL-unexpired subpopulation. Group 3 represents the presumed SOL-expired subpopulation. Groups 1-3 all received traditional DNA testing, while SAKs in Group 4 were divided into two subgroups by randomly assigning them to receive either traditional DNA testing (Group 4<sub>T</sub>) or DNase selective degradation DNA testing (Group 4<sub>B</sub>). SAKs in shaded groups (Groups 1 and 4) were tested by a private vendor laboratory, SAKs in unshaded groups (Groups 2 and 3) were tested by a forensic laboratory affiliated with a university. Personnel from the state police forensic science division conducted quality-control visits to ensure both facilities used equivalent DNA testing procedures and met applicable standards.

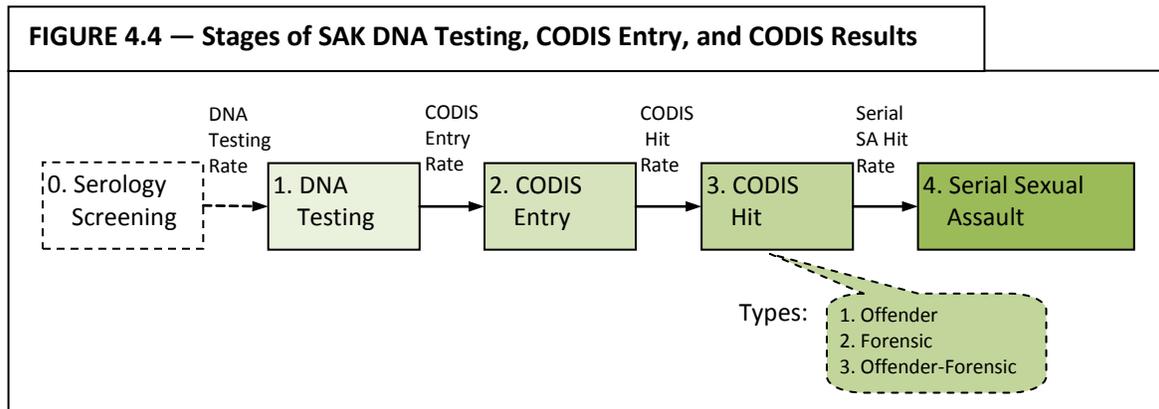
To evaluate the effect of victim-offender relationship on forensic testing outcomes, we examined whether CODIS results varied between SAKs associated with stranger versus non-stranger rapes. Because any such differences would be most relevant if the statute of limitations has not yet expired, we drew samples to support this comparison strictly from the subpopulation of non-adjudicated, SOL-unexpired SAKs. Testing Group 1 represents the subpopulation of non-adjudicated, SOL-unexpired SAKs resulting from stranger rapes, and Testing Group 2 represents the subpopulation of non-adjudicated, SOL-unexpired SAKs resulting from non-stranger rapes.

Sampling for Testing Groups 1 and 2 attempted to obtain equal numbers of SAKs from both stranger and non-stranger rapes for each year between 2002 and 2009, even though SAKs from different years were not necessarily equally common. This disproportionate stratified sampling approach guaranteed that data from each subgroup of SOL-unexpired SAKs defined by the combination of victim-offender relationship and year would be present in the final sample. With appropriate weighting, data from Testing Groups 1 and 2 can be combined to represent the SOL-unexpired subpopulation (see *Appendix B: Project Methodology* for additional details).

Testing Group 3 (Presumed SOL Expired) was obtained by drawing a simple random sample from the subpopulation of presumed SOL-expired SAKs, without stratifying by year. Data from this group can be analyzed on its own, or weighted and combined with data from Testing Group 4 (DNA Method/SOL Unexpired) to facilitate comparing outcomes for SOL-expired SAKs to those of SOL-unexpired SAKs.

Testing Group 4 was planned as a comparison of forensic testing outcomes between two DNA testing methods, but it could also serve as a comparison to Testing Group 3 for examining the effect of SOL status. Testing Group 4 was obtained by drawing a simple random sample from the subpopulation of SOL-unexpired SAKs, then divided into two subgroups by randomly assigning equal numbers of SAKs to receive either traditional DNA testing (Group 4<sub>a</sub>) or DNase selective degradation DNA testing (Group 4<sub>b</sub>).

In our statistical models, we used continuation-ratio models (Agresti, 2002; Hosmer, Lemeshow, & Sturdivant, 2013) to quantify how many SAKs proceeded through each stage of DNA processing (Figure 4.4 replicated below for reference).



The continuation-ratio models examined: (1) *CODIS entry rate*, which is the proportion of tested SAKs that yielded DNA profiles suitable for upload into CODIS; (2) *CODIS hit rate*, which is the proportion of CODIS entries from Detroit SAKs that yield hits to other CODIS records;<sup>77</sup> and (3) *serial assault rate*, which is the proportion of CODIS hits that are associated with serial sexual assaults.

The *CODIS entry rate* as defined above is an *unconditional rate*, which means that the denominator for the proportion is the total number of SAKs tested. In contrast, the other testing outcomes (*CODIS hit rate* and *serial sexual assault rate*) are *conditional rates* because the denominator includes only the subset of SAKs that meet particular conditions, such as having yielded a CODIS entry or a CODIS hit. For example, *CODIS hit rate* is *conditional*, whereby the denominator is the number of CODIS entries; *serial sexual assault rate* is also *conditional*, whereby the denominator is the number of CODIS hits. In our presentation of the model results, we will also discuss unconditional versions of the

<sup>77</sup> This includes hits to other Detroit SAKs tested during this project (i.e., case-to-case hits) in addition to hit to records in CODIS that existed prior to entering DNA profiles extracted from the Detroit SAKs.

various hit rates mentioned above and will explicitly call them unconditional rates when doing so. Distinguishing between conditional and unconditional rates is crucial to correctly interpreting the findings: there is a large substantive difference between stating, for instance, that the conditional serial sexual assault hit rate is 20% (meaning 20% of all CODIS hits obtained from Detroit SAKs are associated with serial sexual offenders) and that the unconditional serial sexual assault rate is 20% (meaning that 20% of all Detroit SAKs tested were associated with serial sexual offenders).<sup>78</sup>

To understand the effect of victim-offender relationship and statute of limitations status on forensic testing outcomes, we quantified and compared the CODIS entry rates, CODIS hit rates, and serial assault rates for stranger versus non-stranger assaults and for SOL-expired versus SOL-unexpired assaults. We first present the results in terms of the conditional rates that are directly estimated by the continuation ratio models, then translate the results into odds-ratios (*ORs*), estimates of relative risk (*RR*), a number needed to submit (*NNS*) statistic, and unconditional rates to facilitate the interpretation of the results (see *Appendix B: Project Methodology*).<sup>79</sup>

### Developing Statistical Models to Test the Effect of Other Variables on Forensic Testing

**Outcomes.** To assess whether characteristics of victim, assailant, and assault could be useful for empirically-based SAK prioritization, we used logistic regression to determine whether such factors predict whether each SAK yielded a CODIS hit (coded 0 = no, 1 = yes) (i.e., for simplicity, we did not test continuation ratio models for entry, hit, and serial, as above; we focused on the key outcome—CODIS hit).<sup>80</sup> We analyzed the data from Testing Groups 1-3 separately because the effect of a given predictor may vary across subpopulations of Detroit SAKs; these analyses were not conducted for Testing Group 4

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<sup>78</sup> These are both hypothetical values, not our actual findings.

<sup>79</sup> Definitions and examples of each of these statistical indices will be presented in the following section, using data from model results as working examples.

<sup>80</sup> The mean (average) of this binary variable across a set of SAKs is the unconditional CODIS hit rate, which is equal to the proportion of SAKs that yielded hits.

because the purpose of that component of the project was to compare different DNA methods (and serve as a comparison to Testing Group 3 for evaluating the impact of SOL-status).

With respect to characteristics of victim, there was limited variability in gender and race/ethnicity (see Table 4.2 prior pages), so we focused on age as a possible predictor, divided into two levels based on the age of consent in Michigan (0-15 years vs. 16+ years). There was also insufficient variability in assailant gender and race/ethnicity (see Table 4.2), so we tested only age. There were too few assailants less than 18 years old to divide assailant age by whether they would be considered minors for legal purposes (0-17 years vs. 18+ years), so we instead divided assailants into three groups (0-21 years, 22+ years, or unknown), which was a more sensible grouping given the distribution of this variable. The older group served as the reference level for each age variable.

With respect to characteristics of assault that could influence the probability of a CODIS hit, we were constrained to a set of variables that were reliably accessible in the police files (see prior discussion). We coded binary indicators of whether the case files associated with each SAK explicitly documented that the assault involved multiple perpetrators, alcohol or drug use, use of a weapon, and use of physical force. We also considered the effect of the time between the assault and the medical forensic exam, which was coded into three categories (0 days [same day, reference level], 1 day after assault, or 2+ days after assault).

Because all predictors in the model are categorical, the pair-wise differences in the odds of a CODIS hit between SAKs in the reference level and each of the other levels were the primary focus of the analysis. We report the exact  $p$ -values associated with Wald tests for each of these comparisons, but focus more on interpreting the 95% confidence intervals (CIs) for the corresponding odds-ratios ( $ORs$ ) because these measures of effect size are more informative than the significance tests based on the

conventional  $\alpha = .05$  criterion for the Type I error rate (see *Appendix B: Project Methodology*).<sup>81</sup> The *OR* describes both the size (i.e., magnitude) and direction of an effect. Size is encoded in the distance of an estimated *OR* from the neutral value of 1 (which represents equal odds for two groups being compared), with values farther from 1 indicating stronger effects. The direction of an effect is inferred from whether the *OR* is larger or smaller than 1: larger *ORs* mean that the group described by an effect has higher odds of achieving the outcome of interest than the reference group, while smaller *ORs* indicate that it has lower odds instead.

The point estimate of the *OR* is the single most likely value for the effect size, but the CIs describe the range of effect sizes that are most plausible given the observed variability in the sample data. The true, unknown effect size is most likely to lie within that range. In this study, wide CIs indicate more uncertainty about the size and possibly the direction of the difference in the odds of obtaining a CODIS hit; narrow CIs tell us that we have a precise estimate and allow us to be more certain about effect size and direction. Carefully considering the implications of the values spanned by a CI can tell us considerably more than whether an observed effect could be due to chance sampling variation. See *Appendix B: Project Methodology* for complete statistical tables and model fit information for the prediction models.

### ***Victim-Offender Relationship Effect on Forensic Testing Outcomes: Stranger & Non-Stranger Sexual Assaults***

Do forensic testing outcomes (i.e., the CODIS entry rates, CODIS hit rates, and serial assault rates) differ between SAKs from non-stranger assaults and stranger assaults? To answer this question we combined the data from Testing Groups 1 (Stranger Rape) and 2 (Non-Stranger Rape), which are both samples from the subpopulation of previously untested, non-adjudicated, SOL-unexpired Detroit

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<sup>81</sup> Type I errors occur when we falsely conclude there is an effect when in reality there is none; Type II errors are when we falsely conclude that there is no effect when there really is one (we fail to detect it).

SAKs for which victim-offender relationship could be determined. Previously-unpublished data from *The 400 Project* indicated that 62.5% of the SAKs in that subpopulation were associated with non-stranger assaults and 37.5% were stranger assaults. Because Testing Groups 1 and 2 contained approximately equal numbers of SAKs ( $N = 445$  and  $449$ , respectively), combining them yields a disproportionate stratified sample from the subpopulation of interest. Therefore, we analyzed a weighted data set to properly account for this stratification (see *Appendix B: Project Methodology*).

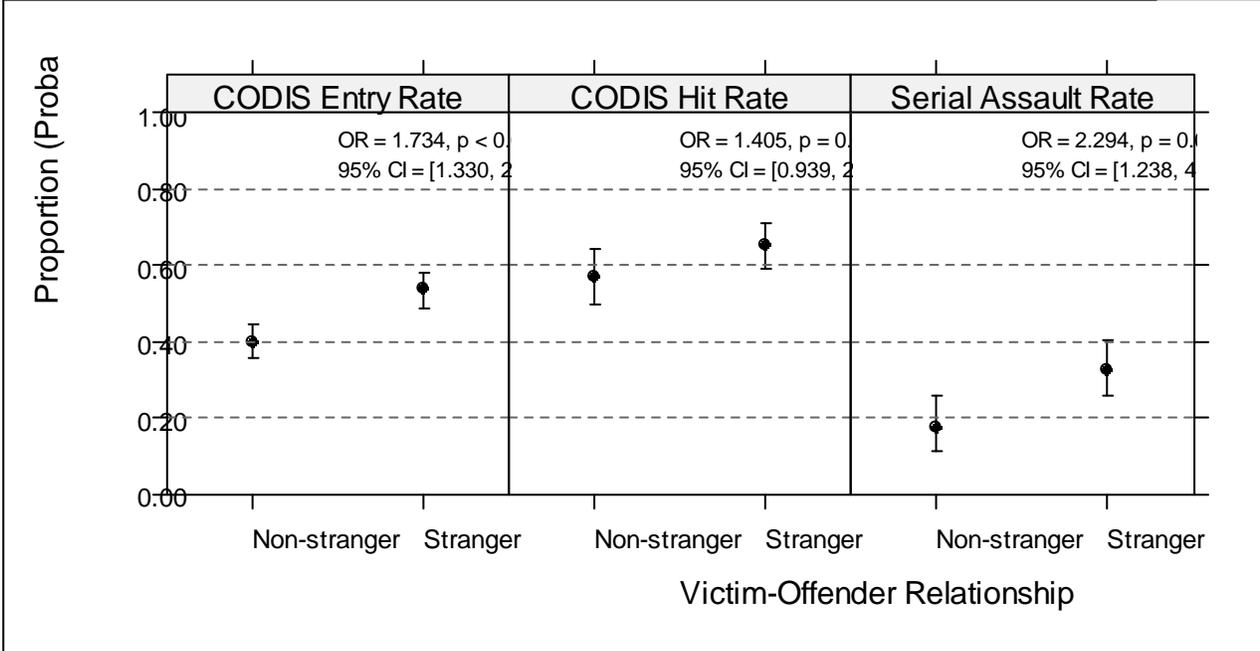
**Conditional Rates.** Figure 4.18 (next page) shows the key results for the comparison of testing outcomes between non-stranger and stranger assaults. In this analysis, all SAKs submitted for testing start at Stage 1 (DNA Testing), so the CODIS entry rate in Figure 4.18 is an unconditional estimate. However, the hit and serial assault rates are conditional estimates that depend on an SAK having already reached Stages 2 (CODIS Entry) and 3 (CODIS Hit) respectively.

The conditional *CODIS entry rates* for non-stranger and stranger SAKs were 40.1% (95% CI - [35.7, 44.7]) and 53.7% (95% CI = [49.0, 58.4]), respectively (Figure 4.18, first panel) (see also Table 4.3). This is a statistically significant difference in the odds of generating a CODIS entry ( $p < .001$ ), but the odds-ratio ( $OR = 1.73$ , 95% CI = [1.33, 2.26]) is in fact only a small to medium-size positive effect (Rosenthal, 1996).<sup>82</sup> The odds of a CODIS entry were only about 1.73 times higher for stranger assaults than for non-stranger assaults.

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<sup>82</sup> An  $OR = 1.00$  indicates no difference at all; either smaller or larger values indicate a difference in odds between two groups, with values closer to 1.00 considered weaker. Thus, Rosenthal (1996) describes  $ORs$  of 0.67 or 1.50 as small effects, 0.40 or 2.50 as medium effects, 0.25 or 4.00 as large effects, and 0.10 or 10.00 as very large effects.

**FIGURE 4.18 – The Effect of Victim-Offender Relationship on CODIS Entry, CODIS Hits, and Serial Sexual Assault Rates (Testing Group 1 [Stranger] and Testing Group 2 [Non-Stranger])**



**Figure 4.18: Victim-Offender Relationship Effect on CODIS Entry, CODIS Hit, and Serial Assault Rates Among SOL-Unexpired Detroit SAKs.** The CODIS entry rates are unconditional estimates (the proportion of SAKs tested that yielded a DNA profile suitable for upload into CODIS). The CODIS hit rates and serial assault rates are conditional estimates (respectively, the proportions of CODIS entries that yield matches to other CODIS records, and the proportion of CODIS hits that are associated with a serial sexual offender). These results generalize to the subpopulation of untested, non-adjudicated, SOL-unexpired Detroit SAKs for which victim-offender relationship data are available. They are based on analyses of  $N = 894$  SAKs (449 non-stranger assaults and 445 stranger assaults). These estimates were obtained from a continuation-ratio model of SAK progression across Stages 1-4, weighted to reflect the disproportionate stratified sampling design. The dots mark the point estimates for the rates, the whiskers depict the corresponding 95% CIs. The odds-ratios (*OR*) and associated 95% CIs quantify the simple effect of victim-offender relationship on the rate named in each panel.

**TABLE 4.3 – Rates Estimated from Continuation-Ratio Model Examining Effect of Victim-Offender Relationship on Testing Outcomes**

Outcome	Stranger Rate [95% CI]	Non-Stranger Rate [95% CI]
CODIS entry rate Stage 1 → 2	0.537 [0.490, 0.584]	0.401 [0.357, 0.447]
CODIS hit rate Stage 2 → 3   Entry	0.653 [0.589, 0.711]	0.572 [0.499, 0.643]
Serial assault rate Stage 3 → 4   Hit	0.327 [0.257, 0.405]	0.175 [0.113, 0.260]

We can delve deeper into these results by considering the relative risk (*RR*) and the number needed to submit (*NNS*) statistics. Relative risk ( $RR = p_s/p_{ns}$ ) reflects how much more often an event happens (e.g., a CODIS entry) for one group (e.g., stranger assaults) relative to another group (e.g., non-stranger assaults). *RR* is a ratio, constructed by dividing, for example, the CODIS entry rate for Testing Group 1 by the CODIS entry rate for Testing Group 2, which tells us how much more likely that outcome (CODIS entry) is for one group versus the other. In these analyses,  $RR = 1.34$ , which tells us that stranger assaults are only about 1.34 times more likely to yield CODIS entries than non-stranger assaults, which is not a substantial difference.

Number needed to submit ( $NNS = 1/[p_s - p_{ns}]$ ) is another statistic that helps us understand the implications of differential rates in two groups. If two groups (stranger and non-stranger) have differential rates of producing an outcome (a CODIS entry), then if we test the same number of stranger SAKs and non-stranger SAKs, the stranger SAKs will produce more CODIS entries (which is what the *OR* and *RR* statistics presented above told us). The *NNS* helps us see these differential rates in a different way, by “starting” with the CODIS entries and “walking back” to consider how many SAKs would have to be tested to actually yield more CODIS entries from the group with the higher entry rate than from the group with the lower entry rate. The *NNS* statistic ‘asks:’ to obtain a one-unit difference in the outcome variable between the two groups—to obtain exactly one more CODIS entry—how many SAKs would have to be tested to see that one-unit difference in the outcome? In general, the larger the *NNS*—the more it moves away from 1.00—the more cases that are needed to obtain a one-unit difference between the groups; if it takes a substantial number of SAKs to yield just a one unit difference, then that suggests the two groups are fairly similar and it may not make practical sense to try to treat them differentially. In these analyses regarding CODIS entry rates, the  $NNS = 7.35$ , which tells us that submitting 7.35 stranger assault SAKs for forensic testing would, on average, yield one more CODIS entry than we could expect to get from submitting the same number of non-stranger assault SAKs for

forensic testing (i.e., 3.95 versus 2.95 CODIS entries). In practice, the time, effort, and labor of screening, submitting, and testing 7.35 SAKs to get a one-unit “bump” in the CODIS entry rate may not be an efficient use of resources.

Turning to the results regarding conditional *CODIS hit rates*, among SAKs with CODIS entries the CODIS hit rate was 57.2% (95% CI = [49.9, 64.3]) for non-stranger SAKs and 65.3% (95% CI = [58.9, 71.1]) for stranger SAKs (Figure 4.18, second panel and Table 4.3 prior pages). This small positive effect ( $OR = 1.41$ , 95% CI = [0.94, 2.10]) is not a statistically significant difference in the odds of a hit ( $p = .094$ ). Indeed, such a difference could be observed entirely by chance due to random sampling variability. The confidence interval suggests the direction of the effect is more likely to be positive than either negative or non-existent because the lower bound would represent only a tiny negative effect of stranger assault on the hit rate and lies very close to the neutral value of 1.00 that marks no effect. Meanwhile, the upper bound of the interval would represent at most small to medium positive effect. It is highly unlikely that victim-offender relationship exerts a large influence on the hit rate. The  $RR = 1.14$  indicates that CODIS entries from stranger assaults are a mere 1.14 times more likely to yield a hit than CODIS entries from non-stranger assaults. Similarly, the  $NNS = 12.35$  suggests we would need to upload CODIS entries for at least 12.35 stranger assault SAKs to obtain one more CODIS hit than we could expect if we uploaded the same number of entries from non-stranger assault SAKs (i.e., 8.06 versus 7.06 hits).

Finally, the third panel of Figure 4.18 shows that the conditional *serial assault rate* for non-stranger SAKs with CODIS hits was 17.5% (95% CI = [11.3, 26.0]; it was 32.7% (95% CI = [25.7, 40.5]) for stranger SAKs. The difference between those two rates represents a moderate, statistically significant, positive effect of victim-offender relationship on the odds of detecting a serial assault ( $OR = 2.29$ , 95% CI = [1.24, 4.25],  $p = .008$ ). While this strongly establishes that the effect is positive, the size of the effect is unclear. The wide CI shows that it could be anywhere from a very small effect to a large effect, so its practical importance is not yet well established. The  $RR$  statistic shows that CODIS hits from stranger

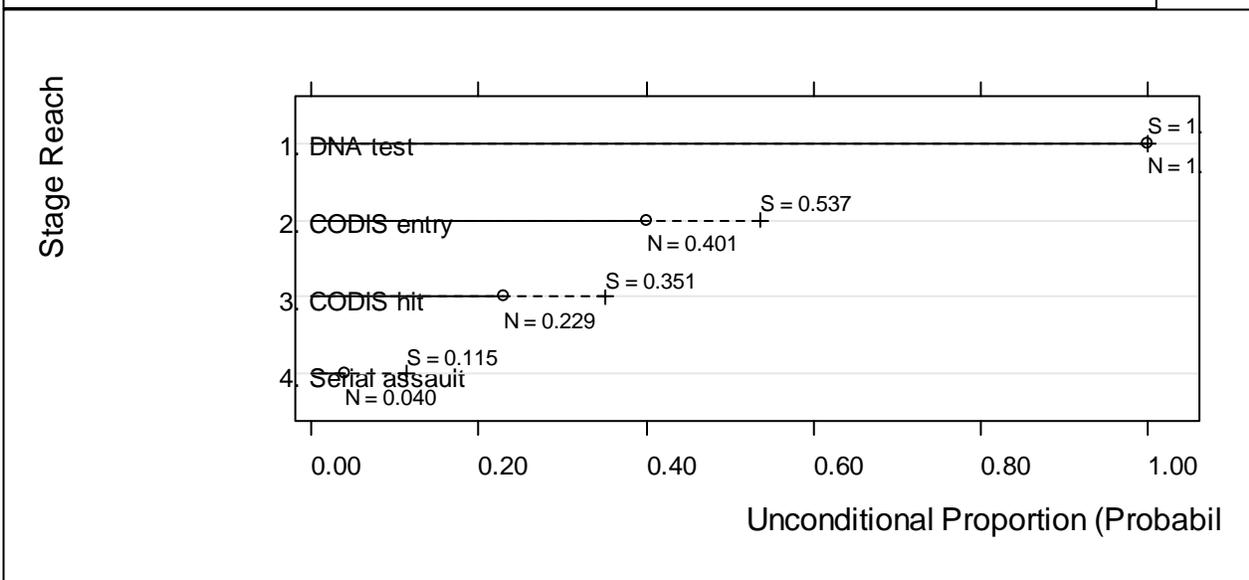
assaults are 1.87 times more likely to be serial assaults than CODIS hits from non-stranger assaults. For this outcome, the *NNS* = 6.58 means that we would need at least 6.58 CODIS hits from stranger assaults to detect one more serial assault than we would expect in a similar number of CODIS hits from non-stranger assaults (i.e, 2.15 versus 1.15 serial assaults).

**Unconditional Rates.** To clarify the implications of the conditional rates depicted in Figure 4.18, consider the unconditional rates shown in Figure 4.19 as well (next page). The DNA testing rate is 100% for both stranger and non-stranger assaults because all SAKs are submitted for testing at Stage 1. CODIS entry rates remain the same across both figures because they represent the first transition between stages and some SAKs do not generate DNA profiles suitable for entry into CODIS. In contrast, the unconditional hit and serial assault rates are different across the two graphs because the rates in Figure 4.19 all use the total number of SAKs submitted for testing at Stage 1 as the denominator rather than the number of kits reaching the previous stage (as in Figure 4.18).

The *unconditional CODIS hit rate* for non-stranger SAKs was 22.9%, while the corresponding rate for stranger SAKs was 35.1% (Figure 4.19). In terms of relative risk, that means testing an SAK from a stranger assault is 1.53 times more likely to yield a CODIS hit than testing an SAK from a non-stranger assault. The corresponding *NNS* statistic reveals that we would need to submit 8.20 stranger assault SAKs for forensic testing to obtain just one more CODIS hit (2.88 hits) than we would find by submitting a similar number of non-stranger SAKs (1.88 hits).

Finally, the *unconditional serial assault rate* for non-stranger SAKs was 4.0%, as compared to 11.5% for stranger SAKs (Figure 4.19). While testing an SAK from a stranger assault SAK is almost three times (*RR* = 2.88) more likely to detect a serial sexual assault than testing one from a non-stranger assault, the *NNS* statistic still shows that we would need to submit at least 13.33 stranger assault SAKs for forensic testing in order to detect just one more serial assault (1.53 serial assaults) than we would expect to find by submitting a similar number of non-stranger SAKs (0.53 serial assaults).

**FIGURE 4.19 – Unconditional CODIS Entry, CODIS Hit, and Serial Sexual Assault Rates, by Victim-Offender Relationship (Testing Group 1 [Stranger] and Testing Group 2 [Non-Stranger])**



**Figure 4.19: Unconditional Rates of CODIS Entry, CODIS Hit, and Serial Assault Rates Among SOL-unexpired Detroit SAKs by Victim-Offender Relationship.** All rates shown here are unconditional estimates of the proportion of SAKs tested that reached each stage listed. These results generalize to the subpopulation of untested, non-adjudicated, SOL-unexpired Detroit SAKs for which victim-offender relationship data are available. They are based on analyses of  $N = 894$  SAKs (449 non-stranger assaults and 445 stranger assaults). These estimates were calculated from the results of a continuation-ratio model of SAK progression across Stages 1-4, weighted to reflect the disproportionate stratified sampling design. N = non-stranger; S = stranger.

**Predicting Unconditional CODIS Hit Rates—Testing Group 1 (Stranger Rapes).** The analyses presented in the prior section suggest that victim-offender relationship does *not* have a statistically significant effect on conditional CODIS hit rates. However, stakeholders at the local, state, and national level were interested in exploring whether *other* features of the victim, assailant, and assault might predict CODIS hit rates. Given that such effects (e.g., weapon use) could vary within different victim-offender relationships, we conducted these analyses separately for Testing Group 1 (Stranger Rapes) and testing Group 2 (Non-Stranger Rapes).<sup>83</sup>

<sup>83</sup> For simplicity, we focused on unconditional hit rates, only for the CODIS hit outcome (i.e., not CODIS entry or serial sexual assaults). Because we lacked sufficient population-level information to adjust for the disproportionate stratification by year, this model treated the data as a simple random sample from the subpopulation of interest.

Of the 445 SAKs in Testing Group 1 (Stranger Rapes), a total of 54 (12.3%) of these SAKs were excluded from these analyses due to missing data on either victim age ( $N = 3$ ) or exam timing ( $N = 52$ ).

Table 4.4 below summarizes the logistic regression results based on the remaining 391 SAKs (see *Appendix B: Project Methodology* for more details on this model).

<b>Predictor</b>	<b>OR</b>	<b>OR 95% CI</b>	<b>p</b>
Intercept (for reference group)	0.358	[0.192, 0.655]	0.001
Victim age < 16 years <sup>a</sup>	0.519	[0.224, 1.093]	0.100
Assailant age <sup>b</sup>			
< 22 years	0.888	[0.390, 1.921]	0.769
Unknown	1.337	[0.813, 2.198]	0.251
Multiple perpetrators <sup>c</sup>	0.968	[0.588, 1.578]	0.896
Use of alcohol/drugs <sup>c</sup>	0.985	[0.609, 1.579]	0.950
Use of weapons <sup>c</sup>	1.674	[1.072, 2.624]	0.024
Use of physical force <sup>c</sup>	1.190	[0.715, 2.011]	0.508
Exam timing <sup>d</sup>			
1 day after assault	0.930	[0.549, 1.557]	0.785
2+ days after assault	0.576	[0.257, 1.198]	0.157

Note: Sample included  $N = 391$  SAKs, after removing SAKs with missing data for victim age or exam timing (assumed to be missing completely at random). OR = odds-ratio (a measure of effect size); CI = confidence interval;  $p$  = statistical significance  $p$ -value obtained from a Wald test of the coefficient. Reference levels are: <sup>a</sup> 16+ years; <sup>b</sup> 22+ years; <sup>c</sup> no; and <sup>d</sup> 0 days after assault (same day).

The model intercept allowed us to calculate the unconditional CODIS hit rate for a reference group consisting of SAKs from older victims (age 16+ years) who were each assaulted by a single, adult assailant (age 22+ years) without any involvement of alcohol/drugs, weapons, or physical force, and who received a forensic medical exam the same day they were assaulted. That reference group hit rate was 26.4% (95% CI = [16.1, 39.6]). The intercept predictor in Table 4.4 merely tests whether the odds of a CODIS hit for that reference group differ from a hypothetical value of 1.00 (i.e., a 50% hit rate), which it does ( $OR = 0.36, p = .001$ ).

All the other predictors in Table 4.4 test deviations from this reference group rate for SAKs that differ from the reference group with respect to a specific characteristic (e.g., the victim was younger than those in the reference group, e.g., age < 16 years), after adjusting for the effects of the other predictors. We comment below on the predictors that were statistically significant or have confidence intervals (CIs) that strongly indicate the likely direction of the effect because the value of 1 is close to either the upper or lower bound. The CIs for the other predictors show that they are unlikely to exert anything more than small effects, without clarifying the likely direction of those effects.

Of all the predictors in the model, the only significant predictor was weapon use ( $OR = 1.67, 95\%$  CI = [1.07, 2.62],  $p = 0.024$ ). The odds of obtaining a CODIS hit were approximately 1.67 times higher for SAKs in which weapons were used in the assault (a small effect), but the effect could be as little as 1.07 times higher (functionally equal due to a tiny effect size) or as much as 2.62 times higher (a medium effect). Our best estimate for the effect of victim age suggests that the odds of a CODIS hit drop by almost half ( $OR = 0.519$ ) when the victim is younger (< 16 years). This small effect was not significant ( $p = .100$ ). However, the 95% CI shows that the odds of a hit are *at most* essentially equal regardless of victim age ( $OR = 1.09$ , a tiny positive effect), but it is as likely that they are *substantially lower* for young victims ( $OR = 0.22$ , a large negative effect). That lower bound implies that the odds of a hit could be almost 4.5 times higher for older victims than for younger victims. When the medical forensic exams

occurred two or more days after the assault (rather than on the same day), the odds of a CODIS hit dropped by almost half ( $OR = 0.58$ ), but this small effect was also not significant ( $p = 0.157$ ). As with the victim age effect, the CI suggests that odds of a hit are *at most* essentially unchanged with exams occurring this late ( $OR = 1.20$ , a very small positive effect), but it is equally likely that they are *substantially lower* when exams are conducted 2 or more days after the assault ( $OR = 0.26$ , a large negative effect). Thus, the odds of a CODIS hit could be almost 3.9 times higher for SAKs in which the exam was conducted the day of the assault than if the exam was conducted two or more days later.

**Predicting Unconditional CODIS Hit Rates—Testing Group 2 (Non-Stranger Rapes).** Of the 449 SAKs in Testing Group 2 (Non-Stranger Rapes), we excluded 86 (19.1%) of those SAKs from the logistic regression model due to missing data on either victim age ( $N = 10$ ) or exam timing ( $N = 84$ ). Table 4.5 (following page) summarizes the logistic regression model based on the remaining 343 SAKs.

The model intercept allowed us to calculate the unconditional CODIS hit rate for a reference group consisting of SAKs from older victims (age 16+ years) who were each assaulted by a single, adult assailant (age 22+ years) without any involvement of alcohol/drugs, weapons, or physical force, and who received a forensic medical exam the same day they were assaulted. That reference group hit rate was 27.1% (95% CI = [15.8, 41.7]). Again, the intercept predictor in Table 4.5 merely tests whether the odds of a CODIS hit for that reference group differ from a hypothetical value of 1.00 (i.e., a 50% hit rate), which it does ( $OR = 0.37$ ,  $p = .004$ ).

The other predictors in Table 4.5 test whether the odds of a hit for SAKs that differ from the reference group with respect to a specific characteristic (e.g., the victim was younger than those in the reference group, e.g., age < 16 years) are higher or lower than those in the reference group, after adjusting for the effects of the other predictors. Once again, we comment only on the predictors that were statistically significant or have CIs that strongly indicate the likely direction of the effect.

Within this sample of non-stranger SAKs, the odds of a CODIS hit drop by more than half ( $OR = 0.40, p = .015$ ) for younger victims (< 16 years) (a medium size effect). The 95% CI suggests that there is at least a very small negative effect ( $OR = 0.83$ ), but quite possibly a large one ( $OR = 0.19$ ). The CI implies that the odds of a hit could be anywhere from 1.2 to 5.3 times higher for older victims than for young victims. Thus, the direction of the effect is clear, but its size remains imprecisely estimated.

<b>Predictor</b>	<b>OR</b>	<b>OR 95% CI</b>	<b>p</b>
Intercept (for reference group)	0.372	[0.188, 0.716]	0.004
Victim age < 16 years <sup>a</sup>	0.403	[0.189, 0.825]	0.015
Assailant age <sup>b</sup>			
< 22 years	1.014	[0.522, 1.939]	0.966
Unknown	2.424	[0.820, 6.829]	0.097
Multiple perpetrators <sup>c</sup>	1.197	[0.601, 2.306]	0.598
Use of alcohol/drugs <sup>c</sup>	0.642	[0.354, 1.138]	0.136
Use of weapons <sup>c</sup>	2.155	[1.134, 4.058]	0.018
Use of physical force <sup>c</sup>	0.712	[0.390, 1.312]	0.270
Exam timing <sup>d</sup>			
1 day after assault	1.689	[0.957, 2.977]	0.069
2+ days after assault	0.554	[0.212, 1.278]	0.191

Note: Sample included  $N = 343$  SAKs, after removing SAKs with missing data for victim age or exam timing (assumed to be missing completely at random).  $OR$  = odds-ratio (a measure of effect size);  $CI$  = confidence interval;  $p$  = statistical significance  $p$ -value obtained from a Wald test of the coefficient. Reference levels are: <sup>a</sup> 16+ years; <sup>b</sup> 22+ years; <sup>c</sup> no; and <sup>d</sup> 0 days after assault (same day).

Weapon use was also statistically significant ( $OR = 2.16$ , 95% CI = [1.13, 4.06],  $p = 0.018$ ). The odds of obtaining a CODIS hit were about 2.16 times higher for SAKs when weapons were used in the assault (a small to medium effect), but could be as little as 1.13 times higher (essentially equal due to a tiny effect size) or as much as 4.06 times higher (a large effect). Again, the direction of the effect is clear, but its size and practical importance are not as clearly established by these data.

When assailant age was unknown, the odds of a hit increased moderately ( $OR = 2.42$ ) over when the assailant was an adult (> 21 years), but this effect was not significant ( $p = 0.097$ ). However, the 95% CI suggests that if the assailant age is unknown, the odds of a hit could range from a *little lower* ( $OR = 0.82$ , a very small negative effect) to *substantially higher* than those for the adult assailants ( $OR = 6.83$ , a large positive effect). On balance, this suggests that while it is still possible that unknown assailant age actually decreases the hit rate a bit or does not affect it at all, it is more likely that the hit rate increases when assailant age is unknown.

When the assault involved alcohol or drug use, there was a small decrease in the odds of a hit ( $OR = 0.64$ ) compared to when alcohol/drugs were not involved. This effect was not significant ( $p = 0.136$ ). However, the 95% CI suggests that if alcohol/drugs were involved, then the odds of a hit are *at most* slightly higher than when alcohol/drugs were not involved ( $OR = 1.14$ , a tiny positive effect), but could also be *moderately lower* ( $OR = 0.35$ , a medium size negative effect). The lower bound implies that the odds of a hit could be about 2.82 times higher when there was no evidence that alcohol/drugs were involved in the assault.

When medical forensic exams occurred one day after the assault (instead of on the same day), the odds of a hit increased moderately ( $OR = 1.69$ ), but the effect was not significant ( $p = 0.069$ ). However, the 95% CI suggests that if the exam occurred one day after the assault, that the odds of a hit could range from essentially equal to when the exam occurred on the same day ( $OR = 0.96$ , a tiny negative effect) to *moderately higher* ( $OR = 2.98$ , a medium size positive effect). Our best estimate

shows there is a small, non-significant decrease in the odds of a hit ( $OR = 0.55$ ,  $p = 0.191$ ) when medical forensic exams occurred two or more days after the assault (rather than on the same day). However, the 95% CI suggests that if the exam occurred two or more days after the assault, that the odds of a hit are *at most* slightly higher than when the exam occurred on the same day ( $OR = 1.28$ , a very small positive effect), but could also be *substantially* lower ( $OR = 0.21$ , a large negative effect). That lower bound implies that the odds of a CODIS hit could be up to 4.72 times higher when the exam occurred on the same day instead of two or more days later. We conclude that medical forensic exams conducted two or more days after the assault probably had a negative effect (decreasing the hit rate), but the size and practical importance of the decrease is not well-established due to the imprecise CI.

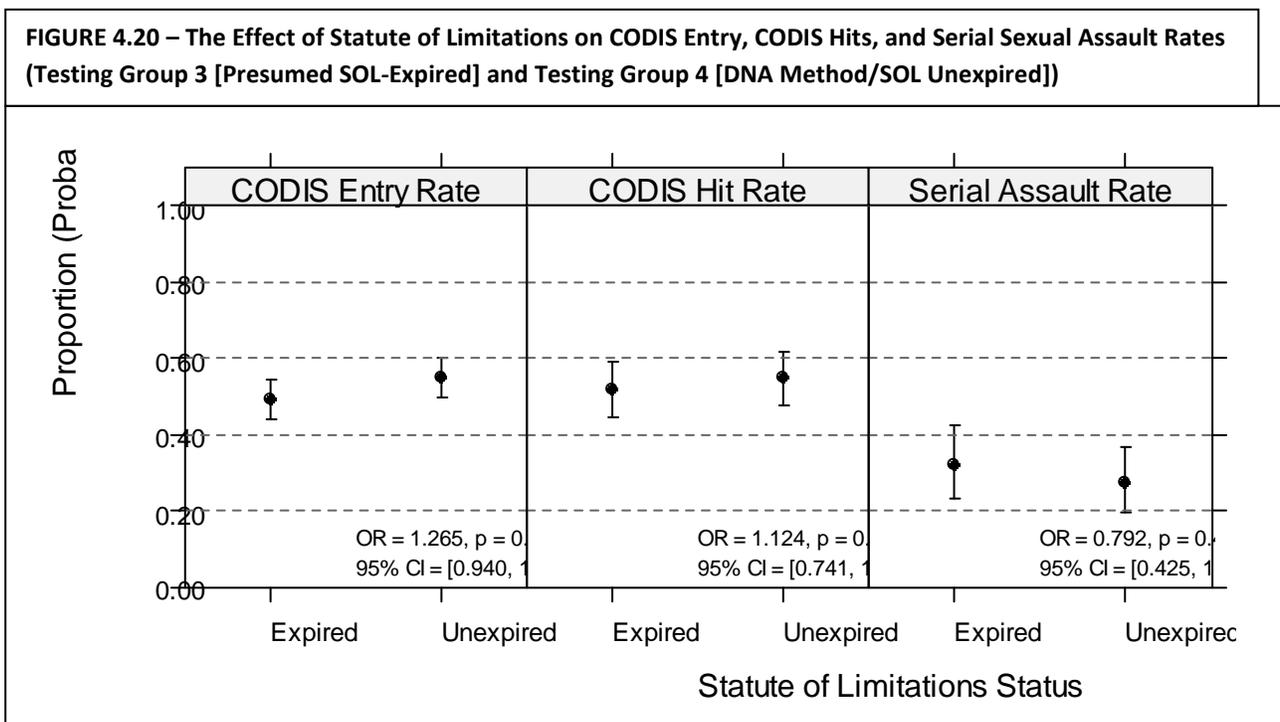
### ***Statute of Limitations Effect on Forensic Testing Outcomes: Presumed SOL-Expired and Unexpired SAKs***

Do forensic testing outcomes (i.e., the CODIS entry rates, CODIS hit rates, and serial assault rates) differ between SOL-expired and SOL-unexpired SAKs? Answering this question required combining data from Testing Groups 3 (Presumed SOL-Expired) and 4 (DNA Method/SOL-Unexpired), which are both samples from the subpopulation of previously untested, SOL-unexpired Detroit SAKs (see Figure 4.17). Previously unpublished data from *The 400 Project* indicated that 63.6% of the SAKs in that subpopulation resulted from SOL-expired assaults and 36.4% resulted from SOL-unexpired assaults. Testing Groups 3 and 4 contained approximately equal numbers of SAKs ( $N = 351$  and  $350$ , respectively), so we once again weighted the data, treating it as a disproportionate stratified sample from the subpopulation of interest (see *Appendix B: Project Methodology*).

All of the Testing Group 3 SAKs and half of the Testing Group 4 SAKs were tested with traditional DNA testing methods; the remaining Group 4 SAKs were tested with the DNase selective degradation method. Results reported below in the *“Evaluating the Detroit SAK Testing Plan—Inferential Findings on*

the Effect of DNA Testing Method on Forensic Testing Outcomes” section convinced us that this difference in DNA testing methods poses no threat to the validity of conclusions drawn from analyzing this combined data set.

**Conditional Rates.** Figure 4.20 (below) shows the statute of limitations effect on testing outcomes. All SAKs submitted for testing start at Stage 1 (DNA Testing), so the CODIS entry rate in Figure 4.20 is an unconditional estimate, but the CODIS hit and serial assault rates are conditional estimates that depend on an SAK having already reached Stages 2 (CODIS Entry) and 3 (CODIS Hit) respectively.



**Figure 4.20: Statute of Limitations Effect on CODIS Entry, CODIS Hit, and Serial Assault Rates Among Detroit SAKs.** The CODIS entry rates are unconditional estimates (the proportion of SAKs tested that yielded a DNA profile suitable for upload into CODIS). The CODIS hit rates and serial assault rates are conditional estimates (respectively, the proportions of CODIS entries that yield matches to other CODIS records, and the proportion of CODIS hits that are associated with a serial sexual offender). These results generalize to the population of untested Detroit SAKs (regardless of adjudication status or victim-offender relationship). They are based on analyses of  $N = 701$  SAKs (351 SOL-expired assaults and 350 SOL-unexpired assaults). These estimates were obtained from a continuation-ratio model of SAK progression across Stages 1-4, weighted to reflect the disproportionate stratified sampling design. The dots mark the point estimates for the rates, the whiskers depict the corresponding 95% CIs. The odds-ratios (OR) and associated 95% CIs quantify the simple effect of SOL on the rate named in each panel.

The first panel in Figure 4.20 shows that 49.3% (95% CI = [44.1, 54.5]) of the SOL-expired and 55.1% (95% CI = [49.8, 60.3]) of the SOL-unexpired SAKs yielded *CODIS entries* (see also Table 4.6, below). This is a very small and statistically non-significant effect ( $OR = 1.27$ , 95% CI = [0.94, 1.70],  $p = .121$ ). The odds of generating a CODIS entry are most likely only about 1.27 times higher for the SOL-unexpired SAKs. The asymmetrical CI here again suggests—but does not definitely prove—that the direction of the SOL effect is positive because the lower bound for the *OR* lies just below 1.00. It also circumscribes the maximum plausible size of the effect: SOL could exert a tiny negative effect, no effect at all, or at most it could exert a small, positive effect that slightly raises the CODIS entry rate for SOL-unexpired SAKs. The relative risk calculation ( $RR = p_u/p_e$ ) shows that unexpired SAKs are only 1.12 times more likely to yield an entry than presumed-expired SAKs. The *NNS* calculation ( $NNS = 1/[p_u - p_e]$ ) tells us we would need to submit 17.24 SOL-unexpired SAKs to get one more CODIS entry than we could expect from submitting the same number of SOL-expired SAKs (i.e., 9.50 versus 8.50 entries).

**TABLE 4.6 – Rates Estimated from Continuation-Ratio Model Examining Effect of Statute of Limitations on Testing Outcomes (Testing Group 3 [Presumed SOL-Expired] and Testing Group 4 [DNA Method/Unexpired SOL])**

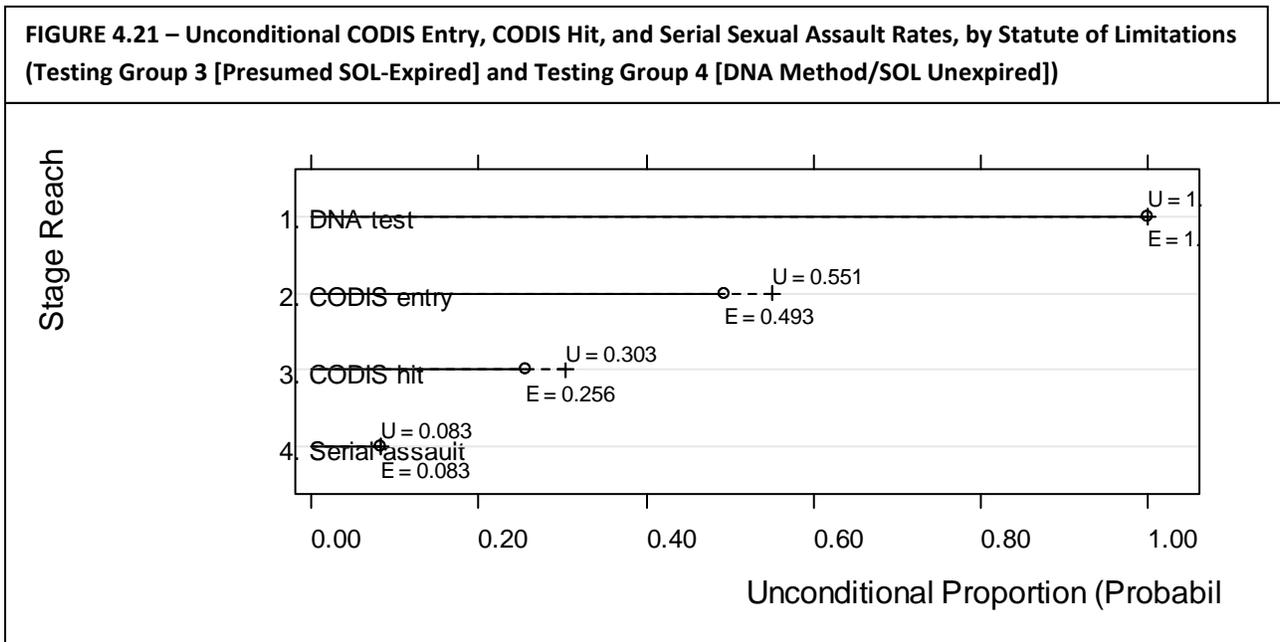
<b>Outcome</b>	<b>Presumed SOL-Expired Rate [95% CI]</b>	<b>SOL-Unexpired Rate [95% CI]</b>
CODIS entry rate Stage 1 → 2	0.493 [0.441, 0.545]	0.551 [0.498, 0.603]
CODIS hit rate Stage 2 → 3   Entry	0.520 [0.446, 0.594]	0.549 [0.478, 0.619]
Serial assault rate Stage 3 → 4   Hit	0.322 [0.234, 0.425]	0.274 [0.196, 0.367]

The second panel in Figure 4.20 shows that the SOL effect is even smaller on the conditional *CODIS hit rate*, which was 52.0% (95% CI = [44.6, 59.4]) for SOL-expired SAKs and 54.9% (95% CI = [47.8, 61.9]) for SOL-unexpired SAKs. This has a trivially small (and non-significant) effect on the odds of a CODIS hit ( $OR = 1.12$ , 95% CI = [0.74, 1.70],  $p = .579$ ). The CI for the  $OR$  gives us no clear signal about the direction of the effect, but it plainly shows that SOL is unlikely to exert more than a small effect either way. CODIS entries for SOL-unexpired SAKs are only  $RR = 1.06$  times more likely to yield a hit than CODIS entries for SOL-expired SAKs. It would take  $NNS = 34.48$  CODIS entries from SOL-unexpired SAKs to yield one more hit than expected from the same number of SOL-expired SAKs (18.93 vs 17.93 hits).

Finally, the third panel of Figure 4.20 shows that the conditional *serial assault rate* is 32.2% (95% CI = [23.4, 42.5]) for SOL-expired SAKs with CODIS hits and 27.4% (95% CI = [19.6, 36.7]) for SOL-unexpired SAKs with CODIS hits. This is a very small, statistically non-significant negative effect of SOL ( $OR = 0.79$ , 95% CI = [0.43, 1.48],  $p = .458$ ) on the odds of detecting a serial assault. The CI is consistent with possible effect sizes ranging from a medium, negative effect on the low end to a small, positive one at the high end, without strongly suggesting the likely direction of the effect. The  $RR$  statistic shows that CODIS hits from SOL-unexpired assaults are 0.85 times less likely to be serial assaults than CODIS hits from SOL-expired assaults. The  $NNS = -20.83$  means that examining 20.83 CODIS hits from SOL-unexpired assaults would likely detect one *less* serial assault than we would expect in a similar number of CODIS hits from SOL-expired assaults (i.e, 5.71 versus 6.71 serial assaults).

**Unconditional Rates.** Figure 4.21 (next page) further clarifies the conditional rates depicted in Figure 4.20 by translating the results into unconditional rates at each stage of the forensic testing process. As before, the DNA testing rate is 100% regardless of SOL status because all SAKs are submitted for testing at Stage 1 and the CODIS entry rates remain the same across both figures because they represent the first stage transition. The CODIS hit and serial assault rates differ across the two

graphs because they use different denominators (Figure 4.21 uses the total number of SAKs submitted for testing at Stage 1, while Figure 4.20 uses the number of kits reaching the previous stage).



**Figure 4.21: Unconditional CODIS Entry, CODIS Hit, and Serial Assault Rates Among Detroit SAKs by Statute of Limitations Status.** All rates shown here are unconditional estimates of the proportion of SAKs tested that reached each stage listed. These results generalize to the population of untested Detroit SAKs (regardless of adjudication status or victim-offender relationship). They are based on analyses of  $N = 701$  SAKs (351 SOL-expired assaults and 350 SOL-unexpired assaults). These estimates were calculated from the results of a continuation-ratio model of SAK progression across Stages 1-4, weighted to reflect the disproportionate stratified sampling design. E = SOL-expired; U = SOL-unexpired.

The *unconditional CODIS hit rate* for SOL-expired SAKs was 25.6%, while the corresponding rate for SOL-unexpired SAKs was 30.3% (Figure 4.21). In terms of relative risk, that means testing an SOL-unexpired SAK is only 1.18 times more likely to yield a CODIS hit than testing an SOL-expired SAK. The corresponding *NNS* statistic reveals that on average we would need to submit 21.28 SOL-unexpired SAKs to forensic testing to obtain just one more CODIS hit (6.45 hits) than we would find by submitting a similar number of SOL-expired SAKs (5.45 hits).

Finally, the *unconditional serial assault rate* for both SOL-expired and SOL-unexpired SAKs was 8.3% (Figure 4.21). The  $RR = 1.00$ , which means that we will be equally likely to detect a serial sexual

assault regardless of SOL status of the SAK submitted. Because the rates are identical, the  $NNS = \infty$  (infinity), indicating that it is *impossible* to detect more serial sexual assaults by selectively testing based on SOL status.

**Predicting Unconditional CODIS Hit Rates—Testing Group 3 (Presumed SOL-Expired).** The analyses presented in the prior section suggest that SOL status does *not* have a statistically significant effect on conditional CODIS hit rates. However, given stakeholders' interest in whether *other* features of the victim, assailant, and assault might predict CODIS hit rates among presumed SOL-expired cases, we conducted a logistic regression analysis to explore these questions. Testing Group 3 contained a simple random sample of 351 untested, presumed SOL-expired SAKs. We excluded 107 (30.5%) of those SAKs from the logistic regression model due to missing data on either victim age ( $N = 71$ ) or exam timing ( $N = 103$ ). Table 4.7 (next page) summarizes the logistic regression model based on the remaining 244 SAKs (see *Appendix B: Project Methodology* for more details).

The model intercept allowed us to calculate the unconditional CODIS hit rate for a reference group consisting of SAKs from older victims (age 16+ years) who were each assaulted by a single, adult assailant (age 22+ years) without any involvement of alcohol/drugs, weapons, or physical force, and who received a forensic medical exam the same day they were assaulted. That reference group hit rate was 15.6% (95% CI = [5.8, 37.7]). The intercept predictor in Table 4.7 merely tests whether the odds of a CODIS hit for that reference group differ from a hypothetical value of 1.00 (i.e., a 50% hit rate), which it does ( $OR = 0.16, p < 0.001$ ).

The other predictors in Table 4.7 test whether the odds of a hit for SAKs that differ from the reference group with respect to a specific characteristic (e.g., the victim was younger than those in the reference group, e.g., age < 16 years) are higher or lower than those in the reference group, after

**TABLE 4.7– Logistic Regression Predicting CODS Hits Within Testing Group 3 (Presumed SOL- Expired)**

Predictor	OR	OR 95% CI	p
Intercept (for reference group)	0.156	[0.058, 0.377]	<0.001
Victim age < 16 years <sup>a</sup>	0.817	[0.332, 1.901]	0.649
Assailant age <sup>b</sup>			
< 22 years	1.799	[0.776, 4.136]	0.167
Unknown	1.168	[0.349, 3.408]	0.786
Multiple perpetrators <sup>c</sup>	0.612	[0.256, 1.355]	0.245
Use of alcohol/drugs <sup>c</sup>	0.613	[0.231, 1.451]	0.290
Use of weapons <sup>c</sup>	2.095	[1.131, 3.929]	0.020
Use of physical force <sup>c</sup>	1.655	[0.741, 4.050]	0.240
Exam timing <sup>d</sup>			
1 day after assault	1.011	[0.494, 2.007]	0.976
2+ days after assault	1.432	[0.404, 4.538]	0.553

Note: Sample included  $N = 244$  SAKs, after removing SAKs with missing data for victim age or exam timing (assumed to be missing completely at random). *OR* = odds-ratio (a measure of effect size); *CI* = confidence interval; *p* = statistical significance *p*-value obtained from a Wald test of the coefficient. Reference levels are: <sup>a</sup> 16+ years; <sup>b</sup> 22+ years; <sup>c</sup> no; and <sup>d</sup> 0 days after assault (same day).

adjusting for the effects of the other predictors. Again, we comment only on the predictors that were statistically significant or have CIs that strongly indicate the likely direction of the effect.

Of all the predictors in the model, the only statistically significant predictor was weapon use in the assault ( $OR = 2.09$ ,  $95\% CI = [1.13, 3.93]$ ,  $p = 0.020$ ): the odds of obtaining a CODIS hit were about 2.09 times higher for SAKs when weapons were used in the assault (a small to medium positive effect), but could range from as little as 1.13 times higher (essentially equal due to a tiny positive effect) up 3.93 times higher (a large positive effect). This clearly shows that the effect is positive, but its size remains imprecisely estimated, limiting our ability to draw strong conclusions about its practical importance.

When assailants were younger (age < 22 years), our best estimate indicates a small but non-significant increase in the odds of a hit ( $OR = 1.80, p = .167$ ). The corresponding CI suggests that the odds of a hit could range from a *little lower* ( $OR = 0.78$ , a small negative effect) when the assailant is younger to *substantially higher* ( $OR = 4.14$ , a large positive effect). This suggests that the effect is probably positive (increasing the hit rate), but is inconclusive because the CI is wide enough to encompass the possibility that the hit rate actually decreases or does not change at all when assailants are young.

The remaining predictors in the model were not statistically significant. The CIs for victim age, unknown assailant age, and exams occurring one day after the assault show that these predictors are unlikely to exert anything more than small to moderate effects, without clarifying the direction of the effect. Meanwhile, the CIs for involvement of multiple perpetrators, use of alcohol/drugs, use of force, and exams occurring two or more days after the assault span wide ranges of effect sizes. Although they show that moderate to large effect sizes are possible in at least one direction, none of these CIs strongly establish either the direction or the size of the effect.

## **Evaluating the Detroit SAK Testing Plan—Inferential Findings on the Effect of DNA Testing Method on Forensic Testing Outcomes**

### ***Overview***

In this action research project, we also wanted to examine whether newer DNA testing techniques, such as selective degradation methods, could offer faster, less expensive testing options, without sacrificing accuracy. As described previously, the selective degradation method is used in the first step of DNA testing (see Figure 4.4) whereby the forensic scientist uses a faster-acting chemical technique for isolating the sperm and destroying the remaining non-sperm cells in the sample. With selective degradation, the sample that will be analyzed for DNA is “cleaner” in that method minimizes mixtures by destroying non-sperm DNA that is mixed with the sperm cells; if there are multiple male

assailants, the mixture of those two DNA samples is still intact, as the method does not destroy sperm (from any source). In this component of the Detroit SAK testing plan, we used an experimental design to compare SAKs tested with traditional methods (control group) vs. selective degradation methods (experimental group) (i.e., the SAKs in testing Group 4 (DNA Method) were randomly assigned to these two DNA testing method conditions).

In this section, we will report the results comparing these two different DNA testing methods. First, we will examine whether there is a difference in the CODIS entry rates yielded by traditional versus selective degradation (DNase) testing. Second, we will test whether the CODIS entry rates for these two methods are functionally equivalent (i.e., is the difference between them smaller than a 5% margin of equivalence). Finally, we will compare whether the two methods differ with respect to the cost of consumable supplies used during testing and the amount of personnel effort required to test, interpret, and review the kits. Selective degradation has the potential for automation, which was *not* used in this experiment; thus, the potential time savings of this method are under-estimated in this study.

### ***Effect of DNA Testing Method on DNA Testing Rates and CODIS Entry Rates***

We quantified and compared *DNA testing rate* and *CODIS entry rates* for untested, SOL-unexpired SAKs tested via traditional vs. selective degradation (DNase) testing methods. Most of the results in this section were obtained from continuation-ratio models of how Testing Group 4 SAKs progressed through Stages 0-2 of the forensic testing process shown in Figure 4.4. The rest were obtained from equivalence tests, which are described below.

The *DNA testing rate* is the proportion of SAKs submitted for testing that passed a screening procedure designed to determine whether there was sufficient biological evidence present in the SAK to

warrant even running a DNA test at all.<sup>84</sup> Because SAKs were randomly assigned to the two testing methods and the actual DNA test occurs at Stage 1, there is no a priori reason to expect a difference in the DNA testing rate. We tested for it only to ensure that any unexpected difference would be explicitly observed, reported in our results, and prevented from contaminating the crucial comparison, which should focus only on conditional CODIS entry rates.

In these analyses, the *CODIS entry rate* is a conditional rather than unconditional estimate. It corresponds to the proportion of SAKs that were actually tested (i.e., that passed the screening at Stage 0) that yielded DNA profiles suitable for upload into CODIS. Focusing on the conditional estimate ensures that we have a clean comparison between the two DNA testing methods under conditions where laboratory personnel believe there is enough biological evidence present in the SAKs that it is actually possible to extract an assailant's DNA profile.

There is no mechanism by which the DNA testing method could affect either the CODIS hit rate or the serial assault rate. Those outcomes depend on the match between the contents of new CODIS entries and other records already stored in CODIS. Any effect on these two rates *must* be mediated by either what gets entered or what was already present in the system. Stringent criteria control what DNA profiles may be uploaded into CODIS, so new CODIS entries resulting from either kind of test must meet the same criteria. That eliminates one potential pathway to influencing hit or serial assault rates. The only other pathway is eliminated by the fact that neither kind of DNA test could possibly affect the content of *previously entered* records. Therefore, we did not extend our model to estimate those rates. We present the results in terms of the conditional rates that are directly estimated by the models, then translate the results into odds-ratios (*ORs*), estimates of relative risk (*RR*), a number needed to submit

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<sup>84</sup> The results of this screening were only recorded as a separate variable for Testing Group 4, so analyses for Testing Groups 1-3 could not quantify and compare DNA testing rates. SAKs in those groups that did not contain sufficient biological evidence to permit DNA testing at all always stopped at Stage 1, along with SAKs that contained such evidence and were tested, but failed to yield DNA profiles suitable for entry into CODIS.

(*NNS*) statistic, and unconditional rates to facilitate interpretation. These results will be presented for two sets of analyses: (1) one from a base model that omits covariates; and (2) another model that accounts for a covariate (the presence of sperm in the SAK) acting as a moderator of the testing method effect.<sup>85</sup>

The DNase selective degradation testing method is designed to work by selectively degrading DNA not contributed by a sperm cell. Thus, it has the greatest potential to outperform traditional testing when sperm is present. It also has some potential to perform worse when sperm is not present because other assailant DNA that is present may be degraded. Accounting for this potential moderator may therefore be important in understanding when traditional versus selective degradation testing may yield different results. To examine more stringently whether the testing method influences forensic outcomes after we account for the presence or absence of sperm, we extended the model to include a stage by testing method by presence of sperm interaction effect, then looked at the simple main effect of testing method on each rate separately when sperm was absent and when it was present.

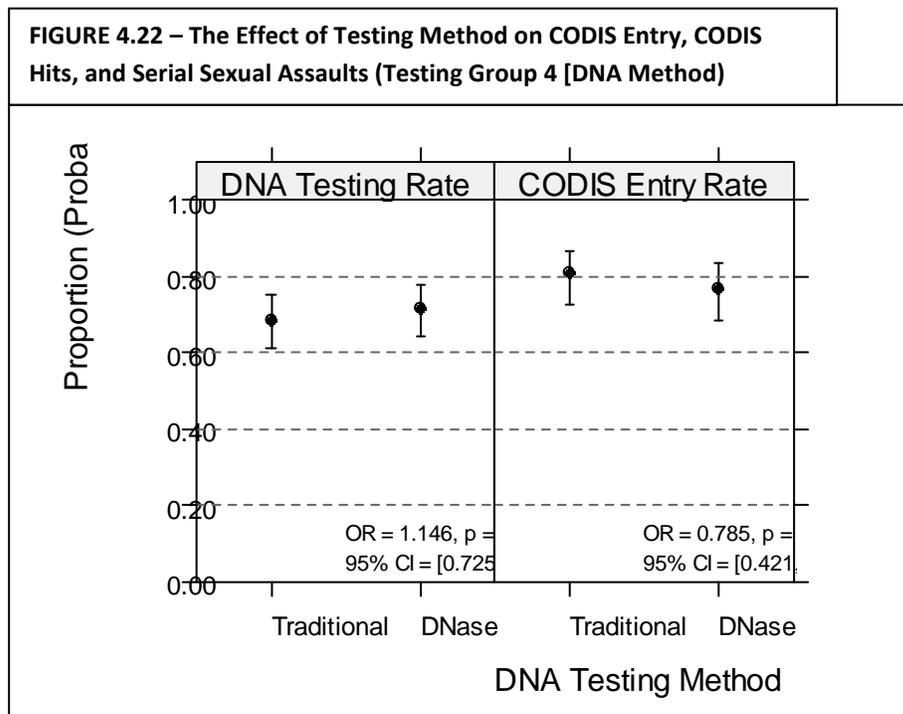
We also directly examined whether the two groups yield conditional and unconditional CODIS entry rates that are *functionally equivalent*. Conventional statistical tests, such as the continuation-ratio model, adopt a null hypothesis that *there is no difference between groups* (i.e., their outcomes are exactly equal). When the analysis provides strong evidence refuting that assumption, we can conclude there is indeed a difference. However, Carl Sagan's (1995, p. 221) famous quote "*...the absence of evidence is not evidence of absence*" reminds us that failing to find a significant difference between groups is not the same thing as proving that they do not differ meaningfully. A non-significant finding from a conventional test yields only an "absence of evidence" with respect to the hypothesis that two groups have equivalent outcomes.

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<sup>85</sup> In this context, a moderator is a type of covariate that modifies how strongly a focal predictor affects the outcome of interest. Here, we consider the possibility that the testing method effect on DNA testing rates and CODIS entry rate depends on whether or not sperm is present in the SAK.

Establishing that groups have equivalent outcomes requires generating credible “evidence of absence” with respect to group differences, which is the purpose of equivalence tests. These statistical methods adopt the null hypothesis that *the outcomes for the groups are not equivalent* (i.e., the difference is large enough to be important) (Barker, Luman, McCauley, & Chu, 2002; da Silva, Logan, & Klein, 2009; Rogers, Howard, & Vessey, 1993; Stegner, Bostrom, & Greenfield, 1996; Wellek, 2010). Only when the analysis provides strong evidence refuting that assumption can we conclude that groups are equivalent. Explicitly defining equivalence in advance is crucial for these tests. We set the margin of equivalence at  $\epsilon = 5\%$  because feedback from forensic science stakeholders (two at the state level and two at the national level) suggested that CODIS entry rates for the two groups that are within 5% of each other ( $-0.05 < \Delta < 0.05$ , where  $\Delta = p_T - p_D$ ) would warrant considering the two DNA testing methods functionally equivalent.

**Conditional Rates (Moderator Omitted).** Figure 4.22 (next page) shows the effect of DNA testing method on the testing outcomes when we omit the potential moderator from the model. The first panel shows that, as expected, there is very little difference in the *DNA testing rates* ( $OR = 1.15$ ,  $95\% CI = [0.73, 1.81]$ ,  $p = 0.560$ ), which were 68.6% ( $95\% CI = [61.3, 75.0]$ ) for SAKs in the traditional test group and 71.4% ( $95\% CI = [64.2, 77.7]$ ) in the DNase test group (see also Table 4.8, following pages). The  $RR = 1.04$  shows that SAKs in the DNase group were only 1.04 times more likely to pass the screening and actually receive DNA testing than SAKs in the traditional test group. We would need to submit  $NNS = 35.71$  SAKs from the DNase group to detect just one more SAK with sufficient biological evidence to warrant DNA testing (25.5 SAKs) than we would expect among the same number of SAKs from the traditional group (24.5 SAKs). Random assignment to the two groups thus appears to have eliminated systematic differences with respect to the presence of biological evidence.



**Figure 4.22: Testing Method Effect on DNA Testing and CODIS Entry Rates Among SOL-unexpired Detroit SAKs.** The DNA testing rate is an unconditional estimate (the proportion of SAKs that pass the Stage 0 serology screening to reach the actual DNA test at Stage 1). The CODIS entry rate is a conditional estimate (the proportion of SAKs tested that yielded a DNA profile suitable for upload into CODIS). These results generalize to the subpopulation of untested, SOL-unexpired Detroit SAKs (regardless of adjudication status or victim-offender relationship). After selecting  $N = 350$  SAKs from that subpopulation,  $n = 175$  SAKs were randomly allocated to each of the two testing methods. These estimates were obtained from a continuation-ratio model of SAK progression across Stages 0-2 (unweighted due to the simple random sampling design). The dots mark the point estimates for the rates, the whiskers depict the corresponding 95% CIs. The odds-ratios (*OR*) and associated 95% CIs quantify the simple effect of testing method on the rate named in each panel.

The conditional *CODIS entry rate* for SAKs in the traditional group was 80.8% (95% CI = [72.8, 86.9]), as compared to 76.8% (95% CI = [68.5, 83.4]) in the DNase group (see Table 4.8). The effect size is very small and non-significant ( $OR = 0.79$ , 95% CI = [0.42, 1.47],  $p = 0.441$ ). The  $RR = 0.95$  indicates that SAKs allocated to DNase testing are about 0.95 times less likely to yield CODIS entries than traditional testing. Furthermore, the  $NWS = -25.00$  means that testing 25.00 SAKs containing biological evidence via DNase testing would likely yield one *less* CODIS entry than we would expect from traditional testing of a similar number SAKs containing biological evidence (i.e, 19.20 versus 20.20 CODIS entries).

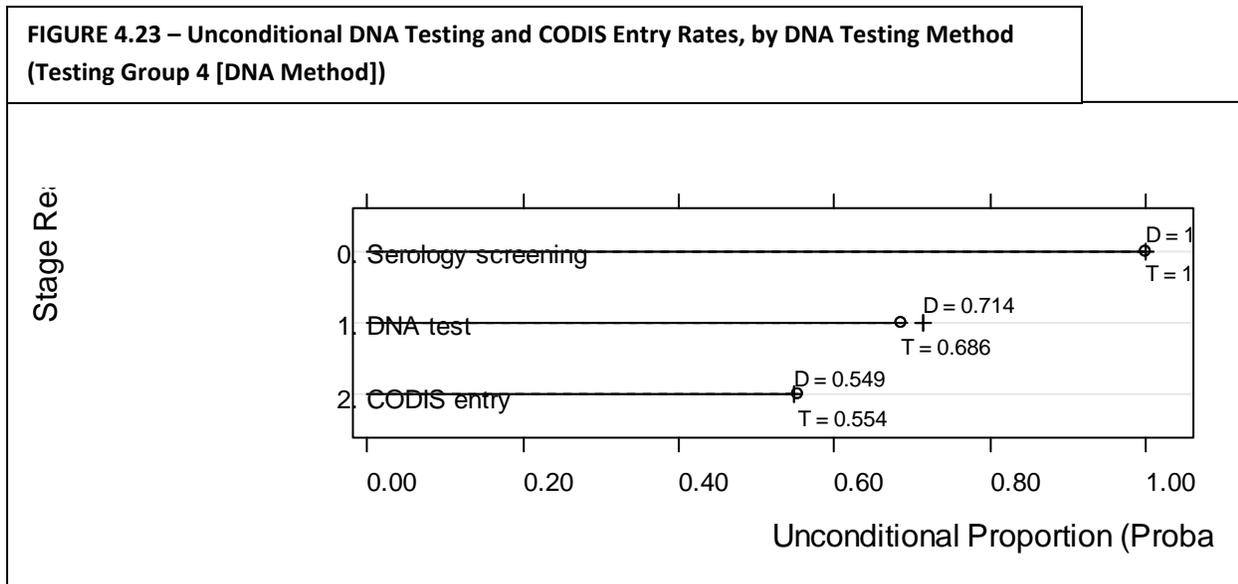
The continuation ratio model does not offer strong evidence for a difference between testing methods, so we computed an equivalence test to evaluate whether the conditional CODIS entry rates are actually equivalent. The 4.0% difference between those two rates is imprecisely estimated (90% CI = [-4.6, 12.6]), with the upper bound of the CI falling far outside the  $\pm 5\%$  margin of equivalence. So, the CODIS entry rates for the two groups are not equivalent because the rate may be more than 5% higher in the traditional testing group than in the DNase group.

<b>TABLE 4.8 – Rates Estimated from Continuation-Ratio Model Comparing DNA Testing Methods (Testing Group 4 [DNA Method])</b>		
<b>Outcome</b>	<b>Traditional Rate [95% CI]</b>	<b>Selective Degradation (DNase) Rate [95% CI]</b>
DNA testing rate Stage 0 → 1	0.686 [0.613, 0.750]	0.714 [0.642, 0.777]
CODIS entry rate Stage 1 → 2   Tested	0.808 [0.728, 0.869]	0.768 [0.685, 0.834]

**Unconditional Rates (Moderator Omitted).** Figure 4.23 (following page) shows results of the experiment in terms of unconditional rates when we omit the potential moderator from the model. Here, the screening rate is 100% regardless of DNA testing method because all SAKs submitted for testing are screened at Stage 0; the DNA testing rate remains the same as in Figure 4.22 because it represents the first stage transition in the model. Thus, only the CODIS entry rates differ across Figures 4.22 and 4.23 because they use different denominators (Figure 4.23 uses the total number of SAKs submitted at Stage 0, while Figure 4.22 uses the number of kits reaching Stage 1).

The unconditional CODIS entry rate was 55.4% for the traditional group and 54.9% for the DNase group, yielding a RR = 0.99. This is trivial difference in the two rates, suggesting that we are equally likely to obtain CODIS entries regardless of DNA testing method. It is so small that submitting

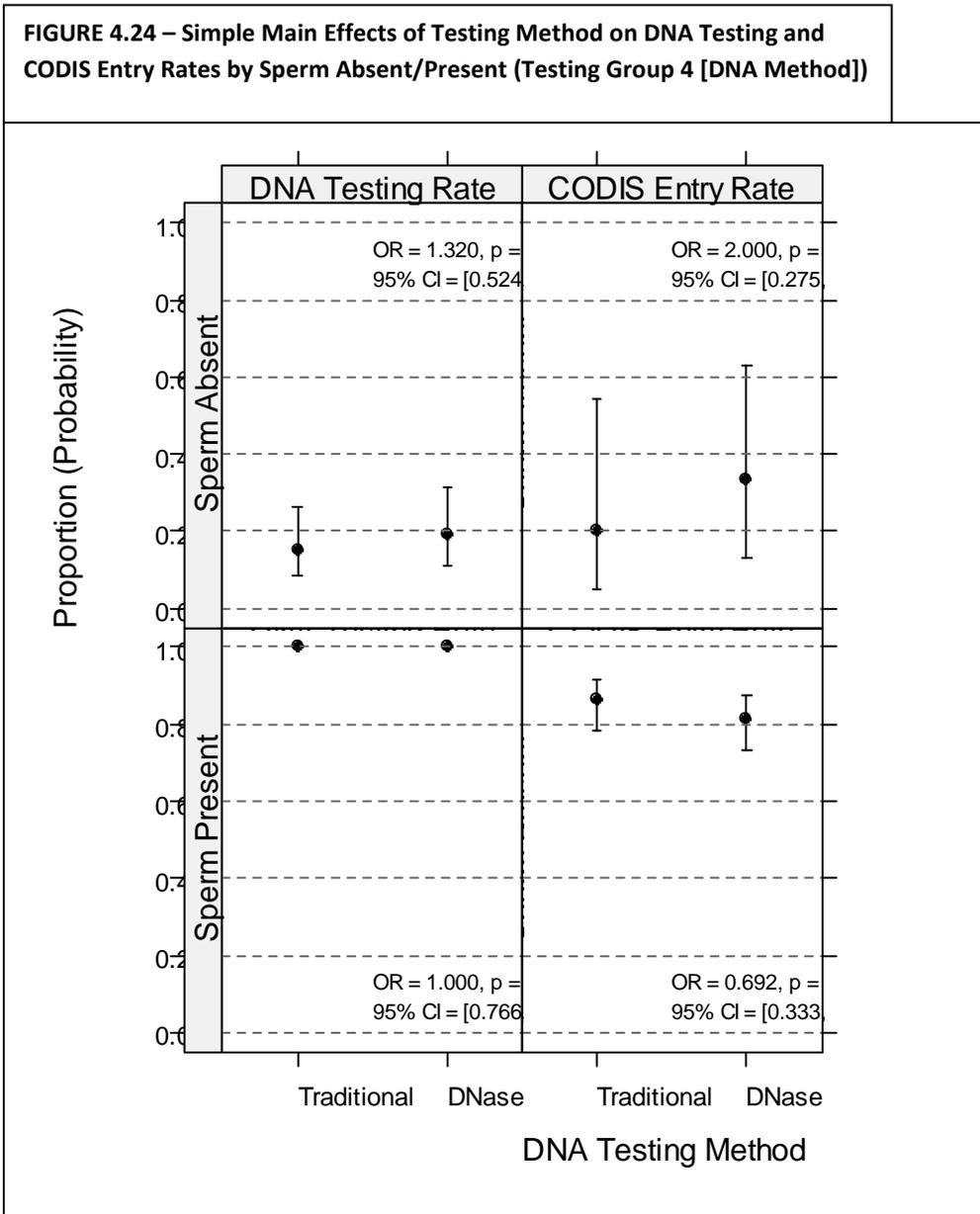
200.00 SAKs to forensic testing is likely to yield just one *less* CODIS entry under DNase testing than we would get if we used traditional testing instead.



**Figure 4.23: Unconditional DNA Testing and CODIS Entry Rates Among SOL-unexpired Detroit SAKs by Testing Method.** All rates shown here are unconditional estimates of the proportion of SAKs tested that reached each stage listed. These results generalize to the subpopulation of untested, non-adjudicated, SOL-unexpired Detroit SAKs (regardless of adjudication status or victim-offender relationship). After selecting  $N = 350$  SAKs from that subpopulation,  $n = 175$  SAKs were randomly allocated to each of the two testing methods.. These estimates were calculated from the results of a continuation-ratio model of SAK progression across Stages 0-2 (unweighted due to the simple random sampling design). D = DNase; T = traditional.

**Conditional Rates (Moderator Included).** Figure 4.24 (following page) shows the effect of testing method on the testing outcomes when we include the presence of sperm as a moderator in the model. The top panels show the results when sperm was absent; the bottom panels show the results when sperm was present. Comparing Figures 4.22 and 4.24 highlights the fact that each panel in the former is essentially a weighted average of the top and bottom panels from the latter.<sup>86</sup> In the absence of sperm, there was little difference in the *DNA testing rates* ( $OR = 1.32$ ,  $95\% CI = [0.52, 3.32]$ ,  $p = .556$ ), which were 15.4% ( $95\% CI = [08.5, 26.3]$ ) for SAKs in the traditional test group and 19.4 ( $95\% CI = [11.3,$

<sup>86</sup> The weights would be based on the relative numbers of SAKs that contain versus do not contain sperm.



**Figure 4.24: Simple Main Effects of Testing Method on DNA Testing and CODIS Entry Rates Among SOL-unexpired Detroit SAKs, Depending on Whether Sperm Was Absent From or Present in the SAK.** The DNA testing rate is an unconditional estimate (the proportion of SAKs that pass the Stage 0 serology screening to reach Stage 1 (the actual DNA test)). The CODIS entry rate is a conditional estimate (the proportion of SAKs tested that yielded a DNA profile suitable for upload into CODIS). These results generalize to the subpopulation of untested, SOL-unexpired Detroit SAKs (regardless of adjudication status or victim-offender relationship). After selecting  $N = 350$  SAKs from that subpopulation,  $n = 175$  SAKs were randomly allocated to each of the two testing methods. The SAKs were sorted by the presence/absence of Sperm in the samples. These estimates were obtained from a continuation-ratio model of SAK progression across Stages 0-2 that contained a 3-way stage by testing method by presence of sperm interaction effect (unweighted due to the simple random sampling design). The dots mark the point estimates for the rates, the whiskers depict the corresponding 95% CIs. The odds-ratios (*OR*) and associated 95% CIs quantify the simple effect of testing method on the rate named in each panel.

31.2]) in the DNase test group. The  $RR = 1.26$  shows that SAKs in the DNase group were only 1.26 times more likely to pass the screening and actually receive DNA testing than SAKs in the traditional test group. We would need to submit  $NNS = 25.00$  SAKs from the DNase group to detect just one more SAK with sufficient biological evidence to warrant DNA testing (4.85 SAKs) than we would expect among the same number of SAKs from the traditional group (3.85 SAKs). There is no detectable difference between the groups in DNA testing rate when sperm is present ( $OR = 1.00$ , 95% CI = [0.77, 1.31],  $p = 1.00$ ) because the DNA testing rate quite predictably increased to 100.0% for both groups (sperm is after all one of the kinds of biological evidence that warrant moving on to Stage 1). Random assignment to the two groups appears to have eliminated systematic differences with respect to the presence of biological evidence as intended.

When sperm was absent, the conditional *CODIS entry rate* was 20.0% (95% CI = [05.0, 54.1]) for SAKs in the traditional test group and 33.3% (95% CI = [12.9, 62.8]) in the DNase group (see Table 4.9, following pages). The wide confidence intervals for these estimates (top right panel, Figure 4.24) are likely due to the low DNA testing rates, which effectively reduced the sample size and increased the uncertainty surrounding the estimated proportions and the corresponding effect size. Thus, although the difference in the odds of a *CODIS entry* was nominally moderate and non-significant ( $OR = 2.00$ , 95% CI = [0.28, 14.57],  $p = .489$ ), it could plausibly be substantially larger and favor *either* group. There is far too much sampling variability to be certain either way because the CI spans a range consistent with everything from a large negative effect to a very large positive effect. The  $RR = 1.67$  indicates that when SAKs containing biological evidence but no sperm are allocated to DNase testing, they are about 1.67 times more likely to yield *CODIS entries* than similar SAKs allocated to the traditional test. Furthermore, the  $NNS = 7.52$  means that testing 7.52 SAKs containing biological evidence but no sperm via DNase testing would likely yield one *more* *CODIS entry* than we would expect from traditional testing of a similar number SAKs containing biological evidence but no sperm (i.e, 2.50 versus 1.50 *CODIS entries*).

Directly examining the difference in the conditional CODIS entry rates ( $\Delta = p_T - p_D$ , rather than the difference in the odds of CODIS entries) when sperm was absent reinforces the finding from the difference test. The observed difference of -13.3% lies below the lower end of the  $\pm 5\%$  equivalence margin and the 90% CI = [-42.6, 19.5] is so wide (due to estimating the rates from just 10-12 SAKs per group) that it extends beyond the upper end of the equivalence margin. This indicates that the rates are not equivalent because the difference between them could be larger than 5% in either direction when sperm are absent.

When sperm was present, the conditional *CODIS entry rate* was 86.4% (95% CI = [78.5, 91.7]) for SAKs in the traditional test group and 81.4% (95% CI = [73.0, 87.6]) in the DNase test group. This would be considered a small, statistically non-significant, negative effect ( $OR = 0.69$ , 95% CI = [0.33, 1.44],  $p = 0.317$ ) on the odds of a CODIS entry that could reflect nothing more than random sampling variation. However, the wide CI for the *OR* is consistent with a range of plausible effect sizes falling anywhere between a large negative effect and a small positive one. The  $RR = 0.94$  indicates that SAKs allocated to DNase testing are about 0.94 times less likely to yield CODIS entries than SAKs allocated to the traditional test. Furthermore, the  $NNS = -20.00$  means that testing 20.00 SAKs containing sperm via DNase testing would likely yield one *less* CODIS entry than we would expect from traditional testing of a similar number SAKs containing sperm (i.e, 17.28 versus 16.28 CODIS entries).

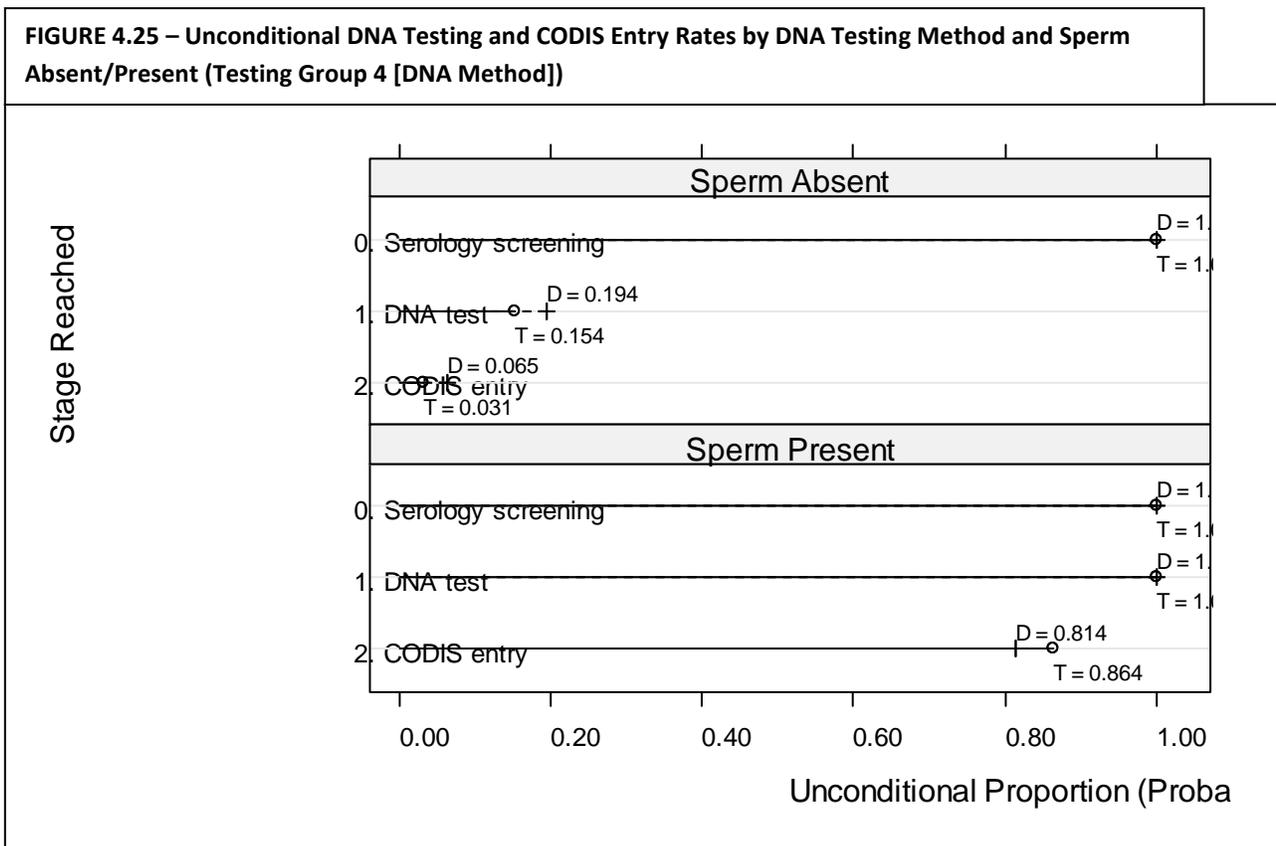
The equivalence test directly examining the difference in conditional CODIS entry rates also turned up an unusual result when sperm was present. The observed difference of 4.9% in favor of traditional testing lies right below the upper bound for the margin of equivalence. The 90% CI = [-3.2, 13.2] therefore spans that boundary with almost half of the interval on each side. This means the rates are not equivalent. The two rates might differ by less than 5% (indicating equivalence), but it is almost equally plausible that traditional testing yields a rate more than 5% higher than that yielded by DNase testing.

<b>TABLE 4.9 – Rates Estimated from Continuation-Ratio Model Comparing DNA Testing Methods by Sperm Absent/Present (Testing Group 4 [DNA Method])</b>		
<b>Outcome</b>	<b>Traditional Rate [95% CI]</b>	<b>DNase Rate [95% CI]</b>
<b>Sperm Absent</b>		
DNA testing rate Stage 0 → 1	0.154 [0.085, 0.263]	0.194 [0.113, 0.312]
CODIS entry rate Stage 1 → 2   Tested	0.200 [0.050, 0.541]	0.333 [0.129, 0.628]
<b>Sperm Present</b>		
DNA testing rate Stage 0 → 1	1.000 [1.000, 1.000]	1.000 [1.000, 1.000]
CODIS entry rate Stage 1 → 2   Tested	0.864 [0.785, 0.917]	0.814 [0.730, 0.876]

**Unconditional Rates (Moderator Included).** Figure 4.25 (following page) translates the results from Figure 4.24 into unconditional rates. The screening rate remains 100% regardless of testing method and the presence of sperm because all SAKs submitted for testing are screened at Stage 0; the DNA testing rate remains the same as in Figure 4.24 because it represents the first stage transition in the model. Thus, only the CODIS entry rates can differ across Figures 4.24 and 4.25 because they use different denominators (Figure 4.25 uses the total number of SAKs submitted at Stage 0, while Figure 4.24 uses the number of kits reaching Stage 1).

The unconditional CODIS entry rate was 3.1% for the traditional group and 6.5% for the DNase group when sperm was absent, yielding a  $RR = 2.10$ , suggesting that we are about twice as likely to obtain CODIS entries when using the DNase test. Submitting 29.41 SAKs to forensic testing is likely to yield just one *more* CODIS entry under DNase testing than we would get if we used traditional testing instead (1.91 versus 0.91 entries). The equivalence test shows that the difference in the unconditional CODIS

entry rates is -3.4% (90% CI = [-11.0, 3.3]) when sperm were absent. Thus, the rates are not equivalent because the rate for the DNase group could be more than 5% higher than the rate in the traditional group. We have more confidence in this result than we did for the corresponding conditional rates because it is based on larger sample sizes (62-65 SAKs per group), but it also seems prudent to note that both rates are low in the first place.



**Figure 4.25: Unconditional DNA Testing and CODIS Entry Rates Among SOL-unexpired Detroit SAKs by Testing Method, separately for Presence of Sperm.** All rates shown here are unconditional estimates of the proportion of SAKs tested that reached each stage listed. These results generalize to the subpopulation of untested, SOL-unexpired Detroit SAKs (regardless of adjudication status or victim-offender relationship). These estimates were calculated from the results of a continuation-ratio model of SAK progression across Stages 0-2 (unweighted due to the simple random sampling design). D = DNase; T = traditional.

The unconditional CODIS entry rates were identical to the conditional rates when sperm was present (86.4% for the traditional group and 81.4% for the DNase group) because the DNA testing rate of 100.0% means they use the same denominator. Therefore, the *RR* and *NNS* statistics and the equivalence test results for the unconditional rates match those reported above for the conditional rates when sperm is present.

### ***Comparisons of Testing Costs and Personnel Effort Between Testing Methods***

In this experiment, we also examined whether the two methods differ with respect to cost and personnel effort required. Assuming equal performance with respect to forensic outcomes, one might prefer the testing method that costs less or more enables personnel to work more efficiently. The available data on cost and personnel effort were sometimes recorded as aggregate values for batches of multiple SAKs and other times recorded separately for each SAK. This inconsistency in the level of detail recorded forced us to aggregate cost and personnel effort data. As such, we report only descriptive summaries because we are not aware of any statistical method that can adequately quantify the sampling variation expected around the estimates given the inconsistent way the data were recorded.

Table 4.10 (following page) summarizes cost of consumable supplies used during testing, the amount of laboratory personnel time spent on testing and reviewing the results, and the amount of state police forensic science division personnel time spent reviewing the DNA test results. There was little difference in total supplies costs (\$16.20 total, \$0.09 per SAK) between the two methods, which could be entirely attributable to the difference in costs at the Stage 0 screening.

The aggregate time spent by laboratory personnel on traditional testing was 848.50 hours, which was 192.50 more hours than laboratory personnel spent on DNase testing (656.00 hours) for the same number of SAKs ( $N = 175$  each). Most of the difference was time spent on the actual testing (181.75 hours) rather than reviewing results (10.75 hours). So, DNase testing appears to have saved an

average of 1.10 hours of laboratory personnel time per SAK relative to traditional testing.<sup>87</sup> Cumulated across a large collection of SAKs, this may yield substantial savings on personnel costs, but we cannot assess how much sampling variation one might expect in these estimates from the current data. The true average time savings for laboratory personnel could be higher or lower, but we cannot provide a valid CI because the data were already partially aggregated when we received them.

<b>Variable</b>	<b>Traditional (N = 175)</b>	<b>DNase (N = 175)</b>	<b>Difference (T – D)</b>
Total consumable supplies cost (\$)	52,986.76	52,970.56	16.20
SAKs negative at screening (no DNA test)	6,406.12	6389.92	16.20
SAKs positive at screening (DNA test)	46,580.64	46,580.64	0.00
Mean consumable supplies cost per SAK (\$)	302.78	302.69	0.09
Vendor laboratory personnel effort (hours)			
Total testing time	780.75	599.00	181.75
Total reviewing time	67.75	57.00	10.75
Total testing + reviewing time	848.50	656.00	192.50
Mean testing time per SAK	4.46	3.42	1.04
Mean reviewing time per SAK	0.39	0.33	0.06
Mean testing + reviewing time per SAK	4.85	3.75	1.10
State police forensic science personnel effort (hours)			
Total review time	119.90	109.05	10.85
Mean review time per SAK	0.69	0.62	0.07

Note: Sample included N = 350 SAKs (175/group). Cost estimates include waste, controls, and reprocessing. SAK = sexual assault kit.

<sup>87</sup> Laboratory personnel spent an average of 848.50 hours/175 SAKs = 4.85 hours/SAK on traditional DNA testing; they spent an average of 656.00 hours/175 SAKs = 3.75 hours/SAK on DNase testing. Therefore, DNase testing method saved an average of 4.85 - 3.75 = 1.10 hours/SAK in laboratory personnel time.

The aggregate difference in state police forensic science division personnel time spent on reviewing test results was substantially smaller (a total of 10.85 hours). Reviewing results from traditional testing took state police forensic science division personnel a total of 119.90 hours, while reviewing results from DNase testing took a total of 109.05 hours. On average, that suggests adopting DNase testing could save about 0.07 hours of personnel time per SAK. Again, we cannot assess how much sampling variation one might expect for that figure. The true average time savings for state police forensic science division personnel could be higher or lower, but we cannot provide a valid CI because the data were already partially aggregated when we received them.

### **Summary & Conclusions: Empirical Findings Regarding the Utility of SAK Testing**

The Detroit SAK Testing Plan was designed to provide empirical data regarding if and how SAKs could be selected/prioritized for testing. Based on our interviews with stakeholders at the local, state, and national level, we focused on two key variables that could be used as selection criteria: victim-offender relationship (stranger/non-stranger) and statute of limitations status. At issue was whether CODIS entry rates, CODIS hit rates, and serial sexual assault rates varied as a function of these variables.

The results from the conditional and unconditional rate analyses suggest that there is a significant, though small, difference in *CODIS entry rates* as a function of victim-offender relationship (higher entry rates for stranger-perpetrated assaults). However, there are no differences in *CODIS hit rates* for stranger and non-stranger sexual assaults. In other words, stranger and non-stranger SAKs do not significantly differ in their CODIS hit rates. Many stakeholders in Detroit, as well as those at the state and national level, felt that stranger-perpetrated assaults should be prioritized over non-stranger assaults—presumably because they would yield more CODIS hits. These data do *not* support prioritization of testing on the basis of victim-offender relationship—CODIS hit rates are not statistically different for stranger and non-stranger assaults. However, the rate of serial sexual assaults was

significantly higher for stranger-perpetrated assaults. Meaning, *CODIS hit rates* are statistically equivalent, but once there is a hit, the stranger-perpetrated assaults were more likely to be hitting to other sexual assaults (*serial sexual assaults*). Yet, it is important to consider historical biases in SAK submission practices, which may help explain these effects regarding victim-offender relationship and serial sexual assaults. The extent to which law enforcement personnel have been systematically *not* submitting non-stranger SAKs for testing (e.g., because “*there’s no point, identity is known*”) means that CODIS is not as populated with DNA samples from offenders who assault those known to them. In other words, offenders who “specialize” in non-stranger serial sexual assaults may be under-detected, given historical practices in SAK submissions (which affect how CODIS is populated). At a minimum, these results suggests a need for further research on serial sexual assaults and victim-offender relationship to explore whether our findings of higher serial rates among stranger rapes are replicated, or whether serial sexual assault rates are comparable among stranger and non-stranger assaults in other jurisdictions.

Turning to the results regarding the effect of SOL-status on forensic testing outcomes, the results from the conditional and unconditional rate analyses suggest that there is no significant difference in CODIS entry rates, CODIS hit rates, and serial sexual assault rates as a function of the statute of limitations status. In other words, SAKs associated with cases that are presumed to be beyond the statute of limitations have statistically equivalent CODIS rates as do cases still within the statute of limitations. Again, some stakeholders in Detroit (as well as those at the state and national level) advocated for prioritizing SAKs by statute of limitations, such that cases still within the statute should be given higher testing priority than those that are presumed to be expired. From an investigation and prosecution point of view, such prioritization could be warranted (though additional research would be needed to test that assumption), but with respect to forensic outcomes, these results suggest that “*skipping*” older kits is *not* warranted because the rates of CODIS hits are not statistically

different for SOL-expired and unexpired SAKs. Put another way, these results clearly indicate that there is merit in testing presumed SOL-expired SAKs, in terms of CODIS entry, CODIS hits, and identification of serial sexual assaults.

We also examined whether *other* features of the victim, assailant, and/or assault might predict forensic testing outcomes, and therefore could be used as a possible selection/prioritization criteria. We tested whether victim age, assailant age, and assault characteristics (multiple perpetrators, alcohol or drug use, use of a weapon, use of physical force, time between assault and exam) predicted whether a SAK would yield a CODIS hit (analyses conducted separately within Testing Groups 1 (Stranger), 2 (Non-Stranger), and 3 (Presumed SOL Expired)). These analyses did not yield many significant predictors. Weapon use was significant in all models, indicating that if the assailant had used a weapon in the assault, the SAK was more likely to yield a CODIS hit. In Testing Group 2 (Non-Stranger), assaults committed against younger victims (<16) were less likely to yield a CODIS hit. Recall that our analyses in *Chapter 3: Why So Many Unsubmitted SAKs in Detroit* showed that law enforcement personnel were less likely to believe adolescent rape victims and that disbelief affected their decision not to submit a SAK for testing. The extent to which this bias in SAK submission practices has been occurring over time and in other jurisdictions, then offenders who “specialize” in this form of assault (adolescent victims they know) may be less likely to be in CODIS (hence, fewer CODIS hits). This suggests the need for additional research on offender specialization, particularly with respect to victim age.

However, on the whole, most of the variables in these prediction models were not statistically significant. Furthermore, the range of plausible effect sizes associated with each predictor was typically rather broad. Even where we have some grounds to conclude that the probable direction of an effect (i.e., whether it increases or decreases the hit rate) is reasonably clear, these models provide only imprecise estimates of how strong the effects are. Although some of these predictors *could* exert large effects on the hit rate, further research will be necessary to establish more conclusively whether they

really do so. It is also entirely plausible that every effect we examined is quite small. As such, we conclude that the models do *not* provide sufficient evidence to advocate for selectively testing SAKs based on victim age, assailant age, exam timing, or any of the assault characteristics we examined.<sup>88</sup> Finally, Testing Group 4 was an experimental comparison between two DNA testing methods: traditional vs. selective degradation (DNase). The results indicated no significance between the two groups, indicating that the selective degradation method had no decrement in performance relative to customary methods. Follow-up tests of equivalence showed that the CODIS entry rates for the two methods could differ by more than  $\pm 5\%$ , indicating that they are not equivalent. Comparisons of materials costs were also equivalent across the two groups, but the selective degradation method offered a substantial savings staffing in staff time in interpretation/review: 1.10 hours of laboratory personnel time per SAK relative to traditional testing. Cumulated across a large collection of SAKs, this may yield substantial savings on personnel costs. These data suggest that selective degradation is a method that could offer forensic laboratories significant personnel savings, but these results merit replication in other labs/settings prior to broad-based implementation. Future studies should use larger samples because narrower confidence intervals around the estimated difference between the CODIS entry rates associated with traditional and selective degradation DNA testing methods will clarify whether or not these rates differ meaningfully.

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<sup>88</sup> Only unambiguous evidence of moderate to large effects could justify such selection, but these analyses do not provide such evidence.

## CHAPTER 5: Notifying Victims

### Developing & Evaluating a Victim Notification Protocol

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Testing previously unsubmitted SAKs raises complex issues regarding if, when, and how victims ought to be notified about what had happened to their kit, what is currently happening, and what might happen in the future. There are, of course, legal issues to be sorted out regarding the testing results and the viability of future prosecution, but fundamentally, victim notification is re-opening survivors' memories and feelings regarding a significant traumatic event in their lives, one that may have happened a few years ago, or a decade ago, or decades ago. Although there is no prior research specifically on victim notifications in cases of unsubmitted SAKs, there is an extensive body of literature on trauma and its aftermath, which offers a cautionary tale about what this process could mean for survivors. Activating traumatic memories triggers neurobiological and physiological responses in the brain and body that are emotionally and physically distressing (Banks, 2002; Foa et al., 2000; Garfinkel & Liberzon, 2009; Roozendaal et al., 2009; Rubin et al., 2008; Sher, 2010; Southwick et al., 2005). Recovery from traumatic events is often a long process, and many victims struggle for years with symptoms of depression, post-traumatic stress disorder (PTSD), suicidality, substance abuse, and addiction relapse (see Campbell, Dworkin, & Cabral, 2009; Herman, 2002; Steenkamp, Dickstein, Salters-Pedneault, Hofman, & Litz, 2012 for reviews). As such, victim notification can pose significant emotional and physical risks for survivors, which may or may not be mitigated by the information provided (e.g., testing results, CODIS hits, suspect identification) and opportunities for action and/or closure (e.g., investigation and prosecution).

Given this context, a multidisciplinary effort was essential for planning and conducting victim notifications. As one stakeholder in this project noted, "*we see things differently* (the different disciplines/professions), *we're trained differently, have different jobs, sometimes different priorities*

*honestly, but I truly believe we all want to do what's best for victims."* Continuing on with that line of thinking, another stakeholder commented, *"There are so many ways to look at this and I only know my way . . . put us all together to talk about it, I can start to see it from different points of view and we can figure out a way to go."* Drawing upon their different professional experiences, lessons learned from other jurisdictions, the research literature on the neurobiology of trauma, consultations with legal ethicists and trauma experts, and, as one member of the collaborative stated, *"a gut check every single day to remember what this means for them (survivors),"* the Detroit collaborative created, implemented, and evaluated a victim notification protocol for unsubmitted SAKs. The purpose of this chapter is to summarize how the team created the protocol, describe the protocol itself, and then present the evaluative findings regarding its efficacy for locating and notifying survivors.

## The Process of Developing the Victim Notification Protocol

The Detroit collaborative discussed victim notification from the inception of the project, but the imminent testing results from the first group of SAKs prompted the group to formalize their ideas into a protocol. There were a staggering number of complex issues to consider, including, but not limited to:

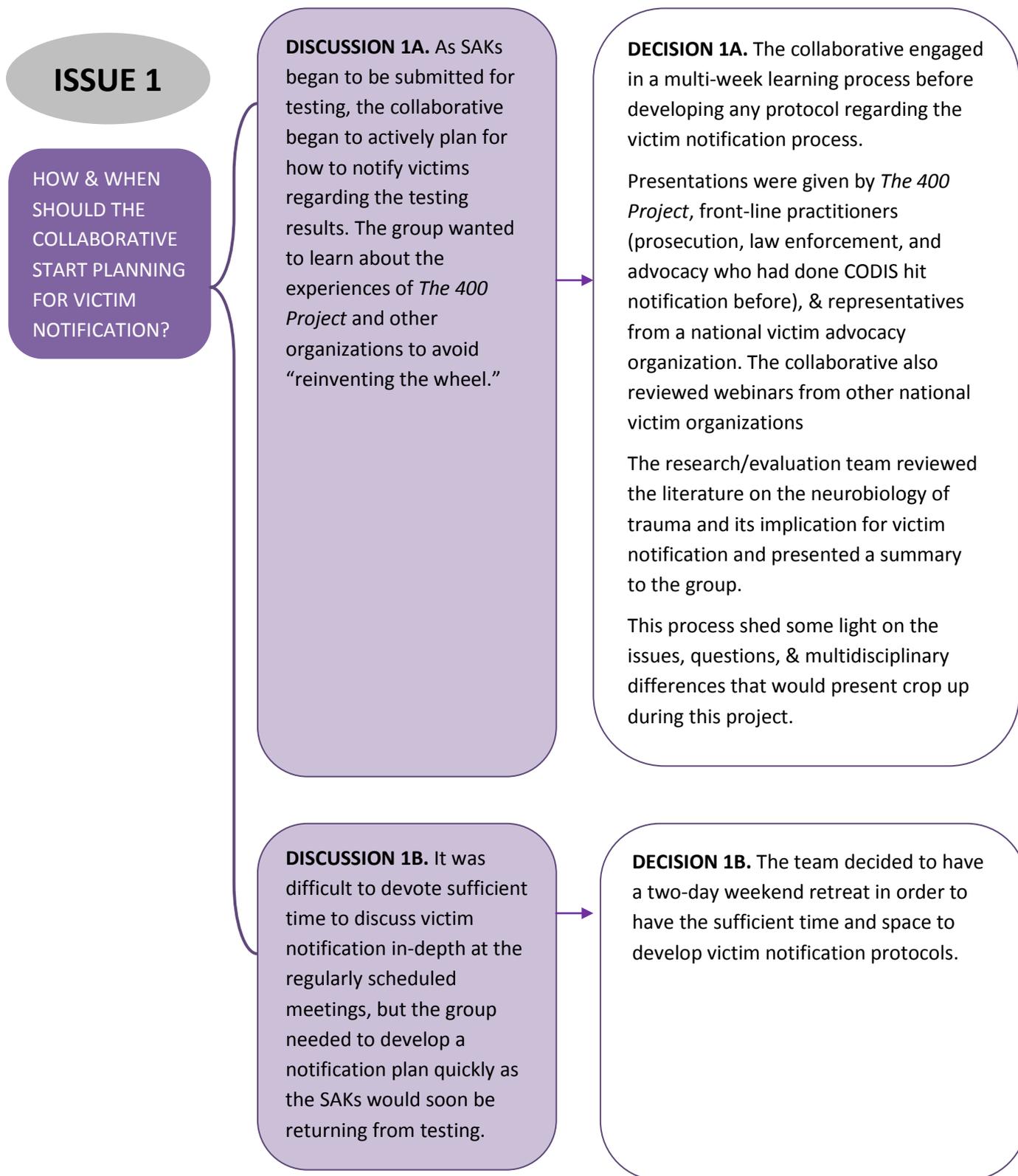
- When and why a victim should be notified → At what point should victims be notified that their kits had not previously been tested? Should they have been notified even *before* the kit was sent for testing? Should victims be notified . . . only if DNA is found in the SAK, only if there's a CODIS hit, only if there's still a chance for prosecution? Should victims be notified regardless of the testing results? What if there's "nothing" to tell victims (e.g., the testing revealed no DNA, no CODIS hit, statute of limitations has expired)—but maybe "nothing" really is a meaningful update for some victims? What if some survivors do not want this part of their lives reopened?

- Who should decide whether a victim will be notified → Is there a way for survivors to be able to make this choice for themselves (if and when to be notified)? If not, then who should make the decision to notify a victim? Police, prosecutors, advocates, a multidisciplinary team?
- Who should notify victims → Which profession, which specific individuals should be tasked with finding victims and giving them such emotionally-charged, complex information? Should it be the police—the original investigating officer (if possible), a “new” officer who had not been involved in the original case, or maybe an independent law enforcement officer not affiliated with the focal police department at all? Given that this might be a traumatic event for victims, perhaps notification should be conducted by a different discipline entirely, such as an advocate or perhaps a forensic nurse? Whoever will be conducting the notifications, how can we prepare these professionals for this complex task?
- How should victims be contacted → Is there a “best” way to contact victims? What’s the right way to deliver this information—By letter? By phone? In person? What are the safety, privacy, and confidentiality issues of different methods of notification?
- What should notification personnel say to victims (whether by letter, phone, or in person) → What information can and should be shared with victims—and when? If victims are highly traumatized by the notification, what will they be able to absorb and remember? Should there be an apology, and if so, what should the notifying personnel say—and are there legal liability implications of an apology?

- To what extent should notifications be “standardized” (i.e., following specific step-by-step protocols) → Given that each victim is unique and each case is unique, what’s the best way to balance case-by-case considerations with ensuring that all notifying personnel cover key components and all victims receive core services?
- How can notifying personnel (specifically) and the community (generally) support victims → What resources and supports might victims need immediately, short-term, and/or long-term? What is the best way to connect survivors to services and resources? How can we prepare providers to work with victims whose kits/cases might be re-opened after many, many years?

The Detroit collaborative decided to have a two-day retreat in order to allocate sufficient time to discuss these issues in-depth and to craft a pilot protocol—a well-developed, but still provisional plan that would be implemented with a small number of cases and evaluated by the research/evaluation team to determine what strategies and methods were well-received by survivors. Then, based on those data, the collaborative would revise the protocol accordingly. For that retreat, the research/evaluation team synthesized the group’s discussions thus far (i.e., discussions that occurred prior to the retreat) and organized them into a decision tree, outlining the different choice points and the “pro’s” and “con’s” identified (so far) of each option. This decision tree was then used as a guiding framework for the retreat and was instrumental in facilitating the development of a protocol. This decision tree can be found in *Appendix C: Victim Notification Resources*, and it may provide a useful framework for other communities as they develop victim notification protocols. Figure 5.1 “*The Step-By-Step Process of Creating the Detroit Victim Notification Protocol*” (following pages) describes how the Detroit collaborative developed the pilot protocol. Figure 5.1 lists each issue that had to be resolved, the discussion and debate about how best to address each issue, and decisions made by the collaborative team (and why they decided what they did).

**FIGURE 5.1 — The Step-by-Step Process of Creating the Detroit Victim Notification Protocol**



## ISSUE 2

WHAT SHOULD BE ADDRESSED AND DISCUSSED DURING THE TWO DAY VICTIM NOTIFICATION RETREAT?

**DISCUSSION 2A.** The materials from the presentations on victim notification needed to be synthesized into “choice points” and decision tree flowcharts that could be used to guide discussion at the retreat.

**DECISION 2A.** The decision tree flowcharts developed identified 9 key questions to be discussed at the retreat. (SEE 9 QUESTIONS BELOW)

**DISCUSSION 2B.** Recognizing that the multidisciplinary team had varying opinions about the victim notification process, developing a plan for how all voices would be heard at the retreat was essential.

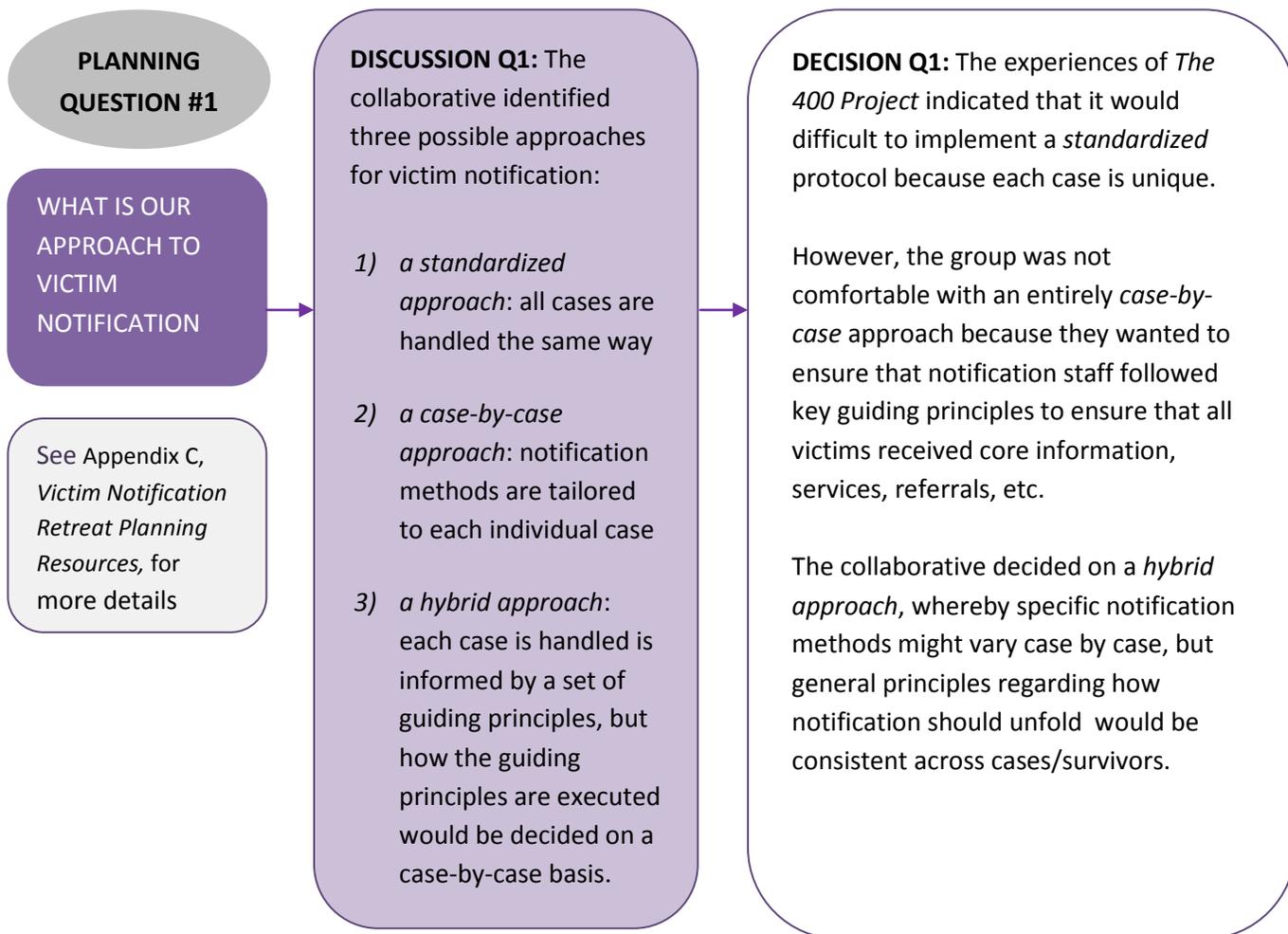
**DECISION 2B.** The national violence against women advocacy foundation (a member of the collaborative) identified a professional facilitator to guide the retreat. The facilitator had substantive experience working with trauma survivors & process experience helping communities develop service programs.

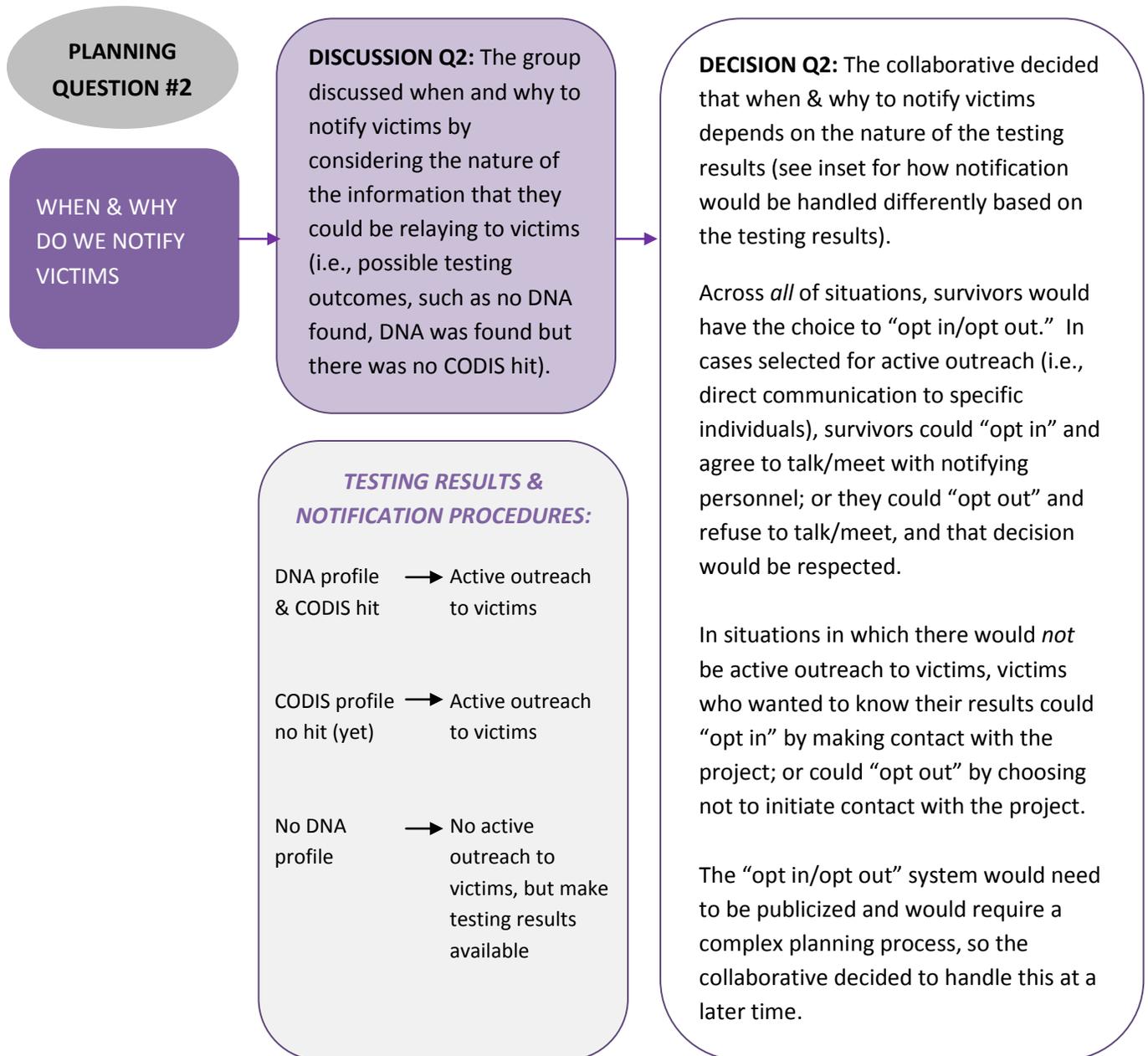
**DISCUSSION 2C.** The group wanted to leave the retreat with a draft of the protocol & therefore needed to reach an agreement on each decision.

**DECISION 2C.** To expedite decision making, representatives from each discipline were high-ranking individuals who had the authority to make decisions on the behalf of their organizations. The facilitator guided the group to reach consensus.

### *9 KEY QUESTIONS TO CONSIDER WHEN DEVELOPING A VICTIM NOTIFICATION PLAN:*

1. How will we approach victim notification?
2. When and why do we notify victims?
3. Who makes the decision that a victim will be notified?
4. What do we hope to achieve in the first contact with the victim?
5. Who should contact the victim first?
6. How should first contact be made?
7. What info should we give victims during the first contact?
8. What happens after initial contact? In subsequent contacts?
9. How should victim notification staff be trained?





**PLANNING  
QUESTION #3**

WHO MAKES THE  
DECISION THAT A  
VICTIM WILL BE  
NOTIFIED?

**DISCUSSION Q3:** While there were guidelines for which cases would receive active outreach, the group noted that there are many times in which active outreach would need to be carefully considered (e.g., there was a DNA/CODIS hit, but the case is SOL-expired) and wanted to create a mechanism for review & decision making.

**DECISION Q3:** The collaborative decided to form a multidisciplinary Victim Notification Review Team (NRT), which would be tasked with reviewing testing results, deciding whether to notify victims, and discussing how best to approach each victim, given what was known about their cases and the circumstances of their lives. The team would consist of front-line practitioner representatives from law enforcement, the prosecutor's office, community advocacy, systems advocacy, and SANE.

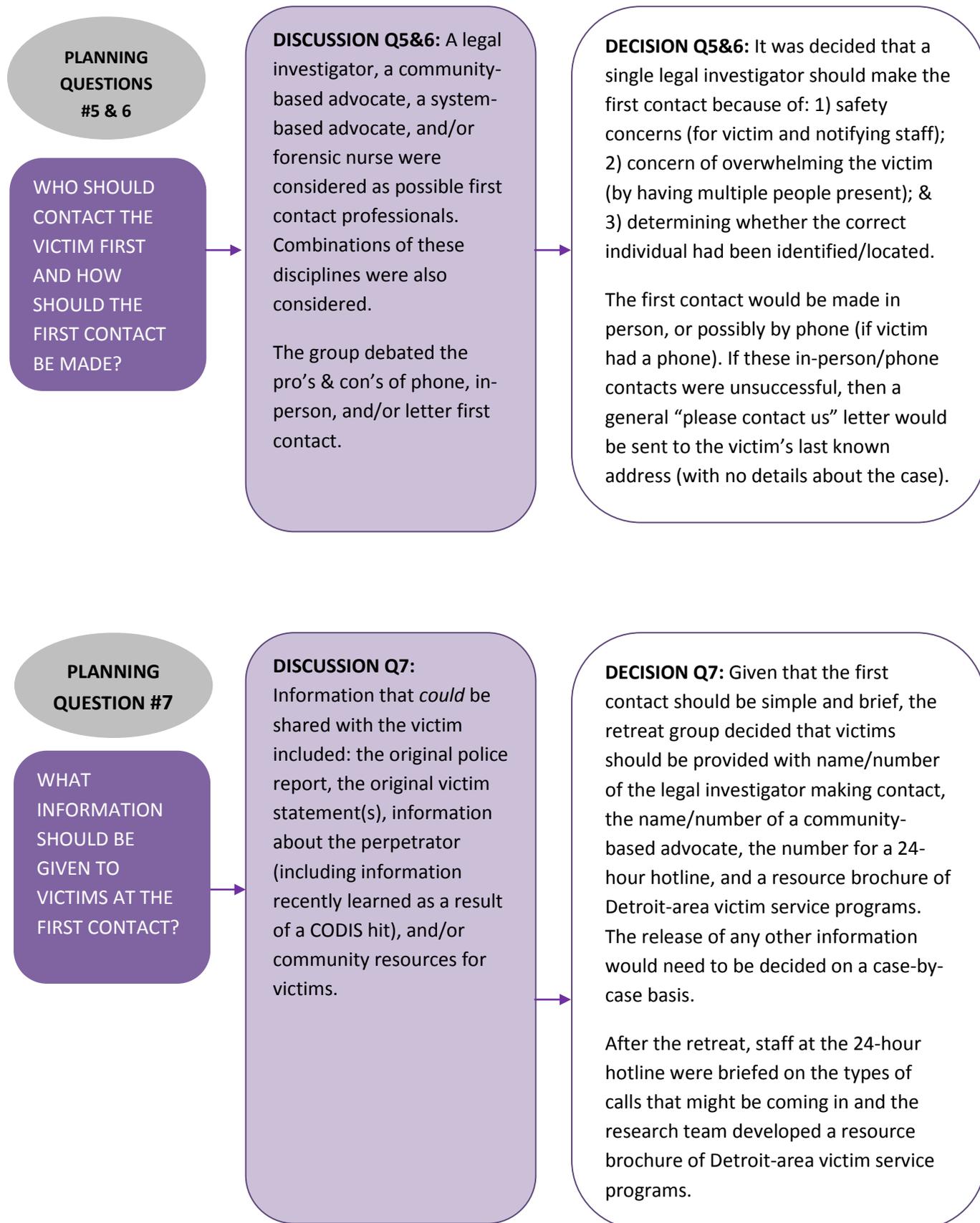
**PLANNING  
QUESTION #4**

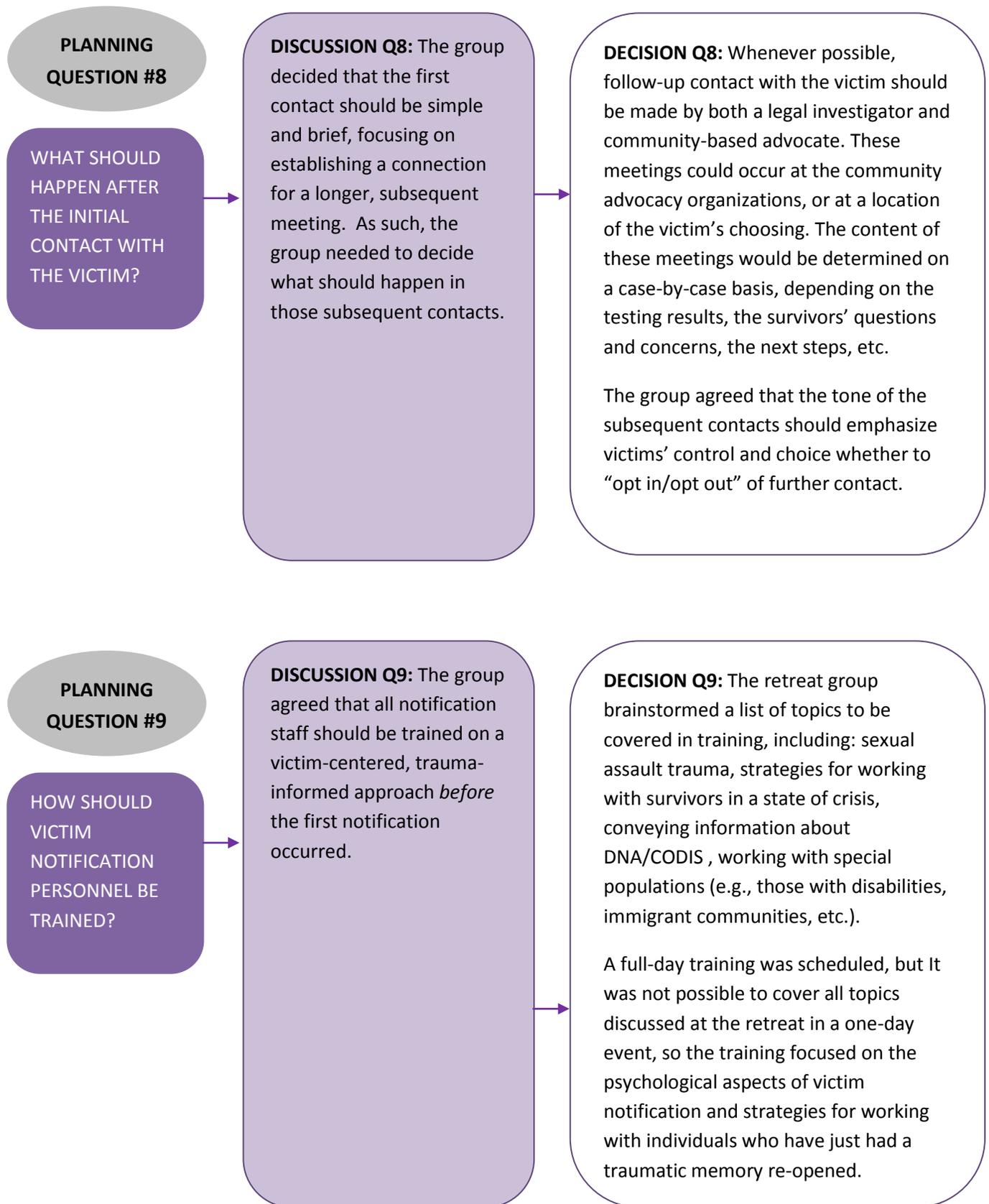
WHAT DO WE  
HOPE TO  
ACHIEVE IN THE  
FIRST CONTACT  
WITH THE  
VICTIM?

**DISCUSSION Q4:** Some members of the collaborative felt that the first meeting should focus on locating the victim, verifying that the correct person had been found, and trying to set up a follow-up time for a more in-depth discussion of the issues at hand. Others felt that the first contact could/should "do more," such as sharing case information with the victim, providing the victim with services/referrals for services, etc.

**DECISION Q4:** In the end, the group decided that the initial contact with the victim should be simple and brief. The notifying staff should provide an apology to the victim that acknowledged that the victim's SAK had not been tested previously & should also convey concern for the survivor and her/his well-being.

The first contact should attempt to set up a time for a more extended discussion about the testing results and options for next steps. However, if the victim expressed readiness and willingness for a more in-depth discussion at the time of first contact, that decision should be respected and then the notifying staff would have a more extended first meeting.





### ISSUE 3

SHOULD THERE BE A PUBLIC APOLOGY REGARDING THE UNSUBMITTED SAKs?

**DISCUSSION 3.** During the victim notification retreat, there was extensive discussion as to whether there should be a public apology to victims because SAKs had not been consistently tested for many years. There was marked disagreement surrounded whether a public apology was warranted, and if so, which organization(s) would issue the apology. Some local police expressed concern about the legal risks of an apology/admission of wrong-doing while others did not feel there had been wide-spread wrong-doing. Other organizations did not want to be associated with an apology because the local police department was ultimately responsible for SAK submission.

**DECISION 3.** A national legal ethicist was consulted after the retreat to learn more about the legal ramifications of a public apology and its potential impact on survivors. This consultation suggested that it would be unlikely that the organizations involved would face negative legal repercussions and that a public apology would likely be meaningful and reparative for survivors. However, in the end there was not broad-based, multi-organizational support for a issuing a public apology.

The collaborative partnership agreed (as noted previously) that individual victims should receive an apology when contacted/notified by the legal investigators/community-based advocates. However, the group could not reach consensus about a public apology, and so one was not issued during the time of this project.

## ISSUE 4

HOW SHOULD THE VICTIM NOTIFICATION PROTOCOL DEVELOPED AT THE RETREAT BE EVALUATED?

**DISCUSSION 4A.** The group wanted to try out the protocol with a relatively small number of cases, approximately 25-30, and then re-assess how it was working and consider changes.

**DECISION 4A.** The research/evaluation team developed tracking tools that would chart the steps/efforts taken by the legal investigators to find victims for notification. The investigator's perceptions of the contact would also be recorded.

**DISCUSSION 4B.** The research team wanted to collect the advocates' perspectives regarding how the notification process unfolded. VAWA confidentiality requirements did not allow the advocates to provide case-by-case feedback.

**DECISION 4B.** The research team worked with the State government violence against women agency to develop a mechanism whereby advocates could give generalized feedback regarding their perceptions of how the first 25 - 30 notification cases unfolded.

**DISCUSSION 4C.** The research/evaluation team wanted to interview victims regarding their notification experiences; however, the prosecutor's office staff expressed strong concerns about this.

**DECISION 4C.** If a case could still be adjudicated, any individual having contact with the victim could be called as a witness. Although the researchers would not be able to testify (per research confidentiality), explaining that refusal to a judge/jury would complicate matters. The Prosecutor decided that the researchers could not have contact with victims until the adjudication process was complete.

**Note:** The collaborative agreed that the NRT meetings could be observed by the research/evaluation team for evaluation purposes, and per the IRB, no revealing information from those discussions could be disclosed.

## The Detroit SAK Action Research Project Pilot Victim Notification Protocol

### *Guiding Principles*

The core guiding principle of this protocol is that notifications should be *victim-centered* and *trauma-informed*. Drawing on the work of the Sexual Violence Justice Institute (2008), *victim-centered* means:

- The victim is at the center of all decisions regarding recovery and any involvement with the criminal justice system;
- Victim's choice, safety, & well-being is the focus;
- The needs of the victim are everyone's concern and a collective effort (not just the task of one discipline, such as victim advocacy).

Consistent with the work of the National Center on Domestic Violence, Trauma, and Mental Health (2011), *trauma-informed* means:

- Attending to victims' emotional safety, as well as their physical safety;
- Strengthening victims' capacity to recover from the traumatic effects of abuse and violence by providing information, resources, services, and support;
- Educating victims, service providers, and the general community about the impact of trauma on survivors' health and well-being.

To that end, all Detroit collaborative team members and all personnel involved in victim notifications participated in a full-day, victim-centered, trauma-informed training that covered:

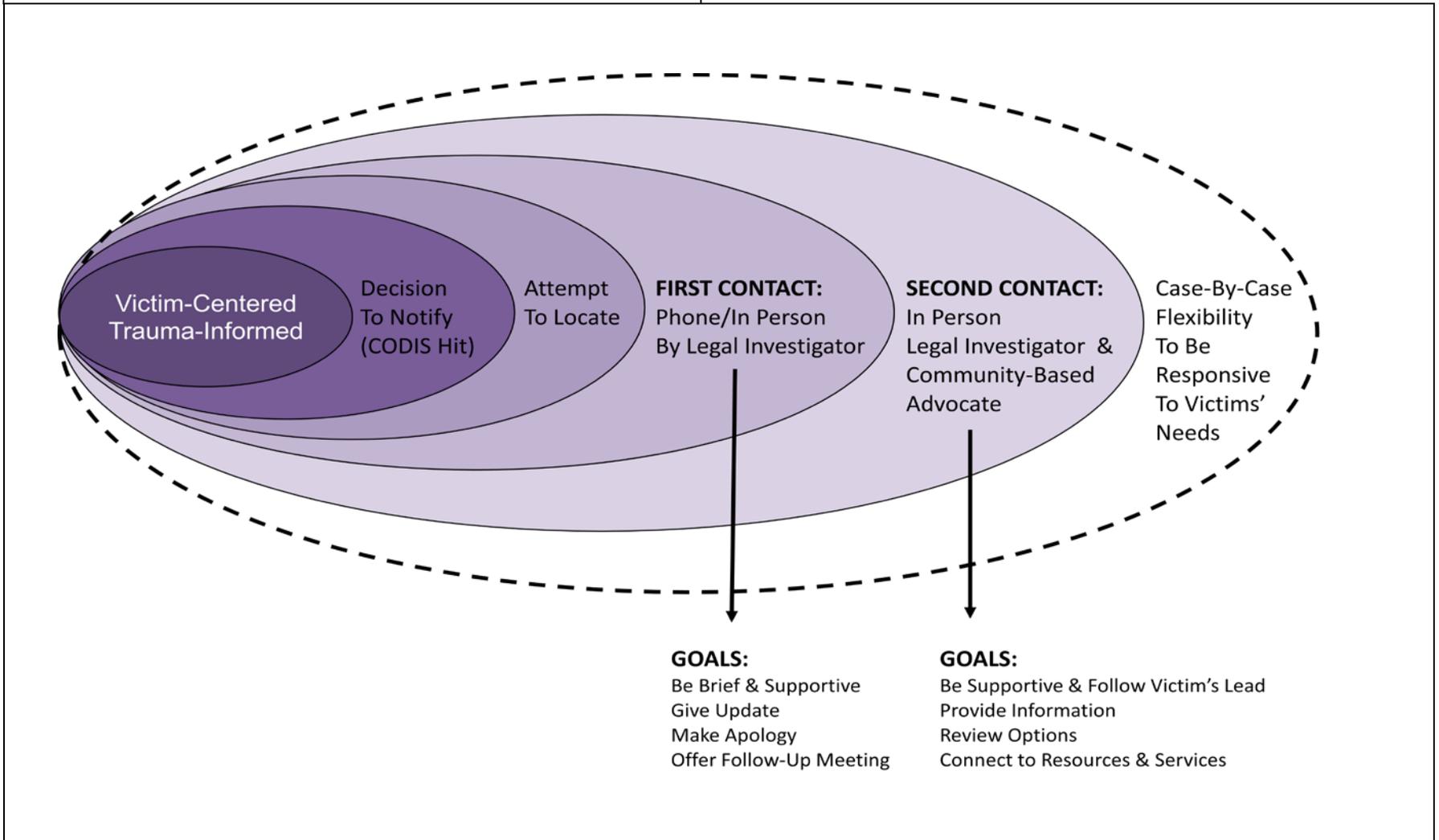
- The neurobiology of trauma (general and specific to sexual assault);
- Strategies for working with individuals in crisis/active trauma response ;
- Strategies for conveying complex information about DNA, CODIS, and the legal system in ways that are accessible for survivors (a FAQ document was later created based on these discussions);
- Strategies for self care for notifying personnel.

### *The Detroit Pilot Victim Notification Protocol*

Figure 5.2 (next page) summarizes the pilot protocol that was created in the victim notification retreat (and to be evaluated by the research team, see next section). In the context of this action research project, victim notifications would be initiated only if the testing results had yielded a CODIS hit (see Figure 5.2, second oval). The number of SAKs that results in a CODIS hit was unexpectedly high given initial projections from *The 400 Project* (see *Chapter 4: Developing & Evaluating a SAK Testing Plan*), and the organizations involved in this project simply did not have sufficient resources to expand victim notification to include other testing outcomes (e.g., testing did not produce a CODIS hit, testing did not yield DNA, etc), though this may occur in the future. The pilot protocol stipulated that the prosecutor's office would review the cases that had CODIS hits, and from that pool, select cases to present to the multidisciplinary Notification Review Team (NRT).

At the victim notification planning retreat, the collaborative decided that the NRT should consist of local-level practitioners from the police, prosecutor's office, system-based advocacy, community-based advocacy, and SANE/forensic nursing. Specific individuals from each of these organizations were selected by the collaborative to serve on the NRT, based on their experience working with sexual assault survivors. Though the Detroit SAK ARP had members from state-level and national-level organizations, the initial decision at the retreat was that only Detroit-based practitioners should serve on NRT, as these were the professionals who would be working directly with survivors. To respect victims' privacy, only those individuals who were need-to-know should be present in the NRT meetings. In practice, the composition of NRT changed and representatives from state-level and national-level organizations did participate, given that there were complex victim advocacy issues pertaining to confidentiality that needed to be discussed and the group felt that broader-based input would be helpful (see Figure 5.3., "*Challenges & Solutions Encountered Implementing the Detroit SAK ARP Victim Notification Protocol*").

**FIGURE 5.2 — The Detroit SAK ARP Pilot Victim Notification Protocol**



The prosecutor's office decided which cases would be presented to NRT, though there was agreement among members of the collaborative that time-sensitive cases (e.g., near statute of limitations expirations, identified-offenders who were about to be released from prison, etc.) should receive priority. The prosecutors also agreed that they would present both stranger-perpetrated and non-stranger-perpetrated cases to the NRT so that the team could consider if and how notifications might unfold differently depending on whether the victim knew her/his assailant. The NRT was tasked with deciding whether to notify and considering how the facts and circumstances of the case might shape how best to reach out to the victim. For example, if the assault was an intimate partner sexual assault that occurred in the context of domestic violence, the NRT would thoroughly discuss safety considerations for the notification. To be clear, NRT was not tasked with deciding whether a case would be prosecuted—that decision was solely that of the prosecutor's office.

After the NRT had decided to notify a victim, law enforcement personnel affiliated with the prosecutor's office—not the focal police department—would begin trying to locate the victim (see Figure 5.2, third oval). Many large prosecutors' offices have an investigative unit, staffed by law enforcement officers who work with the prosecutors on cases that might be moving forward for prosecution. In this project, the decision to have these investigators (i.e., those affiliated with the prosecutor's office) conduct the notifications was based on two key factors. First, the focal police department was still investigating cases emanating from *The 400 Project* and they did not have sufficient staffing available to work on new "old" cases. Second, the process of reviewing case files associated with previously unsubmitted SAKs clearly indicated that many victims did not have a positive experience with the focal police department (see *Chapter 3: Why So Many Unsubmitted SAKs in Detroit*). Indeed, many victims were treated in victim-blaming, insensitive ways that likely exacerbated their trauma and distress. Therefore, the Prosecutor decided that different investigators, not affiliated with that department, ought to conduct these notifications.

Once the prosecutor's office law enforcement investigators had a probable location for the victim, they would make an in-person attempt to meet with the victim (or by phone, if in-person was not feasible) with the goal of establishing a brief, supportive first contact (see Figure 5.2, fourth oval). The investigators would first verify that they had in fact identified/located the correct person, and if so, they would then introduce themselves and explain that they were part of a group in Detroit working on old criminal cases. The investigators would ask victims whether they remembered making a report to the police (e.g., "Do you remember making a report to the police in 2004?") (rather than announcing that they were there because of a reported sexual assault); the investigators would then go on to explain that they had additional information on the case that may allow the criminal justice system to proceed with an investigation and/or criminal charges (see *Appendix C: Victim Notification Resources* for a FAQ document with sample language as to how this information could be explained). Victims would then be asked if they were interested in having a follow-up meeting with the investigators and an advocate to discuss next steps. All victims would be provided with a comprehensive packet of community resources (see *Appendix C: Victim Notification Resources*).

If the survivor was interested, a second meeting would be scheduled, usually at the community-based advocacy organization, for an extended discussion about possible next steps and community resources and services (see Figure 5.2, fifth oval). At that meeting, the investigators and advocate would meet with the survivor—and any support persons s/he wished to be present—to discuss the testing results and next steps in more detail. At the conclusion of that discussion, survivors would be offered an opportunity to meet privately with the advocate in a confidential setting.<sup>89</sup> For victims who were interested in continued contact with the criminal justice system, the advocates would offer their continued assistance and involvement, if desired by the survivors.

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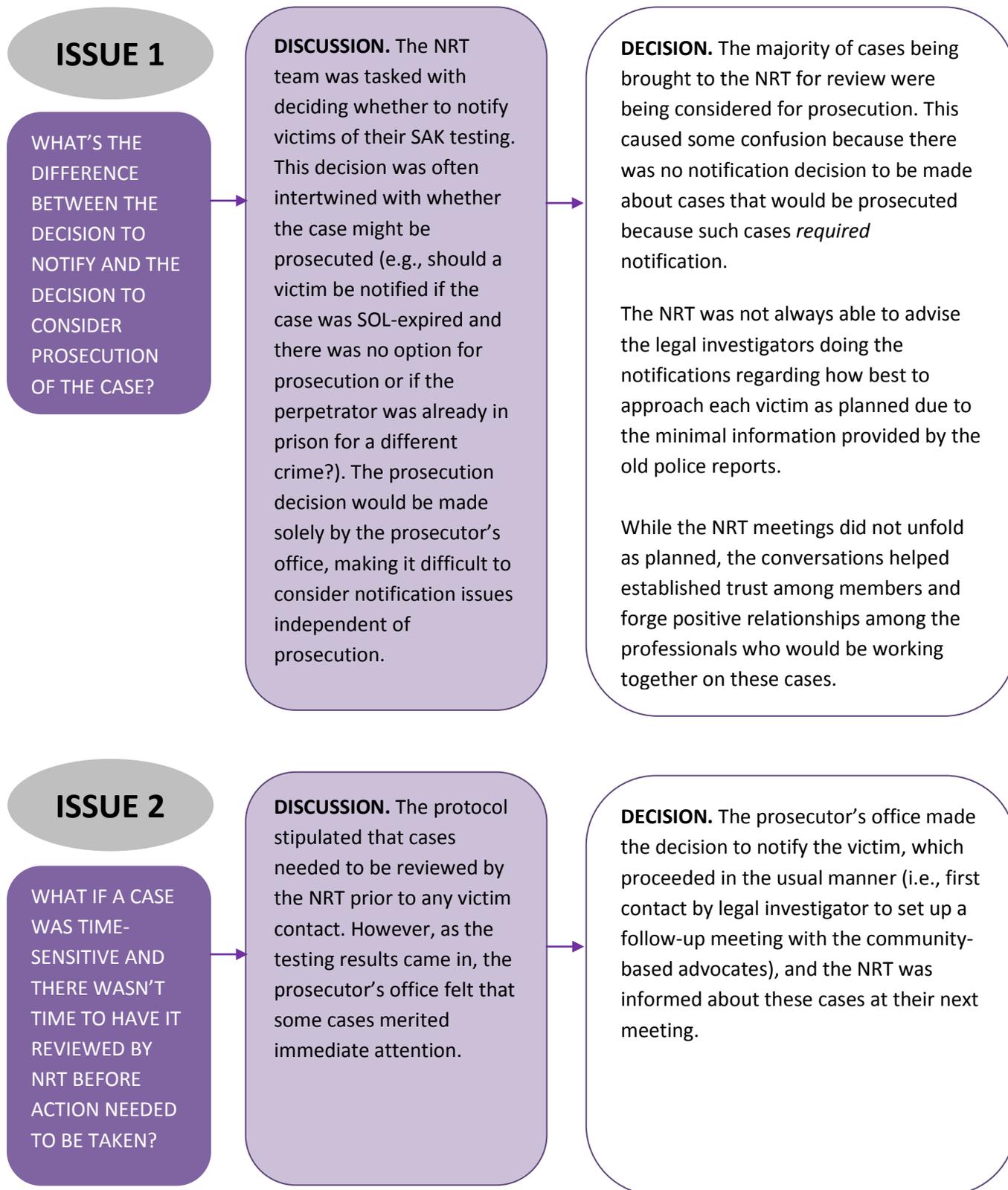
<sup>89</sup> A key reason why community-based advocates were selected to be part of this second meeting is that they could offer survivors confidential communication (i.e., the advocates would not be able to disclose anything the survivor said to the investigators or prosecutors, without written authorization from the survivor).

Throughout each step of the notification protocol, investigators and advocates would have the flexibility to modify strategies as needed to be responsive to the specific needs of the victim (see Figure 5.2, sixth oval). For example, if the victim wanted more information and a more extended discussion at the first contact, then the investigators would try to loop in the advocate either to join them at a specific location or to be “on call” if needed, and then they would continue with the notification meeting.

### ***Challenges Implementing the Pilot Victim Notification Protocol***

Figure 5.3 “*Challenges & Solutions Encountered in the Implementation of the Detroit SAK ARP Victim Notification Protocol*” (following pages) summarizes the key challenges the collaborative faced implementing this protocol and the solutions they developed to respond to those problems. Overall, the protocol was implemented in a manner highly consistent with its original design (i.e., high fidelity); however, the group faced many practical challenges trying to manage so many notifications, given that the circumstances of each case were indeed unique. The testing results highlighted a variety of complexities that needed to be negotiated on a case-by-case basis (e.g., what if the CODIS profile was to a consensual partner of the victim, one who happened to be in CODIS for a different crime?) Coordinating staff schedules for the two-stage notification was challenging, and the group started to develop “meeting fatigue” where the NRT meetings started to feel like “*one more thing.*” In the end, the group took a break from NRT meetings, and then decided to re-institute them with a new mission and more streamlined process.

**FIGURE 5.3 — Challenges & Solutions Encountered Implementing the Detroit SAK ARP Victim Notification Protocol**



### ISSUE 3

HOW MANY VICTIM NOTIFICATIONS SHOULD BE ACTIVE AT ANY GIVEN POINT IN TIME?

**DISCUSSION.** The timing of NRT meetings & victim notifications needed to be considered in conjunction with availability of investigators and prosecutors to pursue the case (*a 400 Project Recommendation*).

**DECISION.** NRT meetings were scheduled when the prosecutor's office investigators and prosecutors were ready to take on a new batch of cases (pending the victims' willingness to participate). As such, the NRT meetings were not regularly-scheduled, and were called ad-hoc when staff were ready to begin new notifications.

### ISSUE 4

WHAT'S THE BEST WAY TO PROTECT THE SAFETY OF NOTIFYING PERSONNEL?

**DISCUSSION.** Although the plan was for only *one* legal investigator to make in-person contact, it was often necessary to have multiple investigators at the notification, in order to protect the physical safety of the notifying staff and the victims.

**DECISION.** For some in-person notifications in some neighborhoods, it was necessary to have multiple investigators to ensure the safety of the victim & the investigators themselves. One would focus on the survivor, the other(s) would attune to the surroundings and possible threats to their safety.

### ISSUE 5

WHAT'S THE BEST WAY TO COORDINATE THE SECOND CONTACT MEETING WITH THE ADVOCATE?

**DISCUSSION.** Coordinating the "second contact" with community-based advocates became more challenging as their time was being spent following-up with victims who had been previously notified.

**DECISION 5E.** The community-based advocacy organizations worked with the state government violence against women agency to develop staffing plans whereby agencies could offer multiple guaranteed blocks of time each week in which advocates would be available for those "second contact" meetings.

## ISSUE 6

WHAT IF THE VICTIM WANTED EXTENDED CONTACT & INFORMATION AT THE *FIRST* CONTACT MEETING?

**DISCUSSION.** The first short contact/second longer contact notification was planned to give victims a chance to absorb the shock/surprise they may have experienced and to prepare themselves for the more detailed/ complicated discussion of options and next steps. If victims wanted more information at the first notification, then investigators would provide it. However, the investigators were unclear exactly how much detail they should cover at the first meeting, if the victim wanted more information.

**DECISION.** Because the investigators were unclear how much information they could provide at the first contact meeting (and because they knew the overall goal was to make sure that an advocate could be present for the victim), they were hesitant to provide extensive details to victims at the first notification, which was frustrating to some survivors. When this problem was brought to the attention of the ARP collaborative, the group decided that the investigations should have all available information on-hand and that the advocates would establish guaranteed blocks of time they could be available to come out immediately to join a notification meeting, if desired by the victim.

## ISSUE 7

WHAT IF THE PERSON IDENTIFIED IN THE CODIS HIT WAS A CONSENSUAL PARTNER OF THE VICTIM?

**DISCUSSION.** The “offender” named in an offender CODIS hit may or may not be the perpetrator of the sexual assault. It is possible that the person identified in the hit was actually a consensual partner of the victim. The legal investigators doing the notification had to discuss this issue with victims during notification.

**DECISION.** The legal investigators addressed this issue on a case-by-case basis in the notifications (i.e., the specific circumstances of the case determined how they discussed identity and possible consensual partners).

## ISSUE 8

WHAT IF THE DNA TESTING REVEALED A MIXTURE OF MULTIPLE DNA PROFILES?

**DISCUSSION.** At times the SAK results revealed a mixture of multiple DNA sources, some of which had the possibility to be from a consensual partner. The legal investigators doing the notification had to discuss this issue with some victims during the notification, suggesting taking a buccal swab from said consensual partners to prevent upload of the individual's DNA profiles into CODIS.

**DECISION.** The legal investigators addressed this issue on a case-by-case basis in the notifications (i.e., the specific circumstances of the case determined how they discussed identity and possible consensual partners/mixture samples).

## ISSUE 9

HOW SHOULD THE COLLABORATIVE PROTECT THE CONFIDENTIALITY OF THE VICTIMS WHO HAD BEEN NOTIFIED?

**DISCUSSION.** Collaborative bi-monthly meetings included discussion of confidential information regarding victims and their notification process. Members of the group not directly involved with victims were present for these updates

**DECISION.** All members of the collaborative team had signed confidentiality agreements to not disclose information exchanged during team meetings, but it was agreed upon that victim notification updates should be limited to those directly involved with victims.

The bi-monthly meetings would be split into two parts; the second half of the meeting would be attended only by those who were granted access to the privileged victim notification information. These sessions were held in-person; team members were not allowed to join by phone for confidentiality purposes.

## ISSUE 10

HOW CAN MEMBERS OF THE COLLABORATIVE SHARE INFORMATION ABOUT THE NOTIFICATIONS, WITHOUT VIOLATING CONFIDENTIALITY?

**DISCUSSION.** The different disciplines involved in the victim notification process had differing rules regarding the disclosure of confidential information. The community-based advocates could NOT share information with the legal investigators about the notifications, which frustrated the investigators.

**DECISION.** Investigators wanted to know if their notification strategies were effective, but advocates could not disclose such information. A highly experienced advocate who worked for the State government violence against women agency joined the NRT meetings to provide general guidance to investigators. This allowed local advocates to uphold their confidentiality policies and investigators to ask general questions to the state-level advocate.

## ISSUE 11

HOW CAN THE MEMBERS OF THE COLLABORATIVE JUGGLE MULTIPLE TEAM MEETINGS—ARE THE NRT MEETINGS REALLY NECESSARY?

**DISCUSSION.** All of the NRT team members also regularly attended the bi-monthly ARP collaborative team meetings, and some individuals expressed frustration about the amount of time that was being spent in meetings about the cases, which left less time to work on the cases themselves.

**DECISION.** This issue was raised right before the third NRT meeting, and while the third meeting was held, the ARP decided to terminate all future NRT meetings. They decided to continue to follow the same protocol (i.e., legal investigators coordinating notifications with community-based advocates), but there would be no more multidisciplinary meetings to review cases and provide input on notification decisions. The decision if/why to notify a victim would be made by the prosecutor's office.

However, after the evaluation results were presented (see next section), which revealed that multidisciplinary collaboration and communication were important, the group re-considered this decision and decided to re-envision the NRT meetings and continue them on a monthly basis to check-in on current cases and pending notifications.

## Evaluating the Pilot Victim Notification Protocol

### *Developing the Evaluation Design*

The research/evaluation team faced many challenges developing an evaluation plan, not the least of which was that the victim notification protocol was not standardized—by design—and explicitly permitted case-by-case flexibility. A non-static, changing evaluand is not uncommon in evaluation, particularly in complex, developmental projects (see Patton, 2011), and an evaluator can still make reasonable inferences about a program and its efficacy, provided that there are clear guiding principles, processes, and anticipated outcomes (and there were for this protocol) (see *Appendix B: Project Methodology* for extended discussion on developmental evaluation theory and practice).

It was not possible for the evaluators to be present to observe the notifications and collect real-time, prospective data. As noted in Figure 5.1, there were concerns about protecting the physical safety of the investigators (given the rates of violent crime in many Detroit neighborhoods), so much so that the advocates did not attend the first contact; these same concerns extended to the research team as well. However, even if it were possible for the evaluators to observe the notification, we would not have, as doing so would have violated the survivors' privacy. The focus of the notification needed to be on the survivors and their well-being—not data collection. It might have been possible to ascertain victims' willingness to have a researcher attend the second notification meeting, but the collaborative partners and the research/evaluation team concurred that doing so was inadvisable, as again it might have shifted the focus from the needs of the survivors. Therefore, data collection would need to be retrospective accounts from the investigators, advocates, and perhaps the victims as well.

We developed data tracking tools for the investigators to record the specific steps and strategies they used to locate victims and their perceptions of what happened in the notification meetings (see *Appendix D: Data Collection Instruments*). Ideally, we would have liked to have had comparable data collection from the advocates, linked to the investigators' data so we could triangulate information

regarding what happened in the notification meetings. However, because advocate-survivor communication is confidential, it was not possible to collect data in that manner, as it would have been possible to identify which victims the advocates had worked with and connect their identities to their data. To address this challenge, the research/evaluation team met with the advocacy organizations and their state funders to explore options for collecting data from the advocates in ways that would not violate confidentiality. We agreed that the advocates would record their perceptions of what happened in each case where they had been involved in victim notification, but that the victims' names and other identifying information about the case would not be included (see *Appendix D: Data Collection Instruments*); furthermore, the advocates would provide the data to the research team in one batch of de-identified cases so that it would not be possible for the research team to infer (based on which cases the investigators had recently completed) which victims corresponded to which records. As such, it is not possible to compare the accounts of the investigators and advocates regarding what happened in any individual notification, but this methodological limitation could not be avoided given the confidentiality requirements of the organizations involved in this project.

We wanted to interview victims after their notifications to assess their perceptions and solicit their feedback on how to improve the notification protocol. However, the prosecutor's office staff had concerns that the evaluators could possibly be called as witnesses in the case (if we had contact with victims pre-adjudication). Although the evaluators could not testify as to the content of their work, the process of explaining that refusal to a judge/jury would complicate matters. Therefore, the Elected Prosecutor decided that the researchers could not have contact with victims until post-adjudication. At the time this evaluation was being conducted, there were only two cases in which the victims had been notified and the adjudication was complete (because in those instances, the cases would not be prosecuted); all other notifications were still in the process of investigation and possible prosecution. As such, data collection from survivors was not possible in the context of this evaluation and its timeline.

### *The Decision to Notify: Selecting Cases for Victim Notification*

During the one-year evaluation period of November, 2012 to December, 2013, there were three multidisciplinary notification review team (NRT) meetings. The first meeting took place in November 2012. Six practitioners attended the meeting, representing four organizations: the prosecutor's office, the police department, the SANE/community-based advocacy program, and a national advocacy organization partner; four members of the research/evaluation team observed the meeting. Seven cases were presented for discussion: 4 cases from Testing Group 1 (Stranger Rape Cases) and 3 cases from Testing Group 2 (Non-Stranger Rape Cases).<sup>90</sup> The second NRT meeting took place in April, 2013 with nine people in attendance, representing the five organizations (the four listed above for the first NRT meeting, plus the police department's victim advocacy program); one member of the research/evaluation team observed the meeting. Eighteen cases were presented for discussion: 13 cases from Testing Group 1 (stranger-perpetrated); 5 cases from Testing Group 2 (non-stranger-perpetrated). The third and final NRT meeting that took place during the evaluation period was in August, 2013. Six people attended the meeting, representing four organizations: the prosecutor's office, the police department, the SANE/community-based advocacy program, and a state government violence against women agency;<sup>91</sup> two members of the research/evaluation team observed the meeting. Fifteen cases were presented for discussion: 11 cases from Testing Group 1 (stranger-perpetrated) and 4 cases from Testing Group 2 (non-stranger-perpetrated).

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<sup>90</sup> More cases from Testing Group 1 (Stranger Rape Cases) were presented for review at this NRT meeting (and subsequent NRT meetings) because the lab vendor processing the Group 1 kits finished testing and reported their results back before the lab vendor processing Group 2 kits. Thus, the higher number of stranger rape cases (relative to non-stranger cases) reviewed in this evaluation is an artifact of when testing results became available (in the overall timeline of the project) and should not be interpreted to reflect differential emphasis, concern, or perceived seriousness of these types of cases relative to others.

<sup>91</sup> As noted in Figure 5.1, the community-based advocates could not discuss their cases without violating client confidentiality; therefore, the collaborative invited a highly experienced advocate who worked for the State government violence against women agency to join the third NRT meeting. This advocate was not directly involved in any of the cases, but could provide general guidance to investigators regarding victim notification. This would allow the local advocates to uphold their confidentiality policies and the investigators would be able to ask general questions to the state-level advocate.

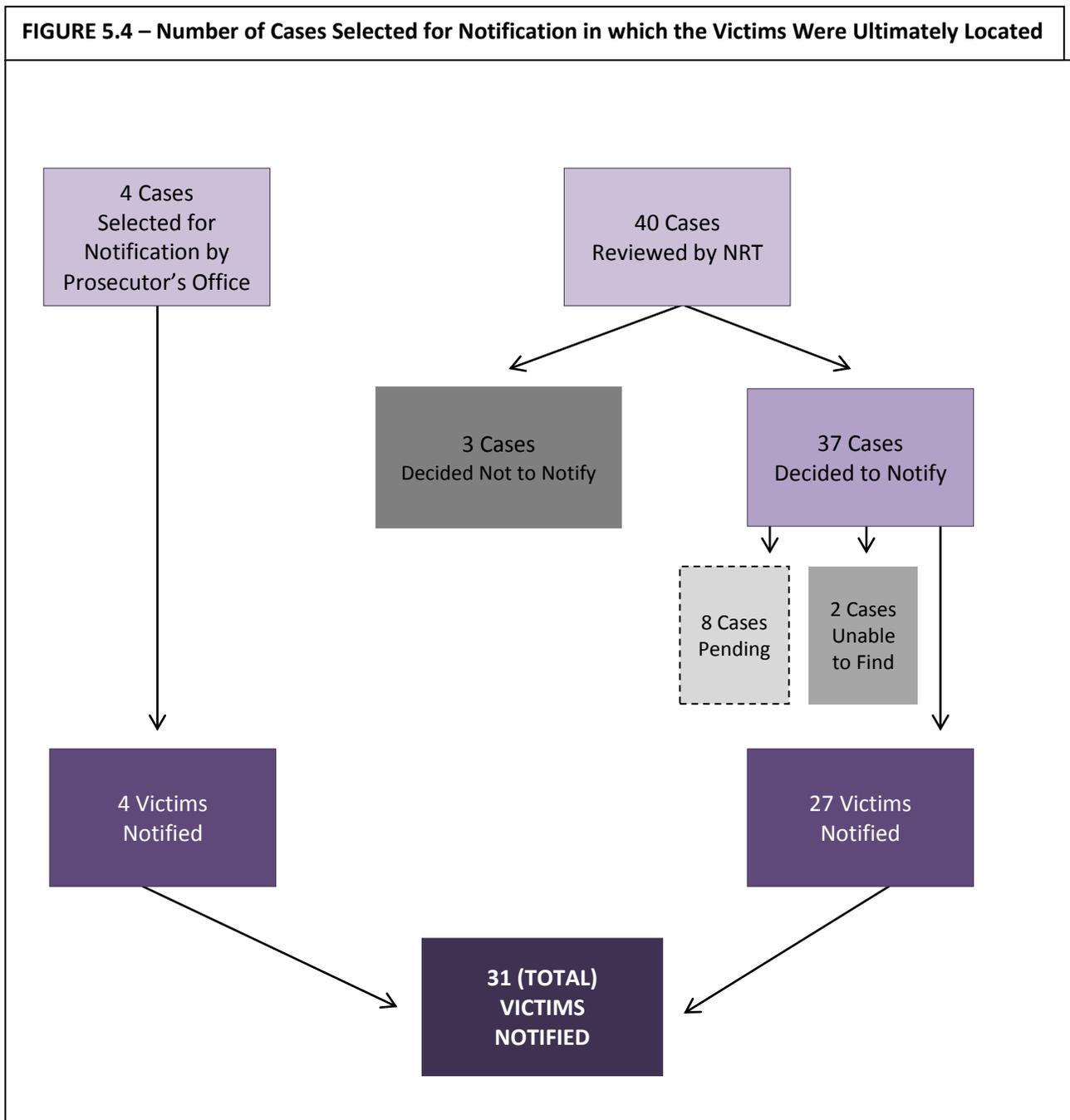
A total of 40 cases (all of which had CODIS hits, see Figure 5.2, second oval) were presented by the prosecutor's office to the multidisciplinary NRT. There were only three victims the NRT decided not to notify—all three were from Testing Group 2 (Non-Stranger Rape Cases) and all were domestic-violence related intimate partner sexual assaults. In one case, the statute of limitations had expired; in the second case, the victim had not appeared in court when initial charges had been pursued years ago; in the third case, the victim had not appeared for a warranting interview (twice) at the prosecutor's office when the initial charges were being considered years ago. In the latter two cases, NRT members felt there were clear indications in the case records that the survivors had not wanted to pursue prosecution years ago, and given specific details in the case records, re-contacting them now could compromise their safety.

Four cases were selected for notification at the discretion of the prosecutor's office (i.e., these cases were not brought before NRT for review; see Figure 5.2, the sixth oval regarding case-by-case flexibility). In all four cases, the prosecutors felt immediate notification was necessary based on the CODIS hit information and original case file materials (e.g., the CODIS hit was to an offender currently in prison, but about to be released on parole). In these four instances, the rest of the victim notification protocol was followed (e.g., looping in community-based advocacy), per the established protocol (see Figure 5.2). These four cases were later presented to NRT (after the fact) so that all members of the team were aware what had happened; in all four cases, the NRT unanimously agreed that the victims should have been notified and that emergency action had been warranted.

### ***Locating Victims: Strategies and Success Rates***

Overall, of the 41 cases selected for notification (37 cases NRT decided to notify + 4 cases selected by prosecutor's office for notification/not reviewed by NRT), the investigators were able to locate 31 victims (8 notifications were still pending at the time the evaluation concluded). Of the 33

cases with complete data, 31 had been located and notified (95% find rate). Figure 5.4 (below) shows the number of cases that were selected for notification in which victims ultimately were located.



To locate victims, investigators began by searching three primary databases to try to find the victims' current residence:

- LEIN (Law Enforcement Information Network) database = restricted use database for police officers; contains criminal records, driving records, vehicle registrations, and wanted persons. LEIN interfaces with the National Crime Information Center (NCIC) to provide information about missing persons;
- TLO Online Investigative Services database = private database available by subscription; compiles public and private sources for individual's last known addresses, phone numbers, possible relatives, bankruptcies, and social security numbers;
- NEXIS/LEXIS database = private database available by subscription; compiles legal and public-records, including local, national, and international newspapers, magazines, trade journals, wire and social media sources.

At least one of these databases was searched for all 31 victims who were notified (typically, two database searches were performed per victim, though sometimes all three). The LEIN database was the primary go-to resource (searched in n = 25 cases, yielding actionable information 88% of the time).

After obtaining addresses/phone numbers for the victims' possible whereabouts, the investigators initiated contact to verify whether they had in fact found the right person. On average, investigators made three contact attempts (range = 1-16 contacts) on each case, leading up to and including the contact in which they confirmed they had found the correct individual. Investigators averaged two in-person visits per case (range = 0-6 attempts). Sometimes investigators were successful locating victims on the first attempt, but typically, investigators had to either return to the same home on multiple occasions before they were able to speak with the victim or visit a series of addresses, ruling them out one by one. Typically, investigators made an in-person visit to a last-known address and left a

business card if they were not able to speak with anyone at the location. The investigators were then able to confirm the identity of the victim if and when s/he called back. Investigators averaged one phone call per case (range = 0 – 12 calls). For victims whose most current addresses were outside the Detroit metro area or out of state, phone contact was the sole strategy used.

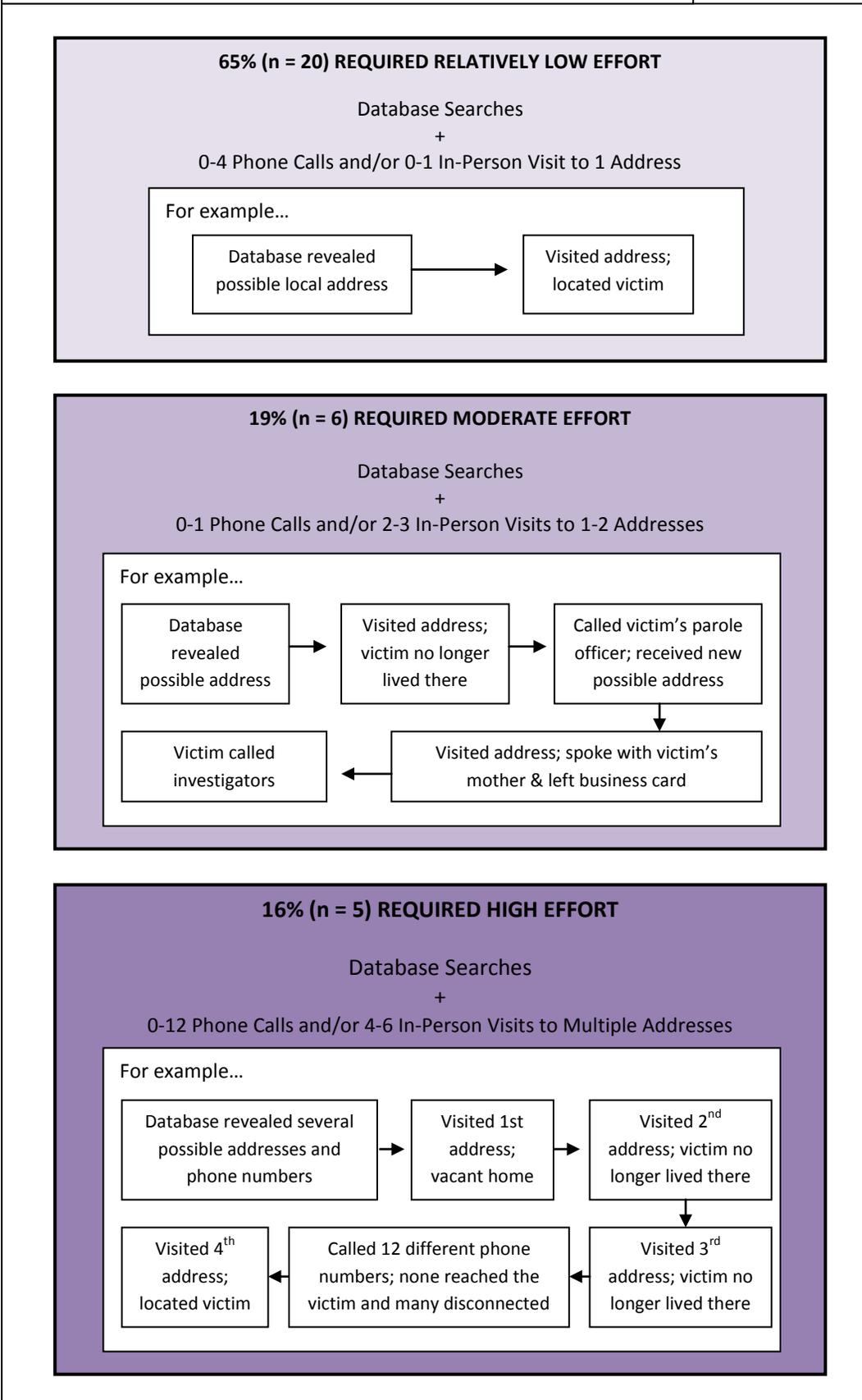
There was considerable variability in the number of in-person contact attempts and phone contact attempts that were necessary before the investigators were successful connecting with the victim (0-6 and 0-12, respectively). To understand this variability, we re-examined the data to determine whether there were discernible patterns in the effort required to locate survivors. As shown in Figure 5.5 (next page), in most cases, the victims were able to be located with relatively low investigational effort: 65% were located by conducting database searches, plus 0-4 phone calls, plus 0-1 in-person visit to one address. The remaining 35% of cases required more extensive investigational effort to locate and notify the victims: 16% required an additional 1-2 in person visits (to 1-2 addresses); and 16% required extensive efforts (6-12 phone calls and 4-6 in-person visits to multiple addresses).<sup>92</sup>

It is noteworthy that the majority of victims could be found with relatively low effort because communities struggling with large numbers of unsubmitted SAKs may be concerned about the labor expenditure of locating and notifying victims. These data from Detroit suggest that most victims can be located without tremendous investigative effort (i.e., deskwork of database searches and 0-4 phone calls, and then 0-1 in-person visits to one address). Furthermore, in this project, the average length of time between when the assault occurred and the time of notification was nine years; therefore, this evaluation suggests that it is possible to re-connect with victims after prolonged periods of time and doing so will not (in most cases) require extensive investigative effort.

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<sup>92</sup> Jumping ahead to the later stages of the victim notification protocol, the five victims in the “high investigational effort” grouping were no more or less likely than the survivors in the other effort groupings to agree to participate in the prosecution of their cases (3 yes, 2 no), indicating that the additional effort expended to find these survivors was useful in that most wanted to engage in further action on their cases.

**FIGURE 5.5 – Effort Required to Locate Victims for Notification**



### ***The First Notification Contact: Victims' Emotional Reactions to the Investigators***

In the Detroit victim notification protocol, the first contact with the victim (Figure 5.2, fourth oval) would ideally occur in person (or by phone) so that the investigator could be responsive to the victims' questions and emotional reactions. The primary goals of this first contact meeting were to explain that the SAK had not been tested at the time the victim had filed a police report; give an apology to the victim for the fact that it had not been tested; explain that it had now been tested (and in general terms, describe the testing results); and offer the victim a second, follow-up meeting to discuss the information in more detail with the investigators and a community-based victim advocate.

Of the 31 notifications that occurred during the evaluation period, most of the first contact meetings took place at the victims current residence (n=21). In three instances, the investigators made preliminary phone contact with the victim, who then requested that they table the conversation and meet in person, at a location of the survivor's choosing (one asked to meet at her place of employment, one asked to meet at a near-by restaurant, one asked to meet at the community-based advocacy organization). In seven instances, the initial notification occurred by phone (two of these seven phone contacts were in cases in which the victim no longer lived in the Detroit metro area). Most of these initial notifications were conducted by two investigators (n = 23, 74%) and the conversations lasted an average of 18 minutes (ranged from 5-45 minutes).

The investigators recorded their perceptions regarding what happened during the first contact victim notification meetings. Specifically, we asked them to describe how victims reacted when they were told that their kit had not been tested years ago, that it had recently been found and tested, and that the testing had yielded a CODIS hit. Although we do not know the survivors' internal thoughts and feelings (as we could not interview survivors until post-adjudication), their external reactions, as witnessed by the investigators, followed one of three general patterns:

- Strong negative emotional reaction (n = 5) → These victims did not want to discuss their case with the law enforcement investigators. Some of these victims were hesitant and suspicious of the investigators' intention in contacting them and inquired as to why the case was being looked into after so many years. Others explained that they now had other concerns in their life (e.g., health concerns) that superseded their assault from so many years ago (e.g., they had *"moved on,"* or *"didn't care about it anymore,"* or considered the notification a *"hassle"*). One survivor terminated the discussion abruptly because s/he became very upset and was worried s/ would get *"sick to his/her stomach."*<sup>93</sup>
- Strong positive emotional reaction (n = 9) → These victims were happy and excited to be notified that their case was now being investigated and that they might have the opportunity to testify against their assailant. That said, these victims did not always initially react positively to the law enforcement investigators. Several victims were nervous when the investigators arrived, as they thought they were in trouble or were going to be arrested, but their reaction changed dramatically when they learned that their old sexual assault case was being reinvestigated. Many victims cried because they were so happy that something was finally being done with their case; that it *"will [finally] move forward after eight years."* One victim *"stated she/he saw the news on the kits and thought hers/his was thrown out."* After being notified that the kit had not been thrown out, and that the perpetrator was serving 40 years in prison (for a different offense), the victim was *"glad he was locked up and can't hurt anyone else."*<sup>94</sup>
- Absence of a strong negative or strong positive emotional reaction (n = 17) → These victims displayed some emotion during the notification, but they did not exhibit either a strong negative or strong positive response. Many were *"matter of fact"* in talking with the investigators, though some showed some signs of emotional distress (e.g., brief episodes of crying).

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<sup>93</sup> The quotes here are from the investigators' notes regarding what victims said at the notification.

<sup>94</sup> As this example illustrates, the NRT decided to notify victims whose assailants were already in prison for other offenses in hope that such news would give them some peace of mind.

Given these different reactions, we examined whether some victims were particularly likely to have positive or negative reactions (or the absence of strong positive/negative reactions). Due to the small sample size in this evaluation, quantitative analyses were not feasible, but from a qualitative perspective, data visualization matrices can be a useful strategy for identifying patterns (see Miles et al., 2014). To that end, we examined how victims' reactions varied as a function of three variables:

- The amount of time that had passed since the assault to the time of notification → In general, sexual assault victims' distress levels decrease over time (see Frazier et al., 2004; Koss & Figueredo, 2004; Steenkamp, Dickstein, Salters-Pedneault, Hofman, & Litz, 2012), but, prior research has not examined how survivors react to an unexpected re-activation of the traumatic memory. Therefore, we examined the relationship between time since assault and victims' notification reactions. In this sample, the average length of time from the assault to the notification was nine years, from which we formed three analysis groups: 1) less than nine years; 2) nine years ago; and 3) more than nine years ago.
- Victim age at the time of the assault → Prior research has substantiated that child/adolescent victims differ from adults in post-assault mental health sequelae, coping behaviors, and help-seeking (see Campbell, Greeson, & Fehler-Cabral, 2013; Fehler-Cabral & Campbell, 2013; Finkelhor, Wolak, & Berliner, 2001; Fry et al., 2013; Jones et al., 2003; Martin, Houston, Mmari, & Decker, 2012; Zinzow et al., 2012). Furthermore, previous studies have found that criminal justice system personnel often doubt the credibility of younger victims (see Campbell et al., 2013; Campbell et al., 2012; Shaw & Campbell, 2013) (as was replicated in this project, see "*Chapter 3: Why So Many Unsubmitted SAKs in Detroit*"). Therefore, we wanted to explore whether victims' reactions to notification varied as a function of their age at the time of the assault. For these analyses, victim age was divided into three categories: 1) under 16 years old (Michigan law defines age of consent at 16); 2) between 16 and 24 years old; and 3) over 24 years old.<sup>95</sup>

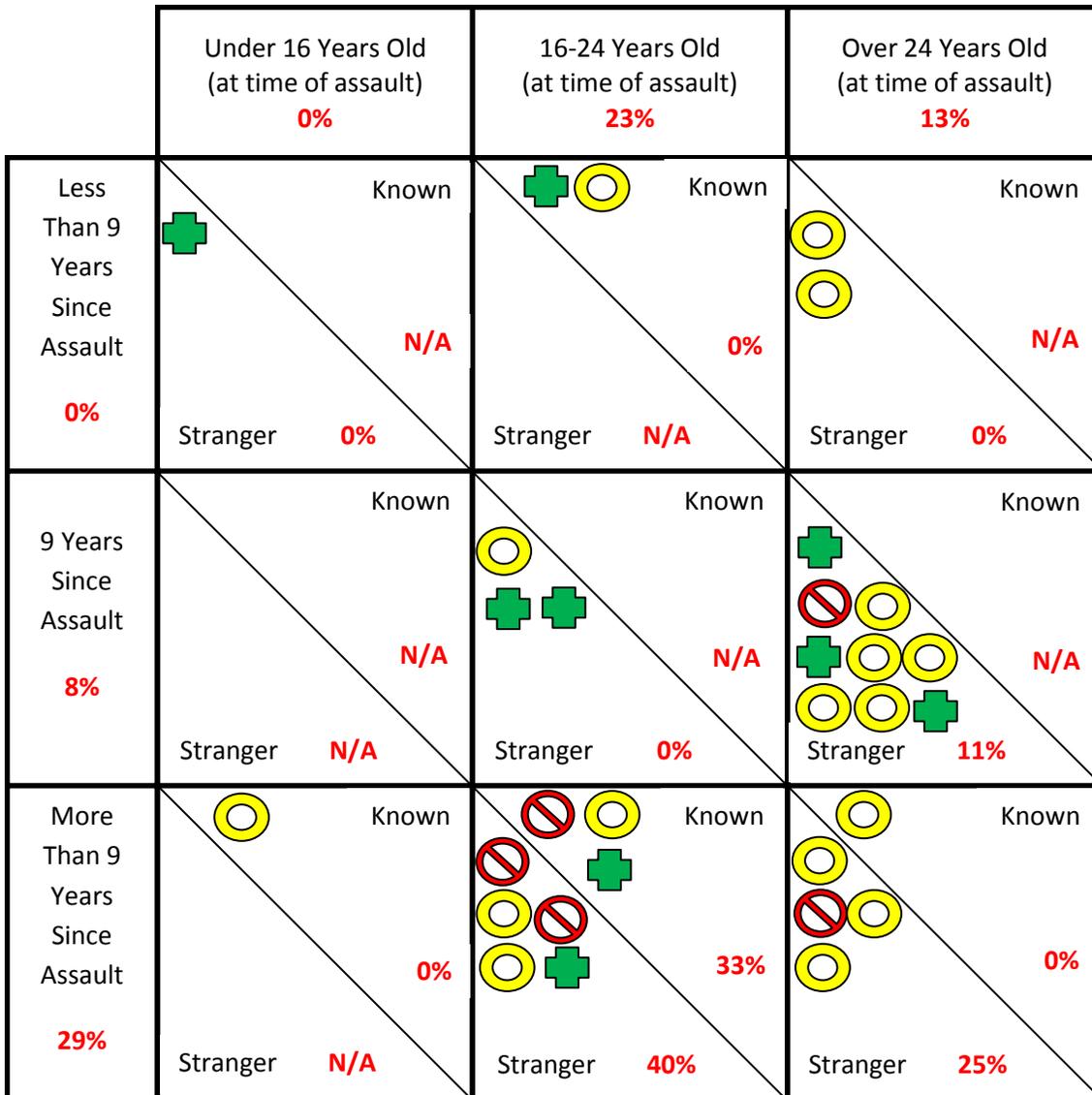
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<sup>95</sup> The age at assault for these 31 victims tended to be young (consistent with general findings of sample), with naturally occurring groupings forming at age 16 and 24.

- The victim-offender relationship → Although the psychological literature does not find marked differences in the traumatic impact of stranger-perpetrated sexual assaults compared to those committed by someone known to the victim (i.e., both are highly traumatic) (Campbell, Dworkin, & Cabral, 2009; Domino, 2012; Ullman, 2010), criminal justice system personnel tend to respond differently to victims of stranger rape (e.g., stranger rape victims encounter less secondary victimization, less victim blaming, are provided more assistance) (Campbell, 2008; Campbell et al., 2009; Frazier & Haney, 1996; Kerstetter, 1990; Spohn & Spears, 1996). Given this long-established finding in the literature, we wanted to examine if victim-offender relationship was associated with victims' notification reactions. For these analyses, we compared stranger rape victims to those who knew their assailants (by sight, friends/acquaintances, intimate partners, former intimate partners).

Figure 5.6 (next page) depicts the relationships between these three variables (time since assault to notification, victim age at time of assault, and victim-offender relationship) and survivors' reactions to the notifications. In Figure 5.6, the rows represent the time since the assault; the columns, victims' age at time of the assault; and the cell divisions, victim-offender relationship. The symbols inside the cells represent the victims' emotional reactions: strongly positive (green plus sign), strongly negative (red strikethrough sign), absence of a strong reaction (yellow open circle). The number of symbols in each cell reflects how many victims had that pattern of associations (e.g., in the upper-most left cell, there was only one survivor who was assaulted when s/he was less than 16 and was notified less than 9 years after the assault; this individual had been sexually assaulted by a stranger, and s/he exhibited a positive reaction to the notification). Using Miles, Huberman, and Saldana's (2014) methods for creating and analyzing "data display" matrices for qualitative data, our approach here is descriptive in nature, identifying possible association within the data in a hypothesis-generation approach that can inform future research with larger, more representative samples than what we had in this evaluation.

**FIGURE 5.6 – Victims’ Emotional Reactions to the First Contact Notifications**



Legend

 Victim exhibited a strong positive emotional reaction

 Victim did not exhibit a strong positive or strong negative emotional reaction

 Victim exhibited a strong negative emotional reaction

**XX %** Percent of victims who exhibited a strong negative emotional reaction

Known: **14%** Stranger: **16%**

Figure 5.6 reveals several interesting patterns in victims' emotional reactions. Perhaps not surprisingly, how victims reacted was associated with how long ago the assault occurred: 29% of victims who were notified over 9 years after the assault had a strong negative reaction to the notification; by comparison, only 8% of the victims notified at the nine-year point and 0% of the victims notified less than 9 years after the assault had strong negative reactions. The longer the period of time between when the assault occurred and when the kit was tested and the victim was notified, the more likely a survivor would have a negative reaction to the notification. As the investigators noted, many of the survivors who were angry at the notification expressed that had "moved on" with their lives.

Victims' emotional reactions may have varied to some extent by how old they were at the time of the assault: strong negative reactions were somewhat more typical among women who had been 16-24 at the time of the assault (23%, compared to 13% of victims over 24 years old and 0% of victims under 16). Prior research suggests that late adolescents may be particularly likely to have negative, victim-blaming experiences with law enforcement personnel (Campbell et al., 2012), and the results previously presented in *Chapter 3: Why So Many Unsubmitted SAKs in Detroit* indicated that younger victims (adolescents) were often accused by the police of making false reports. Therefore it seems possible that victims' notification reactions could be related to how they had been treated initially at the time of the report; however, given the nature of the data we have in this evaluation, we cannot make definitive conclusions about such an association.

Finally, Figure 5.6 suggests that victims' emotional reactions to the notification did not vary as a function of victim-offender relationship. Those assaulted by known perpetrators did not have markedly different emotional reactions to the notification as those who had been raped by a stranger (14% of known perpetrators had strong negative reactions vs. 16% for stranger perpetrators). However, only seven of the notifications were made known-perpetrator victims, so there may not be enough cases in this evaluation to detect a pattern.

### ***The Second Notification Contact: Victims' Decisions Regarding Further Involvement with the Criminal Justice System***

In the first contact meeting, the investigators asked victims if they were interesting in having a follow-up second meeting to discuss the case in more detail, review options, and meet with a community based advocate (see Figure 5.2, fifth oval). In three cases, it became clear at the first contact that there was no need for a second follow-up meeting: in one case, the statute of limitations had already expired and the notification was done simply to inform the victim about the testing results; in the second case, the CODIS hit turned out to be a match to the victim's consensual partner (not the assailant), so there was no legal case (as of yet) to be pursued; in the third case, the victim was in a group home for individuals with serious mental and physical disabilities, and she had no memory of the assault (and so no legal case could be considered). In all three instances, the investigators provided victims with their contact information (if they had any follow-up questions or concerns) and a booklet of community resources (see *Appendix C: Victim Notification Resources*). Given the circumstances of these three cases, the sample size for the evaluation shifted from  $N = 31$  to  $N = 28$  (i.e., there were only 28 cases in which a second contact was possible and legal action could be considered).

Eighteen of the 28 victims who had first contact notifications (and there was reason to have a follow-up meeting) had a secondary meeting (64%) (see Figure 5.2, fifth oval).<sup>96</sup> It is difficult to evaluate whether the 64% return rate (i.e., victims wanting a follow-up meeting) is "good" because there are no other studies in the literature of this sort. Typically, if researchers (or service providers) are trying to re-connect with victims, it is shortly after the assault (<1 week), usually with the goal of recruiting victims into studies or into treatment programs (i.e., there was an incentive for agreeing to further contact) (Campbell, Sprague, Cottrill, & Sullivan, 2011). The two-stage approach used in the Detroit victim

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<sup>96</sup> The count of 18 is based on the database used by the community-based advocates to document their interactions with victims. As noted previously, these data cannot be linked to specific victims in order to maintain victim-advocate confidentiality. However, 18 entries were made in this database, indicating that at least 18 of the 28 victims initially contacted did have a follow up meeting with the investigators and advocate.

notification protocol is somewhat analogous, in the sense that the goal was to schedule a second contact quickly—but quite different in that the length of time since the assault was much longer (and it is debatable whether participation in the long process of prosecution is an incentive; see Konradi, 2007). Campbell et al.'s (2011) review of studies that have tried to re-connect with rape survivors shortly after an assault found highly variable rates of success, ranging from 11% to 68% of victims engaging in a second contact. With that, albeit limited, basis of comparison, the 64% rate obtained in this project is quite high, particularly in light of the fact that the assault occurred on average nine years ago.

At the second, follow-up meeting, the investigator(s) and advocate explained the next steps in the investigation (e.g., follow up on medical records, steps to be taken to locate the perpetrator, the overall criminal justice system process). Then, depending on the specific case, the victim was asked to confirm his/her story as written in the original police report, was provided with a photo lineup to identify the perpetrator, and/or was asked for permission to retrieve medical records. The actions taken in each notification varied depending on the specific details of the case and the appropriate next steps. The investigators and advocates also documented what victims said regarding their interest and intent to participate further in the possible prosecution of their cases. The investigators did not press for a “you must decide now if you want to prosecute” determination, but they did assess victims’ willingness for continued participation in the investigation process.

Overall, overall 16 the 28 victims decided that they *did* want to have continued participation in the investigation and possible prosecution of their cases (57%). Again, given that there are no prior studies in the literature on victim notification in previously unsubmitted SAKs, it is difficult to evaluate whether this rate of 57% is “good.” In effort to provide some context, we searched the literature for studies that have examined crime victims’ engagement in the justice system after prolonged periods of inactivity in the case; we did not find any such research (for the crime of sexual assault specifically or for any type of crime). Therefore, we examined the literature on sexual assault victims’ experiences with

law enforcement to see if that body of work might provide some insight into what victims might decide regarding re-engagement. Campbell's (2008) review of that literature found that most victims (80%+) experience "secondary victimization" in their interactions with police (i.e., negative, victim-blaming treatment), and these encounters leave survivors feeling depressed, anxious, and reluctant to seek any further help. If victims do not want to seek further help, then it may be reasonable to infer that they would not want further contact with the criminal justice system. As such, these data would suggest that a relatively low percentage (perhaps 20%) would be willing to re-engage. Given the pervasiveness of secondary victimization documented in the police reports reviewed for this project (see *Chapter 3: Why So Many Unsubmitted SAKs in Detroit*), it seems likely that many victims would not want to re-engage, and therefore the 57% rate documented in this evaluation is quite good. However, we cannot discern exactly why victims chose to re-engage, though the victim-centered, trauma-informed approach used by notifying personnel may have been a positive contributing factor. The fact that the investigators were *not* affiliated with the focal police department may have also been influential to survivors, but we did not compare notification experiences and re-engagement rates as a function of the organizational affiliation of the investigative personnel (all notifications were conducted by investigators affiliated with the prosecutor's office).

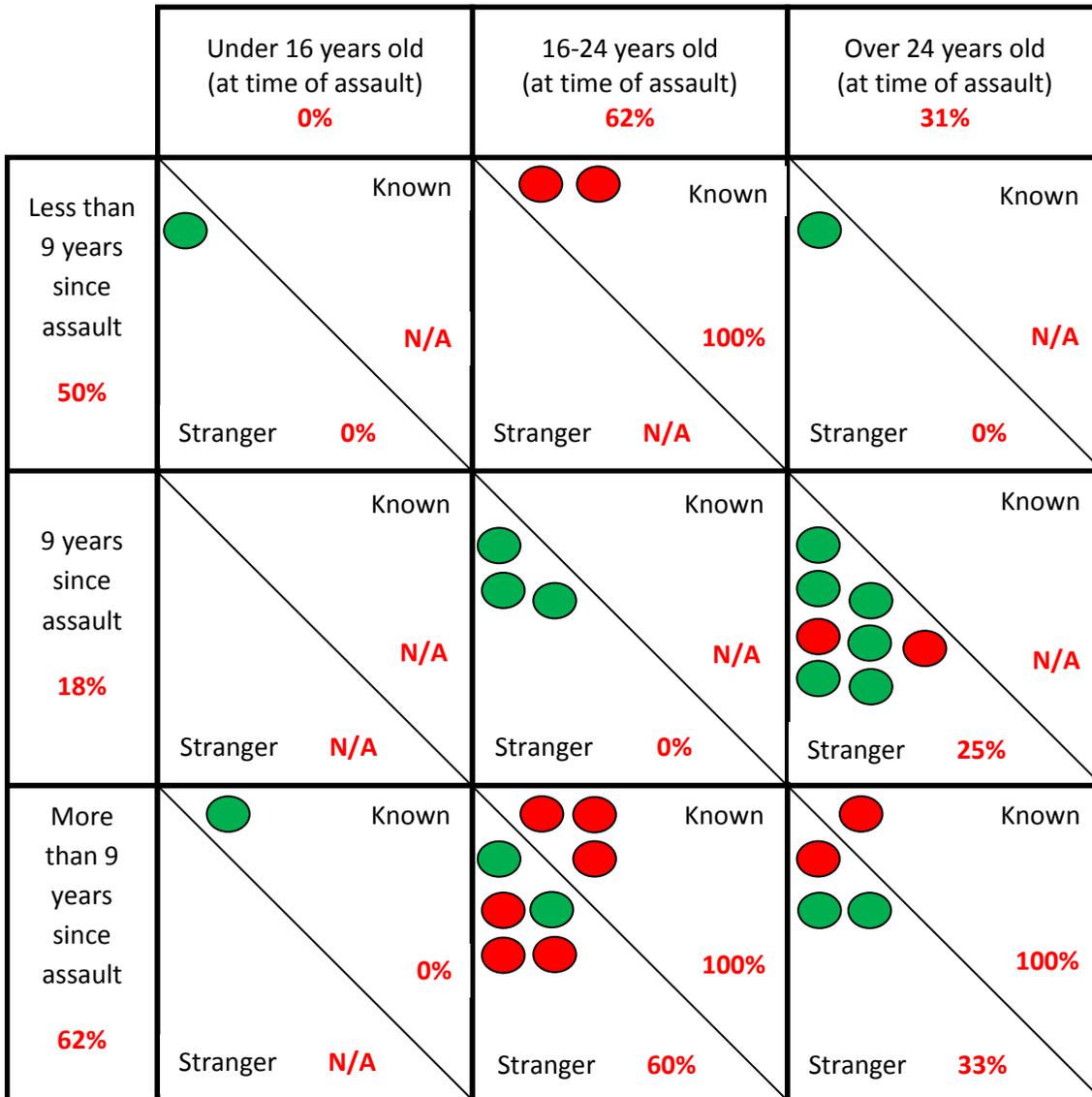
Most victims decided that they *did* want to continue involvement with the criminal justice system to pursue possible prosecution of their cases, but a sizable minority did not. Given this variability, we wanted to try to understand these patterns in the data. As might be expected, victims' emotional reactions during the notification (see section above) were related to their willingness to engage in further contact with the criminal justice system. As shown in Table 5.1 (next page), all victims who had a strong negative emotional reaction did not want any further contact (100% of those who had a negative emotional reaction). Most victims who had a strong positive reaction were more likely to agree to further contact with the criminal justice system (78% of those who had a positive emotional

reaction). Survivors who did not have a strong positive or negative emotional reaction also typically decided that they did want continued contact with the criminal justice system (64% of victims who did not have a strong emotional reaction).

	Did NOT Continue Involvement with Case 	Decided to Continue Involvement with Case 
Strong Negative Emotional Reaction (n = 5) 	5	0
Strong Positive Emotional Reaction (n = 9) 	2	7
Absence of a Strong Emotional Reaction (n = 14) 	5	9
	12/28 = 43%	16 / 28 = 57%

We also examined how victims’ willingness to have continued contact with the criminal justice system was related to the time since the assault, the victims’ age at the time of the assault, and victim-offender relationship. Figure 5.7 (next page) summarizes these findings. Time since the assault was associated with victims’ willingness to have continued contact with the criminal justice system. Specifically, 62% of victims who had been assaulted more than 9 years prior to the notification were unwilling to engage further with the investigator(s), whereas only 18% of victims who were notified 9 years after the assault and 50% victims notified less than 9 years after the assault were unwilling to continue their participation. In other words, the more time that had elapsed since the assault and the notification, victims were less willing to re-engage with the criminal justice system.

**FIGURE 5.7 — Victims’ Decisions Regarding Continued Participation in the Criminal Justice System**



Legend

-  Victim was willing to engage further with the investigator(s)
-  Victim was not willing to engage further with the investigator(s)

**XX %** Percent of victims not willing to proceed with meetings/investigation/prosecution

Known: **86%** Stranger: **29%**

Victims who were between 16 and 24 years old at the time of the assault were less willing to interact further with the investigator(s) as compared to victims who were older or younger at the time of the assault (62% unwilling for 16-24 year olds; 31% unwilling for victims over the age of 24; 0% for victims under 16 years old). Again, victims in this age group (16-24) often have negative experiences with the police (i.e., high rates of secondary victimization, see Campbell et al., 2012), and this might explain their decision not to engage further post-notification.

Finally, the nature of the relationship between the victim and the perpetrator seemed to relate to victims' willingness to participate further. Most of the victims assaulted by someone they knew (86%) were unwilling to engage further, whereas only 29% of victims assaulted by a stranger were unwilling to have continued contact. For those who were victims of non-stranger rape, the DNA testing and CODIS hit did not reveal new information (it confirmed what had previously been known about the identity of the assailant), and for reasons we do not know, they did not want to re-engage to the same extent as did victims of stranger rape. Given that only seven notifications involved a known perpetrator, it is likely that there were not enough cases in the sample to identify patterns regarding why non-stranger rape victims did not want to engage further with the criminal justice system.

### ***Investigators and Advocates Reflections on the Victim Notifications***

In addition to recording victims' reactions to the notification, investigators and advocates reflected upon their own experiences participating in the notification process. Overall, the investigators overwhelmingly described their experiences as positive and successful, feeling that they had helped start the process of bringing justice for the victim. One investigator explained that s/he, *"felt a small sense of accomplishment. It felt good to be the individual that made the notification and start the process;"* similarly, another investigator expressed that, *"it felt good to have the victim's confidence restored in the police at the end of our initial meeting."* Investigators also noted that they were happy to

see as many victims doing well in their lives as they did; as one described, “*she (the victim) was in a good place with her family, children, schooling, and had a plan with her life now.*” Both the investigators and advocates felt tremendous empathy for the victims and were humbled by bearing witness to survivors reliving the experience so many years after the assault.

In their reflections, the investigators and advocates noted several important lessons learned about victim notification (see also, Figure 5.9 at the end of this chapter). With respect to locating victims, investigators reported that “*hitting the streets*” and talking to the victims in person worked best because so many victims would likely not have been willing to talk via phone. One critical detail was the decision for the investigators to arrive in an unmarked car and civilian attire (i.e., not a police uniform). One investigator reported that a victim “*became nervous for a minute and was worried [the investigator] was in a police car . . . [the victim] commented that [s/he] did not want the neighbors to see police at the house [s/he] was staying.*” Similarly, another victim “*did not want [his/her] other family members to know and decided to tell them [the investigator] was a Jehovah Witness.*” If the investigator(s) had arrived in marked vehicles and/or uniforms, there would have been considerable unwanted attention—and uncomfortable questions—for the victims. Sometimes the investigators helped survivors come up with a credible “excuse” they could give friends, family, neighbors as to why they (the investigators) were there to see them. The investigators also emphasized the importance of “*meeting on [the victim’s] terms;*” victims may request a specific time or location for safety reasons and it is important to honor their wishes. For example, one survivor requested to meet at a “neutral” location, and the investigators later “*found out the suspect comes and goes from [the victim’s] house and may be staying there from time to time.*” Meeting with victims on their terms, in person, and traveling in discreet vehicles and attire seemed to be of utmost importance.

As noted previously, victims had markedly different emotional reactions to the notification, and it was challenging sometimes for the notification staff to know how best to respond. The advocates

noted that overall the investigators did an excellent job “*remaining patient, giving the survivor time to reflect and recall response[s]...acknowledging complexity, and [the] importance of [the survivor’s] needs.*” However, the advocates noted that sometimes investigators “*move[d] too quickly through [the] questions and did not seem to give pause or show [the] typical level of sensitivity to the survivor’s reaction.*” Telling victims to “*calm down*” or attempting to touch the victim in order to comfort him/her was not well-received by the survivors. The investigators and advocates noted that it was particularly important to be attuned to the possibility that in known-perpetrator sexual assaults, there may be a history of domestic violence/intimate partner violence. In one case, an advocate noted that the victim “*appeared surprised [the investigator] understood domestic violence issues and why [s/he] may not have wanted to follow through (with the case) back then.*” The investigators had had training on the dynamics of domestic violence, which was instrumental for them building an empathic connection with survivors.

The investigators and advocates noted that the logistics of the protocol were sometimes challenging to implement. Juggling schedules to line up a date and time when the victim, investigators, and advocate were all available was sometimes difficult, but when that problem became apparent, the leadership of the advocacy organizations stepped in to address it immediately. Coordinating with the advocates was also difficult if victims wanted to “*jump right in*” at the first contact—when the advocate wasn’t there—and start discussing the case in the more detail; the investigators felt “*handcuffed*” by the protocol because the collaborative had decided that first contact should be brief and that survivors should have the option of an advocate present for more extended discussions about next steps. Again, the collaborative discussed these situations and clarified that the over-arching goal of the protocol—and the project generally—was to respect victims’ choices, so if survivors wanted to proceed immediately, they ought to be informed about the option of having an advocate, but that if they wanted to continue without one, that was their choice to do so.

Perhaps the most difficult part of the notification process for the investigators and advocates was trying to answer survivors' questions as to why—why now, why not then, why did no one believe them years ago, why were treated the way they were back then? One investigator highlighted a case in which the survivor was happy to be notified and was willing to participate in further in the investigation of the case, but was angry and saddened and *“wanted to know why no one believed [her/him] in 2005.”* The investigators acknowledged the victims' hurt and anger, reiterated their apologies, but ultimately, there is no good answer for what had happened and the pain the survivors had been put through. In this evaluation, we did not compare victim notifications conducted by the focal police department with those conducted by the investigation unit in the prosecutor's office, so we cannot determine if and how victims react differentially, depending on which organization contacted them; however, it does appear that victims often appreciated that the investigators were not affiliated with the police and that this opportunity for a fresh start with their cases was welcomed by many.

## **Summary & Conclusions: A Victim-Centered, Trauma-Informed Approach to Victim Notification**

The Detroit collaborative used a multidisciplinary team approach to develop a victim-centered, trauma-informed notification protocol, which was implemented with a small sample of 41 cases. Most of these victims were successfully located and notified (95% to date). Again, there are no published studies for comparison purposes, but objectively, this rate is quite high. Typically, most survivors (~65%) could be found with relatively low investigational effort—but that still required *“hitting the streets,”* as one investigator put it. However, the high rate of successful locations in this project was because staff invested extra effort to find as many survivors as possible, which sometimes required 12+ phone calls and 6+ in-person visits to various locations trying to find the victim. It is difficult to know, without comparative data, how the survivors in Detroit might compare to those in other jurisdictions with

respect to their “locate-ability,” but certainly there were a number of hard-to-find, transient individuals who could be found with sufficient investigational effort.

With respect to what happened in the notification meetings themselves, the evaluation findings confirmed many of the hopes—and worries—discussed by the multidisciplinary collaborative throughout the project: there is no one best way to do victim notification, each case is unique, and victims react differently to this news—some were happy and relieved, others were angry and sad, and nearly all were troubled by the fact that nothing had happened in their cases so many years ago. Despite these case-by-case variations, the evaluation findings highlighted some possible patterns in the notification data that can be pursued in future research. Victims were less likely to react positively and to re-engage the longer the time between the assault and the notification, which is not surprising and certainly underscores the importance of timely (i.e., at the time the assault) testing of SAKs and investigating reported sexual assaults. Survivors who were 16-24 years old at the time of the assault were somewhat more likely to have a strong negative reaction to the notification and were also somewhat less likely to want to have continued contact with the criminal justice system. Given that prior research has found that victims in this age group often have difficult experiences with police when reporting a sexual assault, it stands to reason that these survivors may have had difficult encounters years ago, and as such, they were disinclined to re-engage. At the time this project was conducted, only a small number of notifications had been conducted with victims of non-stranger rape, who generally were not as likely to want to continue contact with the criminal justice system post-notification.

When we presented these findings to the collaborative partners, the notifying personnel discussed how the protocol could be modified to be more responsive to the needs of victims who tended to react more negatively and decided not to engage in further contact on their cases. In particular, the group discussed how to improve scheduling and information-sharing among practitioners (within the bounds of each discipline’s confidentiality requirements) However, in the end, the

collaborative partners readily accepted the fact that some survivors may choose not to pursue their cases, and respecting that choice is essential in a victim-centered approach; as one member of the team summarized, *“our job is to support victims in whatever they decide to do, in whatever’s best for them, and to let them know that our door is always open to them if they ever change their minds or if they ever need us.”*

## CHAPTER 6: Discussion

### Summary of Findings, Implications, and Community Changes

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Detroit is one of a growing number of U.S. cities that have large numbers of untested rape kits in police property (see [www.endthebacklog.org](http://www.endthebacklog.org)). In response to this growing national-scale problem, the National Institute of Justice funded two action research projects to study the underlying causes of this problem and to develop evidence-based response strategies that can be used to help jurisdictions with large numbers of unsubmitted SAKs. To that end, the Detroit SAK ARP had four primary goals:

- 1) To obtain an accurate count of the number of SAKs in police property through a complete census;
- 2) To identify the underlying factors that contributed to why Detroit had so many unsubmitted SAKs;
- 3) To develop an empirically-based plan for testing SAKs and to evaluate the efficacy of that plan;
- 4) To create a victim notification protocol and evaluate the efficacy of that protocol.

The purpose of this chapter is two-fold. First, for each of these primary project goals, we will summarize key findings, discuss lessons learned, and suggest strategies for improving policy and practice. We will also describe the group process *within* the collaborative and offer suggestions for strengthening inter-group relations in multidisciplinary teams. Second, we will outline what has changed in Detroit's response to sexual assault since the discovery of the untested kits in August, 2009 and during the 30 months of this project. Action research projects are supposed to support empirically-based problem-solving, so we will examine the extent to which the Detroit SAK ARP served as a catalyst for change.

#### Major Findings of the Detroit SAK Action Research Project

##### *Goal 1: Determine How Many Unsubmitted SAKs in Detroit Through a Complete Census*

**Key Findings from the SAK Census.** When this action research project began in April 2011, the first task was to obtain an accurate count of how many SAKs were in police property and to ascertain

the testing status of each kit. Ostensibly, this should have been a straightforward task of culling and cross-referencing databases. It was not. The police property database inventoried what items had been entered into storage, but testing status was tracked in a separate Excel spreadsheet. Records regarding the adjudication status of the cases associated with each kit were largely paper records, dispersed across multiple organizations (police, prosecution, court, corrections). Complicating matters, police officials had not been forthcoming with information about the status of the kits since their discovery in 2009, which made other stakeholders skeptical about the accuracy and completeness of their records. Given this state of records management and growing concerns about transparency, the Detroit SAK ARP did a manual census—each kit was retrieved from police property and counted, one by one.

The manual census was a labor-intensive endeavor, which took nearly four months to complete (15 weeks) and required approximately 2,365 hours of staff time. The process of counting the kits was arduous, but one of the key goals of action research projects is to document the on-the-ground challenges of tackling complex criminal justice problems. To that end, the research team “followed along” as the collaborative conducted the census, summarizing the process into a step-by-step guide that can be used by other jurisdictions (see Figure 2.1 *“The Step-by-Step Process of Planning and Conducting the Detroit SAK ARP Census”*). The Detroit SAK ARP struggled to define the goals of the census: Just count the kits? Count and ascertain testing and adjudication status? Count and compile police reports and other documentation? At the beginning of the census, all of these aims were considered, but the group focused on counting all SAK and collecting only basic information (victim name, DOB, exam date, assault date) for each kit.

The results of this census indicated that the initial estimates made at the time of the discovery (~ 10,000 to 11,000 SAKs) were remarkably accurate: after cross-checking the census count with the police property database and weeding out the SAKs that turned out not to contain sexual assault evidence (i.e., a SAK box had been used to hold other evidence), there were 11,219 SAKs in police

property (as of November 1, 2009). In this project, we focused on identifying the testing status of these SAKs, and based on the records available, 2,512 SAKs had laboratory ID numbers, indicating that they had been submitted to the police department crime lab for testing; however, at the conclusion of the ARP, we still did not have confirmation as to the testing status of these kits. The scope of this action research project focused on the 8,707 that had never been submitted for testing.

Though we are confident in these results, there are some limitations with this component of project that need to be acknowledged. With regards to conducting the census itself, *many* different people were involved in counting the kits (e.g., assistant prosecutors, law school students, interns, ARP project staff), and though they were given clear instructions and consistent supervision, there is always the possibility that individuals understood and implemented the directions in different ways. Given that the scope of the census was narrowed relatively quickly to counting the kits and collecting basic information that was clearly demarcated on the outside of the SAKs, we are reasonably confident that the data collection was performed uniformly. Because the organizations involved in this project did not have sufficient IT resources, data collection was done on paper forms, which were then transferred to an Excel sheet (i.e., the group did not have enough laptops to allow for direct computerized data entry). However, the ARP project coordinator turned this problem into an asset: census staff would turn in small stacks of paper records, which she then immediately entered into the computer; any inconsistencies, illegible entries, or other problems could then be resolved before the kits were returned into property.

The count of the SAKs was done in a thorough, systematic way, but whether that final number truly reflects the actual number of SAKs in police custody is still subject to debate because we could only count what we were provided. To ensure that police property personnel did indeed retrieve every SAK in custody, there were meetings between senior leadership of the prosecutor's office and the police department, stressing the importance of a complete, exhaustive count. The property storage facilities

were toured by the ARP project coordinator, other ARP staff, and the research team so that all parties understood the system, could ask questions, and identify possible problems. Despite these extensive efforts, we know that some SAKs were not identified in the census. After the ARP had concluded, we were informed that when the police department main headquarters moved to a new building, the property division found an additional 37 SAKs as part of an audit they were conducting in relation to that move. These 37 SAKs are not in the census results presented in this report (as they were discovered after the fact). We highlight this anecdote both to acknowledge a limitation in our census results, and also to emphasize the difficulties of finding all SAKs for a census, particularly in large, urban jurisdictions, so that other communities facing this problem are aware of how thorough their efforts will need to be to obtain a comprehensive count.

**Lessons Learned from the SAK Census and Implications for Policy and Practice.** Throughout the multi-month process of conducting the census, the research/evaluation team kept detailed notes regarding key “lessons learned;” in addition, three focus groups were conducted at the end of the project to collect team members’ feedback regarding project successes, challenges, and lessons learned (see *Appendix B: Project Methodology*). The “could-have, would-have, should-have’s” regarding the census are summarized in Figure 6.1 (following pages). As one member of the collaborative noted, “*I hope our Monday morning quarterbacking will make life easier for another jurisdiction that has to do a complete census.*” Perhaps the most important lesson learned that the Detroit SAK ARP can offer other jurisdictions is the recommendation to “*start small:*” review a sample of kits (even as few as 10 would be informative) and “*walk (them) through, start to finish:*” figure out what information is available from what source, what information needs to be tracked in the census (vs. what information can wait to be compiled later), who (which staff members from which organizations) have access to that information and can participate in the census, and how many staff hours it will take to complete the census.

# Lessons Learned: Conducting a SAK Census

*The take-home lessons from the Detroit SAK ARP based on their experiences conducting a census of SAKs in police property.*

*“What we should have done, in twenty-twenty-hindsight, if only we’d known.”*

## 1. Bring everyone to the table

A review of kits will bring up complex legal, psychological, and evidentiary issues. Have a broad-based multidisciplinary team to ensure that diverse perspectives will be considered at every stage of the process.

Consider including representatives from:

- Police
- Prosecution
- Forensic sciences
- Medical/nursing
- Systems-based advocacy
- Community-based advocacy

## 3. Clarify language and agree on terms to be used

The extent to which team members can be consistent and precise in their language, planning and conducting the census will result in fewer opportunities for miscommunication.

## 2. Formulate goals

Establishing the goals of the project at the beginning will help streamline the process and save staffing time.

Narrowly defined goals might include simply determining the number of untested SAKs.

More expansive goals might focus on determining the number of SAKs *and* review each for SOL-risk, prosecution potential, and other such complex issues.



### *Some Terms to Consider:*

*Submitted*= the SAK was submitted to a laboratory for testing

*Tested*= the SAK was tested (for older kits, clarify whether that testing included DNA analysis)

*Adjudicated*= the SAK is associated with a case that has already been adjudicated (note: this should be cross-checked with testing status, as some cases may have been adjudicated without the testing of the kit)

*Backlogged*= the SAK was submitted to a laboratory for testing, but is still in queue at the lab to be tested

## 4. Find ALL the locations where SAKs are being stored

To obtain an accurate count of all unsubmitted SAKs, the team needs to identify all possible locations where such kits could be found.

### POSSIBLE SAK LOCATIONS:

- Police property storage rooms/facilities
- Police property overflow storage,
- Property rooms at police precinct/offices
- Specialized storage cold rooms
- Hospital emergency rooms
- SANE programs



## 5. Find out what information is computerized (and what's not!)

If the kits date back many years and/or if the law enforcement agency has been under-resourced for many years some records may not be computerized.

Determine which organizations maintain which databases, what info is already shared between organizations, and what information not currently shared could be shared with others.

## 6. Loop in IT support

Depending on what information is/is not computerized, the role of IT staff may vary. At a minimum, it is likely the team will need help crosschecking and merging files/fields.



## 7. Start small

Review a small sample of kits, even as few as 10 kits/cases. This will help clarify goals, identify available resources, determine what information is hard to track down, and gauge what resources/staffing will be necessary in the future. Use the following steps to take one SAK and walk through it, start to finish:

### Take one SAK and walk through it, start to finish

- Determine info on the outside of the kit
- Assess whether such info is important & should be included in the database
- Determine what other info needs to be tracked down according to the predetermined goals
- Determine where other info may be found
- Pull records for each test-run SAK and identify problems with this process
- Decide what fields from these additional sources should be included in the central database
- Track how many staffing hours went into "walking through" each SAK/case



## 9. Touch it once

This lesson intends to prevent later backtracking and duplicative efforts. Develop a work flow process that streamlines efforts and saves staff time and effort.

## 10. Develop a central database

A shared & accessible database for all organizations on the team to use can help ensure all can see the information and that efforts are not duplicated.

If possible, all info should be entered directly into the database instead of being recorded on hard copies.

## 11. Evaluate resources available and develop a staffing plan

The “start small” test run should provide info about the staff needed for a census. The team should develop a timeline for completion of the census and draw upon staff from multiple organizations to reach this goal.

## 12. Remember: The devil is in the details!

The census might involve physically retrieving each SAK from police property so that info on the kits can be recorded. Key logistic details to be considered include:

- Training and supervising staff/volunteers who will be handling the kits
- Developing procedures for retrieving/returning the kits from property
- Finding the physical space to review the kits
- Securing computer access to enter info directly into the database
- Providing other supplies (masks, gloves, etc.) for staff/volunteers
- Maintain proper legal chain of custody and police property procedures, having police or forensic staff present if necessary

## 13. Support the staff and volunteers

Develop a staffing plan that allows for rotated duties and scheduled breaks, and identifies resources for assisting staff with the possibility of vicarious trauma. It’s important to address issues of burnout and vicarious trauma in ways that don’t single out individuals or make them feel stigmatized.

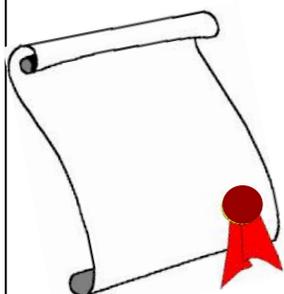


## Once the census has been completed...



### 14. Expect that the final count will create controversy

There will be disagreements and challenges regarding the results of the census. A multidisciplinary input throughout the process can help minimize disagreements.



### 15. Reexamine local policies & state statutes regarding evidence retention

A census will help a jurisdiction gauge the amount of evidence in its possession as well as provide details about the nature of that evidence. It may be helpful to review local policies regarding evidence retention as well as examine state statutes to explore whether policy/legislation changes may be warranted.

### 16. Prepare for media inquiries and public scrutiny

Develop a proactive media plan that can manage requests, promote transparency, & simultaneously protect the integrity of the census process.

It is suggested that jurisdictions wait to release the findings until they are complete.

### 17. Be aware that the "final count" may not be "final"

It's possible that even after the census has been finalized, more information will become available that will require an adjusting of the numbers (i.e., more kits will be discovered and the final count will be greater than anticipated). It's also possible that after the kits have been submitted and are opened at the lab, the evidence inside some kits may not be sexual assault-related evidence.

The process of conducting the Detroit SAK ARP census, as well as the results themselves, have several implications for policy and practice regarding the tracking and storage of SAKs from the point at which they are collected by a health care provider and released by victims for law enforcement retrieval to when they are taken into police custody, and beyond:

**1) Police departments may not be aware that they have large numbers of unsubmitted SAKs if their property storage policies do not segregate SAKs from other types of evidence.**

- In both New York City and Detroit, the problem of untested SAKs became evident when the respective police departments re-organized their property rooms to pull SAKs from general storage (i.e., intermingled with other types of crime scene evidence) and grouped/segregated them. However, New York immediately identified the large numbers of untested SAKs as a problem, while Detroit did not. The property room re-organization in Detroit occurred in 2002, but SAKs continued to accumulate for seven more years, until they were spotted—grouped in storage boxes—during a property audit in 2009 by members of other organizations.
- Therefore, police departments that do not segregate SAKs may not be aware that they have a problem of unsubmitted SAKs. Storage practices that separate SAKs from other crime scene evidence and store rape kits together may make it easier to recognize the problem and monitor—even in general way—SAK accumulation. If SAKs that have been tested are separated from those that have not, it would be even easier to assess the extent to which there was a problem.

**2) Police departments may not be aware that they have large numbers of unsubmitted SAKs if their property computer system does not interface with records that track SAK testing.**

- In Detroit, it was also difficult to identify that there was a problem of unsubmitted SAKs because the police property database did not track testing and did not interface with other records that did track testing. A separate standalone Excel spreadsheet was used by the police department crime laboratory staff to record which SAKs had been tested and which had not, but there was no system in Detroit that allowed for computerized

monitoring of how many SAKs had been entered into evidence and how many had been submitted for DNA testing.

- Therefore, police departments that do not have IT systems that cross-reference property and testing information may have difficulty identifying whether they have a problem with unsubmitted SAKs. Information technology systems that allow practitioners from the various disciplines to ascertain the location and status of each kit from the point it was collected in the medical forensic exam through testing would be helpful.

**3) Police departments may be aware that they have large numbers of unsubmitted SAKs, but may not view this as problematic, given departmental norms regarding sexual assault investigations.**

- In Detroit, there was no alarm in 2002 when the property room re-organization identified thousands of SAKs in evidence. After the kits were discovered in 2009, an internal affairs investigation into the matter (which surfaced during the ARP) concluded that there were justifiable reasons why SAKs had not been tested, but that conclusion was based on as a cursory review of a non-random selection of a very small number of SAKs. The internal affairs report based its conclusions on the documentation in the police reports, which the ARP research clearly showed were often victim blaming.
- Therefore, this suggests that there may be deeper issues to examine regarding a department's culture regarding sexual assault investigations—are these cases an organizational priority? Has the department invested sufficient staffing resources for sexual assault investigations? How do officers/detectives view victims? Have they had adequate training about trauma and its impact on victims? State-level and national-level technical assistance is necessary to work with law enforcement leadership to develop comprehensive policies regarding sexual assault investigations.

**4) Police departments may be aware that they have large numbers of unsubmitted SAKs, but do not want to publicly disclose the problem.**

- In Detroit, the problem became public quickly, given that outside organizations (the prosecutor’s office and state police) were part of the audit in which the kits were discovered. As such, the police department did not have a choice as to whether to disclose that they had large numbers of kits. However, in other jurisdictions, it seems possible that police officials may be aware that they have a problem and do not want to disclose that in fear of becoming “the next Detroit” (or Houston, Memphis, New York, Los Angeles, Phoenix, San Antonio, etc.)
- Therefore, state and national policy makers need to consider how best to promote the disclosure of this problem, so that police departments will come forward and publicly report how many untested SAKs they have in custody. It seems probable that one reason why police agencies may be reticent to disclose this information is fear of legal action (e.g., lawsuits, as has happened in Memphis). Therefore, state and federal policy makers may wish to address this issue proactively in their media/communications. Another probable reason why law enforcement agencies may be reluctant to disclose this problem is that they may not know how to address the problem and/or may not have the resources to remedy it. State and national policy makers and technical assistance providers may wish to consider how to develop comprehensive resource materials for jurisdictions on untested SAKs, including, but certainly not limited to, the step-by-step guides created in this project. Additionally, increasing public awareness about federal programs for SAK testing (e.g., NIJ DNA Backlog Reduction Grants, the NIJ-FBI partnerships to test SAKs) may also be helpful.

## **Goal 2: Examine Why Detroit Had So Many Unsubmitted SAKs in Police Property**

**Key Findings Regarding the Underlying Contributing Factors.** How does a police department accumulate 11,000+ SAKs, most of which were never submitted for testing? To answer this question, we conducted an in-depth historical analysis of the primary Detroit organizations that serve rape victims (police, crime lab, prosecution, medical/SANE, and victim advocacy) to understand their staffing, leadership, policies, and practices over the thirty years that these kits were accumulating. We interviewed current and former employees in all organizations, and examined publicly available documents and internal organizational records to assess the resources available for serving rape victims (in general) and testing SAKs (specifically). For additional context, we collected similar metrics in four U.S. cities that are comparable to Detroit in size/population, racial composition, and/or crime rates (Philadelphia, Dallas, Baltimore, and New Orleans) to gauge whether what we were seeing in Detroit was typical relative to other communities.

The results of this historical contextual analysis indicated that all organizations in Detroit that serve rape victims have struggled for decades with chronic understaffing and resource depletion. In the police department there was “*constant instability*” in leadership, such that a new Chief was appointed, on average, every two years, which is a turnover rate that far exceeds national norms and is atypical among other urban cities with comparable crime rates. The turnovers trickled down to the sex crimes unit, which also changed supervisors regularly, making it difficult to identify and correct problematic policies and low-performing staff. Over this thirty-year period, the sex crimes unit also sustained two 50% cuts in their staffing levels, and for the past several years, they have not been able to offer 24/7 service to the community (i.e., sexual assaults that occur on “off hours” are handled by patrol, and then forwarded to sex crimes later). The police crime lab was responsible for all DNA testing (plus all other types of forensic testing) for the city of Detroit, but they typically had only 2-3 DNA scientists on staff, a number substantially lower than national norms and lower than in other urban cities with comparable

crime rates. The prosecutor's office had far more stability in leadership, but given county-level budget cuts, the number of trial attorneys declined significantly over time. Sexual Assault Nurse Examiner (SANE) programs are widely considered to be best practice for post-assault medical care, but Detroit did not have such a program until 2006, so the vast majority of SAKs were collected by medical personnel who had minimal training in forensic evidence collection. With respect to victim advocacy services for survivors, the police department had a long-standing systems-based victim advocacy program, but community-based advocacy services (e.g., rape crisis center) were largely not available.

With this context established, we then re-examined the SAK census results to explore whether the historical changes we documented (e.g., when the police crime lab gained access to CODIS, when the sex crimes unit had staffing cuts) might explain the rates of SAK submissions over time. For example, stakeholders noted that before the advent of CODIS, the utility of SAK testing to an investigation was limited (e.g., a stranger rape DNA profile does not have the same investigative utility without a database of comparison samples against which it can be compared). Indeed, we found that there were significantly lower rates of SAK submission in the pre-CODIS era and significant higher rates when the police department crime lab had full access to CODIS. We also examined how changes in the police department's resources and policies over time might have affected SAK submission rates. For instance, given that the sex crimes unit experienced two 50% staffing cuts, we tested whether SAK submission rates declined post-budget cuts. There was no significant association between staffing levels and SAK submission rates, which suggests that the problem of unsubmitted SAKs is not simply a "person power" issue—there are other reasons why police do not submit SAKs that must be identified (see below). We also saw no significant relationship between the police department's policy change in SAK submissions (i.e., both known-offender and unknown-offender SAKs should be submitted for testing) and actual submission rates. Given that we were not able to verify the existence of a written policy regarding SAK submissions, we suspect that may have been a verbally-communicated practice, which

did not appear to directly impact front-line decision making. We also saw no change in submission rates as a function of the police department crime laboratory's receipt of federal DNA backlog reduction funds. We were not able to determine how those funds were allocated (i.e., what percentage of the monies were used for SAKs specifically vs. testing DNA in other types of crimes), but it appears that this funding did not change practice regarding SAK submissions (though the funds may have helped keep submission rates from dropping). One historical change that did affect submission rates was the establishment of a SANE program: once the community had a resource for quality medical forensic exams and forensic consultation, SAK submission rates significantly increased. Practitioners across multiple disciplines noted that the SANEs were instrumental in educating members of other organizations about the utility of forensic evidence in sexual assault cases.

These statistical analyses suggested that although Detroit organizations were clearly struggling with chronic scarcity, there was not a direct relationship between police department/police crime lab resources and SAK submission rates. So, what other factors were influential to law enforcement and their decisions whether to submit a SAK for testing? To explore this question, we conducted additional qualitative interviews with stakeholders in all organizations to understand the history of their front-practices and decision-making in sexual assault cases. We also reviewed 1,268 sexual assault police reports associated with unsubmitted SAKs to see how police investigated these cases and how they characterized the assault, the victim, and the rape kit in their written documentation.

In these interviews, police personnel readily acknowledged an indirect effect of budget and staffing cuts on investigation quality such that "*cutting corners*" became normative. Cases were closed, often labeled as 'complainant refused to prosecute [CRTP]' after minimal investigational effort: "*Okay, I made a couple phone calls, I threw my card in the door and that's the end of that. Close it.*" Because the police department was chronically understaffed, law enforcement personnel felt they could not investigate all reports thoroughly, so some cases had to be "*weeded out,*" a mindset common in

conditions of chronic scarcity (Lipsky, 2009; Mullainathan & Shafir, 2013; Roux et al., 2012; Tetlock, 2000). The cases that were “weeded out” typically were ones in which the police questioned the victims’ credibility. In both the stakeholder interviews and in the actual police reports, law enforcement personnel expressed negative, victim-blaming beliefs about sexual assault victims. Rape survivors were commonly assumed to be prostitutes and therefore whatever had happened to them—if anything, as police often commented in their reports—was their own fault. Adolescents were assumed to be lying, trying to avoid getting into trouble by concocting a false story about being raped. Friends and acquaintances had “*got-what-they-got*” because they had chosen to associate with the perpetrator. These findings are consistent with prior studies on rape victims’ experiences with law enforcement and the criminal justice system response to sexual assault (e.g., Campbell, 2008; Human Rights Watch, 2013; Maier, 2008, 2011; Maddox et al., 2011; Martin, 2005; Monroe et al., 2005; Patterson, 2011a, 2011b), and highlight how victim-blaming affects all aspects of the investigation, including rape kit testing (see also Patterson & Campbell, 2012; Shaw & Campbell, 2013). Without consistent supervision and training in Detroit to challenge these practices, labeling case after case as “*a deal gone bad*,” or otherwise dismissing it as “*not really a rape*,” went unchallenged and unsubmitted SAKs continued to accumulate.

The results of this project also revealed how these negative dynamics within the police department were reinforced by other units/organizations in Detroit. For example, from their colleagues in the police department crime lab, law enforcement personnel heard, over and over again, that the lab did not have the capacity to test all SAKs—testing was a limited resource, to be used only “*when you really need it*.” Lab personnel also told the police that SAK submissions required additional investigative labor to track down suspects and/or consensual partners to obtain DNA reference samples—a message that the police heard as, “*the work you can’t even keep up with, yeah, now it requires even more work*.” Detectives noted that it wasn’t worth the additional effort and “*cashing in a chit . . . with the lab*” because hospital ER doctors were consistently telling them that the SAKs were not going to be helpful to

their investigation. Why doctors in Detroit hospitals believed this for decades is unclear, as it not appear to be grounded in any medical, social science, or forensic research. These messages from the forensic science and medical communities, when heard through the police's own filters of resource scarcity and negative attitudes towards victims, reinforced their practices that not all SAKs could or should be tested.

By contrast, the message from the prosecutor's office was that SAK testing was valuable, often critical for prosecution. But, given the lab's limited capacity for testing, police felt they had to "*hold slots*" for the cases the prosecutors needed and therefore they should not submit all SAKs for testing. Victim advocacy organizations might also be expected to emphasize the importance of SAK testing, but in Detroit, advocates were largely silent. The advocacy program was internal to the police department and "*it's difficult to call out your employer,*" and Detroit had only one external, community-based victim advocate because of lack of funds.

It is important to acknowledge that there are *other* organizations that undoubtedly had direct or indirect influence on sexual assault case processing in Detroit that we were not able to study as part of this research project. For example, the work of the prosecutors, in particular, is strongly influenced by the judiciary (e.g., court scheduling, timelines, continuances, allowable evidence, etc.). The research team made considerable efforts to reach out to these stakeholders to understand their perspective on sexual assault case processing, but all judges in this jurisdiction declined to participate in an interview. Likewise, our efforts to understand the root causes of the chronic under-funding of Detroit organizations was limited by the fact that public officials/funders at the city, county, and state level declined to be interviewed. Therefore, our "*systemic*" research on this topic is missing the perspectives of some key components of the criminal justice and social services systems.

Despite these methodological limitations, the data we do have clearly indicate that Detroit sexual assault organizations suffered chronic resource scarcity, and over time, "*scarcity creates scarcity*" as Mullainathan and Shafir (2013) aptly noted (p. 67), such that cumulative depletion can have far-

reaching effects. Intra- and inter-organizational communication became less frequent and more strained, and ‘bunkers and silos’ rather than systemic collaboration became the norm (see Fried, 1982; Kramer, 1990; Lipsky, 2009; Roux et al., 2012; Walsh, 1961). Practitioners’ empathy for each other and for those they were tasked to help eroded, so that many survivors were treated in re-victimizing, dehumanizing ways. In the end, the rape of thousands of individuals was something the police either “couldn’t do anything about” or “wouldn’t do anything about.” This mindset, repeated in case after case for thirty years, resulted in substantial numbers of unsubmitted SAKs on the shelf in police property.

**Lessons Learned from Studying the Underlying Contributing Factors and Implications for Policy and Practice.** This particular project goal—to examine the underlying reasons why Detroit had so many unsubmitted SAKs—was specifically requested in the original NIJ RFP for this action research project (see *Chapter 1: Introduction*). Many of the findings from this component of the action research project helped informed policy and practices changes in Detroit (see “*Evidence of Instrumental Use: Changes in Policy & Practice*”), but, overall, the experience of conducting this research and sharing it with the collaborative actually heightened tensions and discord. As one member of the team noted:

*“I’m not sure this was the most helpful part of the project . . . looking back at what was and what used to be just stirred it all up again . . . the anger, defensiveness, mistrust, finger-pointing . . . we were trying to come together to move forward and this took us back . . . I get that it was required, I just don’t think it was helpful . . . we would have figured out what needed to be changed anyway, without digging up old battles and old feuds.”*

A fundamental tenet of social science research (in general) and the action research paradigm (in particular) is that understanding how and why a problem developed is essential for planning its solution and preventing it from happening again (Coie et al., 1993; Kelly, 2006; Klofas et al., 2010; Schensul, 2009; Seidman, 1988; Trickett, 2011). That said, Kennedy’s (2012) reflections on the Boston Gun Project

also noted that efforts to seek out the “root causes” may not be as helpful as one might think for moving a community forward in trying to stop crime and solve social problems:

*“I’m a born and bred root causer, came up believing in fixing the economy, fixing education, supporting families, eradicating racism: Heal the community and the crime will take care of itself. That notion didn’t survive the first five minutes in Nickerson Gardens.*

*But you don’t need a job not to shoot people. You don’t even need to live a straight life not to shoot people. You just need not to shoot people.*

*Most of us don’t think upstream like this in our ordinary lives. We’d be dead if we did. When fall comes and it gets cold, you put on a sweater, build a fire, build a house. You don’t go to work on the root causes of winter.”*

It is, as they say, an empirical question as to whether the Detroit collaborative would indeed have “figured out what needed to be changed anyway” without this research component. At very least, this study was helpful in empirically documenting risk factors for the development of this problem, which other communities can use as a guide for a more focused “taking stock” exploration of how and why they have so many unsubmitted SAKs. These risk factors may or may not apply in all jurisdictions and future research is needed to determine the applicability and generalizability of these findings to other communities.

Pending replication in other jurisdictions, the results of this project can help inform policy and practice in regards to the early detection of this problem, and perhaps even more importantly, the prevention of this problem in other communities. The results suggest the following risk factors:

**1) Chronic instability in police department leadership can be a risk factor for the accumulation of untested SAKs because inconsistent supervision makes it difficult to identify and remedy problematic front-line practices.**

- In Detroit, the oversight of the sex crimes unit and its practices regarding investigations and SAK submission was highly unstable, making it difficult for any one supervisor to recognize that there was a problem and to institute corrective action.
- Therefore, communities that have had frequent turnovers in police leadership (at the highest levels and in the supervision of the sex crimes unit/sex crimes staff) should take stock of their untested SAKs and investigational practices. Training and technical assistance for law enforcement agencies on strategies for buffering leadership transitions may be useful as well.

**2) Understaffing in police department sex crimes units can be a risk factor for the accumulation of untested SAKs, as it contributes to triaging/selecting cases for investigation.**

- In Detroit, law enforcement personnel readily acknowledged that understaffing led to compromised investigational quality such that officers/detectives “weeded out” cases because they did not have sufficient time and personnel to do a full investigation.
- Therefore, law enforcement agencies need to staff sex crimes units commensurate with their crimes rates and the time/effort that these cases require. As state-level and national-level programs and policies are developed regarding untested SAKs, funding specifically for investigations is also critical.

**3) The lack of a written policy on SAK submissions can be a risk factor for the accumulation of unsubmitted SAKs; without clear expectations regarding kits submissions, individual discretion (which is often influenced by stereotypes and victim-blaming beliefs) determines whether a kit will be submitted for testing.**

- In Detroit, there was no written policy (that we able to find) regarding SAK submissions. The decision to submit a kit was largely at the discretion of the officer-in-charge (OIC),

though sometimes SAK testing was specifically requested by the prosecutor's office. Given that discretion, officers typically decided not to submit a kit, often because they did not believe the victim's account of the assault.

- Therefore, law enforcement agencies that do not have written policies regarding SAK testing should set such expectations and codify them into their standard operating procedures. Communication and collaboration with prosecutors is also critical in establishing such policies so that these interconnected components of the criminal justice system have clear, consistent procedures for SAK processing.

**4) Chronic resource depletion is not the only reason why SAKs are not submitted; negative, victim-blaming attitudes toward victims affect police decisions regarding sexual assault investigations and SAK submissions.**

- In Detroit, there was clear evidence that police decided not to submit SAKs because they did not believe the victim, so the investment of time, effort, and resources in the case was not warranted (in their opinion). This was particularly common for assaults committed against adolescents/younger women and for non-stranger sexual assaults.
- Therefore, training for law enforcement on the dynamics of sexual assault, the neurobiology of trauma and its implications for victim behavior, and offender-focused investigations is necessary. There are a variety of empirically-based training resources on victim-centered, offender-focused approaches to sexual assault investigations (see Shaw & SARA Project, 2011 for a review) that need to be widely disseminated.

**5) Insufficient laboratory staffing (commensurate with a community's crime rate and need for forensic services) is a risk factor for untested SAKs, as law enforcement personnel decide not to submit SAKs if their laboratory does not have the capacity to keep up with demand.**

- In Detroit, the police department crime lab repeatedly told detectives that they did not have the capacity to test all SAKs, so they did not submit all SAKs for DNA testing. The staffing levels in the police department crime lab were well-below national averages.

- Therefore, increased funding for testing and building laboratory capacity is essential. The results of this research also highlight what can be problematic about having crime labs embedded within a police department: both units (lab and investigations) can be negatively affected by budget constraints, organizational leadership problems, and organizational norms regarding sexual assault investigations.

**6) The lack of strong community-based advocacy services for survivors can be a risk factor for the accumulation of untested SAKs, given that these organizations advocate for individual survivors and promote systemic reform in the community response to rape.**

- In Detroit, there were minimal community-based victim advocacy services. Detroit did not have a rape crisis center and services for rape victims were embedded in domestic violence programs, police/systems-based programs, and, in later years, the sexual assault nurse examiner program. There was not a strong “push back” on behalf of survivors regarding common practices in sexual assault investigations.
- Therefore, increased funding for community-based advocacy services is essential. State and national technical service providers should consider how to strengthen advocacy services in communities that do not have rape crisis centers to ensure that the needs of sexual assault survivors are adequately addressed.

**7) Sexual assault nurse examiner (SANE) programs can be an important resource to the legal community and can help prevent the accumulation of unsubmitted SAKs.**

- In Detroit, the rate of SAK submissions significantly increased after the establishment of a SANE program. Historically, ER physicians had been telling police that SAKs were not useful, but the forensic nurses were able to counter that position and offer the community education and resources on the value of forensic evidence.
- Therefore, these results highlight the importance of SANE programs for post-assault care, forensic evidence collection, and community collaboration. For communities that do not have SANE programs, these results emphasize the need for the creation of strong, sustainable programs.

### ***Goal 3: Develop and Evaluate a SAK Testing Plan***

**Key Findings from the SAK Testing Results.** At the beginning of this action research project, Detroit did not have sufficient funding to test all previously-unsubmitted SAKs in police property. However, stakeholders disagreed as to whether all SAKs *should* be tested, even if funds were available. Is it useful to test a SAK if the assailant is already known (non-stranger)? Does it make sense to test a SAK if the case is beyond the statute of limitations? These same questions were raised in our research interviews with state and national stakeholders, so the Detroit SAK Testing plan was designed to gather data about these fundamental questions. Pooling funds 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 (which was separately funded by NIJ), the project could test 1,600 SAKs (1,595 actually tested). The kits were placed into four Testing Groups, each one designed to address specific research questions regarding the utility of SAK testing under different case circumstances. This design allowed us to examine the utility of SAK testing for stranger-perpetrated sexual assaults (Testing Group 1), non-stranger perpetrated sexual assaults (Testing Group 2), and sexual assault cases that are presumed to be beyond the statute of limitations (Testing Group 3). We also studied whether emerging technologies for DNA testing (e.g., selective degradation) could offer faster, less expensive testing options, without sacrificing accuracy. SAKs in Testing Group 4 were randomly assigned to testing with traditional DNA methods versus the selective degradation method. Whereas there are many ways to define the "utility" of SAK testing, in this project we focused on forensic testing outcomes. The four Testing Groups were compared on their rates of CODIS entries, CODIS hits, and serial sexual assault hits.

Turning first to our descriptive findings for the overall sample, the 1,595 SAKs yielded 785 CODIS eligible profiles (49% of the SAKs tested), 455 CODIS hits (28.5% of the SAKs tested; 58% of the profiles entered), and 127 serial sexual assaults (8% of the SAKs tested; 28% of the CODIS hits). It is difficult to know whether these rates are "typical" because the published literature on SAK testing is extremely

sparse. To date, there are only two other projects that have reported SAK testing results in sufficient detail to make tentative comparisons to the results in Detroit even possible: Peterson and colleagues' (2012) study of a sample of 1,320 SAKs tested in Los Angeles and Nelson's (2013) report of 830 SAKs tested in New Orleans. The findings across these projects (Detroit, Los Angeles, and New Orleans) are summarized in Table 6.1 (below).

Project	Number of SAKs Tested & Sampling Design	Number of CODIS Eligible Profiles & Unweighted CODIS Entry Rate	Number of CODIS Hits & Unweighted CODIS Hit Rate *
Detroit	1,595 Randomly sampled (with stratification by Victim-Offender Relationship and SOL Expiration) from 8,391 untested/unsubmitted (- 400 Project SAKS)	785 49%	455 58%
Los Angeles (Peterson et al. 2012)	1320 Randomly sampled from 10,895 "backlogged/untested" SAKs	699 53%	347 50%
New Orleans (Nelson, 2013)	830 Sampling design not specified; includes "old cases" and "current cases"	256 31%	83 32%

\* Neither the Los Angeles nor New Orleans studies reported rates of serial sexual assault.

The sampling designs across these three studies are *markedly* different, so comparisons must be considered with that key caveat in mind. The Los Angeles data were drawn from a sample of 10,895 "backlogged/untested" SAKs, which Peterson et al. (2012) defined as: *"kit had been collected in the course of an investigation and went untested by the crime laboratory... The great majority of backlogged cases had not been submitted to their respective crime laboratory, but was being held in a law enforcement property storage facility and/or freezer"* (p. 36). The Detroit data were drawn from a sample of unsubmitted/untested SAKs (no backlogged cases); given that the majority of the Los Angeles SAKs were also unsubmitted/untested, a comparison between these two projects is reasonably informative, though the sampling designs are not equivalent. As shown in Table 6.1, Detroit and Los

Angeles had similar unweighted rates of CODIS entry and CODIS hits. By contrast, the New Orleans project included both “old cases” and “current cases” (submission and adjudication status unknown), and the unweighted rates in that study are lower than the results from both Detroit and Los Angeles. However, because the sampling frame for the New Orleans project is fundamentally different (i.e., current cases were included), comparisons to either Detroit or Los Angeles are not as informative.

One other option for comparison in the published literature is Roman and colleagues’ (2009) study of CODIS entry rates and CODIS hit rates for *burglary* crimes. In that project, 1,079 burglary cases in which DNA evidence had been obtained at the crime scene were tested, which yielded a 55% CODIS entry rate (SAKs in Detroit = 49%, Los Angeles = 53%, New Orleans = 31%) and 43% CODIS hit rate (SAKs in Detroit = 58%, Los Angeles = 50%, New Orleans = 32%). Property crimes differ from violent crimes against a person in so many ways that comparisons to this study are more tenuous, but at the very least, CODIS *entry* rates appear to be similar for SAK evidence and property evidence (except New Orleans).

Based on these limited options for context and comparison, it is difficult to know how best to characterize the results in Detroit, other than to note that unweighted CODIS entry rates appear similar to other studies, and unweighted CODIS hit rates were similar to the one other study most like Detroit’s with respect to population and sampling design. From a *practice* point of view, 455 CODIS hits means that law enforcement personnel and prosecutors had 455 “new” cases, 127 of which were serial rapes. From that vantage point, 455 CODIS hits and 127 serial sexual assaults is quite high, particularly for a community as resource-depleted as Detroit has been and continues to be.

The Detroit SAK Testing Plan also allowed us to examine the utility of SAK testing under different case circumstances (e.g., stranger vs. non-stranger rape). Our findings bear out what we heard from many stakeholders at the local, state, and national level: testing can be useful in a variety of case circumstances, not just in the most commonly-considered scenario of stranger rape. For example, Testing Group 1 was a sample entirely of stranger-perpetrated assaults, and from that testing, there

were 104 offender hits and 42 offender-forensic hits, meaning that in 146 cases, the identity of the assailant may have been “solved” (pending further investigation) by DNA testing. Fifty-one (51) of the CODIS hits in this group were serial sexual assaults, meaning there was DNA evidence of a prior sexual assault. Testing Group 2 was a sample of entirely non-stranger-perpetrated assaults and from that testing, there were 103 total CODIS hits, most of which were offender hits. Practitioners in Detroit (as well as other stakeholders at the state and national level) noted that testing non-stranger SAKs could help solve other crimes and identify patterns of serial rape. The data from this project provide some empirical support for those assertions: there were five forensic hits in this Testing Group, meaning that testing known-offender SAKs revealed the probable identity of the offender in five previously unsolved crimes. There were 18 serial sexual assaults in this Testing Group, and most of the offender-forensic hits in this group were due to case-to-case associations with other SAKs tested in this action research project. These data suggest that when these offenders were not apprehended for sexual assaults they committed (perhaps because the kits had not been tested), they went on to rape other victims.

Testing Group 3 was a sample of older SAKs, presumed to be SOL-expired. There were 90 CODIS hits in this group (most were offender hits) and 29 serial sexual assaults were identified through DNA testing. Whether the cases associated with these hits can be prosecuted is still to be determined, but at a minimum, these results highlight that offenders often have long histories of crime, including repeated sexual assaults. Testing these older kits gives prosecutors an opportunity to present evidence of these prior crimes, in the event there is a case that can be charged within the statute of limitations.<sup>97</sup>

With these descriptive findings established, we then tested a series of statistical models that compared the probabilities of CODIS entry rates, CODIS hit rates, and serial sexual assault hit rates, accounting for the sampling differences between the four Groups. Using continuation-ratio models (see

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<sup>97</sup> The primary purpose of Testing Group 4 was to compare two DNA testing methods; the descriptive results from this group are presented in *Chapter 4: Developing & Evaluating a SAK Testing Plan*, but are not repeated here in this summary.

*Appendix B: Project Methodology*), the results from the conditional and unconditional probability rate analyses showed no significant difference in CODIS hit rates as a function of either victim-offender relationship or SOL-status. In other words, SAKs associated with cases that were stranger-perpetrated had statistically equivalent CODIS hit rates as cases perpetrated by non-strangers; similarly, rates did not significantly differ by statute of limitations status. Some stakeholders in Detroit (as well as those at the state and national level) advocated for prioritizing SAKs by victim-offender relationship and/or “*skipping over*” SAKs associated with cases that are presumed to be beyond the statute of limitations, but these results do not support such a plan because the rates of CODIS hits do not significantly differ as a function of these variables. Put another way, these results indicate that there is merit in testing both stranger and non-stranger SAKs, and presumed SOL-expired and non-expired SAKs, in terms of expected yields for CODIS entries, CODIS hits, and identification of serial sexual assaults.

Our analyses regarding whether other features of the victim, assailant, and/or assault may affect CODIS hit rates did not find many significant predictors. There were *no* differences in CODIS hit rates as a function of victim or assailant demographics, whether there were multiple perpetrators (i.e., gang rape), whether drugs and/or alcohol were involved, or whether the assailant used physical force. The rate of CODIS hits also did not differ depending on when the SAK was collected post-assault (i.e., the time between the assault and the medical forensic exam). The only variable that predicted whether a SAK would yield a CODIS hit is weapon use: if the assailant used a weapon in the assault, the SAK was more likely to yield a CODIS hit. Given that nearly all of the variables in these prediction models were *not* statistically significant and the range of plausible effect sizes associated with each predictor was rather broad, we conclude that there is not sufficient evidence to advocate for selectively testing SAKs based on victim age, assailant age, exam timing, or any of the assault characteristics we examined. In the Detroit SAK Testing Plan, the fourth Testing Group involved an experimental design comparing forensic outcomes for two different methods of DNA testing: traditional vs. selective degradation. For

these analyses, we focused on rates of DNA testing and CODIS entry rates only. The results indicated no significant difference between the two groups, indicating that the selective degradation method might have no decrement in performance relative to customary methods, but did not show that the groups had equivalent rates. The two groups had very similar materials costs, but the selective degradation method saved 1.10 hours of staff time per SAK. It is important to note that this experiment was conducted without automated testing, and given that selective degradation is suitable for automation, these time savings could be even greater. These data suggest that selective degradation is a method that could offer forensic laboratories significant personnel savings.

There are three key limitations about our SAK testing analyses that must be noted. First, as noted previously, our focal outcome was CODIS hits, which is one of many possible ways to define the utility of SAK testing. As such, this study cannot address how SAK testing might affect investigation and prosecution outcomes. We also do not know what it meant to these survivors to have their SAKs finally tested and how the outcomes of that testing affected their health, well-being, and recovery. Second, missing data were a problem for some analyses. We had no missing data on the key dependent variable (forensic testing outcomes), but because some entire police files were missing and others were so incomplete with respect to information about the assault, the number of independent variables we could consider was limited. The level of detail/nuance that we could capture in our coding was also constrained; for example, our assessment of drug/alcohol use in the assault was a composite code of whether the assailant or victim used either alcohol or drugs in the general timeframe of the assault. Prior research suggests that it is important to parse out what substances were used, by whom, and when (relative to when the assault occurred) (see Brecklin & Ullman, 2001; Logan et al., 2007; Ullman & Brecklin, 2002). We were not able to assess these distinctions and so we do not know whether, with better measurement, alcohol/drug use would predict CODIS hits. Finally, our analyses in Testing Group 4 regarding costs for materials and staff time should be interpreted with caution, given that these data

were not collected in the level of detail we would have preferred. We had to compare aggregated data across the two groups, which is certainly a reasonable analytic approach, given the constraints we faced, but we acknowledge that this is not as refined an analysis as is preferred in cost-effectiveness studies (Boardman, Greenberg, Vining, & Weiner, 2010; Levin & McEwan, 2001). This limitation is a key reason why we recommend replication of the Testing Group 4 analyses prior to large-scale implementation; our estimates were not precise enough to unambiguously determine differences in CODIS entry rates were small enough to be substantively unimportant.

**Lessons Learned from the SAK Testing Results and Implications for Policy and Practice.** As the collaborative was creating and implementing the Detroit SAK Testing Plan, the research/evaluation team tracked key challenges encountered (see Figure 4.1 *“The Step-By-Step Process of Creating the Detroit SAK ARP Testing Plan”* and Figure 4.3 *“Challenges & Solutions Encountered Implementing the Detroit SAK Testing Plan”*) and lessons learned. Figure 6.2 (following pages) summarizes key take-home lessons for other jurisdictions that need to create a testing plan for unsubmitted SAKs. As with all other components of this project, multidisciplinary input was essential, as rape kit testing can have differential meaning and significance across the disciplines (e.g., police, prosecution, forensic sciences) and to the survivors themselves. For example, a kit that does not yield a DNA profile suitable for CODIS upload is placed aside by the forensic scientist and his/her work is complete, but that testing result may mean that police have no new leads to pursue and the survivor still has no closure. Having all disciplines involved in the SAK testing process helps the group reflect on what different testing outcomes may mean for the criminal justice system and its work of holding perpetrators accountable and for survivors and their recovery. It is also important to emphasize that although the statistical analyses of this project suggest that there is merit in testing SAKs across a wide variety of case circumstances, we do not know what problems and challenges might be encountered when implementing a “forklift” testing approach. Additional research is needed to understand the benefits and challenges of such a testing plan.

FIGURE 6.2

# Lessons Learned: Developing a SAK Testing Plan

*The take-home lessons from the Detroit SAK ARP based on their experiences developing and evaluating a SAK testing plan.*

*"Where do you start? How do you eat an elephant? One bite at a time."*

## 1. Bring everyone to the table



If a multidisciplinary team was formed to plan & execute the SAK census, then those same individuals/ organizations are well-positioned to guide the development of a testing plan. If the census was completed without the multidisciplinary team, then forming one for the testing phase is paramount. SAK testing raises complex legal, psychological, and evidentiary issues; representatives from police, prosecution, forensic sciences, medical/nursing, systems-based advocacy, and community-based advocacy, help ensure that diverse perspectives are considered.

## 2. Discuss the purpose & utility of SAK testing

Explore how different team members think about the purpose and value of SAK testing. It's likely that these opinions will be deeply-rooted in their profession & their discipline's roles & responsibilities to society. It is not necessary to come to complete agreement on all issues; the team may "agree to disagree" on some issues and still move forward.

### OPINIONS MIGHT INCLUDE:

- Testing is most useful in stranger assault cases.
- Testing is less useful in non-stranger cases because the identity of the assailant is already known.
- Testing can be useful in non-stranger cases to identify patterns of serial non-stranger assaults.
- Cases that are likely SOL-expired should not be tested to conserve limited testing resources.
- Cases that are likely SOL-expired should be tested in the event a CODIS hit links to a current case.

### 3. Test *all* SAKs vs. test *some* SAKs



The decision whether to test *all* SAKs or *some* SAKs will be influenced by both values (i.e., whether team members believe all kits should be tested, see above) and by practical matters (i.e., funds available to test SAKs). Testing all kits at once, often referred to as the “forklift” approach, is often not feasible. The “Start Small” recommendation can likely be helpful for communities in which testing of all kits is ideal but not practical.



### 4. Funding & resource availability

How many kits can be tested in the immediate future will be determined by current resource availability. However, developing a long-term testing plan—consistent with the jurisdiction’s ultimate decision regarding how many kits should be tested—is important if current resources are not commensurate with that aim. It is quite likely that jurisdictions will need to apply for grants (e.g., federal grants, such as NIJ’s DNA Backlog Reduction Grants; local/state foundation grants) and/or engage in fundraising to secure more resources for testing.

### 5. What should we call it?:

#### Talking about language

Unless testing all kits, teams will have to decide which kits will be tested and in what general order. Here, language matters a great deal as words like, ‘prioritize,’ ‘triage,’ ‘select,’ ‘tier,’ ‘sample,’ etc. have different connotations. For example, the word ‘prioritize’ might imply that kits will be processed in a particular order that is based on their inherent value. Have an explicit conversation about these issues to avoid conflict later.

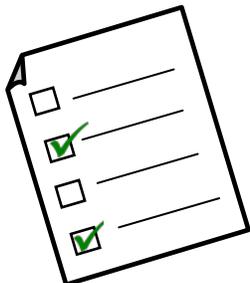
THESAURUS

DICTIONARY

### 6. Develop a process for selecting which SAKs will be tested

If it is not possible to send all SAKs for testing at once, then a process must be developed for selecting which kits will be tested and in what general order. Three main strategies include:

- Select SAKs randomly (this approach could be good when “starting small”)
- Select SAKs after a thorough review of all case material
- Select SAKs based on a shorter list of selection criteria (i.e., information readily available and accessible to speedy decision making), such as SOL expiration



## 7. Determine the specific criteria for selecting SAKs

Whether SAKs will be selected after a thorough case review or by shorter selection criteria, detailed decision rules must be created that specify the circumstances under which a SAK will be selected for testing.

## 8. Considerations for SOL as selection criteria

Statutes of limitations (SOLs) often vary as a function of the nature of the crime. As such, there could be multiple SOL-risk “cut-off” dates. The extent to which a jurisdiction can employ more sensitive criteria (e.g., if [this] and [that] then selection date is \_\_\_) or whether they will have to use a general across-the-board date (that should work for most cases) likely depends on the number of cases to be screened and the resources available for screening. It is also crucial to budget for the time that it will take to test the kit and to have the testing results reviewed/uploaded into CODIS, etc.



## 9. Budget sufficient time and resources for selecting SAKs

Starting small can help develop estimates of how long it will take to identify cases for selection; the time needed for this process will likely be based on the selection criteria. For perspective: The 1,600 SAKs tested in this research project were selected based on three criteria (adjudication status, victim-offender relationship, and statute of limitations) & it took approximately 2,958 staffing hours to review materials and determine case selection eligibility for these SAKs.

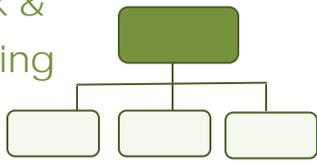


## 10. Budget extra time for older kits

Very old kits may require extra time to prepare for testing/shipping due to peeling labels, missing labels, re-sealing, re-packaging, etc. Forensic science staff may need extra time to review older kits and address any problems that need to be resolved before the laboratory can accept the kit for testing.

Refer back to the *Lessons Learned: Developing a Census* document for reminders on how to *Start Small, Touch It Once, Develop a Central Database, and Support Staff & Volunteers*. All of these lessons are also important for develop testing processes.

## 11. Track & share testing results



It is helpful to track the testing results and share those results with the full multidisciplinary team. Case-specific results may not be appropriate to share widely (e.g., “in case X, victim name Y, we found . . .”). However, aggregate data may be quite useful to the group to track CODIS hits and the nature of those hits (e.g., case-to-case serial offenders).

## 12. What happens after testing?

Devote appropriate attention to developing a plan for what happens after testing; starting small will likely help with this decision. The following are some key issues to consider:

- Who should be informed re: testing results?
- How will post-testing investigations be coordinated?
- How will case-to-case CODIS hits be handled?
- How will current caseloads be handled with these new/old cases being re-opened?
- Can a flexible process be developed to respond to highly time-sensitive cases?

## 13. When testing results start coming in, expect the unexpected

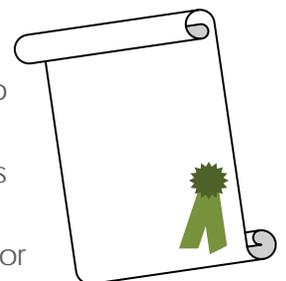
Given the dearth of empirical research on untested SAKs, it is difficult to know whether testing results are typical or atypical. It might be helpful for jurisdictions to connect with other communities who have tackled these issues to compare findings and strategize solutions.

## 14. Re-examine & refine testing policies & protocols

While reviewing existing SAK testing procedures may cause defensiveness at times, it is also possible that jurisdictions will want to make immediate changes to their testing policies. Regardless of the reaction, it is important to revisit the policies regularly as new information/insights will develop throughout the course of resolving the previously-untested SAKs. Take special care to revise selection criteria as needed as criteria may not be as clear-cut or easy to enforce as originally conceived.

## 15. Consider whether legislative changes are necessary

The process will very likely suggest legislative changes that might be necessary to remedy problems, including, but not limited to: requirements for mandatory kit submissions and timelines for submissions and testing; procedures for retaining kits before and after testing; procedures for handling kits if victims are unsure about possible involvement with the criminal justice system; and tracking mechanisms for identifying where a kit is in the process of submission/testing.



The results from the Detroit SAK testing plan have several implications for policy and practice in regards to testing large numbers of unsubmitted SAKs:

**1) It may be useful to select a relatively small random sample of SAKs, test all of those kits, and use those results to help plan a long-term testing plan.**

- In the Detroit SAK ARP, we had the benefit of the OVW-funded *The 400 Project*, which randomly selected and tested 400 SAKs. From those data, we were able to estimate the percentage of SAKs that had been previously tested and adjudicated. The data were also helpful in identifying challenges in preparing kits for shipment, working with vendor laboratories, and tracking down police files, medical records, and other documentation.
- Therefore, communities that have large numbers of SAKs may wish to consider a pilot project similar to *The 400 Project* to get a feel for the volume of CODIS hits they may need to prepare for and the staffing they may ultimately need to address this problem. State and national funders may wish to consider developing pilot grant projects (with accompanying technical assistance) to encourage communities to develop and implement these “starter” scale projects.

**2) The results of the action research project suggest that screening SAKs for testing based on information provided in the original police reports may not be useful and in fact may underestimate the seriousness of the assaults/offenders (as well as unjustifiably discount the credibility of the victims’ reports).**

- In the Detroit SAK ARP, we found that police reports often reflected officers’ stereotypic beliefs about rape victims, and few investigative steps were taken in the case. If testing decisions had been based on the officers’ assessments of the merits of the case as reflected in those records, then it is likely many SAKs would not have been submitted for testing (because, for example, the detective noted that it wasn’t “*really a rape*”). However, the rate of CODIS hits and serial sexual assaults documented in this project indicates that such assessments were likely biased and testing those kits was warranted.
- Therefore, it is not recommended that communities base screening and prioritization on the original documentation in the police report. It may be more fruitful to the

investigation to test all SAKs and allow the forensic outcomes to guide next steps for investigation, prosecution, and victim notification.

**3) The results of the action research project suggest that screening SAKs for testing based on selection criteria such as victim-offender relationship and statute of limitations may not be helpful vis-à-vis maximizing CODIS hits.**

- In the Detroit SAK ARP, we examined whether prioritizing SAKs by victim-offender relationship or statute of limitations status might be helpful in making the most of limited financial resources (i.e., trying to maximize the number of CODIS hits per kits tested). We did not find significant differences in CODIS hit rates as a function of these screening criteria.
- Therefore, if communities have limited financial resources and are trying to prioritize SAKs for testing, these data indicate that selecting on the basis of victim-offender relationship or SOL status may not have an effect on CODIS hit rates. Communities may wish to give special consideration to SAKs associated with cases that are near the statute of limitations expiration, but to “skip over” presumed SOL-expired cases is not empirically-supported, based on the results of this project. Our findings suggest that there is merit in testing all SAKs.

**4) The results of this action research project highlight the utility of testing SAKs across a variety of case circumstances, but we do not know what problems or challenges communities may face with a “forklift”/test-all plan.**

- The Detroit SAK ARP did *not* evaluate the utility of a “forklift” approach; this project evaluated whether there are differences in forensic outcomes as a function of different screening variables (there are not).
- Therefore, additional research is needed in communities that adopt a “forklift” approach in order to document the challenges, solutions, and forensic testing outcomes associated with that particular testing strategy.

#### **Goal 4: Develop and Evaluate a SAK Victim Notification Protocol**

**Key Findings from the Evaluation of the Victim Notification Protocol.** The task of creating and implementing a victim notification protocol was perhaps the most daunting and “*humbling*” challenge the Detroit collaborative faced in this action research project. In early team conversations about victim notification, representatives from police and prosecution emphasized that this was not something new for them—they routinely had to re-contact crime victims when new information became available in their cases and to ascertain their willingness to re-engage with the criminal justice system. However, the circumstances under which these notifications would occur gave all members of the collaborative pause, as one member of the team explained:

*This isn't any crime, it's rape . . . [which is] invasive and dehumanizing . . . and the reason why we're contacting them (the survivors) is different too . . . something that should have been done before, wasn't . . . these kits weren't tested and the women thought they would be . . . worse, [many of these survivors] were told [by the police] that it was just a deal gone bad . . . That's the context here and context is everything.*

The Detroit collaborative had a two-day planning retreat to develop a victim-centered, trauma-informed notification protocol (see *Appendix C1: Victim Notification Retreat Planning Guide* and Figure 5.1 “*The Step-By-Step Process of Creating the Detroit Victim Notification Protocol*”). A multidisciplinary team would review cases that had CODIS hits and discuss if and how to notify survivors, given the unique circumstances of each case. The notifications would proceed in a two-stage process, whereby the goals of the first contact were to explain that the SAK had not been tested at the time, but now it had been tested; offer an apology to the survivor that her/his SAK had not been tested; and request a follow-up meeting to discuss the issues in more detail, after the survivor had had a chance to “*catch her*

*breath.*” At the follow-up meeting, an investigator and community-based advocate would provide more detailed information, discuss options, and connect survivors to community services.

In the evaluation of this pilot protocol, 41 cases were selected for victim notification, and the investigators were able to find 31 survivors (2 cases were closed-out because the investigators had exhausted all possible leads trying to find the victims; 8 cases were still pending at the time the evaluation data collection period closed). Stakeholders at the local, state, and national level expressed concern—and doubt—about whether it would be possible to re-connect with survivors so many years later and the amount of time and effort it would take to do so. However, in this evaluation, we found that most survivors (65%) could be found with relatively low investigational effort: searches of computerized databases (e.g., LEIN), plus 0-4 phone calls, and 0-1 in-person visits to 1 address. However, to obtain the high find-rate in this project, the investigators had to invest additional effort for the remaining 35% of the cases, which sometimes required 12+ phone calls and 6+ in-person visits to various locations trying to find the victim. Survivors who were harder to find wanted to participate in the prosecution of their cases in a comparable rate to those who were easier to find, so these findings suggest the extra effort was warranted. As such, this evaluation suggests that victims’ “locate-ability” should not be a selection criterion for either SAK testing or victim notification.

The first-contact with the survivors was made by investigators (affiliated with the prosecutor’s office, not the focal police department) and typically occurred at the victims’ homes. Some survivors had strong negative reactions (16%) (e.g., anger, refusal to talk to investigators), more had strong positive reactions (29%) (e.g., happiness, relief), and most (55%) did not exhibit a strong emotional reaction—they were open to hearing what the investigators had to say, but were reserved and cautious. Most survivors (64%) agreed to a follow-up meeting with the investigators and an advocate to discuss options in more detail, and in the end, most (57%) also decided that they wanted to participate in further investigation and prosecution of the cases. This rate of re-engagement is higher than expected,

given the significant “secondary victimization” (victim blaming treatment) survivors experienced from law enforcement personnel at the time they made their original report (see *Chapter 3: Why So Many Unsubmitted SAKs in Detroit*). Prior studies have shown that most victims who experience secondary victimization from the legal system are disinclined to seek any further help (80% on average do *not* want any further contact/help) (see Campbell, 2008 for a review), so the fact that 57% *did* want further contact is, in our view, an encouraging finding.

To understand why some victims may have had negative reactions and decided not to re-engage, the evaluation team examined whether these responses varied as function of victim age, time since assault, and victim-offender relationship. Victims were less likely to react positively and to re-engage the longer the time between the assault and the notification, which highlights the importance of timely (i.e., at the time the assault) testing of SAKs and investigation of reported sexual assaults. Survivors who were 16-24 years old at the time of the assault were somewhat more likely to have strong negative reactions to the notification and were less likely to want to have continued contact with the criminal justice system. Given that prior research has found that victims in this age group are at particularly high risk for secondary victimization (Campbell et al., 2012; Greeson, Campbell, & Fehler-Cabral, 2014a, 2014b), which was also substantiated in this action research project (see *Chapter 3: Why So Many Unsubmitted SAKs in Detroit*), it seems probable that these girls/young women had had difficult encounters years ago, and as such, they were disinclined to re-engage. In this evaluation, only a small number of notifications had been conducted with victims of non-stranger rape, but preliminary findings suggested that they were not as likely as victims of stranger rape to continue contact with the criminal justice system post-notification.

Because a key methodological limitation in our evaluation is the absence of direct data collection, we do not know the exact reasons why victims may or may not have wanted to engage further (proxy data were collected from the investigators and advocates, see *Appendix B: Project*

*Methodology and Appendix D: Data Collection Instruments*). As noted previously, there were strong concerns among the prosecutors that if the researchers had contact with survivors pre-adjudication, we could be called as witnesses in the case and our refusal to testify (per IRB requirements) could have had an unintended negative effect on the case (e.g., defense counsel suggesting that we were ‘hiding’ something). The ethical principles of the American Evaluation Association (1995/2004) state that evaluators must “*consider not only immediate operations and outcomes of the evaluation, but also the broad assumptions, implications, and potential side effects*” (Responsibilities for General and Public Welfare Principle) (emphases added). As such, we had to pause and carefully consider how best to design the evaluation of this protocol.

We turned to the literature to see if there was precedent for interviewing rape survivors pre-adjudication. There were numerous examples of interviewing survivors about the law enforcement investigation (e.g., Campbell, 2005, 2006; Greeson et al., 2014a, 2014b; Monroe et al., 2005 Patterson, 2011a, 2011b), and none of the studies that did prospective data collection reported that the researchers had been called as witnesses in later court proceedings. Far fewer projects have focused on the prosecution phase, and Konradi’s (1996a, 1996b, 2007) study was the only one example we found in the published literature in which interviews were conducted with survivors pre-adjudication. Again, there was no indication that the researchers were called to testify or that the study had negative consequences on case processing or case outcomes. Therefore, based on these examples, the research/evaluation team noted that although being called as a witness was possible, it seemed improbable and that unlikelihood needed to be weighed against the benefits of hearing directly from survivors so they could express their thoughts and feelings about the notifications. The prosecutors certainly agreed with the importance of giving survivors opportunities to voice their experiences—their concern was the *timing* of such interviews and the need to guard against complications in pending legal cases—cases that were by no means “typical,” given that the SAKs had not been tested for years and

any number of challenges from the defense had to be considered. Interviewing survivors post-adjudication would still provide an opportunity to share their experiences, but without the risk of unintended consequences on the court case. However, given how long the adjudication process takes, it was not possible within the timeline of this action research project to interview survivors. Therefore, the evaluation of the victim notification protocol utilized proxy sources of information and the research team intends to conduct a follow-up interview study with survivors after the completion of the action research project in order to obtain their first-hand accounts.

### **Lessons Learned About Victim Notification and Implications for Policy and Practice.**

Throughout the process of creating and implementing the victim notification protocol, the research/evaluation team tracked key challenges encountered (see Figure 5.3 *“Challenges & Solutions Encountered in the Implementation of the Detroit SAK ARP Victim Notification Protocol”*) and lessons learned. Figure 6.3 (following pages) summarizes important take-home lessons for other jurisdictions that may be faced with developing a victim notification protocol. One of the most critical lessons learned in this project was the importance of a multidisciplinary perspective on victim notification, given that it involves re-activating memories of a major traumatic event *and* communicating complex forensic and legal information. The input from all core disciplines—police, prosecution, crime lab, nursing/SANE, and advocacy—was essential for creating a comprehensive plan that addressed survivors’ psychological and informational needs.

FIGURE 6.3

# Lessons Learned: Conducting Victim Notifications

*The take-home lessons from the Detroit SAK ARP based on their experiences developing a victim notification protocol.*

*"How we tried to do the right thing after the right thing wasn't done a long time ago."*



## 1. Bring everyone to the table

Notification involves complex legal, psychological, and evidentiary issues.

While only some disciplines may be involved in conducting the actual notification (e.g., law enforcement, advocacy), having a broad-based multidisciplinary team to ensure that diverse perspectives will be considered at every stage of the process is important.

Consider including representatives from:

- Police
- Prosecution
- Forensic sciences
- Medical/nursing
- Systems-based advocacy
- Community-based advocacy

## 2. Clarify what decisions are and are not open to multidisciplinary input

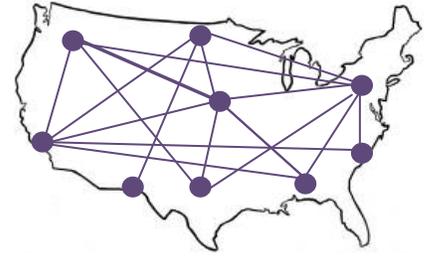
There are many ways in which the multidisciplinary review, input, and debriefing sessions may be done (e.g., an oversight steering committee, a separate working group, etc.) and how often it needs to be done (weekly, monthly, quarterly, ad-hoc).

However this process pans out, it is helpful to clarify which individuals/organizations have decision making authority over what issues. While 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/ organization, collaborative input can help inform that decision.



### 3. 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 education within the group on such lessons can be instrumental. In addition, individuals within the multidisciplinary team may already have experience doing notifications as part of routine CODIS-hit follow-up protocols. It is important to include those individuals in the process of developing notification protocols.



### 4. Allocate sufficient time for developing protocol

While 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 might be helpful to consider setting aside additional meetings/retreats to discuss victim notification in sufficient depth.

### 5. Expect disagreements among stakeholders

Team members are likely to have different opinions as to when, how, and why victims should be notified about SAK testing. Consider using an outside facilitator, like the Detroit SAK ARP did, to allow the group to come reach consensus on complex issues

### 6. Acknowledge that there is no right way to do victim notification

Given the limited research to-date on the problem of unsubmitted SAKs, empirically-based best practices for victim notification have not yet been identified.

#### **SOME GUIDING PRINCIPLES FROM RELATED RESEARCH:**

- Notification could be traumatic for many victims and therefore their emotional needs must be taken into consideration
- Providing victims with options and choices helps facilitate their recovery from trauma
- Providing victims with options and choices can have a positive indirect effect on their participation in the criminal justice system

## 7. Establish protocol to protect the confidentiality of the victims who had been notified

Updates on victim notification should be limited to those directly involved with the victims, regardless of what confidentiality agreements have been signed.

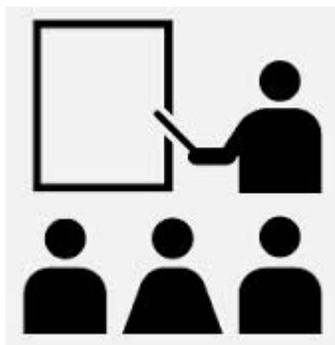
It is also important to offer victims the option of working with practitioners with whom they can have confidential conversations (i.e., community based advocates).



## 8. Be sensitive to differing rules regarding the disclosure of confidential information



Set clear expectations up-front regarding what can and cannot be divulged to the multidisciplinary team. While investigators might want to know how their notification interactions were perceived by victims, advocates cannot disclose their communications with survivors (unless specifically authorized to do so by the victim). The Detroit collaborative invited an experienced advocate who was not directly involved in any of the cases to provide general guidance to investigators regarding victim notification and to help the group understand confidentiality differences across professions.



## 9. Provide comprehensive training to all staff who will be involved in conducting victim notifications

These training should emphasize the importance of self-care & a victim-centered, trauma-informed approach to working with sexual assault survivors.

## 10. Know your community, know your population

Victim notification strategies should be tailored to the specific needs, resources, and realities of a community.

Consider the diversity of a community with respect to race/ethnicity, social class, religion, cultures, and customs as well as the relationship that the community historically has with police.

## 11. Start small—and be flexible

Develop draft notification protocols, implement them with a small number of cases, evaluate them (either formally or informally through multidisciplinary team debriefings), make changes, and implement/re-evaluate the revised procedures. Because each sexual assault case is unique, the victim notification protocols should be flexible to accommodate unusual and/or urgent situations.

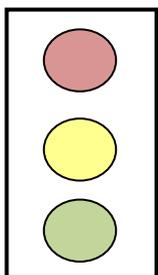


## 12. If multiple practitioners will be working together to conduct a victim notification, then all need to be briefed (ahead of time) about the case

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. At the same time, victims' privacy must also be respected, and team members need to be mindful not to stereotype based on preliminary information.

*Consider briefing on:*  
testing results, good/bad experiences the victim may have had during the initial investigation [if known], whether suspect is currently incarcerated, etc.

## 13. Be prepared to take action when practitioners are ready



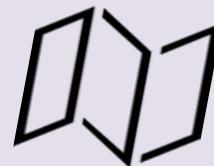
The timing of victim notification should be considered in light of when legal investigators, prosecutors, and/or advocates are ready and available to work on the case—and to keep the victim informed regarding what steps are being taken. It is important to try to avoid a delay/lag after notification so that the victim does not need to be re-notified. If there is a delay/lag for some reason, it is very important to keep the victim informed regarding what is happening with her/his case.

## 14. Attune to safety concerns – for notifying staff and for victims



Depending on how/where notification may take place, the physical safety of the notifying staff—and victims—could be at risk. Developing safety plans before notification is critical. For example, sending notifying officers out in pairs is recommended. In addition, victim notification will take an emotional toll on staff—and victims—so ensuring that these needs are addressed is equally important.

## 15. Develop resources for victims & providers



Developing an FAQ brochure and a packet of community resource information will likely be useful. This information could include: community referrals, the name/number of a community advocate, a 24-hour crisis line number, and a plausible excuse/story to tell others who might question their interaction with police (e.g., 'tell them you were a witness to another crime').

The Detroit SAK ARP's experience of developing and implementing a plan for victim notification, as well as the evaluation results regarding the efficacy of that protocol, have several implications for policy and practice regarding how to work with survivors whose SAKs were tested long-after the medical forensic exam was conducted and the police report was filed:

**1) Victim notification raises complex legal and psychological issues for survivors, so a multidisciplinary approach is necessary for both the creation and implementation of victim notification protocols.**

- In Detroit, early conversations about victim notification focused on how to convey complex information to survivors about DNA testing and the steps of prosecution. Stakeholders from advocacy, nursing/SANE, and the research team encouraged the group to think about the psychological impact of re-opening traumatic memories and how the victim notification experience as a whole should support survivors.
- Therefore, multidisciplinary stakeholders need to be involved in designing a community's plan for victim notifications—even if only one discipline (or disciplines) will be primarily involved in contacting survivors. Multidisciplinary perspectives are particularly important for determining how to protect survivors' safety, privacy, and confidentiality. Existing SART (Sexual Assault Response Team) resources need to be examined for the extent to which they address the needs of communities that need to form multidisciplinary collaborations to address untested SAKs.

**2) Comprehensive training is necessary for all victim notification staff regarding the various legal, forensic, psychological, and cultural issues that may arise in the notifications.**

- In Detroit, some stakeholders emphasized that because they had done notification before, they did not need additional training, but as the results of the action research project continued to unfold, it became clear that all practitioners from all organizations could benefit from training on victim-centered, trauma-informed practices.

- Other communities that are developing victim notification protocols may or may not have the resources and expertise to develop empirically-based training programs; therefore, state and national technical assistance providers may want to consider how to develop and disseminate empirically-based training materials (e.g., training videos, webinars, TA hotlines).

**3) Sample victim notification protocols, training materials, and resource materials need to be compiled and disseminated so that multidisciplinary teams can review these materials and consider which strategies might be most effective in their own community. However, what “works” in one community may or may not be a good choice in another jurisdiction.**

- In Detroit, the discussions at the planning retreat (and the later Notification Review Team meetings) considered what may be unique challenges faced in this particular city, given characteristics of its residents, neighborhoods, etc. The decisions made for the Detroit victim notification protocol reflect the collective wisdom of many individuals who have lived and worked in this community for decades.
- Therefore, multidisciplinary teams need to consider if and how to tailor victim notification protocols to fit the specific needs of their community (e.g., whether phone notifications might be feasible, whether having advocates accompany investigators is possible, etc.). It may be useful to develop a pilot protocol that is implemented with a small number of cases to evaluate whether the strategies are effective. State and national technical assistance providers may want to consider how to provide evaluation resources to communities so that they can conduct small-scale, utilization-focused evaluations of their pilot programs.

**4) Finding survivors takes dedicated effort, but for experienced, well-trained investigators, this may not be a daunting task, as many victims may be located with relatively minimal investigational effort.**

- In Detroit, legal investigators affiliated with the prosecutor's office were tasked with finding survivors for notification; these individuals were highly experienced detectives who had considerable prior experience working in this community.
- Therefore, multidisciplinary teams need to carefully consider who is selected to find/locate survivors; highly experienced detectives/retired detectives may be particularly well-suited for this role as their years of experience in the community can be instrumental in finding survivors. Training specifically on victim-centered, trauma-informed strategies for working with rape survivors would still be beneficial, as even experienced detectives may not have had exposure to these perspectives (see above).

**5) Survivors will have diverse reactions and notification personnel need to respect victims' choices.**

- In Detroit, the victim notification training emphasized how to work with individuals in crisis (whether their reactions were strongly positive, negative, or seemingly neutral/in shock). Victims may have different preferences for if, when, and how they want to discuss the case and their options.
- Therefore, the Detroit victim notification protocol emphasized case-by-case flexibility, so long as the core victim-centered, trauma-informed principles were respected. Stakeholders may feel a need to encourage or nudge victims to agree to prosecute (given what they know about the case, the perpetrator etc.), so multidisciplinary teams need to have explicit expectations for how to address these potential tensions. Training and resource materials regarding victim notification need to explicitly address this issue of how to balance victims' choices/wishes with what service providers may feel is the best course of action in a case.

## ***Creating a Multidisciplinary Team to Address the Problem of Unsubmitted SAKs: Overall Project Lessons Learned and Implications***

To accomplish these four goals of the Detroit SAK ARP, the collaborative partners had to learn how to come together and work as a team, which was challenging at times, given long-standing conflicts within and between organizations. One stakeholder relayed the following anecdote as a case-in-point example of how fractured the group was at start of the project:

*“What was it like in the beginning? Well, this was telling: remember when the whole team had to fly to DC for the kick-off meeting with NIJ? I think there were like seven of us that went on that trip and we took seven different flights . . . that’s impressive when you think about it, not in a good way though. I mean really, how many flights are there from Detroit to DC? And yet, everyone managed to be on a different plane.”*

Near the end of the project, NIJ hosted another in-person meeting in DC and stakeholders remembered that trip far more fondly, as one member of the team recounted:

*“I remember sitting in the food court at the airport, waiting for our flight. (Note: nearly the entire team was on the same flight.) All of us together . . . teasing each other about what we’d picked from the food court, who liked the greasy Chinese, who was good and got a salad. Laughing, telling stories, passing around iPhones looking at pictures of our kids and grandkids.”*

What happened in between those two trips? How did the group come together and commit to solving a long-term, complex problem? In addition to charting the collaborative’s progress on the four key substantive goals of the project (summarized above), the research/evaluation team also tracked overall group process in order to document the challenges working across disciplines. Figure 6.4 (following pages) summarizes the highlights from that journey, key lessons learned, and advice for other multidisciplinary teams tackling the problem of unsubmitted SAKs.

FIGURE 6.4

# Lessons Learned: Conducting an Action Research Project

*The take-home lessons from the Detroit SAK ARP based on their Experiences participating in a multidisciplinary action research project.*

*"Multidisciplinary is easy to say, but hard to do."*

## 1. There needs to be a champion (or champions for the cause)

Addressing the problem of untested SAKs is a long and arduous process, and many individuals and/or organizations will feel pressures to make the problem go away as quickly as possible. The work of confronting, resolving, and then preventing this problem from happening again is a long-term endeavor; as such, there needs to be a champion (or champions) of the cause. An individual (or multiple individuals) who have long-term standing and respect in the community need to take on the issue and keep key organizations and systems engaged in the work of solving the problem.



## 2. Forming a multidisciplinary team is important, but *building a team* even more important



Forming a multidisciplinary working group is essential; however, it may not be reasonable to expect that these individuals/organizations have much experience—or interest—in working together (at least at first). The results of this action research project highlight that years of poor systemic collaboration can be a contributing factor to the development of this problem. Therefore, allocating time to learn about the jobs of each team member and the work of each organization is critical. Team building activities—particularly in the beginning of the project—to help the group coalesce and work together effectively is also useful.

### 3. A project coordinator position is essential to the success of the project

Previous action research projects have shown that a designated project coordinator—someone responsible for keeping the group on task, providing day-to-day leadership, managing conflict and interpersonal difficulties, and sustaining the collaboration—is critical for the success of the project.



### 4. The challenges of group facilitation



Group facilitation is a challenging task and a multidisciplinary team may need to try different strategies before finding one that works. Managing stakeholders with divergent points can be a very challenging task. A skilled group facilitator is needed to create a setting in which individuals can openly share their points of view.

#### Group Facilitator Options:

- The project coordinator\*
- An outside facilitator: a professional facilitator who is not affiliated with any of the member organizations
- A team member who is not the project coordinator\*

\*If team meetings will be facilitated by someone “inside” the group, then the group needs to consider if/how the “internal” facilitators can share their own views in the discussion without biasing the process.

### 5. Who has decision-making authority?

The individual representatives in a multidisciplinary team may or may not have the authority to make decisions on behalf of their organizations. As such, a team’s provisional decisions may not be enacted immediately, as it will take time for those recommendations to be considered by senior executives. Furthermore, it is possible that the decisions/recommendations of the team will *not* be approved by senior executives, and then the team must re-evaluate their plan of action.

In a multidisciplinary team consisting of multiple organizations, there may be some organizations that are more influential than others. This could be one single organization that has more authority than any other (e.g., authority granted by an outside entity, by law, by community norms, etc.). The multidisciplinary team needs to discuss these issues explicitly so that all parties are clear as to what decisions individual members can make, which helps clarify the extent to which the decisions of the team are advisory or binding.

## 6. New cases don't stop coming in: Balancing the workload

Communities that have large number of untested sexual assault kits will struggle with the issue of how to attune to these "old" cases (many of which will become current cases as they are re-opened and investigated and prosecuted) while simultaneously responding to incoming cases. All disciplines—prosecution, law enforcement, forensic sciences, medical/nursing, and advocacy—will face this challenge. Some jurisdictions may be able to form specialized "cold case" units, whereby some staff focus exclusively on these "old" cases and others maintain responsibility for incoming cases.



## 7. Prepare for change because change is constant

Addressing the problem of untested SAKs is a long-term endeavor, so it is to be expected that there will be (perhaps considerable) staff turnover over the duration of the initiative (in both upper leadership and among front-line practitioners). Other changes in funding, resources, and community context should also be expected. Having multidisciplinary champions of the cause is important for weathering these changes and keeping the community invested in the development of long-term solutions.



## 8. The action research paradigm can be confusing to practitioners

Community practitioners may not have much experience participating in social science research projects, and if they have, it's more likely that they experienced "traditional" research/evaluation (i.e., the researchers are focused primarily on data collection). The action research paradigm is a very different approach to research, and community partners need more education about this kind of work—before they agree to partner in such an endeavor. Once involved in an ARP, on-going education/conversation about roles and responsibilities is important so that the collaborative has appropriate expectations for the researchers (and vice versa).



First and foremost, there needs to be a champion—or champions—for the cause. Addressing the problem of untested SAKs is a long and arduous process, and many individuals and/or organizations will feel pressures (internal and/or external) to make the problem go away as quickly as possible. An individual (or multiple individuals) who has long-term standing and respect in the community needs to take on the issue and keep key organizations and systems engaged in the work of solving the problem. In the Detroit SAK ARP, there were two key champions of the cause (one at the local level, one at the state level), and members of the multidisciplinary team consistently mentioned that the combined efforts of these two people were enormously influential in keeping stakeholders engaged in long-term solutions to this problem; as one member of the team noted:

*“We had two champions . . . we needed both, we really did because you won’t get anything done without someone demanding accountability and action . . . [both of them] always brought it back to social justice, justice for survivors. What’s the best thing to do for survivors? That kept us motivated and focused.”*

Second, effective community champions may be able to bring everyone to the table, but stakeholders may not know each other, understand the work of the other organizations, and appreciate the perspective of their disciplines. This was certainly the case in the Detroit SAK ARP, as one member of the team noted, *“We had to start off by having everyone teach everyone else on the team about what they did because honestly, we didn’t know who each other was and what exactly they did.”* In the first four months of the project, the organization-by-organization “report out” portion of the team meeting was a *“101 and then a 201 and then a 301 for everyone else . . . ok, today folks, we’re all going to learn the step-by-step process of DNA testing, how a warrant request works, and so on.”* To be clear, the Detroit community was not so fractured that stakeholders were wholly unaware of each other’s jobs—they did work together to process current cases—but they quickly realized that they were often

“coasting along on assumptions” and those assumptions were not always accurate. As one member of the collaborative highlighted:

*“It might seem basic, even a waste of time (to have everyone explain what they do) but it wasn’t. Absolutely not. I would tell any multidisciplinary team working on SAKs to do the same thing. Don’t assume you understand what the other groups do in their jobs. Assumptions are probably what got you into the mess you’re in . . . go back to basics and learn about each job. Each discipline sees things differently . . . you need to understand those differences.”*

From that base—key leadership and multidisciplinary understanding—the core day-to-day work has a better chance of creating sustainable change. To that end, the Detroit collaborative team members emphasized that there must be a designated project coordinator, someone “*down in the weeds, paying attention to the details.*” The members of the Detroit SAK ARP had high praise for the project’s coordinator, who had direct access to the highest leadership in key organizations (prosecutor, law enforcement, forensic sciences) and was able to cut through organizational red tape and resistance to get tasks accomplished relatively quickly. The day-to-day operations of the team also required negotiating group conflict, facilitating decision making, balancing work loads, and juggling personnel changes and other organizational transitions. The project coordinator was instrumental in guiding the group through those challenges as well.<sup>98</sup>

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<sup>98</sup> Figure 6.4 also highlights that the Detroit collaborative found the action research paradigm to be confusing at times and recommended that if other communities are considering a research component in their SAK initiatives, then they should learn more about this approach and clarify expectations throughout the project. The following section of this report will include an extended discussion of the action research paradigm and its application to SAK initiatives.

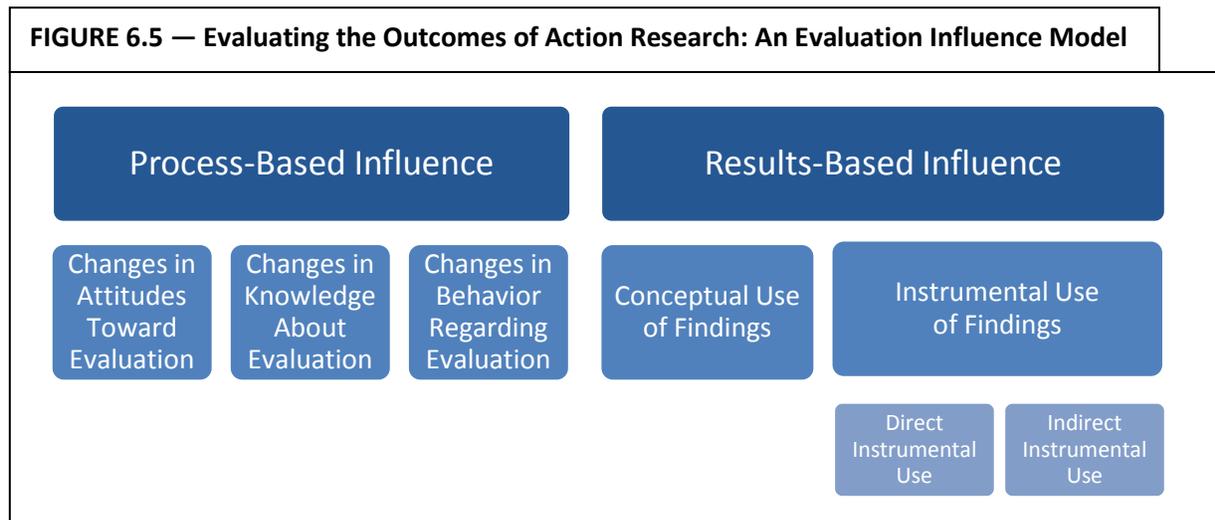
## What's Different Now: The Outcomes of the Detroit SAK Action Research Project

### *Evaluating the Success of an Action Research Project*

The action research paradigm is becoming a more commonly-used strategy for addressing large-scale, complex crime and social justice issues (see Klofas, Hipple, & McGarrell, 2010). This approach is quite different from traditional research in that it requires building a collaborative partnership between researchers and practitioners to develop empirically-informed, data-driven solutions to community problems (McEwen, 2003; Kennedy, 2012; Klofas et al., 2010; Rosenbaum & Roehl, 2010). Given those aims, it is reasonable to ask: Did it work? Did the project achieve the aims of the action research paradigm? In prior criminal justice action research projects, the primary outcome—the measure of success—was whether there was a significant decrease in crime. For example, the Boston Gun Project was widely heralded as a success due to significant decreases in youth homicide and non-fatal gun violence (Kennedy, 2012; Kennedy, Braga, Piehl, & Waring, 2001). However, the Detroit Sexual Assault Kit Action Research Project had fundamentally different aims. The overarching goal was *not* a reduction in crime (because project activities were *not* targeted towards the prevention of sexual assault); rather, the key aim was to change the criminal justice system response to sexual assault and the processing of rape kits. In other words, the change needed was *within* the criminal justice system (primarily) and in the inter-organizational linkages between agencies that assist rape victims. Given those aims, what would “success” look like?

For guidance on the conceptualization and assessment of “success,” we turned to the evaluation literature, as this same basic question is posed in those circles too: Did the evaluation influence policy and practice? In the field of program evaluation, scholars distinguish between different forms of influence (i.e., different ways in which an evaluation might affect practice), based on what aspects of the project are “picked up” (i.e., attended to) and how they are acted upon and by whom (Henry & Marks, 2003; Kirkhart, 2000; Leviton & Hughes, 1981; Patton, 1998; 2008; Preskill & Caracelli, 1998; Rossi et al.,

2003; Weiss, 1980, 1988). In particular, Kirkhart’s (2000) theory of evaluation influence provides a useful model for operationalizing the ‘outcomes’ this particular action research project; Figure 6.5 (below) summarizes core components of this conceptual model.<sup>99</sup>



First, Kirkhart (2000) described how there can be “process-based” influence: “*not all of evaluation’s influence emanates from the formative or summative reporting of results. Sometimes the primary influence centers around the process of conducting the evaluation itself*” (p. 10). Process-based influence (also termed “process use”) refers to changes within program staff (e.g., knowledge, skill development) and organizations (e.g., culture shifts) that stem from participating in an evaluation (Amo & Cousins, 2007; Patton, 1998; 2008; Shaw & Campbell, 2014). This type of use is often referred to as the development of “evaluative thinking.” To assess process use, researchers/evaluators examine whether those who participated in the evaluation project show changes in their feelings and attitudes

<sup>99</sup> Kirkhart’s (2000) theory offers a multidimensional conceptualization of influence that considers: *source* (what gets “picked up” from the evaluation), *intentionality* (the degree to which influence intended or unintended), and *time* (whether the influence was immediate, end-of-cycle, or long term). For simplicity, we focused our analysis on the *source* component—what aspects of the project were “picked up,” by whom, and used to what ends.

about evaluation (e.g., reduced anxiety about evaluation), new knowledge about evaluation methods (e.g., increased familiarity with the how's and why's of research), and emergent behaviors regarding institutionalizing evaluation within the organization (e.g., changing internal processes, such as record keeping, to facilitate on-going evaluation). In the context of this SAK action research project, at issue is whether there were there changes over time in these dimensions of "evaluative thinking" among members of the Detroit collaborative.

Second, Kirkhart (2000) noted that there can also be "results-based" influence, which refers to how the substantive findings of the evaluation project influence practice and policy. Within this general form of influence, evaluators have distinguished different sub-types of influence, depending on the ways in which the findings are utilized by stakeholders. "Conceptual use" is when the evaluation findings change how stakeholders think about a problem or issue in a fundamental way (e.g., a new insight, a deeper understanding, new questions) (Patton, 2008; Preskill & Caracelli, 1988; Weiss, 1980, 1998; Weiss, Murphy-Graham, & Birkeland, 2005). The substantive findings of the project itself may challenge stakeholders' ideas and beliefs, prompting them to re-think deeply-held ideologies. Conceptual use is often likened to an "aha moment," one that might lead to specific observable action steps taken for change (see *instrumental use*, below) or one that puts a new idea on "slow simmer" that later (perhaps even years later) contributes to policy change (see Kingdon, 1995; Weiss, 1980, 1998, 2004). In the current context, if there had been conceptual use of the findings, then the stakeholders participating in the SAK action research project would have changed the way in which they think about rape, sexual assault investigations, and/or SAK testing.

"Instrumental use" is when the evaluation findings are used to guide a decision, action step, or other change initiatives (Patton, 2008; Rossi et al., 2003; Weiss, 1980, 1998). In some forms of instrumental use, there is a direct link between the substantive results and a programmatic change (e.g., 'because we found *this*, we decided to do *that*'). However, it is also possible that the evaluation results

become a catalyst for far-reaching changes. In other words, the evaluation created a “snowball effect,” whereby a series of changes and initiatives follow, and the link between any one change and the evaluation findings may be more indirect. In the context of this action research project, the question is whether the evaluation findings were used to create direct changes regarding Detroit’s SAK testing practices, and whether the project contributed to indirect, further-reaching changes in policy regarding sexual assault investigations and the use of medical forensic evidence.

### ***Evidence of Process Use: Changes in Stakeholders’ Knowledge, Attitudes, and Beliefs about Research and Evaluation***

Investing the time and effort to participate in an action research project would be expected to develop program staff’s “evaluative thinking.” As noted above, process use is assessed by examining changes in stakeholders’: 1) attitudes about evaluation; 2) knowledge about evaluation; and 3) emergent behaviors regarding institutionalizing evaluation within the organization. In the Detroit SAK ARP, there was strong evidence of process use among stakeholders in all three of these sub-domains.

With respect to changes in *attitudes* toward research and evaluation, there were two notable shifts that occurred within members of the collaborative over the course of the action research project. At the beginning of the project, some stakeholders expressed concerns that the research would “*trash us, make us look bad,*” and that it would be another example in a long history of Detroit being “*roughed up*” and “*chewed up and spit out.*” What seemed to ease their concerns and shift attitudes over time was the research team’s emphasis on protecting identity, confidentiality, and privacy (see *Chapter 1: Introduction*). These are core principles that must be upheld in social science research, but because the stakeholders in this project did not have much prior experience with research, they expected, based on their history, that the findings would “*land in the [news]papers, names attached, all that.*” The idea that research could provide a protected, private space to study and understand problems was novel to many,

and as they came to see these principles in practice over many months, there was marked shift in their attitudes. As one member of the collaborative noted, *“When we saw [that this] wasn’t going to be another hack job . . . [it was] a real study with rules (about how research is conducted) and you (the researchers) were following the rules and the rules protected us . . . that made a big difference.”*<sup>100</sup>

Stakeholders’ attitudes about the usefulness of research and whether it could truly help Detroit with its problem of unsubmitted SAKs also shifted substantially over time. In the early months of the project, some members of the team expressed a quid-pro-quo attitude about the research component: tolerate the evaluation piece because *“it comes with money to get kits tested.”* There was skepticism about whether research could truly help: *“why do we need research on this? The problem is simple—the kits weren’t tested—and the solution is simple too—get them tested.”* Not all participating individuals/organizations expressed this point of view, but it was a strong undercurrent at the beginning of the project. Attitudes began to shift when the group was struggling to create the SAK testing plan (see *Chapter 4: Developing & Evaluating a SAK Testing Plan*). Detroit did not have funds available to test all of the kits, stakeholders strongly disagreed about which kits to test and why, and the group was grinding toward a stand-still. As one member of the team recalled:

*“I remember those meetings about testing . . . what a mess . . . [then] you (the lead researcher) said something like, ‘we could test all these ideas, like in the research project.’ It was a light bulb for us. We were going around in circles and you stepped in and said, ‘enough—stop going in circles, there’s a way out, and here it is.’ I think that’s when a lot of us saw that we really did need some data and information and research to get out of this mess.”*

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<sup>100</sup> For one specific organization, there was a marked negative change in their attitudes toward the research/evaluation process after reading a draft of the final report, as they had strong concerns with some content (as noted throughout). However, the quotes above highlight the importance of standardized rules and procedures for research, which were followed consistently, up to and including the preparation and distribution of this final report (e.g., sharing results in progress, giving opportunity to review a draft of the report, noting dissent throughout the report).

Stakeholders also pointed to the team's work on victim notification as another moment in which their attitudes about research changed substantially. The group was struggling to figure out how best to notify victims and feeling paralyzed by what was the "right way" to do this, and as one member of the collaborative recalled, the researchers interjected to suggest empirically-based solutions:

*"That was big moment, when (the lead researcher and co-investigator) told us there's research out there that can help us. There's no how-to manual . . . (but) there's research about how trauma affects victims, what it might be like for victims to have trauma reactivated . . . and we can use that research to help us figure out what to do . . . usually we have to just make a best guess . . . this was helpful to have some information to guide us."*

In the development of both the testing and victim notification protocols, the research team was able to offer the collaborative specific suggestions, strategies, and information, which changed stakeholders' attitudes about whether research could be helpful to addressing the problem of unsubmitted SAKs.

Process use also reflects changes in *knowledge* about evaluation (e.g., increased understanding of scientific terms, scientific methods, etc.). In our formal and informal interviews with stakeholders, team members did not specifically comment on this specific form of process use, other than noting that they "*learned a lot about how research works.*" However, we (the researchers) noticed a great deal of change in the team members' knowledge about evaluation, which we documented in our field notes. Over the course of the project, stakeholders started picking up the language and terminology of evaluation and using them correctly in their discussions and debates. Below is an excerpt from our field notes from a meeting in which a senior police department official challenged the team to think about sampling more carefully:

When (police command staff member) asked today ‘*aren’t there sampling issues we need to consider here? We can’t just pick stuff here and there, we have to be systematic about it, right (researcher)?*’ I thought I was going to fall over. S/he brought it up—we didn’t. We (researchers) have been working steadily over last few meetings to teach the group about sampling and what it is and why it matters, and it looks like it sunk in and (a stakeholder) reflected it back to us. Tag this—process use, knowledge change.

Stakeholders’ increasing knowledge about evaluation was also evident in the way in which they engaged—and challenged—the research team about the project’s findings. For each main goal of this project, the research team conducted a powerpoint presentation of draft findings for review and comment. Over the course of the project, we noticed that their questions became far more technically informed and methodologically sophisticated, as evident in this excerpt from our field notes:

Today I did the powerpoint on the victim notification findings to the collaborative . . . lots of questions, good questions about how we did the analyses and generated the findings. Things like: what’s the basis of comparison for that number? Are there other studies that have found that rate? How did you calculate that rate? Did you do a test of significance on that? . . . At first, I didn’t notice anything unusual about their questions, I think because I’m used to fielding these kinds of questions all the time—from *academic audiences*. And then it hit me—wait a minute, I’m not presenting to an *academic audience*. I’m getting grilled on methods by *practitioners*. It was awesome. Tag this—process use, knowledge change.

Process use also reflects *emergent behaviors* regarding institutionalizing evaluation. As stakeholders become more familiar with what evaluation could offer their organizations, then it stands to reason that they might start taking steps to build data systems into their practice. For this specific sub-type of process use, we saw *intention* for behavioral change. Specifically, two organizations involved in the collaborative noted that they are paying far more attention to record keeping and data management as a result of participating in this project. One organization was seeking financial

resources to hire a full-time data analyst to help track SAKs (as well as other issues pertinent to the work of that organization). Stakeholders within that organization noted that they had come to see the value in being able to access numbers, track progress, and share that information with members of their staff and with the community at large, and felt it would be valuable to institutionalize that within their organization.

### ***Evidence of Conceptual Use: Changes in Stakeholders' Attitudes and Beliefs About Sexual Assault and SAK Testing***

Conceptual use reflects changes in stakeholders' underlying understanding and beliefs about a problem. The evaluation findings may challenge team members to think about the issues at hand in a different way. In the Detroit SAK ARP, there were two notable manifestations of conceptual use. As noted previously, many stakeholders were skeptical about the utility of research, and over time, their attitudes changed (process use) when they saw how the four Testing Groups could help answer their questions. The answers to those questions—i.e., the results of the SAK testing—had a strong impact on stakeholders' underlying beliefs about rape kit testing. The testing yielded a high rate of CODIS hits, far more than most had expected, which changed how many thought about these kits and the purpose of SAK testing. As one member of the collaborative explained:

*“Remember, these were the ones (kits) not tested, because whatever, they didn’t matter, the victims were lying, the victims were this or that, and then bam, every month, (forensic science team representative) brings the update (CODIS hit tracking chart) to the meeting . . . we’ve got this many hits, this many serials. All of these should have been nothing, no hits, right? Because these were the toss away’s, the ones not worth it, there wasn’t anything to find . . . we tested them and guess what, there are some seriously dangerous people out there. Still out there . . . If that doesn’t change the way you think about this, I don’t know what would . . . it was a huge wake up call . . . the proof was in that chart, every month, showing the numbers, showing that the way we’ve been thinking about this was wrong. Flat-out wrong.” (emphases in original)*

Several other members of the collaborative noted that the results from Testing Group 2 (Non-Stranger Rapes) in particular challenged their beliefs about both the seriousness of known-offender rapes and the importance of testing SAKs for these crimes, as these two quotes illustrate:

*“[Testing Group 2 results were] not what I was expecting. That many hits for the known offenders? . . . I was one of those people thinking, no point in testing those. Save our money, no point . . . but look at the hits, look at the serials in that group . . . I admit it, I thought about these as he-said/she-said’s . . . it probably wasn’t rape, it was a misunderstanding about who wanted what . . . it’s not a misunderstanding when you see the pattern . . . this totally changed how I think about these rapes (non-stranger).”*

*“Going in (to this project), I said, it’s the stranger rapes that need testing . . . that’s the threat to public safety . . . we don’t have a lot of money, so that’s where we got to put it . . . and I guess everyone else (known-offender assaults) just needs to work things out on their own, you know? . . . [but then] you look at the chart (CODIS hit tracking chart) and what can I say? . . . I guess we need to find more money because these need testing too (non-stranger SAKs).”*

Stakeholders also exhibited conceptual change in regard to their understanding of the trauma of rape and how it affects survivors. When the team was developing the victim notification protocol, the advocacy partners in the project pushed the group to take a victim-centered, trauma-informed point of view (see *Chapter 5: Developing & Evaluating a Victim Notification Protocol*). But, as one advocate noted, *“it became pretty clear that people didn’t know what we were talking about . . . what that meant.”* At the victim notification planning retreat (see *Chapter 5*), the group decided that the research team and advocacy organizations should work together to develop a training for all organizations involved in the ARP on the trauma of sexual assault and how stakeholders could take a victim-centered approach to their work with survivors. That training included a review of the literature on the neurobiology of trauma, with an emphasis on how stress hormones affect victims’ behavioral

presentations and their memory recall of the assault. Many stakeholders commented that this training was the first time they had ever received formal instruction on the impact of trauma and it had a profound impact on how they thought about sexual assault, as one team member described:

*“I’ve been doing this (sex crimes law enforcement) for a long, long time. I’ve never heard anything like this . . . never got any training on this . . . so many things I thought meant victim was lying, and then I learnt that sometimes victims are scattered and have trouble making sense and sound really flat and out of it because that’s the trauma of the rape . . . the trauma hormones . . . I thought back to old cases, what I saw, what I think I saw, and I was off, by a lot.”*

Members of the law enforcement community noted that, to them, a clear sign of a false report was a victim giving a “sketchy” version of the assault, “disorganized, wandering all around, like they’re making it up as they’re going along.” Research on the neurobiological impact of trauma clearly shows that victims’ memories of assaults are fragmented and therefore, recall can be slow and difficult and disorganized (Koss et al., 1995, 1996; Roozendaal et al., 2009; Rubin et al., 2008). That information challenged officers’ beliefs, as one noted:

*“So wait a minute. You mean what we’re seeing isn’t bullshit? I’ve always believed it was bullshit . . . Well, how ‘bout that. Real trauma looks like bullshit.”*

The goal of this training was to inform team members about the underlying mechanisms of how rape affects victims’ health and well-being so that they could use a victim-centered, trauma-informed approach to victim notifications. The information presented by the advocacy organization and the research team challenged many members’ beliefs about how victims “ought” to behave and how they really do behave—and why. As one member of the team noted, “*This [goes] beyond victim notification . . . this is useful for my current cases, right now, today . . . it’s completely different way of looking at this.*”

### ***Evidence of Instrumental Use: Changes in Policy & Practice***

Instrumental use refers to changes in practice and policy, stemming from an evaluation. Some forms of instrumental use are *direct*: because of finding ‘X,’ change ‘Y’ was made (i.e., a direct one-to-one correspondence). Other instances of instrumental use may be *indirect*: the evaluation project sets into motion a series of reflections, thoughts, and ideas that becomes a catalyst for change. There was strong evidence of instrumental use from this project regarding sexual assault in general and SAK testing specifically) (see Figure 6.6 following pages).

#### **1) Increase Support Services For Sexual Assault Survivors:**

- The advocacy organizations wanted to ensure that survivors who would be notified had comprehensive support services (e.g., hotline, advocacy, counseling). The state government violence against women agency that participated in the collaborative initiated an effort to link all Detroit-area victim service organizations so that all were aware that notifications were about to begin, so that no matter which agency a victim might turn for support, all organizations were ready to help. (Direct Instrumental)
- The results of the historical context analysis (*Chapter 3: Why So Many Unsubmitted SAKs in Detroit*) showed that Detroit did not have sufficient community-based advocacy services. State funders were aware of that problem, but the evaluation findings highlighted the far-reaching negative effects it had on systemic functioning. In response, the state government VAW agency added four new community-based advocate positions to Detroit organizations during the 30 months of the action project (supported by OVW funds). The state government VAW agency also invested in training, mentoring, and capacity building with the executive directors and staff of Detroit service agencies regarding victim-centered, trauma-informed care. (Direct and Indirect Instrumental)

#### **2) Expand Training For All Detroit Sexual Assault Service Providers:**

- The results of the historical context analysis (*Chapter 3: Why So Many Unsubmitted SAKs in Detroit*) showed that service providers have not had a great deal of professional

training about sexual assault and its impact on victims. Therefore, the research team, the national VAW foundation who was a partner in this project, and the local victim advocacy organizations partnered to create a one-day training on victim-centered, trauma-informed care for all members of the Detroit SAK ARP and all victim notification staff. (Direct Instrumental)

- The results from the review of police files associated with unsubmitted SAKs (in this project, see *Chapter 3: Why So Many Unsubmitted SAKs in Detroit*) showed that the vast majority of these reported assaults were not thoroughly investigated and that officers made a number of victim-blaming statements in their reports. To address this problem, members of the research team conducted a separate law-enforcement only training for the local police department on the neurobiology of sexual assault and its implications for a victim-centered response to sexual assault. In addition, the state-level prosecutor's association (which was a member of the collaborative) was in the process of developing a multi-day training for law enforcement on offender-focused sexual assault investigations (as a separate initiative), which was supported by OVW funds, administered by the state government VAW agency. Content from the NIJ SAK ARP informed the content of that training and members of the Detroit SAK ARP collaborative (and the research team) were selected as trainers for this event. (Indirect Instrumental)

### **3) Pursue Testing of all Previously Unsubmitted SAKs:**

- The results of the SAK census showed that the vast majority of SAKs in police property had not been submitted for testing (see *Chapter 2: How Many Unsubmitted SAKs in Detroit*). Given that Detroit is one of many cities in Wayne County, MI, the prosecutor's office asked the other 41 law enforcement agencies in the county to voluntarily assess how many unsubmitted SAKs they had in custody to inform county-level testing plans and resources. (Direct and Indirect Instrumental Use)
- The DNA testing and CODIS hit results of the 1,600 (1,595) SAKs tested in the scope of this project were not yet finalized, but preliminary data indicated high rates in all Testing Groups, including Testing Group 2 (Non-Stranger Rapes) and Testing Group 3 (Presumed SOL-Expired), which some stakeholders expected would have substantially

lower CODIS hit rates. Key stakeholders in Detroit SAK ARP worked with the Governor’s Office and the Michigan Attorney General’s Office to secure funding to test as many remaining previously unsubmitted Detroit SAKs as possible. The Michigan Attorney General’s Office allocated \$4 million from settlement funds for testing Detroit SAKs. The state police forensic science division negotiated a contract with a private vendor laboratory, and 7,393 previously untested Detroit SAKs have been submitted for testing thus far. (Direct and Indirect Instrumental Use) <sup>101</sup>

#### 4) Support Investigation, Prosecution, and Victim Advocacy For All Tested SAKs:

- The purpose of the Detroit SAK ARP was to assess the scope of the problem, research the contributing factors that gave rise to the problem, and develop and evaluate plans for SAK testing and victim notification. The “next steps” of investigating and prosecuting the cases that emanate from that testing were not within the scope of the ARP. However, given that the testing results indicated that there would be a substantial number of cases that would need to be re-opened and examined, the community needed to develop a long-term plan for investigation, prosecution, and victim advocacy. The prosecutor’s office applied for and received a federal OVW Grants to Encourage Arrest award to support a multidisciplinary “cold case unit” to investigate and prosecute these cases, with accompanying victim advocacy services. (Indirect Instrumental Use)
- The OVW Grants to Encourage Arrest award was critical in establishing a cold case unit; however, moving forward with the investigation and prosecution of the cases associated with the SAKs tested in this project—and those submitted for testing with funds from the Michigan Attorney General’s Office—will require additional financial resources. To

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<sup>101</sup> One of key research questions in the Detroit SAK ARP was whether there was empirical support for testing *all* SAKs or whether it is possible to create data-driven prioritization/selection guidelines. As noted in *Chapter 4: Developing & Evaluating a SAK Testing Plan* and previously in this Chapter, the results suggest that there is merit in testing all SAKs released by victims to law enforcement, regardless of victim-offender relationship and statute of limitations status, as rates of CODIS hits are statistically indistinguishable among these different cases/SAKs. Though the results of this action research project suggest that testing all SAKs in Detroit was warranted, the decision to seek funding from the Governor’s Office and Attorney General’s Office for testing all remaining kits was made *before* the statistical analyses had been completed. In that sense, there was *not* DIRECT instrumental use of the project’s findings; however, the preliminary results were influential to key local and state policy makers (i.e., indirect instrumental use). The researchers were *not* involved in any of the efforts to secure funding to test all remaining kits, in deference to the ongoing action research project and the research questions pertaining to “test all/test some.”

that end, the prosecutor's office partnered with a state foundation and the local crime commission, both non-profit 501(c)(3)'s, to raise awareness and garner the financial resources necessary to see that all suspects identified through testing are investigated and prosecuted to the fullest extent of the law. (Indirect Instrumental Use)

#### **5) Prevent the Problem of Unsubmitted SAKs from Happening Again:**

- Within the first three months of the Detroit SAK ARP, the police department made a policy change to submit all SAKs (in current cases) for testing. This decision was informed by discussions within the collaborative meetings as well as private conversations among the leadership of key organizations (police, prosecution, state police crime lab). (Direct and Indirect Instrumental Use)
- A recurring challenge in the Detroit SAK ARP was the lack of information management and tracking of SAKs from the point at which they were collected by a health care provider and released by the victim for retrieval by law enforcement, to when they were submitted for testing, to when the testing had been completed. Whereas building new IT infrastructure is a key long-term goal of many organizations involved in this project, a more immediate action step was taken by the prosecutor's office to secure funding for a pilot SAK tracking project. All Michigan SAKs now have a bar code on the outside of the box, but to date, no municipalities or law enforcement jurisdictions in Michigan have the infrastructure for tracking kits (and no state-wide tracking system exists either). The prosecutor's office formed a partnership with United Parcel Service (UPS) to develop and implement a pilot tracking project for Detroit SAKs (current cases/SAKs) (Direct and Indirect Instrumental Use)
- To prevent the problem of untested SAKs in the future, legislative change may be necessary. To that end, multiple organizations who participated in the Detroit SAK ARP worked together to support legislation requiring all current SAKs to be submitted for testing (provided the victim has authorized the release of the SAK for testing). The Sexual Assault Kit Evidence Submission Act (PA 227) was unanimously passed by both houses of the Michigan legislature and was signed by the Governor into law on June 26, 2014. (Indirect Instrumental Use).

FIGURE 6.6

# Moving Forward: Changing SAK Policy and Practice

*Key changes in Detroit and Michigan regarding SAKs, sexual assault investigations, and victim services.*

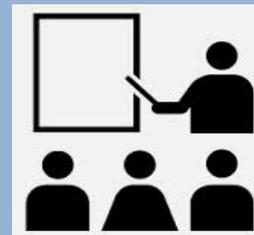
*"The NIJ project was a huge catalyst for change."*

## 1. Increased state funding for community-based sexual assault advocates

State agencies have increased funding to Detroit-area non-profit organizations to expand community-based advocacy for sexual assault victims notified as part of the Detroit SAK ARP. These funds will also be used to provide advocacy services in new sexual assault cases.



## 2. Training for sexual assault practitioners



Training on a victim-centered, trauma-informed response to sexual assault has been and will continue to be conducted with police, prosecutors, medical/nursing, and victim advocacy. Law enforcement personnel have also had in-depth training on offender-focused sexual assault investigations.

## 3. County-wide assessment of the scope of the problem of untested SAKs

The problem of untested SAKs is not exclusive to the city of Detroit. The prosecutor's office has reached out to the 41 other police agencies in Wayne County, as well as local hospitals, to determine the extent of untested sexual assault kits county-wide.

## 4. Funding to test all remaining SAKs

After the scope of the problem in Detroit had been clearly established, the Governor's Office and the Michigan Attorney General's Office allocated \$4 million to test all remaining previously untested SAKs in Detroit's police property.

## 5. Federal Grants to Encourage Arrest Award



A grant was awarded to the prosecutor's office to help fund a Cold Case Sexual Assault Unit that would investigate and prosecute the cases emanating from the testing conducted in the Detroit SAK ARP.

## 6. Creating Community Partnerships



The prosecutor's office has partnered with the Michigan Women's Foundation and Detroit Crime Commission, both non-profit 501(c) (3)'s, to raise awareness and garner the financial resources necessary to see that all suspects identified through testing are investigated and prosecuted to the fullest extent of the law.

## 7. Development of a SAK tracking project

The Detroit SAK ARP highlighted how there is no mechanism to track a SAK from when it was collected by a medical provider to when it was tested by a forensic scientist. In order to ensure that SAKs do not fall through the cracks and go untested in the future, it is crucial that all kits are accounted for throughout the collection and testing processes. The prosecutor's office is partnering with UPS to develop a pilot electronic tracking project for all rape kits collected in the city of Detroit.



## 8. Legislative Reform

State legislation has been drafted and enacted that requires all sexual assault kits released to law enforcement to be submitted for testing (MI Act 227 of Public Acts 2014). Additional bills are currently pending in the legislature that would, among other things, create a statewide electronic tracking system for SAKs and provide victims with electronic access to the status of their SAKs.

## Summary & Conclusions

The goal of the Detroit SAK ARP was to develop data-driven solutions for the unsubmitted SAKs in police property in this jurisdiction, and in so doing, to provide empirically-based recommendations for other communities struggling with this same problem. This project documented the challenges communities can expect to face in the process of conducting a census, developing a testing plan, and creating and implementing a victim-notification protocol. The lessons learned from this project have been translated into planning tools, sample protocols, resource booklets, and data collection sheets that other jurisdictions can modify for their own use. As one stakeholder noted at the beginning of the project, *“I wish there was a roadmap or a how-to guide for this.”* Our experiences in this project suggest that because the history, context, and resources of each community are unique, there is no *one* right way to tackle this problem, but that it is the right thing to tackle the problem. The rate of CODIS hits and serial sexual assaults documented in this project underscores the pressing need for reform in how the criminal justice system responds to sexual assault.

The action research paradigm provided a useful mechanism for bringing multidisciplinary practitioners together with researchers to develop short-term and long-term response strategies. The project helped bring to light long-term frustrations and frictions in the community, but also a greater awareness of the interdependence of these organizations and how when they pool their resources and expertise, they are more successful in creating change. Action research projects require a tremendous amount of time, effort, and trust, and in so doing, they can help bolster the sense of urgency that’s needed for change and support long-term planning of change initiatives. In closing, one member of the collaborative summarized the sentiments of many with this reflection on the experience of being in this project and what it accomplished:

*This was a long, hard project . . . I think it did a lot of good in re-building broken relationships [in Detroit] and making new ones . . . I hope what we did here will help us to do better in the future. I hope what we did will help other communities. Most of all, I hope we helped prevent this from happening again—here and in other cities and other states . . . Every kit is a person . . . it's not a box, it's a person. We have a responsibility to fulfill to each and every one of them.*

## APPENDIX A: References

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## APPENDIX B: Project Methodology

### Design, Sampling, Procedures, & Analysis

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The purpose of this Appendix is to describe the data collection methods and analyses used in this action research project. In order to make this report as accessible as possible to diverse audiences of researchers *and* practitioners, we did not provide extensive methodological details in each chapter; instead, we presented overviews of the data sources and analytic approaches used to generate the findings. In this Appendix, we will now provide those details traditionally covered in the “Methods” section of research reports/manuscripts, including:<sup>102</sup>

1. Guiding evaluation theory for the project (Developmental Evaluation Theory)
2. Guiding research design for the project (Multi-Stage, Sequential Exploratory Mixed Methods Design)
3. Data collection methods (including sampling, procedures, and reliability assessments)
4. Data analysis methods (qualitative & quantitative)

The intended audience for this Appendix is the research community, and therefore it presupposes a working knowledge of qualitative and quantitative research design and analysis. Practitioners may also find the information in this Appendix to be helpful in that it details the nature of data collection, the specific data sources obtained, and the challenges of conducting community-based action research projects. To ground the readers in the goals of the project and the data collection methods, we have reproduced Table 1.1 (*Overview of SAK Action Research Project Data Collection Methods*) and Table 1.2 (*Overview of the Quantity of Data Collection in the SAK Action Research Project*) (following pages) from *Chapter 1: Introduction*, which summarize the four methods used to assess each of the four main project goals and the quantity of data collected (organized by method).

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<sup>102</sup> All research/evaluation data collection instruments can be found in *Appendix D: Data Collection Instruments*.

<b>TABLE 1.1 – Overview of SAK Action Research Project Data Collection Methods</b>				
	<b>DATA COLLECTION METHODS</b>			
	<b>Ethnographic Observations</b>	<b>Individual Interviews</b>	<b>Archival Records</b>	<b>Focus Groups</b>
<b>Goal 1:</b> Conduct a Census of SAKs in Police Property	<i>Document the Discovery of the Unsubmitted SAKs and Events That Occurred Prior to the Beginning of Census</i>			
	Observe group discussions about the discovery of the unsubmitted SAKs and the inter-organizational communications thereafter	Interview Detroit stakeholders about the discovery of the kits and the events thereafter	Review inter-organizational memos re: the discovery of the kits & intra-organizational investigations/audits  Review media reports about the discovery of the kits	(NA)
	<i>Document the Process of the SAK Census</i>			
	Observe the process of conducting the census for key questions, issues, and decisions	Interview Detroit stakeholders about the successes, challenges, and lessons learned from conducting a census	Review records in the police property database  Review records in the police forensic laboratory testing spreadsheet	Discuss successes, challenges, and lessons learned re: conducting a census
<b>Goal 2:</b> Identify the Underlying Factors Re: Why Detroit Has Unsubmitted SAKs	<i>Document Historical Context in Detroit Sexual Assault Organizations</i>			
	Observe group discussions about policies, practices, and resources available in each organization over time	Interview Detroit stakeholders from each discipline re: daily operations/ services provided; staffing levels; and reporting structure, training and supervision  Interview public officials in four comparable cities re: services & staffing levels	Review records re: leadership, staffing, & resources in Detroit organizations (1989-2009)  Review records re: leadership, staffing, & resources from sexual assault organizations in four comparable cities (Philadelphia, Dallas, Baltimore, & New Orleans)	(NA)

TABLE 1.1 (continued)				
	DATA COLLECTION METHODS			
	Ethnographic Observations	Individual Interviews	Archival Records	Focus Groups
<b>Goal 2</b> (continued)	<i>Examine Front-Line Services &amp; Decision Making in Sexual Assault Cases</i>			
	Observe group discussions about standard operating procedures & decision making in sexual assault cases	Interview Detroit stakeholders from each discipline re: decision-making processes in sexual assault cases	Review criminal sexual assault police reports (1989-2009) re: investigational practices and decision making	(NA)
<b>Goal 3:</b> Develop SAK Testing Plan and Evaluate Efficacy	<i>Document Process of Developing Testing Plan</i>			
	Observe the process of developing a SAK testing plan re: key questions, issues, and decisions	Interview Detroit stakeholders and stakeholders in national organizations concerned with criminal justice, forensic sciences, and violence against women regarding the purpose & utility of SAK testing	(NA)	Discuss successes, challenges, and lessons learned re: developing a testing plan
	<i>Evaluate Testing Plan</i>			
	Observe group discussions re: testing results and the implications of the findings	(NA)	Review police files associated with SAKs tested in this project for victim, assailant, and case characteristics  Document number and type of CODIS hits associated with SAKs tested in this project	(NA)

TABLE 1.1 (continued)				
	DATA COLLECTION METHODS			
	Ethnographic Observations	Individual Interviews	Archival Records	Focus Groups
<b>Goal 4:</b> Develop Victim Notification Protocols and Evaluate Efficacy	<i>Document Process of Developing Victim Notification Protocols</i>			
	Observe the process of developing victim notification protocols re: key questions, issues, and decisions	Interview Detroit stakeholders and stakeholders in national organizations concerned with criminal justice, forensic sciences, and violence against women regarding how and when victims should be notified about testing results	(NA)	Discuss successes, challenges, and lessons learned re: victim notification and the utility of a formalized Victim Notification Review Team
	<i>Evaluate Victim Notification Protocols</i>			
	Document the processes and decisions of the Victim Notification Review Team	(NA)	Track investigators' efforts to locate victims for notification and perceptions regarding the notifications  Document community-based advocates' (de-identified) perceptions regarding the notifications	(NA)

**TABLE 1.2 – Overview of the Quantity of Data Collected in the Detroit SAK ARP**

METHODS	DATA QUANTITY
Ethnographic Observations	<p>N = 81 observations, ~186 hours of observation</p> <p>↓</p> <p>n = 53 collaborative team meetings, ~106 hours of observation</p> <p>n = 18 impromptu meetings, ~32 hours of observation</p> <p>n = 6 shadowing observations of stakeholders conducting their jobs, ~18 hours of observation</p> <p>n = 1 planning retreat, ~12 hours of observation</p> <p>n = 3 Victim Notification Review team meetings, ~18 hours of observation</p>
Individual Interviews	<p>N = 42 formal interviews with Detroit stakeholders (16 one-time/cross-sectional interviews; 26 longitudinal interviews → 10 people interviewed two times, 2 people interview three times)</p> <p>N = 187 informal interviews with Detroit stakeholders (30 people, number of interviews varied)</p> <p>N = 5 interviews with national criminal justice/forensic science stakeholders</p> <p>N = 5 interviews with national violence against women organization stakeholders</p> <p>N = 35 interviews with public officials in comparables cities</p>
Archival Records	<p>N = 2 databases reviewed re: the number of unsubmitted SAKs: police property data base (~11,000 entries) and police forensic sciences testing spreadsheet (~2,500 entries)</p> <p>N = 5 intra- and inter-organizational records (and N = 6 media reports) re: discovery of the unsubmitted SAKs in August, 2009</p> <p>N = 93 (publically-available and internal) from Detroit organizations re: leadership, staffing, resources, services provided, and policies &amp; procedures over time</p> <p>N = 33 records (publically-available) from organizations in comparable cities re: leadership, staffing, and resources</p> <p>N = 1,268 police reports reviewed re: investigational practices and decision-making in sexual assault cases and coded for victim, assailant, &amp; case characteristics</p> <p>N = 1,595 SAK DNA testing results reports</p> <p>N = 31 investigator records and N = 18 community-based advocate records re: victim notifications conducted in this project</p>
Focus Groups	<p>N = 3 focus groups re: successes, challenges, and lessons learned</p>

## Guiding Evaluation Theory: Developmental Evaluation Theory

Action research projects are, by their very nature, dynamic enterprises (Klofas, Hipple, & McGarrell, 2010) and it was to be expected that the Detroit collaborative would work in a (sometimes) non-linear process as information emerged and decisions changed in light of new knowledge. This flexibility undoubtedly benefits the project in many respects, but it does pose some challenges in the context of an evaluation. Traditionally, evaluation research assumes a far more static evaluand (that which is to be evaluated)—the intervention is set, processes are in place, and these entities must remain unchanged (as much as possible) so as not to compromise the design and validity of the evaluation (Davidson, 2005; Rossi, Lipsey, & Freeman, 2003; Scriven, 1997). However, the presumption of an unchanging evaluand is unrealistic in many field research projects (Cordray, 2000; Morell, 2010; Streiner & Sidani, 2011), and as such, new theoretical models are necessary that not only tolerate such ambiguity but actually embrace the dynamic nature of an intervention. In other words, as the evaluand itself changes, the evaluation can accommodate those changes to continue to capture the processes and outcomes of the intervention.

Consistent with these ideas, Patton (2011) proposed a comprehensive theory of evaluation practice termed “developmental evaluation.” Consistent with Patton’s long-standing position that evaluation is most helpful to practitioners and policy makers when it is approached from a utilization perspective (see Patton, 2008 for a review), the developmental approach was created to guide evaluations under “conditions of complexity,” when an intervention or initiative is inherently complicated and changing, but information about its impact is critical for intended users. As Patton (2011) described:

*“Complex environments for social interventions and innovations are those in which what to do to solve problems is uncertain and key stakeholders are in conflict about how to proceed. Informed by systems thinking and sensitive to nonlinear dynamics, developmental evaluation supports social innovation and adaptive management” (p. 1)*

The developmental approach recognizes that programs often change and often *should* change throughout implementation to improve upon identified weaknesses. As such, developmental evaluations are an iterative process of mixed methods data collection whereby the data are analyzed quickly and reported back to stakeholders regularly, so that the program can be revised and improved. Patton (2011) noted that this focus on the real-life challenges of social problem solving makes developmental evaluation a natural fit within an action research paradigm. As stakeholders wrestle with the challenges of identifying solutions to the problem, developmental evaluation provides a framework for capturing the processes and outcomes in the action research model.

Developmental evaluation is not a step-by-step guidebook, but rather a framework for reflective practice (Patton, 2011). First, the evaluation begins with defining the focal questions, and this must be a collaborative endeavor with representation from all stakeholders. The evaluator’s role is somewhat secondary in the process as the community itself must identify its own questions, but the evaluator should help stakeholders understand the implications of selecting various questions. Most critically, the evaluator must educate the team as to the difference between evaluation questions that seek to assess the merit, worth, and significance of an evaluation (which typically require a far more static evaluation than is likely in a developmental project) and evaluation questions that seek to capture process and understand how and why interventions/initiatives work as they do. The evaluator is responsible for helping the team select questions that are appropriate for the nature of the project.

Second, once the guiding questions are established, the evaluator works with the stakeholders to identify the kind of data necessary to address those questions. Developmental evaluation theory does

not dictate a preferred design or methodology, but because qualitative methods are particularly adept at capture dynamic processes, they are commonly used within this evaluation theory. Though qualitative methods are often criticized for their limitations with respect to generalizability to other locales and situations (see Stake, 1995; Yin 2009 for reviews and debates), Stake (2010) argued that qualitative investigations that focus on *mechanisms*—how and why things happen (or do not happen)—can in fact have broad reach by identifying core processes that transcend unique contextual conditions. In other words, qualitative methods can be instrumental in identifying “transportable lessons” applicable across a range of contexts provided that data collection (and analysis) move beyond a descriptive level to seek out explanatory mechanisms. To increase the likelihood of broader applicability, Stake (2010) and Patton (2011) recommend the use of multiple data sources including, but not limited to, interviewing, observational techniques, and archival record review.

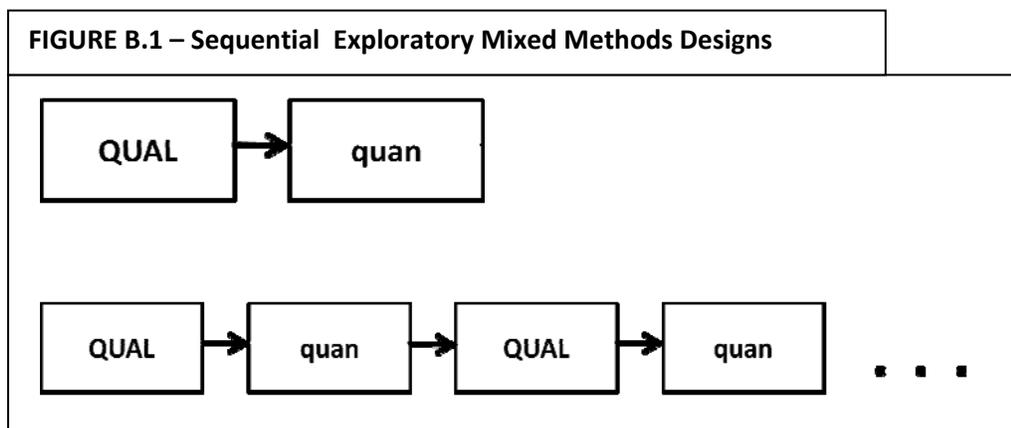
Third, the evaluator (perhaps with assistance from the stakeholders themselves) will gather the necessary data, which are analyzed for patterns and themes. This process is also highly collaborative as the stakeholders are invited to engage the data to help identify implications, lessons, and an action plan that may not be obvious to an evaluator, which strengthens the applicability of the conclusions. Finally, the findings are shared with stakeholders and their constituents, feedback is solicited, and another cycle of reflective practice may be initiated to refine or expand upon the knowledge gleaned in the evaluation. Throughout all steps, the evaluator must attune to historical and contextual factors that shape the nature of intervention/initiative, as well as to the potentially divergent and competing points of view of the initiative.

Developmental evaluation provided a useful theoretical model for the Detroit SAK Action Research Project. The core elements of what makes interventions/initiatives complex—nonlinearity, interacting elements, uncertainty and conflict—were all present in this initiative. At the beginning of this project, the collaborative was uncertain as how best to process approximately 10,000 kits in a manner

that simultaneously balances the needs for public safety, social justice, fiscal responsibility, and victim/survivor well-being. It was to be expected that many ideas would be proposed, debated, perhaps put into action, and perhaps abandoned in favor of revised ideas, which is the nature of an action research model. Such an approach required a flexible and nimble evaluation model that can capture the evolving process of social problem solving.

### Guiding Research Design: Sequential Exploratory Mixed Methods Design

Mixed methods research designs are commonly used in developmental evaluation theory as they provide flexible, diverse tools for capturing events as they unfold in real-time. In this project, we used Creswell's *sequential exploratory mixed methods design* as an over-arching methodological framework for uniting the four distinct goals of this project (conducting a census, studying underlying factors, developing a testing plan, and developing victim notification protocols) (Creswell, 2010; Creswell & Clark, 2011; Creswell et al., 2003). This multi-stage design begins with qualitative data collection and analysis to explore the context of the setting, its people, history, and successes and challenges. From those exploratory data, refined research questions and hypotheses are generated, which are then evaluated in a second stage of quantitative data collection and analysis (see Figure B.1, below).



In the purest application of this design, the methods are distinct with respect to timing—the qualitative work is finished (i.e., all analyses completed) and the results generated from that method are then used to plan the subsequent quantitative study, but in practice, it is more typical to use preliminary findings from the qualitative work to guide subsequent work, while the initial research continues (see Campbell, Shaw, & Gregory, 2014 for a review). This design can be extended into a multi-stage application, whereby the cycle of qualitative, followed by quantitative data collection repeats. In this instance, the follow-up quantitative findings suggested an idea for a new qualitative study (which could be followed by another quantitative study, and so on) (see Campbell, Gregory, Patterson, and Bybee, 2012 for a multi-stage example). In either the traditional or multi-stage application of this design, qualitative methods tend to have greater emphasis (hence the capital letters in Figure B.1), meaning that the purpose of the quantitative methods is to verify key findings generated from the narrative data.

Applying this design to the current project, we began with extensive qualitative data collection (ethnography, archival records, and individual interviews) to understand the history and current operations of each of the organizations participating in the collaborative. For our first project goal (conducting the census), this qualitative work emphasized understanding the key events surrounding the discovery of the unsubmitted kits, the inter-organizational communications thereafter, and how those events might affect the planning and execution of the census. For our second project goal (studying the underlying factors of the problem), the first-stage of qualitative data collection focused on capturing changes in leadership, staffing, and resources within each organization over time. For the third project goal (developing a testing plan) and fourth goal (developing victim notification protocols), we conducted qualitative interviews with Detroit stakeholders and national criminal justice/forensic science and violence against women stakeholders to gather different points of view regarding the purpose and utility of SAK testing and how and when victims should be notified about testing. This first

stage of qualitative data collection took approximately one year to complete, though some methods (e.g., ethnography, informal interviewing) lasted throughout the entire duration of the project.

Preliminary findings from these qualitative data informed second-stage quantitative data collection for all project goals. The census results were quantitatively graphed, which showed that the number of unsubmitted SAKs varied from year to year. As to why submission rates might have fluctuated over time, the qualitative data collected for the second project goal (studying underlying factors) had identified several key changes in policy, practice, and resources that might have affected SAK submissions. Bringing these two goals and two data sources together, we developed quantitative hypotheses regarding rates of SAK submission over time, and used multi-level modeling (MLM) to test those predictions. For our third project goal (developing testing plan), the first-stage qualitative work identified stakeholders' beliefs about the utility of SAK testing (e.g., testing is more useful in stranger rape cases), so we formed four Testing Groups to test those assumptions empirically. Using a variety of quantitative techniques (e.g., continuation ratio modeling, logistic regression, and equivalence tests), we statistically compared the number and type of CODIS hits from different kinds of sexual assault cases. For the fourth project goal (developing a victim notification protocol), the first stage qualitative work highlighted that it would likely be very challenging to find survivors and notify them so many years after the assault; therefore, we developed simple quantitative tracking tools for investigators to complete to capture the specific strategies that were more or less successful in finding victims.

For some components of the project, we conducted another round of qualitative data collection and analysis because the quantitative results had raised still more questions to be answered. For example, the quantitative modeling yielded mixed results as to why rates of SAK submission varied over time. To unpack those findings, we conducted additional qualitative data collection (longitudinal interviews and more archival data collection) to explore in more depth the front-line response to sexual assault cases. With respect to the victim notification protocols, we conducted additional qualitative

data collection to assess investigators' and advocates' perceptions regarding the notifications and how survivors reacted to be contacted about their testing results. Taken together, these multiple stage of qualitative and quantitative data collection and analysis provided a comprehensive assessment of how and why Detroit has so many unsubmitted SAKs and how this community came together to begin to address this problem and process these kits.

## **Data Collected in the Detroit SAK Action Research Project**

### ***Ethnographic Observations***

**Sampling.** The research team members were participant-observers in all SAK collaborative meetings, which included: 53 regular bi-monthly team meetings, 18 impromptu meetings (e.g., break-out meetings to discuss issues in more detail that had been raised at the all-team meeting), one two-day victim notification planning retreat, and three Victim Notification Review Team (NRT) meetings. The research team conducted an additional six observations shadowing stakeholders from law enforcement, forensic sciences, and prosecution to understand their work with sexual assault survivors in more depth (McDonald, 2005). Overall, the research team observed approximately 186 hours of interaction among stakeholders throughout the duration of the project. To ensure that all project meetings were observed, the members of the collaborative agreed to inform the research team about all meetings (including impromptu meetings) and to allow observational access (in person or by phone). There were, of course, additional meetings between stakeholders as part of their normal day-to-day work together and on occasion, project matters were discussed. The researchers routinely checked with key stakeholders from each organization via informal interviews to capture this information, and stakeholders often voluntarily contacted the researchers to let us know about such events. As such, we are reasonably confident that we have documented nearly all of the project-related interactions between the collaborative partners.

**Data Collection Procedures & Reliability Assessments.** The vast majority of collaborative team meetings were observed by two researchers: 44 of 53 bimonthly meetings, 15 of the 18 impromptu meetings, and two of the three Victim Notification Review Team meetings (82% overall; the remaining meetings were observed by only one researcher). For each paired observation, one research team member (typically the project's Co-Investigator) was designated "observer-only" and that individual transcribed the discussions at the meetings as they were occurring. Consistent with recommended best practices in the ethnographic literature (e.g., Emerson et al., 1995; Fetterman, 2010; Wolcott, 2005), audio recordings were not taken due to concerns regarding participants' reactivity to being recorded. Though the research observer was not able to capture every statement made in the meeting verbatim, the majority of the discussion was captured in direct quotes. All members of the SAK collaborative were briefed individually and as a group regarding IRB procedures for ethnographic observations so that they understood that their remarks would be written down.

The second research team member had a "participant-observer" role (typically the project's Principal Investigator), consistent with the action research paradigm. This researcher participated in the substantive discussions in the meetings, and also took notes, though not in the running transcript-style of the first observer role. The second observer captured important verbatim quotes, tagged substantive decisions and disagreements, and noted important interpersonal dynamics in the meeting.<sup>103</sup>

To monitor the quality of data collection, the PI audited the two sets of notes (i.e., the "observer-only" running transcripts and the "participant-observer notes) to verify the accuracy of verbatim quotes and key substantive decisions/debates. In the first six months of data collection, the notes from all meetings observed by two researchers were audited, and given that discrepancies were extremely uncommon, reliability checks were then conducted periodically (overall, 80% of the meetings

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<sup>103</sup> For the meetings observed by only one member of the research team, that individual functioned in the "observer-only" role (see details above regarding the nature of the notes taken, data coding, etc.)

that had two observers had reliability checks). There were no discrepancies between the two sets of notes regarding significant group decisions; discrepancies in exact wording of quotes occurred occasionally and those data were tagged and were not included in the analyses.

In accord with the methods outlined by Emerson, Fretz, and Shaw (1995), fieldnotes were written and preliminary coding was completed within 72 hours of each observation. Tracking sheets were maintained to monitor dates/timelines for the completion of these tasks. The “observer-only” researcher was responsible for conducting open-coding of the transcript notes, tagging text that pertained to emerging themes related to each project goal (Corbin & Strauss, 2008). The “observer-only” researcher was also responsible for creating and maintaining a timeline document that summarized the project’s sequences of events and key decisions made by the group. The “participant observer” researcher was responsible for writing more traditional field notes, which consisted of three main sections (documented for each meeting): 1) thick descriptions of the meeting, supplemented with verbatim quotes; 2) content memoing regarding emerging concepts, hypotheses, and findings, as well as ideas for additional data collection; and 3) reflexive memoing regarding the researcher’s own experiences of conducting the project (see Lincoln & Guba, 1985).

### ***Individual Interviews***

**Sampling.** A combination of purposive and snowball sampling methods were used to identify and recruit participants for individual interviews. Within the first three months of the project, all core members of the collaborative were asked to participate in a formal, one-on-one interview (i.e., purposive sampling; 100% participation rate). In those interviews, we asked participants to nominate other key individuals within their organizations that we should also interview, given their knowledge and expertise (i.e., snowball sampling; 100% participation rate). Over the 30 months of project, we conducted a total of 42 formal interviews with Detroit stakeholders, spanning all organizations and all

staffing levels within each organization (i.e., front-line workers to upper administration): 16 were cross-sectional interviews (i.e., the participant was interviewed only once) and 26 were longitudinal interviews (10 individuals were interviewed twice, approximately one year apart; 2 individuals were interviewed three times, each approximately 9 months apart). Participant recruitment and interviewing continued until we achieved saturation, whereby the same themes were repeated, with no new themes emerging among participants (Guest, Bruce, & Johnson, 2006; Sandelowski, 1995; Starks & Trinidad, 2007). At 42 interviews, we had established clear, discernible patterns in our data with respect to our focal questions regarding the resources available in each organization over time and the front-line practices and communications within and between organizations regarding sexual assault case processing.

In ethnographic research, it is typical that researchers have contact with individuals outside of formal meetings/settings, and these “informal” interviews provide another way of documenting events throughout a project. Under IRB consent for ethnographic observation, the researchers had on-going informal interviews with representatives from each participating organization: 187 informal interviews with 30 different people (number of interviews per person varied from three to 39). These interviews continued throughout the entire duration of the project.

We also conducted limited-scale interviewing with national stakeholders from criminal justice/forensic science and violence against women organizations. To identify potential participants, we conducted extensive literature/online searches on the topics of SAK testing and victim notification to identify specific organizations/stakeholders who are involved in this work. We purposely selected five individuals from criminal justice/forensic science organizations and five stakeholders from violence against women organizations (100% participation). These sample sizes were sufficient to achieve saturation, likely due to the fact that scope of our inquiry for these interviews was quite focused (see *Appendix D: Data Collection Instruments*).

For our work on understanding the history and context of Detroit sexual assault organizations, we collected leadership, staffing, and resource data from four comparable cities (Dallas, Philadelphia, Baltimore, and New Orleans). As part of that data collection, we interviewed N = 35 public officials in these cities (100% participation); again, this sample size was sufficient to achieve saturation.

**Data Collection Procedures & Reliability Assessments.** The interviews with the Detroit stakeholders and the national stakeholders were semi-structured qualitative assessments (see *Appendix D: Data Collection Instruments*). Consistent with Patton's (2002) recommendations for qualitative interviewing, we sought to convey a non-judgmental stance (both verbally and non-verbally) towards participants' thoughts, emotions, and experiences so that the *"investigator does not set out to provide a particular perspective or manipulate the data to arrive at predisposed truths"* (p. 51). If stakeholders provided information that we personally agreed with or that we suspected others in the collaborative might also agree with, we did not disclose our shared point of view. If they provided information that we disagreed with, we did not express that either; instead, we asked additional clarifying questions about the content. Though there are debates in the qualitative literature about neutrality versus explicit engagement of divergent points of view (e.g., Greene, 2007; Mertens, 2008), we did not feel the latter methods would have been effective in promoting disclosure, particularly disclosure of information that some groups might disagree with and/or find objectionable (see Patton, 2002; Rubin & Rubin, 2011).

Because we were seeking information that spanned three decades, we drew upon cognitive interviewing techniques (see Fisher & Geiselman, 2010 for a review), which emphasize grounding participants in time/date/setting/context cues prior to asking focal content questions in order to improve the accuracy of memory recall. The interview guides can be found in *Appendix D: Data Collection Instruments*, but given the qualitative nature of this work, the specific cognitive cues and additional/supplemental questions were crafted on a case-by-case basis, depending on the participant being interviewed and how that individual had answered the focal questions.

The *formal interviews* with Detroit stakeholders examined whether there were systematic gaps in staff members' KSA's (knowledge, skills, and abilities) that contributed to the problem of untested kits. Furthermore, because there is ample literature suggesting that legal and medical system personnel often have negative and victim-blaming attitudes toward rape victims, we examined how such beliefs might have affected decision making regarding kit processing. Yet, it is unlikely that a systemic failure of this magnitude can be adequately explained by individual-level phenomena (Patton, 2011); as such, we explored how organizational-level factors within each stakeholder organization may have contributed to the problem. We discussed how policies and procedures in place at the time may have contributed to the stockpiling of untested kits. Furthermore, we examined what resources were available—and not available—to all stakeholder groups across the years when so many kits went untested. Finally, because previous research suggests that legal organizations differ with respect to their norms and expectations regarding the importance of sexual assault cases and their relative priority to other crimes (Frohmann, 1997, 1998a, 1998b; Martin, 2005; Martin & Powell, 1994), we asked participants about their organization's culture regarding the processing of sexual assault cases.

The *informal interviews* with Detroit stakeholders were often a mix of factual project updates with disclosures that were clearly private (e.g., venting frustrations, personal reflections); therefore, consistent with standard practice in ethnographic research (see Fetterman, 2010; Wolcott, 2005), only factual information was recorded, unless the researcher specifically asked permission to make note of the other content (which was only done to document that there were frustrations, personal issues invoked, etc. but the specific nature of those issues was not recorded).

The interviews with national criminal justice/forensic science stakeholders and violence against women organization stakeholders focused on assessing participants' perceptions of the purpose and utility of SAK testing and victim notification from multiple points of view (investigator, prosecution, forensic sciences, victim/survivors). Stakeholders were also asked about typical staffing levels/resources

(nationally) to help put our findings from Detroit in context. The interviews with public officials in the four comparable cities assessed factual information regarding services provided in their community, leadership changes over time, and staffing levels.

The formal interviews with Detroit stakeholders were digitally recorded (with participants' permission) and transcribed verbatim. All other interviews (informal interviews with Detroit stakeholders, interviews with national stakeholders, interviews with public officials in comparable cities) were not recorded and transcribed (due to resource restrictions); consistent with the data collection procedures for the ethnographic observations (described above), the interviewer kept detailed notes of the interview, supplemented with verbatim quotations.

The Principal Investigator conducted the vast majority of the interviews: 33 of the formal interviews with Detroit stakeholders (the remaining 9 were done by the Co-Investigator), all informal interviews, and all national stakeholder interviews. The PI has extensive experience conducting community-based qualitative interviews and has published extensively on this methodology (e.g., Campbell, Adams, Wasco, Ahrens, & Sefl, 2009, 2010). Reliability assessments are not germane to qualitative interviewing, but consistent with recommendations in the literature, peer debriefing occurred on an on-going basis for quality assurance. Lincoln and Guba (1985) define peer debriefing as *"a process of exposing oneself to a disinterested peer in a manner paralleling an analytical session and for the purpose of exploring aspects of the inquiry that might otherwise remain only implicit within the inquirer's mind"* (p. 308). In the context of this project, given its complex confidentiality and privacy concerns (see *Chapter 1: Introduction*), disclosure to a truly disinterested party would have been inadvisable, but the project's Co-Investigator, research associates, and statisticians were able to fulfill this role by discussing the interviews, challenging the interviewer's assumptions, identifying gaps in the knowledge base, and suggesting areas for improvement and new inquiry.

## Archival Records

**Sampling.** Many different kinds of archival records were collected for this project. To ascertain the number of SAKs in police property, we requested access to the police department's property database. A list of the fields pertaining to all SAKs in inventory from 1980 through November 2009 was made available to the collaborative partners and the research team (~11,000 entries). These records detailed when evidence was entered into property, but did not provide any information as to whether the SAK had been tested. To determine that information, we requested access to the police forensic sciences testing spreadsheet (once the existence of this document was known, see *Chapter 3: Why So Many Unsubmitted SAKs in Detroit*) (~2,500 entries). This spreadsheet verified whether a kit had been submitted to the lab (i.e., whether it had a "B Number"), but it was difficult to ascertain from the fields provided whether in fact each kit had been tested for DNA. Given the frequent discussions regarding these issues in the collaborative team meetings, we are reasonably confident that all documents pertaining to the number of SAKs in police property were identified and shared, but that the completeness and utility of these records is limited, given the nature of how the data were collected and maintained over time by community stakeholders.

Also as part of our efforts to understand the scope of the problem of unsubmitted SAKs in Detroit, we requested inter- and intra-organizational records from the agencies that had been directly involved in the events surrounding the August 2009 discovery of the unsubmitted SAKs. Five internal documents were obtained (including an intra-organization internal affairs audit);<sup>104</sup> some were voluntarily provided, some were obtained through Freedom of Information Act (FOIA) requests. It is impossible to know whether all relevant documents on this issue were in fact provided to the research team, particularly because there is evidence that one organization withheld information for a prolonged period of time (from the research team and from other organizations). We specifically inquired about

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<sup>104</sup> Six media reports regarding the discovery of the SAKs were also reviewed.

the completeness of our records in our member checks, and we are reasonably confident that even if we did not obtain all records, we were successful in securing the primary documents/exchanges between organizations.

For our work understanding the underlying reasons why Detroit has so many unsubmitted SAKs, we sought to learn the history and context of all key Detroit sexual assault organizations (i.e., police, police advocacy program, police forensic lab, prosecution, state forensic lab, sexual assault forensic exam program, community-based advocacy organizations). We requested records from each agency regarding their leadership, staffing, resources, services provided, and policies and procedures from 1980 to 2009 (e.g., yearly budgets, staffing rosters, SOP [standard operating procedure] documents, internal memos outlining changes in policy/practice). Five organizations/programs provided raw data (i.e., individual records/spreadsheets, internal memos) and two organizations provided some raw data and some tabulated/aggregated data, following a list of specific questions provided by the researchers. Overall, 93 individual documents and aggregated tally reports were provided to the research team. The quality and completeness of these records varied considerably, as would be expected in a thirty-year analysis, which precluded exact year-by-year descriptives for each organization; however, we were able to substantiate reliable ranges of figures (e.g., XX-XX staff members for the years XXXX-XXXX) for all organizations and were able to document the policies and practices of all organizations over time. We also reviewed N = 35 publically-available documents (total) from four comparable cities (Dallas, Philadelphia, Baltimore, and New Orleans) regarding their leadership, staffing, and resources over time.

Also as part of our efforts to understand why Detroit has so many unsubmitted SAKs, we also examined sexual assault police reports as a way of documenting actual on-the-ground practices. There has been criticism in the literature regarding police reports as an “official” data source regarding incidents of sexual assault, given that such reports are a social construction of the events, told by the police, through their point of view, and therefore, are not necessarily reflective of victims’ lived

experiences (Meehan, 2000; Prior, 2012; Smith 1974). However, for the purposes of this research, the police point of view was precisely what we sought to capture—what is their official version of what happened in these cases in which SAKs were not submitted to a laboratory for analysis? Therefore, we requested access to the police reports corresponding to the 1,595 SAKs that were tested as part of this project; 328 reports could not be found by police personnel (20.5%), so we were able review 1,268 reports. The extent of missing data was a concern to us (and to other organizations), and the police made sustained efforts to locate as many files as possible, but in the end, it appears that a substantial number of reports were either never taken/recorded by police personnel or were lost over time.

Once these 1,595 SAKs were tested, we obtained complete forensic testing results on all kits (100% complete data). The forensic laboratories provided information regarding whether each kit had a CODIS-eligible profile, whether there was a CODIS hit, and if so, the nature of the hit (offender, forensic, or offender & forensic hit).

Finally, for our work evaluating the victim notification protocols, we obtained N = 31 records from the investigators who conducted the notifications regarding the steps/strategies they used to find the survivors and their impressions of how the notification unfolded (100% complete data). The investigators recorded every strategy they used to find each victim and how many times each strategy was used (e.g., strategy = phone call; number of times strategy used in Case A = 4 calls to 3 different phone numbers). To collect the investigator's and advocates' impressions of what occurred during the notifications, the research team provided the investigators with question prompts (see *Appendix D: Data Collection Instruments*) and notification personnel recorded their notes in a standardized database within 48 hours of each notification (100% complete data).

**Data Collection Procedures & Reliability Assessments.** Requests for records were made orally and in writing to all organizations, supplemented with a limited number of Freedom of Information Act (FOIA) requests (3). Typically, the organizations provided a hard copy or electronic copy of the requested

information,<sup>105</sup> but there were 12 records that we were allowed to view, but not to copy. In those instances, we transcribed verbatim key sections of the document that were relevant to our research.

Each record was reviewed (typically by two members of the research team) to determine what information should be extracted for later analysis. Because it became increasingly unwieldy to manage so many documents, we created a new document (in Word) and copied text/screen shots of the archival documents into that running file (tagged by date and source). From this process, we emerged with another qualitative data file of archival information that, in addition to the ethnographic field notes and interview transcripts, was coded and analyzed (see below) for our specific research questions.

Another primary data collection/coding task we conducted with archival records was reviewing and extracting information from the sexual assault police reports and the forensic testing results. The data coding sheets for the specific victim, assailant, and case characteristics (and how they were coded) can be found in *Appendix D: Data Collection Instruments*. We constructed operational definitions for each code, following the prior work of Campbell, Bybee, Kelley, Dworkin, and Patterson (2012). Ideally, the reports would have been coded by two researchers to compute inter-rater reliability; however, practically, this was not feasible given time constraints. Given that the coding sheets and coding procedures used in this study were based on prior work (Campbell et al, 2012), which had yielded high inter-rater reliability estimates and kappa coefficients, we felt that it was reasonable to allow single coders, provided that there were alternative mechanisms in place to monitor data quality. To that end, we coded in group meetings of 2-4 researchers; each coder had a pile of files to review and any time there was ambiguity as to how to code a specific file/specific code, the team paused their work to discuss the case/variable and arrive at group consensus.

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<sup>105</sup> Hard copies of documents were scanned into PDF files and password protected.

Finally, the data pertaining to victim notification were coded by two researchers. The first coder reviewed the records provided by the investigators and advocates to develop preliminary codes/themes regarding how they located victims and how the notifications unfolded. The coding was independently reviewed/checked by a second coder and the findings were revised until consensus was reached.

### **Focus Groups**

**Sampling.** In this project, three focus groups were conducted in the final months of the action research project as a method for gathering “lessons learned” about conducting the census, developing the testing plan, creating victim notification protocols, and overall processing of the project. Ninety minutes at the end of the last two regular collaborative team meetings were reserved for focus group data collection, and thirty minutes were reserved at the end of the last victim Notification Review Team (NRT) meeting. The first focus group was attended by 13 individuals, spanning five organizations; the second focus group attended by 15 individuals, spanning five organizations; the third (NRT specific) was attended by 6 individuals, spanning three organizations.

**Data Collection Procedures & Reliability Assessments.** In preparation for the focus groups, all members of the collaborative project were given summaries of our ethnographic field notes and interviews regarding key lessons learned in the project. Stakeholders were asked to review the materials and identify questions and areas for discussion prior to the focus groups. For each focus group, the project PI served as the focus group facilitator and another member of the research team took detailed notes, in the “running transcript” style used in all other team meetings (see above). The PI followed a focus group script (provided in *Appendix D: Data Collection Instruments*), and consistent with standard practices for this method, attention was paid to ensuring participation from all attendees (and monitoring to limit participation from some so that others could engage more) (Krueger & Casey, 2008; Liamputtong, 2011; Stewart, Shamdasani, & Rook, 2006).

## Qualitative Data Analyses

### *Data Preparation & Triangulation Assessments*

Throughout data collection, we conducted basic open coding of the field notes and interview transcripts to monitor emerging themes and data saturation (see above). When we were ready to move forward with more detailed coding and analysis, we began developing and executing the procedures described below (“*Data Coding & Analysis Procedures*”), but soon realized we needed to pause and carefully examine the extent to which we had triangulation of information across data sources. In other words, if Person X said ‘Y’ in his/her formal interview, was that information (‘Y’) confirmed/triangulated by another person within that organization, a person from a different organization, an observation, and/or an archival record? Before building more complex coding and analyses around that information, how certain are we about the *accuracy* of that information? Assessing triangulation across data sources is often noted as an important component of mixed methods research/evaluation (Creswell & Clark, 2011; Donaldson, Christie, & Mark, 2009; Greene, 2007; Mertens & Hesse-Biber, 2013), though it is not often done in practice (see Campbell, Shaw, & Gregory, 2014 for a review), most likely because it is a time-consuming and challenging process. However, in the context of this project, empirically assessing the credibility of the data was necessary because the organizations in the collaborative partnership have had a long history of mistrust, and stakeholders expressed concerns about whether individuals might use the research interviews (and other forms of data collection) to try to bias or misinform the research team. As such, we developed a triangulation assessment process, both for our own peace of mind that we were working with credible data and to assure stakeholders that the research findings were trustworthy.

We began by creating a new “master copy” of all the qualitative data files, which included: the ethnographic observations (running transcript notes and traditional field notes for all meetings), formal interview transcripts, notes from informal interviews, and the document integrating information across

the various archival records.<sup>106</sup> We compared what information was provided by which individuals, through what type of data (observation, interview, archival record); then, using a visually-intuitive green-yellow-red color-coding system, we coded the extent to which each key piece of information had been triangulated:

dark green =	multiple individuals within an organization, individuals outside that organization, <i>and</i> multiple data types confirmed information
green =	multiple individuals within an organization and individuals outside that organization confirmed information, <i>or</i> multiple data types confirmed information;
yellow =	information confirmed by multiple people within same organization (no outside/alternate data source confirmation)
red =	information provided by only one person/one data source

At the conclusion of this task, we were able to review all of our data files and ascertain at-a-glance (by the color coding) the extent to which each key piece of information to be analyzed was credible. We tried to clear-up as much “yellow” and “red” information as possible by seeking out additional data from stakeholders/archival records. If there were inconsistencies between stakeholders’ accounts (e.g., information provided in observations or interviews) and archival records, we did follow-up informal interviews and/or emails with stakeholders in an attempt to clarify the information. When discrepancies could not be resolved (e.g., stakeholders remember things one way, but the records suggest otherwise), we privileged the archival records and used that information for our analyses. In instances where information provided in the stakeholder interviews could not be verified by archival records (e.g., records did not exist, could not be found), we sought triangulation of the data by cross-checking with other interviews from members of the same organization and whenever reasonable, with

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<sup>106</sup> We retained the preliminary open coding conducted during data collection in these “master files.”

members from other organizations who might be expected to have reliable information about the matter at hand. However, there were some instances in which information was provided by only one individual and could not be verified because that person was the only one or one of only a small number of people who could have known that information, and our efforts to reach those other individuals were unsuccessful. Excluding all “yellow” and “red” data seemed unnecessarily restrictive, and because it was a relatively rare occurrence (by the time we finished this triangulation task), we decided to retain them (still color-coded) and continue with additional coding and analyses, knowing that we would need to re-evaluate their inclusion in the final analyses/report.

### ***Data Coding & Analysis Procedures***

Working from these “master files” that contained thematic open codes and triangulation codes, we began more focused coding of the qualitative data. The coding and analysis team consisted of five individuals: the Principal Investigator, the Co-Investigator, and three research associates. Though it is common in qualitative research for the individual who collected the data to also be the sole data analyst (see Charmaz, 2006; Corbin & Strauss, 2008; Lincoln & Guba, 1985), we felt a team approach was useful in this project so that the findings for each component of the project was cross-checked and verified by multiple analysts (see MacQueen, McLellan-Lemal, Bartholow, & Milstein, 2008). The PI and Co-I both worked on every set of analyses, with the assistance of one (of the three) other analysts (i.e., three analysts were involved in each set of findings reported in this document).

Data coding and analysis proceeded in a three-phase process. First, consistent with Corbin and Strauss’s (2008) concept of “open coding” and Miles, Huberman, and Saldana’s (2014) concept of “data condensation,” the qualitative data collected in this project (ethnographic observations, interview transcripts, and archival documents) were independently reviewed by two analysts, who (separately) tagged and labeled concepts to define and develop categories based on their properties and

dimensions. After every 2-3 new observations, interviews, and/or records, the new data were checked against the existing codes to see if there were new codes to be created and new patterns emerging. Coding was revised to accommodate the new data, and if warranted, data collection protocols (e.g., interview questions, archival records to request) were revised to seek out additional/clarifying information.

The second phase of coding focused on organizing comparisons and contrasts of the data, akin to Corbin and Strauss's (2008) concept of "axial coding" and Miles, Huberman, and Saldana's (2014) "data display" phase. Two coders constructed micro-level tables that organized data from different sources by the individual themes (e.g., data from observations, interviews, and archival records regarding the theme "police stereotypes re: adolescent sexual assault victims"). Then, these tables were combined into macro-level tables that examined the associations between themes (e.g., "police attitudes re: adolescent sexual assault victims" and "police investigational effort"). A third analyst (the PI) then created additional macro-level tables to examine associations among themes within and between each of the project's major goals to explore cross-cutting associations between components of the project. From this process, we emerged with multiple organizations of the data that allowed us to focus at the level of a thematic code, project goal, or cross-cutting project aims.

The third phase of analysis involved constructing mechanistic linkages between themes and concepts in the data (see Miles, Huberman, and Saldana's [2014] "drawing and verifying conclusions" phase). For this phase, we drew upon Erickson's (1986) analytic induction method, which is an iterative procedure for developing and testing empirical assertions in qualitative research. An assertion refers to a hypothesized pattern in the data (e.g., "police officers held negative beliefs about adolescent sexual assault victims and because of those views, they were less likely to invest investigational effort in their cases, more likely to question young women's credibility, resulting in a SAK not being submitted for testing"). Two analysts worked together to develop assertions from the data, and then one analyst used

Erickson's (1986) methods to evaluate the adequacy of the assertions. To determine whether an assertion was substantiated/well-founded, the analyst assembled confirming and disconfirming evidence, looking for five types of evidentiary inadequacy: (1) inadequate amount of evidence; (2) inadequate variety in the kinds of evidence; (3) faulty interpretative status of evidence (i.e., doubts about the accuracy of the data due to social desirability bias); (4) inadequate disconfirming evidence (i.e., no data were collected that could disconfirm a key assertion); and (5) inadequate discrepant case analysis (i.e., no cases exist that are contrary to a key assertion) (Erickson, 1986, p. 140). Assertions were revised or eliminated based on their evidentiary adequacy until a set of well-warranted assertions remain, similar to Glaser's constant comparison process (Glaser, 2007; Glaser & Strauss, 1967).

The coding and analysis team then met to review the final assertions and develop data visualization strategies for presenting the findings. Qualitative research reports are often heavily narrative (e.g., long descriptions of the themes and relationship between themes, illustrated with extensive quotations), which can be cumbersome for stakeholders to digest, thereby limiting the utilization of the findings (Henderson & Segal, 2013). Consistent with emerging trends in qualitative evaluation (see Azzam, Evergreen, Germuth, & Kistler, 2013; Evergreen, 2014; Johnson, Hall, Greene, & Ahn, 2013 for reviews), we wanted to develop more accessible presentations of the data, so we followed Henderson and Segal's (2013) recommendations for creating visual maps that highlighted the connections between themes (for example, see Figure 3.4, "*Police Processing of Sexual Assault Cases Associated with Unsubmitted SAKs*"). We then selected which quotes (previously assembled as confirming evidence of the assertion) would accompany the visual maps in this report. Selected quotes were reviewed to assess potential identifiability to members of the collaborative project, and as necessary, material was lightly edited to remove distinctive speech mannerisms, turns of phrase, etc. (see Sandelowski, 1994 regarding the need for such editing to protect confidentiality). The quotes and selected case study examples (for example, those presented in *Chapter 3: Why So Many Unsubmitted*

*SAKs in Detroit*) were also carefully reviewed to ensure that they were *typical* of what we saw in the interviews/archival records. Though qualitative research sometimes seeks to highlight the “extremes” of a sample, experience, setting, etc., in this project, we felt it was more useful to depict common problems and regularly occurring patterns and language in the data.

### ***Validity (Trustworthiness) Assessments***

In qualitative research—and mixed methods designs that utilize qualitative data—researchers must explicitly address the validity of the data, or in qualitative nomenclature, the “trustworthiness” of the data, given that the data are narrative and subject to the researchers’ interpretations (Creswell, 2012; Mertens & Hesse-Biber, 2013; Miles et al., 2014). To date, numerous strategies have been proposed for assessing trustworthiness (see Creswell, 2012 for a review), and the standards outlined by Lincoln and Guba (1985) remain the well-regarded “gold standard” in the field for high quality, rigorous work. Specifically, Lincoln and Guba (1985) articulated four standards that qualitative researchers must meet to establish the validity of their work:

<i>Credibility</i> =	Confidence in the truth of the findings
<i>Transferability</i> =	The findings have applicability in other contexts
<i>Dependability</i> =	The findings are consistent and could be repeated
<i>Confirmability</i> =	The findings are shaped by the participants and not the researcher’s bias

In Table B.1 (following pages), we define each of these standards (and sub-criteria, as appropriate) and describe how we sought to meet that standard in the context of this action research project.

<b>TABLE B.1 – Validity (Trustworthiness) Assessments, Using Lincoln &amp; Guba’s (1985) Standards</b>		
<b>STANDARD: CREDIBILITY</b>		
<b>Sub-Criteria</b>	<b>Definition</b>	<b>How Met This Standard In This Project</b>
Prolonged Engagement	Spending sufficient time in the field to learn the culture, setting, and phenomenon of interest. Spending considerable time observing various aspects of the setting, talking with people at all levels of each organizations, and developing relationships and rapport with setting members.	The research team engaged in 30 months of observational data collection. In addition to these formal observations, the PI spent considerable time with stakeholders in between meetings (informal interview by phone, crossing paths at other sexual-assault related meetings and conferences, travel to NIJ for ARP cross-site meetings, etc.).
Persistent Observation	Spending sufficient time observing the specific characteristics and elements that are most relevant to the problem being studied. In contrast to “prolonged engagement” (which helps researchers develop breadth and scope), this criteria focuses in gaining in-depth understanding of key elements of the setting.	<p>The research team conducted six in-depth observations of key project activities, pertaining to each of the four main goals of the project:</p> <p>Census = on-site observation of the police property room and the counting/auditing process (6 hours)</p> <p>Underlying factors = shadowing stakeholders from law enforcement and prosecution to understand their work with sexual assault survivors (6 hours)</p> <p>Testing = shadowing forensic science stakeholders re: preparing kits for submission for testing and tracking testing results (6 hours)</p> <p>Victim notification = observing three Victim Notification Review team meetings (18 hours total)</p> <p>Total observational time (meetings + shadowing) = ~186 hours</p>

<b>STANDARD: CREDIBILITY (continued)</b>		
<b>Sub-Criteria</b>	<b>Definition</b>	<b>How Standard Met In This Project</b>
Triangulation	<p>Collecting multiple data sources to ensure that the research is detailed, comprehensive, and well-developed. There are three kinds of triangulation:</p> <p>Methods Triangulation: Checking consistency of findings generated by different data collection methods</p> <p>Triangulation of Sources: Checking consistency of data sources within same method</p> <p>Analyst Triangulation: Using multiple observers, coders, and analysts to check on selective perception, “blind spots,” and bias.</p>	<p>Four data collection techniques were used in this project: ethnographic observations, individual interviews, archival records, and focus groups. All three forms of triangulation were assessed:</p> <p>Methods Triangulation: Analyses checked whether data sources provided consistent findings across method</p> <p>Triangulation of Sources: Analyses checked whether sources within the same the organization were consistent</p> <p>Analyst Triangulation: Analyses were performed by a team of analysts and all analyses were constructed and reviewed by at least three analysts</p>
Peer Debriefing	Working with disinterested peers to test/defend the emergent hypotheses and to help illuminate implicit assumptions.	Given this project’s complex confidentiality and privacy concerns (see <i>Chapter 1: Introduction</i> ), disclosure to a truly disinterested party would have been inadvisable, but the project’s Co-Investigator, research associates, and statisticians were able to fulfill this role by discussing the interviews, challenging the interviewer’s assumptions, identifying gaps in the knowledge base, and suggesting areas for new inquiry.
Negative Case Analysis	Searching for evidence within the data that do not support emerging patterns or interpretations. Helps revise, confirm, broaden patterns/findings in the data.	The data analysts used Ericksen’s (1986) methods for assessing evidentiary adequacy/inadequacy, which includes searching for disconfirming evidence of an assertion (and then revising the assertion accordingly).

<b>STANDARD: CREDIBILITY (continued)</b>		
<b>Sub-Criteria</b>	<b>Definition</b>	<b>How Standard Met In This Project</b>
Referential Adequacy	Reserving/archiving a portion of the data; the researcher analyzes remaining data to develop findings, then returns to the archived data to test validity of the findings.	The data analysts began their work with the ethnographic observations and interview data, reserving the archival data to cross-check and triangulate the information gathered by the other methods. In addition, we were allowed access to the OVW-funded <i>The 400 Project</i> data set of N = 252 police files. We reviewed these files to assess the referential adequacy of our analyses re: underlying factors as to why Detroit has so many unsubmitted SAKs (and specifically, the analyses pertaining to front-line practices in sexual assault cases).
Member Checks	<p>Sharing preliminary findings with participants to explore the extent to which the researchers' interpretations resonate with their understanding of the issues.</p> <p>There is debate in the qualitative methods literature<sup>107</sup> about whether member checks can establish credibility because:</p> <ul style="list-style-type: none"> <li>For confidentiality reasons, participants may not be privy to all of the data upon which the researchers based findings</li> <li>Participants may try to influence the findings to create a more positive, flattering portrayal, if the results are seen as negative</li> <li>Researchers and participants may legitimately disagree as to what is a "fair account" of the phenomena of interest.</li> </ul>	<p>For each emerging set of analyses (e.g., community context, underlying factors, testing results, victim notification), we conducted a powerpoint presentation of those findings for the collaborative team. Sometimes we conducted separate within-organization presentations of findings (before presenting to the full collaborative) when we suspected the findings would be controversial so that we could focus on understanding each organization's unique perspective on the findings.</p> <p>The member checks did not yield consistency between the stakeholders and the researchers regarding the findings on the underlying factors, specifically the indirect effects of other organizations on police decision making. Whereas the police did not contest these findings, one other organization did not agree with the researchers' findings. The existing data were re-checked and new data were collected to pursue nuances that helped revise and clarify the final results presented in this report.</p>

<sup>107</sup> See Angen, 2000; Ashworth, 1993; Buchbinder, 2010; Emerson & Pollner, 1988; Miles, Huberman, & Saldana, 2014; Morse, 1994; Sandelowski, 1993; Torrance, 2012.

<b>STANDARD: TRANSFERABILITY</b>	
<b>Definition</b>	<b>How Standard Met In This Project</b>
<p>The researcher needs to provide the readers/audience with sufficient detail about what happened in the setting/context of interest so that they can make informed assessment as to whether conclusions that can be drawn are transferable to other settings, situations, etc.</p> <p>There is debate in the qualitative methods literature<sup>108</sup> as to whether this standard requires that findings must be transferable to be considered trustworthy; or whether unique, site-specific findings, described in sufficient detail so as to gauge their current/future transferability to other settings is sufficient.</p>	<p>The PI kept field notes throughout the project, detailing thick descriptions of the key events that took place throughout this project. We also collected extensive details about the history and context in Detroit—as well as in four comparable cities.</p> <p>The comparable cities comparisons highlight that some of the resource constraints in Detroit are typical of other major urban areas (particularly those with high crime rates/high concentrations of African American residents), but that in some key areas (e.g., police leadership turnover, DNA forensic scientist staffing levels, community based advocacy), Detroit has faced unique challenges.</p>
<b>STANDARD: DEPENDABILITY</b>	
<b>Definition</b>	<b>How Standard Met In This Project</b>
<p>The researcher needs to articulate the methods in sufficient detail so that the process by which findings were created is clear, transparent, and reproducible. To that end, the researcher must keep an audit trail, which includes: data collection procedures, coding procedures, analyses, revisions, member checks, etc.</p>	<p>The PI and Co-I kept an audit trail throughout the project, tracking all data collection methods, coding processes, coding decisions, analysis drafts, analysis revisions, and member check feedback.</p>

<sup>108</sup> See Stake (1995, 2010, 2013) and Yin (2008, 2011).

<b>STANDARD: CONFIRMABILITY</b>	
<b>Definition</b>	<b>How Standard Met In This Project</b>
<p>The researcher needs to examine how his/her own identity, life experiences, social location, biases, and perspectives may have shaped the process of the research and the resulting findings. The researcher needs to keep reflexive field notes throughout the process to examine these issues and bracket them from the work (and/or empirically examine them within the work, see Campbell, 2002 as an example).</p> <p>Other strategies for assuring confirmability include: keeping an audit trail (see above) and conducting triangulation assessments (see above).</p>	<p>The PI kept field notes throughout the project, which included reflexive memoing. In peer debriefing with other members of the research team, we regularly questioned/challenged each other's perspectives. Given that this project had an explicit evaluation aim (see <i>Chapter 1: Introduction</i>), we emphasized bracketing reflexivity rather than incorporating it into the research process.</p> <p>We also kept an audit trail (see above) and conducted extensive triangulation assessments (see above) to ensure that the findings did not reflect the biases of the research team.</p>

## Quantitative Data Analyses – Modeling SAK Submission Rates Over Time

The results of the SAK census (*Chapter 2: How Many Unsubmitted SAKs in Detroit*) revealed that the number of unsubmitted SAKs fluctuated over time: some years there were substantially more unsubmitted SAKs than SAKs submitted for testing, and in other years, the proportions were nearly equal (though there were no years in which more SAKs were submitted than not). To explore why Detroit had so many unsubmitted SAKs (*Chapter 3*), we identified key historical changes in policy, practices, and resources. Therefore, we wanted to examine whether these key turning points/changes identified through the qualitative data were associated with SAK submission rates over time. Using multi-level longitudinal quantitative modeling, we tested whether key historical events identified in this analysis were associated with the observed rates of SAK submissions over time.

### *Data Analytic Methods*

Analysis focused on system-level changes thought to affect the percent of sexual assault kits that were submitted to the crime lab. Data were collected for each of 10,817 kits collected in the years from 1980 to 2009. System changes occurred at various points during this period. The disposition of each kit was recorded (whether it was submitted to the crime lab for analysis or not), along with the year in which the kit was collected. Several potentially influential systemic changes were identified across the span of years, including 1) changes in the process by which DNA evidence was handled by the crime lab, 2) receipt of additional DOJ funds for DNA testing, 3) a police department policy change expanding the types of evidence that should be submitted for forensic testing, 4) establishment of the SANE program, and 5) staff cuts to the police sex crimes unit. Descriptive statistics for each of these variables are in Table B.2 (next page).

<b>TABLE B.2 – Modeling SAK Submission Rates Over Time, Descriptive Statistics (N = 10,817)</b>			
	<b># kits</b>	<b>% of total</b>	<b>% of kits submitted</b>
<b>DEPENDENT VARIABLE</b>			
<b>Submission of sexual assault kit to crime lab</b>			
Submitted	2426	22.4	100
Not Submitted	8391	77.6	0
<b>INDEPENDENT VARIABLES</b>			
<b>"Eras" of handling DNA evidence by crime lab</b>			
Pre DNA Era (1980-1993)	2261	20.9	13.6
DNA but no CODIS (1994-1997)	2751	25.4	12.9
DNA and CODIS but police crime lab cannot upload (1998-2001)	2026	18.7	32.9
DNA and CODIS and police crime lab has provisional upload (2002-2005)	2070	19.1	23.6
DNA and CODIS and police crime lab has full upload (2006-2009)	1709	15.8	35.5
<b>DOJ funding for crime lab DNA testing (2005)</b>			
Before DOJ funding	8464	78.2	20.0
After DOJ funding	2353	21.8	31.0
<b>Police policy change re submitting evidence to crime lab (2002)</b>			
Before police policy change	6089	56.3	16.6
After police policy change	4728	43.7	29.9
<b>SANE program established (2006)</b>			
Year SANE program established	403	3.7	46.9
Not year SANE program established	10414	96.3	21.5
<b>Years of staff cuts in police sex crimes unit (2002 and 2008)</b>			
Staff cut year	925	8.6	29.2
Not staff cut year	9892	91.4	28.1

The unit of analysis is the kit, which is nested within years. Only the dependent variable – disposition – is measured at the kit level; all covariates are at the level of years. To accommodate dependencies among kits collected in the same year, the analysis used multilevel or mixed effects regression, with individual kits at level 1, nested within years at level 2. Models were estimated with random intercepts for kit submission and fixed slope effects for level 2 covariates. Because the dependent variable – submission – is a dichotomous variable, a logit link function was used, producing multilevel logistic regression models. Analyses were conducted using HLM 7 software (Raudenbush, Bryk, Cheong, & Congdon, 2011).

A baseline null model was estimated first to verify the adequacy of the variance of the random intercept and to obtain a baseline log likelihood value against which the fit of more complex nested models could be compared, as other covariates were added. Then a fixed linear effect for time (in years, centered at the mean year of 1999) was estimated in a random intercept/fixed slope model. To check for curvilinearity, models incorporating polynomial functions of time (squared and cubed) were also estimated, but neither term made a significant improvement to model fit, indicating that the effect of time was essentially linear in form. The null and fixed linear time slope models are summarized in Table B.3 (next page). The random effects variance in the null model was large and significant, indicating sufficient variability among yearly submission rates to warrant further analysis. The addition of the linear slope term made a significant improvement to model fit (likelihood ratio (LR) chi square = 15.86;  $p < .0001$ ); the fixed effect for time was positive and significant (odds ratio (OR)) = 1.09), indicating that on average, each subsequent year was associated with a 1.09 increase in submission rate. These baseline models formed the basis for substantive models examining the contribution of level 2 covariates. Because all covariates are time-related and therefore potentially correlated with the linear effect of time, each covariate was initially examined both with (conditional) and without (unconditional) the fixed effect of time. Subsequent multivariable models were derived from the initial bivariate models.

TABLE B.3 – Baseline Models for Submission of SAKs to Crime Lab

		Fixed Effects					Random Effect Variance				Model Fit				
Model	Model components	Log Odds	se	Odds ratio	Confidence interval	<i>p</i>	SD	df	chi square	<i>p</i>	Log likelihood	# parameters	LR chi square	<i>p</i>	
<b>Null Model</b>	<b>Intercept (random)</b>	-	1.390	0.139	0.249	0.187 - 0.331	<	.001	0.655	27	757.156	<.001	-15351.1	2	
<b>Fixed Linear Time Slope Model</b>	<b>Intercept (random)</b>	-	1.299	0.097	0.273	0.0224 - 0.333	<.000	0.435	26	3999.27	<.001				
	<b>Time (years - linear)</b>	0.084	0.015	1.087		1.054 - 1.122	<.001						-15343.20	3	15.86 <.0001

### **Detailed Statistical Results**

First we examine the effect of individual covariates. The effects of changes in the process by which DNA evidence was handled by the crime lab are summarized in Table B.4 (following pages). The top panel examines the unconditional effects (i.e., without adjusting for linear time effects), and the bottom panel examines the conditional effects, adjusting for linear time. In the unconditional model, DNA “era” made a significant contribution to model fit (LR chi square = 12.54,  $p = 0.14$ ). Each of the eras differed significantly from the fourth era, the category designated as the reference because it provided the clearest illustration of the overall effect: the first 2 eras –pre DNA and DNA without CODIS – did not differ significantly from each but were both significantly lower than the reference category – DNA and CODIS, with the police crime lab having provisional upload rights to CODIS. Rates of kit submission in the first two eras were only half the size of rates in the reference category ( $OR = 0.46$  and  $0.47$ , respectively). Eras 3 – DNA and CODIS but crime lab cannot upload – and 5 – DNA and CODIS, with the crime lab having full upload – did not differ significantly from each other but were both significantly higher than the reference category ( $OR=1.55$  and  $1.80$ , respectively). The conditional model in bottom panel of Table B.4 adds the linear effect of time to the DNA “era” model. Rather than improving fit, the addition of time worsened model fit, relative to the fit of the unconditional model (LR chi square = -2.4,  $p = 1$ ). This finding, along with the reversed sign of the effect of linear time and the inflation of standard errors in the conditional model, indicates strong collinearity between DNA era and linear time.

Table B.5 (following pages) contains the unconditional and conditional models for the receipt of DOJ funding for DNA testing. In the top panel, the unconditional model indicates that DOJ funding has a significant ( $p = .01$ ) and positive ( $OR = 2.24$ ) effect on kit submission and that it significantly improves model fit over the null model (LR chi square = 5.42,  $p = .02$ ). Years after receipt of DOJ funding had rates of kit submission that were more than double the rates of years prior to the funding. The addition of linear time in the conditional model (bottom panel) significantly improved model fit (LR chi square =

10.32,  $p = .001$ ). However, after adjusting for linear time, the effect of DOJ funding reversed sign and was much smaller and no longer significant.

Table B.6 (following pages) contains the models for the effects of a change in police department policy that expanded the types of evidence that should be submitted to the crime lab. In the unconditional model, the effect of this policy change had a significant ( $p < .001$ ) and positive ( $OR = 2.59$ ) effect on kit submission and it significantly improved model fit over the null model (LR chi square = 6.64,  $p = .01$ ). The addition of linear time (bottom panel) made a significant improvement to model fit (LR chi square = 8.68,  $p = .003$ ). However, in this conditional model, the change in police department policy was no longer significant.

Table B.7 (following page) contains the models for effects of staff cuts in the police sex crimes unit, which occurred in both 2002 and 2008. In both the unconditional and conditional models, staff cuts had no significant effect on kit submission. Results were virtually identical for separate analyses examining the effect of each separate year in which there were staff cuts (2002 and 2004). Results of these separate analyses are not shown.

Table B.8 (following pages) contains the models for effects of establishment of the SANE program. In the top panel, the unconditional model shows that SANE had a significant ( $p = .043$ ) and positive ( $OR = 3.71$ ) effect on kit submission and that it significantly improved model fit over the null model (LR chi square = 5.40,  $p = .02$ ). The year in which SANE was established had a rate of kit submission that was nearly 4 times the average across all years. In the bottom panel, the addition of linear time significantly improved model fit (LR chi square = 14.22,  $p < .001$ ). The effect of SANE remained positive ( $OR = 1.94$ ), although it was no longer significant, according to the Wald test ( $p = .149$ ).

These initial bivariate models were used to develop and evaluate subsequent multivariable models. Because DNA “eras” (changes in the process by which DNA evidence was handled by the police

crime lab) appeared to fully explain the linear increase in kit submission over time (i.e., adding the linear time effect worsened model fit, due to its collinearity with DNA era; see Table B.4), DNA era was used as the basis of a final model of systems changes related to kit submission. These models had the random intercept in block 1 and the DNA “eras” variable in block 2. Block 3 of each subsequent model added, one at a time, a variable that had been found in bivariate models to have significant relationships with kit submission, unconditional on linear time. DOJ funding (Table B.5), police policy change (Table B.6), and establishment of SANE (Table B.8) met this criterion. These multivariable models are presented in Tables B.9 through B.11 (following pages). Table B.9 shows the addition of DOJ funding for DNA testing in block 3 and the categories comprising the DNA era variable in block 2. DOJ funding was not significant ( $p = .229$ ) and did not improve model fit. Table B.10 adds police policy change in submission of evidence to the crime lab in block 3. Change in police policy was not significant ( $p = .783$ ) and did not improve model fit. Table B.11 adds the year the SANE program was established in block 3. Although the coefficient was large and positive, it did not reach the conventional level of significance ( $OR = 1.81$ ,  $p = .053$ ). However, the addition of SANE establishment significantly improved model fit (LR chi square = 4.24,  $p = .039$ ). This was considered the final model.

Thus, the model containing two covariates – DNA “eras,” or changes in the process by which DNA evidence was handled by the crime lab, along with the year in which SANE was established, was determined to be the best-fitting model explaining shifts in rates of kit submission. Although two other potential covariates – DOJ funding for DNA testing and the police department policy change in submission of evidence to the crime lab – had significant unconditional relationships with kit submission rates, they were no longer significant when either linear time or DNA eras were accounted for. Years in which there were staff cuts in the sex crimes unit did not show any relationship to change in kit submission, either unconditional or after accounting for DNA eras.

**TABLE B.4 – Models Examining the Effects of DNA “Era”**

Model	Model components	Fixed effects					Random effects variance					Model fit		
		Log odds	se	Odds ratio	Confidence interval	p	SD	df	chi square	p	Log likelihood	# parameters	LR chi square	p
Unconditional model (Without time)	Intercept	-1.567	0.140	0.315	0.235 - 0.420	< .001	0.561	26	634.898	<.001	-15351.13	2		
	<b>DNA "eras" in which sexual assault kit was collected</b>													
	1. Pre DNA Era (1980-1993)	-0.780	0.190	0.458	0.309 - 0.680	<.001								
	2. DNA but no CODIS (1994-1997)	-0.752	0.200	0.471	0.312 - 0.712	0.001								
	3. DNA and CODIS but police crime lab cannot upload (1998-2001)	0.440	0.197	1.552	1.032 - 2.334	0.036								
	4. DNA and CODIS and police crime lab has provisional upload (2002-2005)	<i>Reference Category</i>												
5. DNA and CODIS and police crime lab has full upload (2006-2009)	0.588	0.198	1.800	1.194 - 2.712	0.007					-15344.86	6	12.54	0.014	
Conditional model (Adding linear time)	Intercept	-1.029	0.235	0.357	0.219 - 0.582	<.001	0.246	22	135.359	<.001				
	<b>DNA "eras" in which sexual assault kit was collected</b>													
	1. Pre DNA Era (1980-1993)	-1.133	0.577	0.322	0.097 - 1.065	0.062								
	2. DNA but no CODIS (1994-1997)	-0.979	0.394	0.376	0.166 - 0.850	0.021								
	3. DNA and CODIS but police crime lab cannot upload (1998-2001)	0.326	0.255	1.386	0.817 - 2.351	0.214								
	4. DNA and CODIS and police crime lab has provisional upload (2002-2005)	<i>Reference Category</i>												
5. DNA and CODIS and police crime lab has full upload (2006-2009)	0.700	0.254	2.014	1.188 - 3.414	0.012									
<b>Time (Years - linear)</b>		-0.028	0.043	0.972	0.889 - 3.414	0.516					-15346.06	7	-2.4	1

**TABLE B.5 – Models Examining the Effects of DOJ Backlog Reduction Grant Funding**

Model	Model components	Fixed effects					Random effects variance					Model fit			
		Log odds	se	Odds ratio	Confidence interval	<i>p</i>	SD	df	chi square	<i>p</i>	Log likelihood	# parameters	LR chi square	<i>p</i>	
<b>Unconditional model</b> (Without time)	<b>Intercept</b>	-1.550	0.139	0.212	0.159 - 0.282	<.001	0.568	26	634.9	<.001	-15351.13	2			
	<b>DOJ funding for DNA testing (2005-2009)</b>	0.807	0.293	2.240	1.226 - 4.093	0.011					-15348.42	3	5.42	0.020	
<b>Conditional model</b> (Adding linear time)	<b>Intercept</b>	-1.222	0.126	0.295	0.228 - 0.382	<.001	0.431	25	381.240	<.001					
	<b>DOJ funding for DNA testing (2005-2009)</b>	-0.313	0.329	0.731	0.372 - 1.439	0.350									
	<b>Time (Years - linear)</b>	0.099	0.022	1.104	1.055 - 1.155	<.001					-15343.26	4	10.32	0.001	

**TABLE B.6 – Models Examining the Effects of the Police Policy Change Regarding SAK Submissions**

Model	Model components	Fixed effects		Random effects variance					Model fit						
		Log odds	se	Odds ratio	Confidence interval	<i>p</i>	SD	df	chi square	<i>p</i>	Log Likelihood	# Parameters	LR chi square	<i>p</i>	
<b>Unconditional model</b> (Without time)	<b>Intercept</b>	-1.778	0.138	0.169	0.127 - 0.224	<.001	0.463	26	477.08	<.001	-15351.13		2		
	<b>DPD policy change re submission of kits</b>	0.953	0.204	2.590	1.706 - 3.045	<.001					-15347.81		3	6.64	0.01
<b>Conditional model</b> (Adding linear time)	<b>Intercept</b>	-1.335	0.206	0.260	0.170 - 0.397	<.001	0.432	25	397.99	<.001					
	<b>DPD policy change re submission of kits</b>	0.099	0.373	1.105	0.512 - 2.382	0.792									
	<b>Time (Years - linear)</b>	0.077	0.029	1.080	1.016 - 1.147	<.015					-15343.47		4	8.68	0.003

TABLE B.7 – Models Examining the Effects of the Police Sex Crime Unit Staffing Cuts

Model	Fixed Effects	Log Odds	se	Fixed effects			Random effects variance				Model fit				
				Odds Ratio	Confidence Interval	<i>p</i>	SD	df	chi square	<i>p</i>	Log Likelihood	# Parameters	LR chi square	<i>p</i>	
<b>Unconditional model</b> (Without time)	<b>Intercept</b>	-1435	0.143	0.238	0.178 - 0.319	<.001	0.639	26	740.278	<.001	-15351.1		2		
	<b>Year of staff cuts (2002 &amp; 2008)</b>	0.549	0.480	1.732	0.646 - 4.641	0.263					-15351.1		3	0.01	1
<b>Conditional model</b> (Adding linear time)	<b>Intercept</b>	-1.288	1.102	0.276	0.223 - 0.341	<.001	0.434	25	396.408	<.001					
	<b>Year of staff cuts (2002 &amp; 2008)</b>	-0.111	0.350	0.895	0.435 - 1.839	0.753									
	<b>Time (Years - linear)</b>	0.085	0.016	1.089	1.054 - 1.126	<.001					-15343		4	16.22	<.001

TABLE B.8 – Models Examining the Effects of the Establishment of the SANE Program

Model	Model components	Fixed effects		Random effects variance				Model fit						
		Log odds	se	Odds ratio	Confidence interval	<i>p</i>	SD	df	chi square	<i>p</i>	Log likelihood	# parameters	LR chi square	<i>p</i>
<b>Unconditional model</b> (Without time)	<b>Intercept</b>	-1.434	0.130	0.238	0.183 - 0.311	<.001	0.592	26	624.42	<.001	-15351.13	2		
	<b>Year SANE was established (2006)</b>	1.310	0.614	3.706	1.048 - 13.099	0.04					-15348.43	3	5.40	0.020
<b>Conditional model</b> (Adding linear time)	<b>Intercept</b>	-1.329	0.094	0.265	0.218 - 0.321	<.001	0.41	25	357.583	<.001				
	<b>Year SANE was established (2006)</b>	0.665	0.446	1.944	0.775 - 4.877	0.15								
	<b>Time (Years - linear)</b>	0.077	0.015	1.080	1.047 - 1.114	<.001					-15341.32	4	14.22	<.001

TABLE B.9 – Models Examining the Effects of DNA “Eras” and DOJ Backlog Reduction Grant Funding

Block #		Fixed effects				Model fit				
		Log odds	se	Odds ratio	Confidence interval	<i>p</i>	Log likelihood	# Parameters	LR chi square	<i>p</i>
1	<b>Intercept</b>	-1.059	0.156	0.347	0.251 - 0.579	<.001	-15351.13	2		
2	<b>"DNA Eras" in which sexual assault kit was</b>						-15344.86	6	12.54	0.014
	Pre DNA Era (1980-1993)	-0.871	0.200	0.418	0.276 - 0.633	<.001				
	DNA but no CODIS (1994-1997)	-0.849	0.208	0.428	0.278 - 0.658	<.001				
	DNA and CODIS but police crime lab cannot upload (1998-2001)	0.343	0.305	1.409	0.921 - 2.155	0.109				
	DNA and CODIS and police crime lab has provisional upload (2002-2005)	<i>Reference Category</i>								
	DNA and CODIS and police crime lab has full upload (2006-2009)	0.490	0.206	1.633	1.065 - 2.503	0.026				
3	<b>DOJ funding for DNA testing (2005-2009)</b>	-0.384	0.310	0.681	0.358 - 1.296	0.229	-15344.97	7	-0.11	1
	<b>Random Intercept variance</b>	<u>SD</u>		<u>df</u>	<u>Chi square</u>	<u><i>p</i></u>				
		0.249		22	137.204	<.001				

**TABLE B.10 – Models Examining the Effects of DNA “Eras” and Police Policy Change Regarding SAK Submissions**

Block #		Fixed effects				Model fit				
		Log Odds	se	Odds Ratio	Confidence Interval	p	Log Likelihood	# Parameters	LR chi square	p
1	<b>Intercept</b>	-1.234	0.31	0.291	0.153 - 0.554	< .001	-15351.13	2		
2	<b>"DNA Eras" in which sexual assault kit was</b>						-15344.86	6	12.54	0.014
	Pre DNA Era (1980-1993)	-0.703	0.336	0.495	0.247 - 0.994	0.048				
	DNA but no CODIS (1994-1997)	-0.675	0.341	0.509	.251 - 1.033	0.06				
	DNA and CODIS but police crime lab cannot upload (1998-2001)	0.478	0.241	1.614	.979 - 2.660	0.06				
	DNA and CODIS and police crime lab has provisional upload (2002-2005)	<i>Reference Category</i>								
	DNA and CODIS and police crime lab has full upload (2006-2009)	0.588	0.198	1.8	1.194 - 2.712	0.007				
3	<b>DPD policy change re submission of kits</b>	0.077	0.277	1.08	0.608 - 1.918	0.783	-15344.83	7	0.03	1
	<b>Random Intercept variance</b>	<u>SD</u>		<u>df</u>	<u>Chi square</u>	<u>p</u>				
		0.26		22	148.119	<.001				

**TABLE B.11 – Model Examining the Effects of DNA “Eras” and the Establishment of the SANE Program**

Block #	Independent variables	Log odds	se	Fixed Effects			Log likelihood	Model fit		
				Odds ratio	Confidence interval	p		# parameters	LR chi square	p
1	<b>Intercept</b>	-1.157	0.127	0.314	0.242 - 0.409	<.001	<b>-15351.1</b>	<b>2</b>		
2	<b>"DNA Eras" in which sexual assault kit was collected</b>						-15344.9	6	12.54	0.014
	Pre DNA Era (1980-1993)	-0.764	0.174	0.466	0.325 - 0.667	<.001				
	DNA but no CODIS (1994-1997)	-0.751	0.181	0.472	0.324 - 0.686	<.001				
	DNA and CODIS but police crime lab cannot upload (1998-2001)	0.440	0.178	1.553	1.074 - 2.246	0.021				
	DNA and CODIS and police crime lab has provisional upload (2002-2005)	<i>Reference Category</i>								
	DNA and CODIS and police crime lab has full upload (2006-2009)	0.437	0.193	1.548	1.036 - 2.412	0.034				
3	<b>Year SANE was established (2006)</b>	0.596	0.291	1.814	0.992 - 3.316	0.053	-15342.7	7	4.24	0.039
	<b>Random Intercept variance</b>	<u>SD</u>		<u>df</u>	<u>Chi square</u>	<u>p</u>				
		0.231		22	119.564	<.001				

## Quantitative Data Analyses – Modeling CODIS Hit Rates

In developing the Detroit SAK testing plan, our goal was to craft a design that could inform policy and practice debates about “test all/test some” SAKs. In this component of the ARP, we focused on whether forensic testing outcomes, specifically the number of CODIS hits, differ by specific case characteristics (e.g., victim-offender relationship, statute of limitations, victim demographics, assailant demographics, assault characteristics). We also compared forensic testing outcomes for two different DNA testing methods: traditional and selective degradation (DNase).

### *Data Analytic Methods*

**Samples and Sampling Procedures.** This quantitative portion of this Detroit SAK ARP was designed to examine multiple research questions regarding SAK forensic testing outcomes, some of which pertained only to specific subpopulations of the unsubmitted Detroit SAKs. As a result, data collection was divided into four separate processes, each of which produced a sample of SAKs (“Testing Group”) that could be analyzed independently or combined with other testing groups into a larger sample for additional analyses. Figure 4.17 (*“The Detroit SAK Testing Groups and Populations Represented,” Chapter 4*) illustrated the relationship of the Testing Groups to various subpopulations; Table B.12 (next page) further describes the size of each sample we analyzed, along with the population or subpopulation it represents and the analytical purposes it served.

We also used an additional sample—called Testing Group “5” in this Appendix—comprised of  $N = 250$  of the 400 SAKs originally submitted for forensic analysis on *The 400 Project*, (Pierce & Zhang, 2011a, 2011b) supplemented by additional victim-offender relationship and SOL status information collected about those SAKs for another study (Shaw, 2014). This crucial resource allowed us to compute sampling weights that improved our ability to account for the disproportionate sampling of certain kinds of SAKs in Testing Groups 1-4 (details are described below).

**TABLE B.12 – Samples Used in the Quantitative Analyses Examining Forensic Testing Outcomes**

Group	N	Population or Subpopulation	Purposes	Sampling Design	Weighting
1	445	Untested, non-adjudicated, SOL-unexpired, Detroit SAKs from stranger assaults	Predict CHR	Stratified by year	None
2	449	Untested, non-adjudicated, SOL-unexpired, Detroit SAKs from non-stranger assaults	Predict CHR	Stratified by year	None
3	351	Untested, SOL-expired Detroit SAKs	Predict CHR	Simple random sample	None
4	350	Untested, SOL-unexpired Detroit SAKs	Quantify & compare DTR & CER to examine testing method effect	Simple random sample	None
5	250	Untested Detroit SAKs	Provide sampling weights	Simple random sample	None
1 + 2	894	Untested, non-adjudicated, SOL-unexpired Detroit SAKs from assaults where VOR is known	Quantify & compare CER, CHR, & SAR to examine VOR effect	Stratified by year & VOR	Stratified by VOR
3 + 4	701	Untested Detroit SAKs	Quantify & compare CER, CHR, & SAR to examine SOL effect	Stratified by SOL status	Stratified by SOL status

Note: Group 5 was not new data collected under this study. It was a subset of 250 SAKs from *The 400 Project* that have been used in another study (Shaw, 2014); secondary analyses of these data provided the best available source for computing sampling weights required to properly analyze data from testing groups 1-4. CER = CODIS entry rates; CHR = CODIS hit rates; DTR = DNA testing rates; SAR = serial sexual assault rates; SOL = statute of limitations; VOR = victim offender relationship.

Although it would have been ideal to collect data on adjudication status, SOL status, and victim-offender relationship for the entire collection of Detroit SAKs during the census, this was not practical. Preserving the chain of custody throughout the census was of paramount importance. Staff from the prosecuting attorney's office had to conduct the census in the presence of a designated property officer and the entire census had to be completed in less than four months. As a result, plans to collect data that would have been extremely useful for drawing subsequent samples were set-aside and the census

was focused strictly on obtaining an accurate count of SAKs. Sampling without replacement for Testing Groups 1-4 was done in three steps as shown below, followed by an additional step to obtain the sample we ultimately used to generate sampling weights. The PI and Co-I consulted with multiple methodologists/statisticians during the creation and implementation of this sampling plan, as we encountered practical constraints (e.g., sample size, distribution of SAKs across years) that necessitated compromises in our original plans (as noted below and in *Chapter 4*).

*Testing Groups 1 and 2:* A list of IDs for SAKs collected between 2002-2009 was extracted from the census list to ensure that all SAKs considered would be SOL-unexpired. This list was placed in a random order and then provided to the prosecutors responsible for sampling the SAKs. They were instructed to review the SAKs in the order listed, making a decision about each SAK before moving on to the next one on the list. Previously adjudicated and previously tested SAKs were removed from the list and excluded from both groups. Untested, non-adjudicated SAKs were then sorted by victim-offender relationship: stranger assaults went into Testing Group 1, non-stranger assaults went into Testing Group 2. This process continued aiming to accumulate a stratified sample of about 56 SAKs per year (two randomly selected years had targets of 58) in each group. This target sample size of 450 was based on budget constraints. The final number of kits per year in each group did not exactly match the targets, largely due to how many eligible cases they had per year. The prosecutors adjusted the targets to deal with shortfalls in one year by increasing the target number of SAKs for following years (distributing the extra SAKs equally across the remaining years). This was not ideal, but we were unable to weight the data by year anyway. What seemed most important is that the sampling scheme guaranteed that data from all years in the range 2002 to 2009 were included in both Testing Groups 1 and 2.

*Testing Group 3:* This group was selected next. A list of IDs for SAKs collected between 1980 and 2001 was extracted from the census list to ensure that all SAKs considered would be SOL-expired. The list order was randomized and then it was provided to the prosecutors responsible for sampling the

SAKs. They were instructed to review the SAKs in the order listed, making a decision about each SAK before moving on to the next one on the list. Previously tested SAKs were removed from the list and excluded from the Testing Group 3 sample, while untested SAKs were added to Testing Group 3 (regardless of adjudication status) until a total of 350 SAKs had been sampled. There was no stratification by year because the distribution was skewed. Ideally, previously adjudicated SAKs would have been excluded as well, but the time and resources necessary for such screening were well-outside the timeline of this component of the project. This expanded the definition of the population represented by the sample to include both adjudicated and non-adjudicated SAKs.

*Testing Group 4:* This group was selected last. We went back to the census list for SAKs from 2002-2009, then excluded ID numbers that had been screened out based on adjudication status (during the Testing Group 1 and 2 screening) or added to either of those Testing Groups. The order of the remaining ID numbers was re-randomized, then list of ID numbers was given to the prosecutors. They were instructed to review the SAKs in the order listed, making a decision about each SAK before moving on to the next one on the list. Previously tested SAKs were removed from the list and excluded from the Testing Group 4 sample, while untested SAKs were added to Testing Group 4 (regardless of adjudication status) until a total of 350 SAKs had been sampled. There was no stratification by year because the distribution was skewed. Ideally, previously adjudicated SAKs would have been excluded as well, but the time and resources necessary for such screening were prohibitive. This expanded the definition of the population represented by the sample to include both adjudicated and non-adjudicated SAKs. After cases were selected into Testing Group 4, half of them were randomly assigned to each of the two testing methods.

*Testing Group "5:"* Given the very specific nature of the phenomenon we were studying, we determined that there were no previously-published studies from demographically comparable cities that already provided adequate, relevant information about the frequency of specific types of untested

SAKs. Therefore, we needed local data from the population of Detroit SAKs. The only available source that we felt could provide credible sampling weights was a subset of 250 SAKs from the *The 400 Project* (Pierce & Zhang, 2011a, 2011b). For 250 of the 400 cases, *The 400 Project* team was able to track down accompanying police reports and medical records to be able to determine victim-offender relationship or the exact date every SAK was collected (from which SOL status was derived) (see Shaw, 2014). This sub-sample of 250 SAKs (from the original 400) became what we call Testing Group “5” here. The sample was large enough to provide weights stratified by SOL status and victim-offender relationship, but it was too small to provide stable estimates that were further stratified by year.

**Measures and Covariates.** Below, we describe the variables used in the analyses reported in *Chapter 4*; the variables are listed here in the order they are mentioned in that chapter.

*Stage of forensic testing reached:* This was an ordinal, categorical variable recording the last stage of forensic testing reached by each SAK. The stages (shown in Figure 4.2) were 0 = serology screening, 1 = DNA testing, 2 = CODIS entry, 3 = CODIS hit, and 4 = serial sexual assault. The statistical models in *Chapter 4* used various recoded versions of this variable as the key outcomes. The continuation ratio models required a set of stage-specific binary outcome variables showing whether a SAK progressed past each stage to the next one (0 = no, 1 = yes); analyzing those indicators provided estimates of the DNA testing, CODIS entry, CODIS hit, and serial assault rates (the rate being estimated depends on which stage you examine). Any SAK that reached one of the later stages had by definition progressed past every previous stage. The logistic regression models instead used a simple binary indicator of whether or not an SAK had generated a CODIS hit, which occurred for all SAKs reaching Stages 3-4.

*Victim-offender relationship (VOR):* The raw data for this variable consisted of several categories (1 = stranger, 2 = known by sight/nickname, 3 = friend/associate/family member, 4 = current/past intimate partner, 777 = suspect known to victim but nature of the relationship not clear based on the

information in the file, or 999 = missing data). We recoded it into a binary indicator (0 = non-stranger [combining raw codes 2-4, 777], 1 = stranger) coding whether or not the assailant was a stranger to the victim. SAKs with missing VOR data were excluded from the sample used for testing the VOR effect.

*Statute of limitations (SOL) status:* This was a binary indicator (0 = SOL-expired, 1 = SOL-unexpired) coding whether or not the sexual assault associated with a SAK occurred between 2002 and 2009, which would definitely indicate that the SOL for that crime had not yet expired. SAKs collected between 1980 and 2001 were presumed to have expired.

*Victim age:* Although we had actual age in years as a continuous variable, we divided victim age into two categories based on the age of consent in Michigan because this distinction is typically more salient to the legal processing of the case than exact victim age. The older group was the reference level (0 = 16+ years, 1 = 0-15 years).

*Assailant age:* The SAKs and associated case documentation often contained only the approximate ages for the assailants, as estimated by the victim. There were too few assailants less than 18 years old to divide assailant age according to whether they would be considered minors for legal purposes (0-17 years vs. 18+ years), so we instead divided assailants into three groups (0 = 22+ years [adults], 1 = 0-21 years, 2 = unknown). The older group served as the reference level because most assailants were adults. Unknown age was treated as a valid category because the nature and circumstances surrounding some sexual assaults make it impossible to obtain assailant age information prior to identifying a suspect. This may itself be predictive of whether a CODIS hit will result from forensic testing.

*Multiple perpetrators:* This was a binary indicator (0 = no, 1 = yes) coding whether or not the SAK and associated case information explicitly documented that there were multiple perpetrators involved in the sexual assault. Incomplete records that might otherwise be considered missing data were coded as 0.

*Use of alcohol or drugs:* This was a binary indicator (0 = no, 1 = yes) coding whether the police report explicitly documented that the assault occurred in the context of alcohol or drugs. Note that this does not distinguish whether it was the victim, the assailant, or both who were using alcohol or drugs at the time of the assault; it only documents that at least one of them was doing so. Incomplete records that might otherwise be considered missing data were coded as 0.

*Use of weapons:* This was a binary indicator (0 = no, 1 = yes) coding whether the police report explicitly documented that a weapon was used in the assault. Incomplete records that might otherwise be considered missing data were coded as 0.

*Use of physical force:* This was a binary indicator (0 = no, 1 = yes) coding whether the police report explicitly documented that the assailant used physical force in the sexual assault. Incomplete records that might otherwise be considered missing data were coded as 0.

*Exam timing:* Exam timing refers to the length of time elapsed between the sexual assault and the medical forensic examination of the victim that generated the SAK. Exam timing was calculated by comparing dates, then divided into three categories (0 = 0 days [same day, reference category], 1 = 1 day after assault, or 2 = 2+ days after assault).

*DNA testing method:* Each SAK in Testing Group 4 was randomly assigned to one of two groups (0 = traditional DNA testing, 1 = DNase selective degradation testing). This binary indicator recorded those group assignments. All SAKs in Testing Groups 1-3 received traditional testing.

*Presence of sperm:* This binary indicator (0 = no, 1 = yes) recorded whether laboratory personnel detected sperm in the SAK when screening it for biological evidence. It was recorded only for Testing Group 4.

*Cost of consumable supplies:* The cost of consumable supplies used in screening SAKs for biological evidence and conducting DNA tests was recorded in US dollars by the laboratory personnel.

These data were provided only in aggregate form and include the costs of waste, controls, and reprocessing.

*Personnel effort:* The amount of time spent on forensic testing was recorded in hours. Separate estimates were provided for (1) laboratory personnel effort spent on testing the SAKs (2) laboratory personnel effort spent on reviewing test results, and (3) state police forensic science division staff effort spent on reviewing test results. Some of these data were recorded only at the aggregate level for batches of SAKs, rather than recorded separately for every SAK.

**Preparing the Data for Analysis.** Many complex statistical issues needed to be resolved prior to the analysis of these data, including: how to appropriately combine and weight data from multiple groups, how to handle non-independent observations, and how to address the problem of missing data. Below, we describe our approach to resolving each of these challenges.

*Sampling weights:* Because the sizes of the focal subpopulations and the sampling procedures used varied across the four testing groups, combining data from multiple groups requires treating them as part of a complex sampling design. Here we describe our approach to developing the sampling weights that permitted us to draw more appropriate and generalizable inferences from our analyses. Obtaining an appropriate source from which to calculate sampling weights relevant to our focal population and subpopulations was a challenging prospect. The demographic composition of Detroit is unlike that of other large cities that have accumulated collections of untested SAKs (Human Rights Watch 2010, 2011). Furthermore, there is no prior research that reports how many untested SAKs there are in each cell of a 2 x 2 table broken down by whether the statute of limitations has expired and victim-offender relationship. Data from *The 400 Project* were an invaluable resource for this purpose.

For analyzing the effect of victim-offender relationship on forensic testing among untested, non-adjudicated, SOL-unexpired SAKs, Testing Groups 1 and 2 were combined into a single sample. The unweighted groups were almost exactly equal in size, which was inconsistent with the relative frequency

of stranger (40.9%,  $N = 36$ ) and non-stranger assaults (59.1%,  $N = 52$ ) among the 88 SOL-unexpired SAKs from Testing Group 5 for which victim offender relationship was known. Therefore we used those proportions as sampling weights in a disproportionate, stratified sample design (Valliant, Dever, & Kreuter, 2013). The weighted data set properly accounted for the disproportionate occurrence of SAKs from stranger and non-stranger assaults.

For analyzing the effect of statute of limitation (SOL) status on forensic testing rates among untested Detroit SAKs, Testing Groups 3 and 4 were combined into a single sample. The unweighted groups were almost exactly equal in size, which was inconsistent with the relative frequency of SOL-expired (63.6%,  $N = 159$ ) and SOL-unexpired (36.4%,  $N = 91$ ) SAKs among the 250 untested SAKs from Testing Group 5. Therefore we used those proportions as sampling weights in a disproportionate, stratified sample design (Valliant, Dever, & Kreuter, 2013). The weighted data set properly accounted for the disproportionate occurrence of SOL-expired and SOL-unexpired SAKs.

Groups 1-3 were all treated as simple random samples from the subpopulations of interest shown in Table B.12 when running the prediction models. The models for Testing Groups 1 and 2 should technically have been treated as stratified by year and weighted accordingly, but Testing Group 5 was too small to provide reasonable estimates of population proportions by year. Testing Group 3 was a simple random sample by design, so there was no need to adjust for the sampling design before generalizing the findings to the target subpopulation.

None of the analyses that used only Testing Group 4 data required sample weighting because Group 4 was a simple random sample from the subpopulation of untested, SOL-unexpired Detroit SAKs. It was therefore appropriate to generalize findings to that subpopulation without first adjusting for the sampling design.

*Non-independent observations:* The presence of serial sexual offenders in the population implies that SAKs from the same offender could be non-independent (forensic testing outcomes could

be correlated). Normally, this would be cause to select statistical methods that explicitly account for non-independence. We considered two general types of such methods: generalized linear mixed models (GLMMs; Gelman & Hill, 2007; Hox, 2010; Raudenbush & Bryk, 2002) and generalized estimating equation (GEE) models (Hanley, Negassa, deB. Edwardes, & Forrester, 2003; Hardin & Hilbe, 2002). Both would treat SAKs (level 1 units) as observations clustered within unique offenders (level 2 units) and permit estimating fixed effects of predictors correctly adjusted for non-independence, but they differ in whether interpretation focuses on subject-specific (GLMMs) or marginal, population average effects (GEE) (Gardiner, Luo, & Roman, 2009; Subramanian & O'Malley, 2010).

We ultimately opted against using either GLMMs or GEE because the amount of actual clustering in the data was very small: we had 1,595 SAKs (each presumably from a unique victim) associated with a total of 1,563 unique offenders. There were only 29 serial offenders identified by case-to-case hits to other SAKs within the dataset (3 associated with 3 SAKs each, plus 26 with 2 SAKs each; the other 1,534 offenders were each associated with only one SAK). The ratio of SAKs to unique offenders shows that the average cluster size was just 1.02 SAKs per unique offender.

Complete independence would yield an average cluster size of exactly 1, so this is clearly an extremely sparsely clustered dataset. Hence, we looked at the methods literature on modeling sparsely clustered data. Simulations for models with binary outcomes suggest that valid and reliable estimates can be obtained from GLMMs with average cluster size of at least 5 (Clarke, 2008; McNeish, 2014) and from GEE models with average cluster size of at least 2 provided there are many clusters (McNeish, 2014). When average cluster sizes range from 2 to 5, GLMMs may yield biased estimates of selected parameters (e.g., between cluster variance), but ignoring clustering also causes some problems (Clarke, 2008). We were unable to find any methodological research focusing on situations as extremely sparsely clustered as the data we were analyzing. The smallest average cluster size examined in these simulations was 1.4 (Clarke, 2008).

Conducting a new simulation to examine that was beyond the scope of this project. Given that our average cluster size is very nearly equal to 1 (which would indicate no clustering at all), we suspect any bias caused by ignoring the clustering is negligible and that applying simpler methods is preferable to trying to apply GLMMs or GEE under conditions likely to cause estimation problems. Hence the continuation-ratio and logistic regression models described below treat the data as independent observations.

*Missing data:* Missing data frequently arises in statistical analyses and was certainly an issue here. Data were missing in two contexts; firstly with data from *The 400 Project* that was used in the context of obtaining weights in the disproportionately stratified analysis, secondly with missing data from some of the victim, assailant and assault characteristics used as predictors in the logistic regression models. In the case of the data from *The 400 Project*, three of the 250 SAKs were missing victim-offender relationship information. These SAKs were excluded while developing the weights for the disproportionately stratified sampling scheme that were applied when analyzing the victim-offender relationship effect.

There were no missing data in datasets used for the continuation-ratio models. For the logistic regression models, we treated missing data on assailant age as an explicit category of that predictor. We defined the four assault characteristics (multiple perpetrators, involvement of alcohol/drugs, use of weapons, and use of physical force) as indicators of explicit evidence that these characteristics were present. Lack of such evidence was treated the same as explicit documentation that they were not present (they were coded as 0 = no). Finally, missing victim age and exam timing data were presumed to be missing completely at random because collecting these variables is routine practice in medical forensic exams. Stakeholders familiar with such settings assured us that the only reason such data would be missing would be due to human error on the part of hospital staff. We used list-wise deletion to exclude SAKs with missing data on those variables, conducting the analyses with the remaining SAKs.

**Selecting Appropriate Statistical Techniques & Software.** Below we summarize the statistical modeling techniques we selected to address the primary research questions and the software used to conduct those analyses.

*Continuation-ratio models:* We used continuation-ratio models (Agresti, 2002; Hosmer, Lemeshow, & Sturdivant, 2013) to quantify and compare the DNA testing, CODIS entry, CODIS hit, and serial assault rates. Continuation-ratio models are well-suited to modeling ordinal outcomes resulting from sequential selection processes (Agresti, 2002), so this method is perfectly matched to the goal of how SAKs progressed through the various stages of the forensic testing process. Let  $Y$  indicate the stage at which each kit stops, so that  $Y$  has possible outcomes ranging from 1 to  $J$ , where  $J$  is the final stage that can be reached in the process. Given that an SAK reaches stage  $j$ , the continuation ratio model models the probability that the kit continues to go beyond stage  $j$ , using a logit link function to regress it on potential predictors  $x$  with common regression coefficients  $\beta$ , but varying intercepts  $\alpha_j$  for stage  $j$  from 1 to  $J-1$ . We only need  $J-1$  intercepts because the probability of stopping at the last stage is 1.00 by definition (otherwise it would not be the last stage in the process). The continuation-ratio logit model can then be formally written as follows:

$$\text{logit}(P(Y > j | Y \geq j)) = \alpha_j + x^T \beta,$$

where the logistic function takes value  $p \in (0,1)$  and has the form

$$\text{logit}(p) = \log\left(\frac{p}{1-p}\right).$$

This illustrates that these models are in fact an extension of the more familiar logistic regression model.

Indeed, one method for fitting these models simply involves restructuring the dataset then applying standard logistic regression software. Because we also needed to incorporate sampling weights, we

used a generalized linear model function in R that was developed to work with complex survey sampling designs (Lumley, 2004, 2010, 2012).

We took the unusual step of omitting the normal intercept term so that binary predictors (like SOL status and victim-offender relationship) would yield separate estimates for each group defined by a predictor at the first stage considered in each model. Main effects for stage and the focal predictor (victim-offender relationship, SOL status, and DNA testing method, depending on the specific model considered) were always included in the model. Adding stage x predictor interaction effects to each model made it easier to calculate the different outcome rates of interest under the assumption that the effect of the predictor varied across stages. For the final DNA testing method analysis, we added a main effect for presence of sperm, plus all possible 2- and 3-way interactions between presence of sperm, stage, and the focal predictor. Estimating carefully defined contrasts simplified the process of obtaining the stage-specific outcome rates for each group defined by a focal predictor, broken down by the presence or absence of sperm as needed.

Contrasts and estimable linear functions of combinations of the model coefficients were obtained by post-processing the model outputs. The estimates produced in the model and the post-processing results were transformed to calculate odds ratios (*ORs*) and probabilities (i.e., rates expressed as proportions). These quantities were then used to calculate the relative risk (*RR*) and the number needed to submit (*NNS*) statistics.

*Logistic regression models:* We used standard logistic regression models (Agresti, 2002; Hosmer, Lemeshow, & Sturdivant, 2013) to predict unconditional CODIS hit rates separately in Testing Groups 1-3 as a function of victim, assailant, and assault characteristics. Let  $Y$  be a binary variable to model denoting whether or not an SAK yielded a CODIS hit, so that  $Y$  has possible outcomes 0 and 1, where 1 indicates a CODIS hit. The logistic regression model models the probability that the SAK yields a CODIS

hit, using a logit link function to regress it on potential predictors  $x$  with intercept  $\alpha$  and regression coefficients  $\beta$ . The logistic regression model can then be formally written as follows:

$$\text{logit}(P(Y = 1|x)) = \alpha + x^T \beta,$$

where the logistic function takes value  $p \in (0,1)$  and has the form

$$\text{logit}(p) = \log\left(\frac{p}{1-p}\right).$$

The estimates produced in the model were transformed into *ORs* and probabilities (i.e., rates expressed as proportions) as needed. We retained the normal intercept term in these models, interpreting it as the CODIS hit rate for a reference group in which every predictor was set to a value of zero.

*Equivalence tests:* To conduct the equivalence tests for the DNA testing method experiment, we adopted the common two one-sided tests (TOST) strategy at a Type I error rate of  $\alpha = 0.05$  by computing two-tailed 90% CIs for the raw difference between the CODIS entry rates (which are proportions) for the traditional testing and DNase testing groups (Barker, Luman, McCauley, & Chu, 2002; da Silva, Logan, & Klein, 2009; Rogers, Howard, & Vessey, 1993; Stegner, Bostrom, & Greenfield, 1996; Wellek, 2010). This tests the null hypothesis  $|p_T - p_D| \geq \epsilon$  against the alternate hypothesis  $|p_T - p_D| < \epsilon$ , where  $\epsilon = 0.05$  was the margin of equivalence defining a tolerably small difference in performance (da Silva, Logan, & Klein, 2009). We used the rates estimated from the associated continuation-ratio model for  $p_T$  and  $p_D$ .

Although one can also define equivalence margins in terms of *ORs* (da Silva, Logan, & Klein, 2009), those are very abstract quantities and imply that the actual width of the margin—translated back into a simple difference between the proportions—depends on the proportion in the reference group. We decided that defining the margins in terms of a simple, constant difference between the CODIS entry rates was easier for stakeholders to understand and interpret. We set the margin of equivalence based on feedback from our stakeholders (two at the state level and two more at the national level), who said

they would consider CODIS entry rates for the two groups equivalent if they differed by no more than 5% ( $-0.05 < \Delta < 0.05$ , where  $\Delta = p_T - p_D$ ). Each CI was estimated via a score interval for the difference between two independent proportions (Agresti, 2002).

*Statistical software:* We used R 3.1.1 (R Development Core Team, 2014) to perform the analyses presented in this document. R is free, open-source statistical computing software that is widely regarded as high-quality software by professional statisticians. We used various summary functions from the *descr* package (Aquino, Enzmann, Schwartz, Jain, & Kraft, 2013). We used the *svydesign* and *svyglm* functions (Lumley, 2004, 2010, 2012) to weight the data and run the continuation-ratio models, obtaining additional contrasts via the *estimable* function (Warnes, Bolker, Lumley, & Johnson, 2013). We graphed the model results with the *dotplot* (Sarkar, 2008) and *xYplot* (Harrell Jr., 2014) functions. For the equivalence tests, we used the *diffscoreci* function (Scherer, 2014). For the logistic regression models, we used the *glm* function from the base R software (R Development Core Team, 2014). The data files and software code required to replicate the analyses will be archived in the National Archive of Criminal Justice Data (NACJD).

### ***Detailed Statistical Results***

The parameter estimates from the continuation-ratio models evaluating the effect of victim-offender relationship and SOL-statue (see *Chapter 4*) are presented in Tables B.13 and B.14 (following pages). We present these more detailed tables of the model results to document parameter estimates, standard errors, and model fit information that were omitted from *Chapter 4* for the sake of brevity. Similarly, Tables B.15 – B.17 (following pages) present more detailed results of the logistic regression analyses that examined the predictive utility of victim, assailant, and assailant characteristics (within Testing Groups 1, 2, and 3). Tables B.18 and B.19 (following pages) present the detailed results from Testing Group 4: the experimental evaluation of two different testing methods (traditional vs. DNase).

**TABLE B.13 – Continuation-Ratio Model for Victim-Offender Relationship Effect**

<b>Model Effects</b>							
<b>Parameter</b>	<b>Estimate</b>	<b>SE</b>	<b>Rate</b>	<b>Rate 95% CI</b>	<b>Odds Ratio</b>	<b>OR 95% CI</b>	<b>p-value</b>
Stage							
Stage 1->2: CODIS entry rate   Non-stranger	-0.402	0.096	0.401	[0.357, 0.447]	0.669	[0.554, 0.808]	<0.001
Stage 2->3: CODIS hit rate   Non-stranger	0.291	0.151	0.572	[0.499, 0.643]	1.338	[0.996, 1.797]	0.054
Stage 3->4: Serial hit rate   Non-stranger	-1.552	0.260	0.175	[0.113, 0.260]	0.212	[0.127, 0.352]	<0.001
Victim-Offender Relationship (VOR)							
Stage 1->2: Stranger effect on CODIS entry rate	0.550	0.135	0.634	[0.571, 0.693]	1.734	[1.330, 2.261]	<0.001
Stage by VOR Interaction							
Stage 2->3: Stranger effect adj. for CODIS hit rate	-0.210	0.244	0.448	[0.334, 0.567]	0.810	[0.502, 1.307]	0.389
Stage 3->4: Stranger effect adj. for Serial hit rate	0.280	0.339	0.569	[0.405, 0.720]	1.323	[0.681, 2.570]	0.409
<b>Derived Contrasts</b>							
<b>Specific Rates</b>	<b>Estimate</b>	<b>SE</b>	<b>Rate</b>	<b>Rate 95% CI</b>	<b>Odds Ratio<sup>a</sup></b>	<b>OR 95% CI<sup>a</sup></b>	<b>p-value</b>
Stage 1->2: CODIS entry rate   Stranger	0.149	0.095	0.537	[0.490, 0.584]			0.118
Stage 2->3: CODIS hit rate   Stranger	0.631	0.136	0.653	[0.589, 0.711]			<0.001
Stage 3->4: Serial hit rate   Stranger	-0.722	0.171	0.327	[0.257, 0.405]			<0.001
<b>Simple Main Effects</b>	<b>Estimate</b>	<b>SE</b>	<b>Rate<sup>b</sup></b>	<b>Rate 95% CI<sup>b</sup></b>	<b>Odds Ratio</b>	<b>OR 95% CI</b>	<b>p-value</b>
Stage 2->3: Stranger effect on CODIS hit rate	0.340	0.203			1.405	[0.939, 2.102]	0.094
Stage 3->4: Stranger effect on Serial hit rate	0.830	0.311			2.294	[1.238, 4.248]	0.008

Note: These results generalize to the subpopulation of untested, non-adjudicated, SOL-unexpired Detroit SAKs for which victim-offender relationship data are available. They are based on analyses of  $N = 894$  SAKs (449 non-stranger assaults and 445 stranger assaults). These estimates were obtained from a continuation-ratio model of SAK progression across Stages 1-4, weighted to reflect the disproportionate stratified sampling design. Model fit statistics: total  $df = 1572$ , residual  $df = 1566$ , null deviance = 2179, residual deviance = 2060,  $AIC = 2078$ .

<sup>a</sup>. Odds-ratios and corresponding CIs are not reported because these contrasts combine coefficients into values that are more meaningful when transformed back into stage-specific transition rates for particular subsets of SAKs.

<sup>b</sup>. Rates and corresponding CIs are not reported because these contrasts combine coefficients to directly quantify the simple main effect of VOR on the rate for a particular stage transition; odds-ratios are a more meaningful metric for examining a difference between the rates observed in two subsets of SAKs.

**TABLE B.14 – Continuation-Ratio Model for Statute of Limitations (SOL) Effect**

<b>Model Effects</b>							
<b>Parameter</b>	<b>Estimate</b>	<b>SE</b>	<b>Rate</b>	<b>Rate 95% CI</b>	<b>Odds Ratio</b>	<b>OR 95% CI</b>	<b>p-value</b>
<b>Stage</b>							
Stage 1->2: CODIS entry rate   Expired	-0.028	0.107	0.493	[0.441, 0.545]	0.972	[0.788, 1.198]	0.790
Stage 2->3: CODIS hit rate   Expired	0.081	0.152	0.520	[0.446, 0.594]	1.084	[0.805, 1.461]	0.595
Stage 3->4: Serial hit rate   Expired	-0.744	0.226	0.322	[0.234, 0.425]	0.475	[0.305, 0.740]	0.001
<b>Statute of Limitations (SOL) Status</b>							
Stage 1->2: Unexpired effect on CODIS entry rate	0.235	0.152	0.558	[0.484, 0.630]	1.265	[0.940, 1.702]	0.121
<b>Stage by SOL Status Interaction</b>							
Stage 2->3: Unexpired effect adj. for CODIS hit rate	-0.118	0.259	0.470	[0.348, 0.596]	0.888	[0.535, 1.476]	0.648
Stage 3->4: Unexpired effect adj. for Serial hit rate	-0.468	0.348	0.385	[0.240, 0.554]	0.626	[0.316, 1.240]	0.180
<b>Derived Contrasts</b>							
<b>Specific Rates</b>	<b>Estimate</b>	<b>SE</b>	<b>Rate</b>	<b>Rate 95% CI</b>	<b>Odds Ratio<sup>a</sup></b>	<b>OR 95% CI<sup>a</sup></b>	<b>p-value</b>
Stage 1->2: CODIS entry rate   Unexpired	0.206	0.108	0.551	[0.498, 0.603]			0.055
Stage 2->3: CODIS hit rate   Unexpired	0.198	0.145	0.549	[0.478, 0.619]			0.172
Stage 3->4: Serial hit rate   Unexpired	-0.977	0.218	0.274	[0.196, 0.367]			<0.001
<b>Simple Main Effects</b>	<b>Estimate</b>	<b>SE</b>	<b>Rate<sup>b</sup></b>	<b>Rate 95% CI<sup>b</sup></b>	<b>Odds Ratio</b>	<b>OR 95% CI</b>	<b>p-value</b>
Stage 2->3: Unexpired effect on CODIS hit rate	0.117	0.210			1.124	[0.741, 1.705]	0.579
Stage 3->4: Unexpired effect on Serial hit rate	-0.233	0.314			0.792	[0.425, 1.476]	0.450
<p>Note: These results generalize to the population of untested Detroit SAKs (regardless of adjudication status or victim-offender relationship). They are based on analyses of <math>N = 701</math> SAKs (351 SOL-expired assaults and 350 SOL-unexpired assaults). These estimates were obtained from a continuation-ratio model of SAK progression across Stages 1-4, weighted to reflect the disproportionate stratified sampling design. Model fit statistics: total <math>df = 1263</math>, residual <math>df = 1257</math>, null deviance = 1751, residual deviance = 1715, <math>AIC = 1723</math>.</p> <p><sup>a</sup>. Odds-ratios and corresponding CIs are not reported because these contrasts combine coefficients into values that are more meaningful when transformed back into stage-specific transition rates for particular subsets of SAKs.</p> <p><sup>b</sup>. Rates and corresponding CIs are not reported because these contrasts combine coefficients to directly quantify the simple main effect of SOL status on the rate for a particular stage transition; odds-ratios are a more meaningful metric for examining a difference between the rates observed in two subsets of SAKs.</p>							

**TABLE B.15 – Logistic Regression Predicting CODIS Hit Rates Among Testing Group 1 (Stranger Rape)**

Parameter	Estimate	SE	z-value	OR	OR 95% CI	p-value
Intercept (for reference group)	-1.027	0.312	-3.287	0.358	[0.192, 0.655]	0.001
Victim age < 16 years <sup>a</sup>	-0.656	0.400	-1.643	0.519	[0.224, 1.093]	0.100
Assailant age <sup>b</sup>						
<22 years	-0.118	0.404	-0.293	0.888	[0.390, 1.921]	0.769
Unknown	0.290	0.253	1.147	1.337	[0.813, 2.198]	0.251
Multiple perpetrators <sup>c</sup>	-0.033	0.251	-0.131	0.968	[0.588, 1.578]	0.896
Use of alcohol/drugs <sup>c</sup>	-0.015	0.243	-0.063	0.985	[0.609, 1.579]	0.950
Use of weapons <sup>c</sup>	0.515	0.228	2.259	1.674	[1.072, 2.624]	0.024
Use of physical force <sup>c</sup>	0.174	0.263	0.662	1.190	[0.715, 2.011]	0.508
Exam timing <sup>d</sup>						
1 day after assault	-0.072	0.265	-0.273	0.930	[0.549, 1.557]	0.785
2+ days after assault	-0.551	0.389	-1.416	0.576	[0.257, 1.198]	0.157

Note: Sample included  $N = 391$  SAKs, after removing SAKs with missing data for victim age or exam timing (assumed to be missing completely at random). OR = odds-ratio (a measure of effect size); CI = confidence interval;  $p$ -value =  $p$ -value obtained from a Wald test of the coefficient. Reference levels are: <sup>a</sup> 16+ years; <sup>b</sup> 22+ years; <sup>c</sup> no; and <sup>d</sup> 0 days after assault (same day). Model fit statistics: total  $df = 390$ , residual  $df = 381$ , null deviance = 491.5, residual deviance = 477.7, AIC = 497.7.

**TABLE B.16 – Logistic Regression Predicting CODIS Hit Rates Among Testing Group 2 (Non-Stranger Rape)**

Parameter	Estimate	SE	z-value	OR	OR 95% CI	p-value
Intercept (for reference group)	-0.988	0.340	-2.906	0.372	[0.188, 0.716]	0.004
Victim age < 16 years <sup>a</sup>	-0.908	0.375	-2.424	0.403	[0.189, 0.825]	0.015
Assailant age <sup>b</sup>						
<22 years	0.014	0.333	0.043	1.014	[0.522, 1.939]	0.966
Unknown	0.886	0.533	1.661	2.424	[0.820, 6.829]	0.097
Multiple perpetrators <sup>c</sup>	0.180	0.341	0.527	1.197	[0.601, 2.306]	0.598
Use of alcohol/drugs <sup>c</sup>	-0.443	0.297	-1.491	0.642	[0.354, 1.138]	0.136
Use of weapons <sup>c</sup>	0.768	0.324	2.369	2.155	[1.134, 4.058]	0.018
Use of physical force <sup>c</sup>	-0.340	0.308	-1.103	0.712	[0.390, 1.312]	0.270
Exam timing <sup>d</sup>						
1 day after assault	0.524	0.289	1.815	1.689	[0.957, 2.977]	0.069
2+ days after assault	-0.591	0.452	-1.308	0.554	[0.212, 1.278]	0.191

Note: Sample included  $N = 363$  SAKs, after removing SAKs with missing data for victim age or exam timing (assumed to be missing completely at random). *OR* = odds-ratio (a measure of effect size); *CI* = confidence interval; *p*-value = *p*-value obtained from a Wald test of the coefficient. Reference levels are: <sup>a</sup> 16+ years; <sup>b</sup> 22+ years; <sup>c</sup> no; and <sup>d</sup> 0 days after assault (same day). Model fit statistics: total *df* = 362, residual *df* = 353, null deviance = 382.9, residual deviance = 356.2, *AIC* = 376.2.

**TABLE B.17 – Logistic Regression Predicting CODIS Hit Rates Among Testing Group 3 (Presumed SOL-Expired)**

Parameter	Estimate	SE	z-value	OR	OR 95% CI	p-value
Intercept (for reference group)	-1.858	0.473	-3.925	0.156	[0.058, 0.377]	<0.001
Victim age < 16 years <sup>a</sup>	-0.202	0.442	-0.456	0.817	[0.332, 1.901]	0.649
Assailant age <sup>b</sup>						
<22 years	0.587	0.424	1.383	1.799	[0.776, 4.136]	0.166
Unknown	0.155	0.571	0.272	1.168	[0.349, 3.408]	0.786
Multiple perpetrators <sup>c</sup>	-0.490	0.422	-1.162	0.612	[0.256, 1.355]	0.245
Use of alcohol/drugs <sup>c</sup>	-0.489	0.463	-1.057	0.613	[0.231, 1.451]	0.290
Use of weapons <sup>c</sup>	0.740	0.317	2.337	2.095	[1.131, 3.929]	0.019
Use of physical force <sup>c</sup>	0.504	0.429	1.174	1.655	[0.741, 4.050]	0.240
Exam timing <sup>d</sup>						
1 day after assault	0.011	0.356	0.031	1.011	[0.494, 2.007]	0.976
2+ days after assault	0.359	0.606	0.593	1.432	[0.404, 4.538]	0.553

Note: Sample included  $N = 244$  SAKs, after removing SAKs with missing data for victim age or exam timing (assumed to be missing completely at random). *OR* = odds-ratio (a measure of effect size); *CI* = confidence interval; *p*-value = *p*-value obtained from a Wald test of the coefficient. Reference levels are: <sup>a</sup> 16+ years; <sup>b</sup> 22+ years; <sup>c</sup> no; and <sup>d</sup> 0 days after assault (same day). Model fit statistics: total *df* = 243, residual *df* = 234, null deviance = 269.9, residual deviance = 257.6, *AIC* = 277.6.

**TABLE B.18 – Continuation-Ratio Model for DNA Testing Method Effect (Moderator Omitted)**

<b>Model Effects</b>							
<b>Parameter</b>	<b>Estimate</b>	<b>SE</b>	<b>Rate</b>	<b>Rate 95% CI</b>	<b>Odds Ratio</b>	<b>OR 95% CI</b>	<b>p-value</b>
<b>Stage</b>							
Stage 0->1: DNA testing rate  Traditional	0.780	0.163	0.686	[0.613, 0.750]	2.182	[1.585, 3.003]	<0.001
Stage 1->2: CODIS entry rate  Traditional	1.439	0.232	0.808	[0.728, 0.869]	4.217	[2.676, 6.647]	<0.001
<b>Testing Method</b>							
Stage 0->1: DNase effect on DNA testing rate	0.136	0.234	0.534	[0.420, 0.644]	1.146	[0.725, 1.811]	0.560
<b>Stage by Testing Method Interaction</b>							
Stage 1->2: DNase effect adj. for CODIS entry rate	-0.378	0.392	0.407	[0.241, 0.596]	0.685	[0.318, 1.476]	0.335
<b>Derived Contrasts</b>							
<b>Specific Rates</b>	<b>Estimate</b>	<b>SE</b>	<b>Rate</b>	<b>Rate 95% CI</b>	<b>Odds Ratio<sup>a</sup></b>	<b>OR 95% CI<sup>a</sup></b>	<b>p-value</b>
Stage 0->1: DNA testing rate  DNase	0.916	0.167	0.714	[0.642, 0.777]			<0.001
Stage 1->2: CODIS entry rate  DNase	1.197	0.212	0.768	[0.685, 0.834]			<0.001
<b>Simple Main Effects</b>	<b>Estimate</b>	<b>SE</b>	<b>Rate<sup>b</sup></b>	<b>Rate 95% CI<sup>b</sup></b>	<b>Odds Ratio</b>	<b>OR 95% CI</b>	<b>p-value</b>
Stage 1->2: DNase effect on CODIS entry rate	-0.242	0.314			0.785	[0.421, 1.465]	0.441
<p>Note: These results generalize to the subpopulation of untested, SOL-unexpired Detroit SAKs (regardless of adjudication status or victim-offender relationship). After selecting <math>N = 350</math> SAKs from that subpopulation, <math>n = 175</math> SAKs were randomly allocated to each of the two testing methods. These estimates were obtained from a continuation-ratio model of SAK progression across Stages 0-2 (unweighted due to the simple random sampling design) that omitted the presence of sperm moderator. Model fit statistics: total <math>df = 595</math>, residual <math>df = 591</math>, null deviance = 824.8, residual deviance = 680, <math>AIC = 688</math>.</p> <p><sup>a</sup>. Odds-ratios and corresponding CIs are not reported because these contrasts combine coefficients into values that are more meaningful when transformed back into stage-specific transition rates for particular subsets of SAKs.</p> <p><sup>b</sup>. Rates and corresponding CIs are not reported because these contrasts combine coefficients to directly quantify the simple main effect of DNA testing method on the rate for a particular stage transition; odds-ratios are a more meaningful metric for examining a difference between the rates observed in two subsets of SAKs.</p>							

**TABLE B.19 – Continuation-Ratio Model for DNA Testing Method Effect (Moderator Included)**

<b>Model Effects</b>							
<b>Parameter</b>	<b>Estimate</b>	<b>SE</b>	<b>Rate</b>	<b>Rate 95% CI</b>	<b>Odds Ratio</b>	<b>OR 95% CI</b>	<b>p-value</b>
<b>Stage</b>							
Stage 0->1: DNA testing rate  0 sperm, Traditional	-1.705	0.344	0.154	[0.085, 0.263]	0.180	[0.093, 0.357]	<0.001
Stage 1->2: CODIS entry rate  0 sperm, Traditional	-1.386	0.791	0.200	[0.050, 0.541]	0.250	[0.053, 1.179]	0.080
<b>Testing Method</b>							
Stage 0->1: DNase effect on DNA testing rate 0 sperm	0.278	0.471	0.569	[0.344, 0.769]	1.320	[0.524, 3.323]	0.556
<b>Sperm</b>							
Stage 0->1: 1 sperm effect on DNA testing rate Traditional	21.271	0.355	1.000	[1.000, 1.000]	1.73E+09	[8.63E+08, 3.46E+09]	<0.001
<b>Stage by Testing Method Interaction</b>							
Stage 1->2: DNase effect on CODIS entry rate	0.416	1.106	0.602	[0.148, 0.930]	1.520	[0.173, 13.244]	0.707
<b>Stage by Sperm Interaction</b>							
Stage 1->2: 1 sperm effect on CODIS entry rate	-18.039	0.911	0.000	[0.000, 0.000]	0.000	[0.000, 0.000]	<0.001
<b>Testing Method by Sperm Interaction</b>							
Stage 1->2: DNase effect times 1 sperm effect adj. for CODIS entry rate	-0.278	0.490	0.431	[0.225, 0.664]	0.760	[0.290, 1.978]	0.571
<b>Stage by Testing Method by Sperm Interaction</b>							
Stage 1->2: 1 sperm times DNase times CODIS entry rate effect	-0.784	1.174	0.313	[0.044, 0.820]	0.460	[0.046, 4.555]	0.504
<b>Derived Contrasts</b>							
<b>Specific Rates</b>	<b>Estimate</b>	<b>SE</b>	<b>Rate</b>	<b>Rate 95% CI</b>	<b>Odds Ratio<sup>a</sup></b>	<b>OR 95% CI<sup>a</sup></b>	<b>p-value</b>
Stage 0->1: DNA testing rate  0 sperm, DNase	-1.427	0.322	0.194	[0.113, 0.312]			<0.001
Stage 1->2: CODIS entry rate  0 sperm, DNase	-0.693	0.613	0.333	[0.129, 0.628]			0.258
Stage 0->1: DNA testing rate  1 sperm, Traditional	19.566	0.086	1.000	[1.000, 1.000]			<0.001
Stage 1->2: CODIS entry rate  1 sperm, Traditional	1.846	0.278	0.864	[0.785, 0.917]			<0.001
Stage 0->1: DNA testing rate  1 sperm, DNase	19.566	0.085	1.000	[1.000, 1.000]			<0.001
Stage 1->2: CODIS entry rate  1 sperm, DNase	1.477	0.242	0.814	[0.730, 0.876]			<0.001

**TABLE B.19 – Continuation-Ratio Model for DNA Testing Method Effect (Moderator Included) [continued]**

Simple Main Effects	Estimate	SE	Rate <sup>b</sup>	Rate 95% CI <sup>b</sup>	Odds Ratio	OR 95% CI	p-value
Stage 0->1: DNase effect on DNA testing rate   1 sperm	0.000	0.134			1.000	[0.766, 1.305]	1.000
Stage 1->2: DNase effect on CODIS entry rate   0 sperm	0.693	1.001			2.000	[0.275, 14.567]	0.489
Stage 1->2: DNase effect on CODIS entry rate   1 sperm	-0.369	0.369			0.690	[0.333, 1.437]	0.317

Note: These results generalize to the subpopulation of untested, SOL-unexpired Detroit SAKs (regardless of adjudication status or victim-offender relationship). After selecting  $N = 350$  SAKs from that subpopulation,  $n = 175$  SAKs were randomly allocated to each of the two testing methods. The SAKs were sorted by the presence/absence of Sperm in the samples. These estimates were obtained from a continuation-ratio model of SAK progression across Stages 0-2 (unweighted due to the simple random sampling design) that contained a 3-way stage by testing method by presence of sperm interaction effect (the moderator). Model fit statistics: total  $df = 595$ , residual  $df = 587$ , null deviance = 824.8, residual deviance = 338.2,  $AIC = 354.2$ .

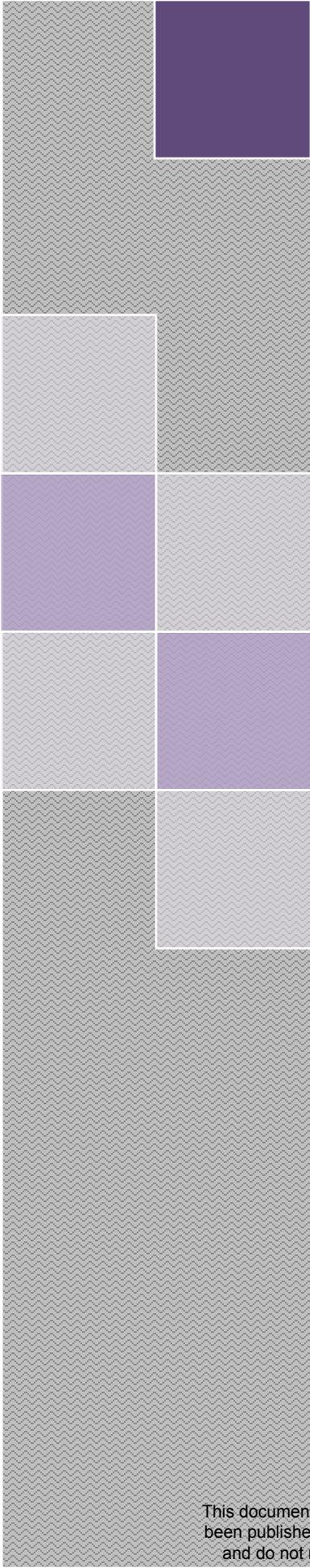
<sup>a</sup>. Odds-ratios and corresponding CIs are not reported because these contrasts combine coefficients into values that are more meaningful when transformed back into stage-specific transition rates for particular subsets of SAKs.

<sup>b</sup>. Rates and corresponding CIs are not reported because these contrasts combine coefficients to directly quantify the simple main effect of DNA testing method on the rate for a particular stage transition; odds-ratios are a more meaningful metric for examining a difference between the rates observed in two subsets of SAKs.

## APPENDIX C: Victim Notification Resources

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- Appendix C1: Sample Planning Tool for Developing a Victim Notification Protocol:  
*“Victim Notification Retreat Planning Guide”*
- Appendix C2: Sample Frequently Asked Questions (FAQ) Resource Packet:  
*“Victim Notification — Common Questions Victims/Survivors May Ask:  
A Resource Guide For Practitioners”*
- Appendix C3: Sample Victim/Survivor Community Resources Brochure:  
*“Detroit/Wayne County Community Resources”*



# The NIJ Detroit Sexual Assault Kit (SAK) Action Research Project (ARP)

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## Victim Notification Retreat Planning Guide



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## About this Guide

Developing a victim notification protocol is no easy task. The NIJ Detroit SAK ARP discovered this first hand when attempting to put together a victim notification protocol for Detroit, MI. The collaborative team ultimately decided to host a two-day retreat to in order to have the sufficient time and focus to develop a victim notification protocol.

The following pages provide definitions, discussion topics, and possible decisions to consider when planning their victim notification protocol.

There are many steps involved in planning a retreat. This guide will cover:

1. Pre-retreat discussions
2. Preparing discussion topics
3. Retreat ground rules
4. Other helpful tips for retreat planning
5. Key questions to discuss at the retreat
6. Protecting confidentiality

# What is Victim Notification?

Victim notification (VN) is the process of contacting and informing sexual assault survivors about the status of their unsubmitted sexual assault kits and/or the investigation of their case.

There are two main circumstances that will arise with victim notification:

1

## COLD CASES

Contacting victims of a new CODIS hit that has emerged from an old case.

2

## UNSUBMITTED KITS

Testing previously unsubmitted/untested SAKs and moving forward with investigation and possible prosecution after some period of time.

*This guide will focus  
on circumstance 2:  
UNSUBMITTED SAKs*

## When Should Planning for Victim Notification Begin?

It is useful to begin planning for victim notification *before* SAKs are submitted for testing. Once kits have been submitted, it then becomes critical to develop a plan regarding how to notify victims regarding the testing results.

Initial planning should include: developing the team that will be working on victim notification, reaching out to front-line practitioners who have done victim notification before, reviewing tools from other national victim organizations, and compiling other resources about victim notification.

## Why A Retreat?

Developing a victim notification protocol will raise many complex issues. It may be difficult for a collaborative team to devote sufficient time at regular meetings to discuss these issues in-depth. A retreat provides sufficient time and focus to explore topics of victim notification uninterrupted.

Also keep in mind that a notification protocol must be developed by the time that SAKs return from testing.

## Pre-Retreat Discussions

There are many topics that a collaborative team might want to have a clear understanding on before the retreat. Having certain elements of victim notification established beforehand will save time and will give the group a solid foundation upon which to begin planning. Consider:

1

### TAKE INVENTORY

Establish a thorough understanding of how your community is already handling victim notification (e.g., in cold cases). Is there already a clearly-defined way that cold cases are being handled and how can that inform current efforts?

2

### ESTABLISH GOALS

As with any major project, it is crucial to establish goals; this is especially important when hosting a victim notification retreat as there will be limited time to address a multitude of issues. Ensure that the goals established can be accomplished; do not overwhelm retreat participants with unreasonable expectations.

## Preparing Discussion Topics

Develop a list of key questions that will need to be resolved/discussed at your retreat. This guide provides nine (9) key questions, although your group might have other imperative issues that should be discussed.

It may be helpful to establish the possible options for each decision ahead of time; by doing this, your group will spend less time thinking of different options and will spend more time deciding which option is right for your community.

## Retreat Ground-Rules

It is extremely important to establish ground-rules for your retreat ahead of time. Below are some ground rules that may provide a useful starting place for your planning. Designate someone to be in charge of making sure the group follows the agreed upon guidelines. When possible, consider a professional retreat facilitator.

1. *Treat others with equity*; while titles and positions cannot truly be “left at the door,” everyone’s voices can be heard and opinions respected.
2. *Everyone’s participation is needed* to accomplish the goals of the retreat; be present and engaged for all sessions. Please silence all cell phones.
3. *Listen as an ally*; create a safe space for the sharing of varied opinions.
4. *Listen carefully* to each other’s contributions; avoid thinking about how to express your own response or concern while someone else is sharing.
5. *Only one person speaks at a time*; do not interrupt one-another and avoid “side-bar” discussions.
6. *Honor time limits*; share relevant information with the group, but spend just as much time thinking and reflecting on what others are saying.
7. *Agree on what important words and ideas mean*; seek clarification when you do not understand another’s point or terminology.
8. *Say ‘and,’ not ‘but’*; add to others comments and ideas by using ‘and’ rather than ‘but’, a word that tends to dismiss others’ ideas.
9. *Disagree respectfully*; it is acceptable to challenge and question other people’s ideas, but do so respectfully and politely.
10. *Chase elephants, not rabbits*; focus on making decisions about the large topics at hand and challenge the group if it seems to be getting off-course.
11. *Discuss the un-discussable issues*; speak courageously about the issues that are important to you and your community.

## Other Useful Tips for Planning the Retreat

1. The retreat can be held almost anywhere, but due to the subject matter, be sure that the discussion cannot be overheard and that privacy/confidentiality are protected.
2. Decide how long the retreat will be. This guide works well with a 1 ½ to 2-day retreat, but can be modified for other lengths of time.
3. Establish who will lead the retreat; consider a professional retreat facilitator or a leader who can keep the group on task.
4. Be sure to bring extra materials and supplies, such as: markers, pens, pads of paper, post-it notes, name tags, etc.
5. Refreshments and meals are crucial to a positive retreat experience.
6. Present a written agenda/ schedule for the retreat; make sure to include designated meal times and breaks to keep attendees motivated.
7. Maintain variety: vary the time of each presentation, the type of interaction, and the topics discussed throughout the retreat.
8. Encourage attendees to get refreshments, use the restroom, and/or stretch and move around as needed.
9. Incorporate socializing into the different scheduled activities.
10. Decide how decisions will be made ahead of time: consensus, majority rule, or "what the leader says goes."

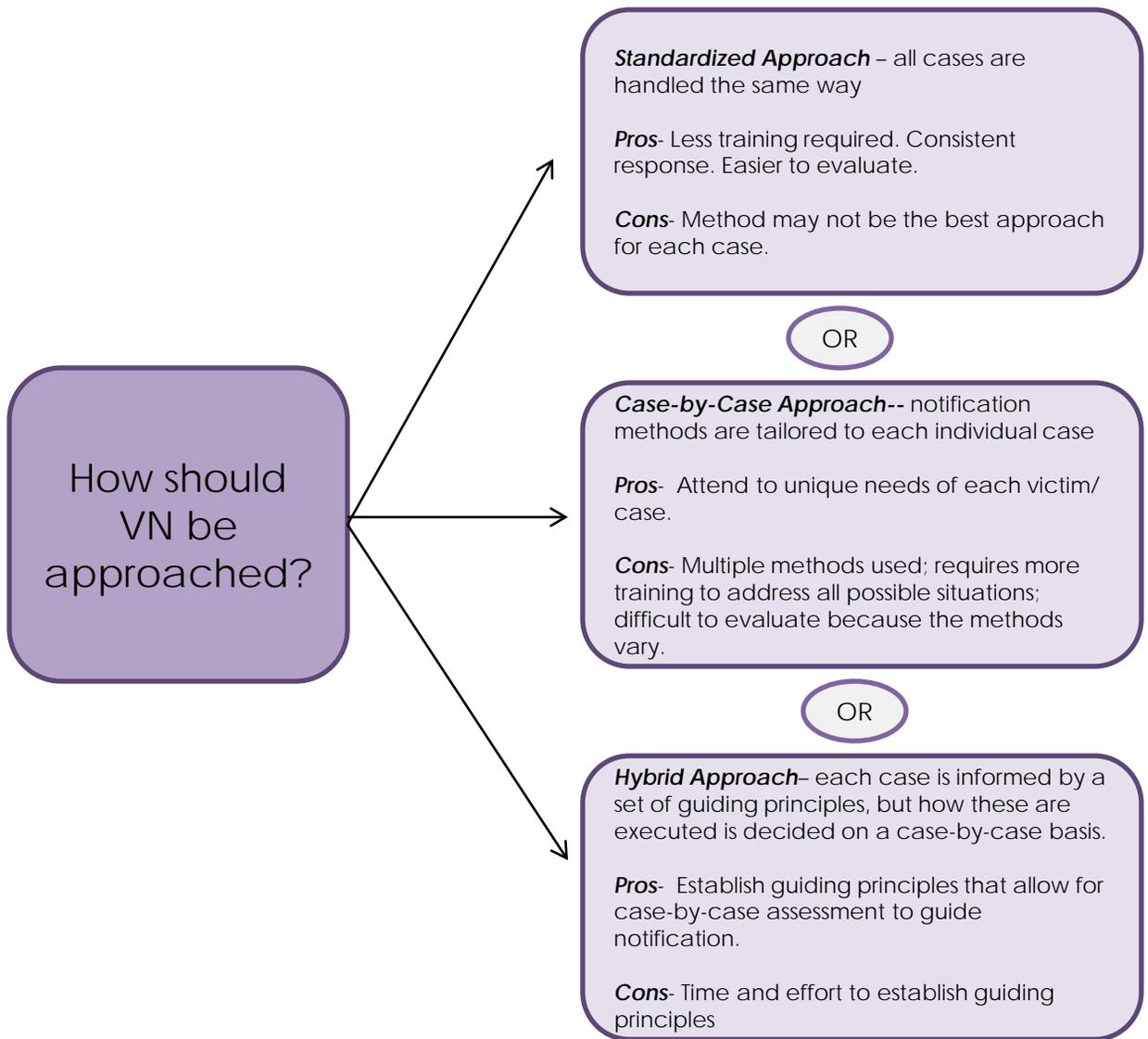
## Decisions to be Made at the Retreat

As mentioned previously, it is important to prepare a list of decisions that must be made during the retreat. The following are nine recommended topics. Elaboration on each may be found on the consecutive pages.

### *KEY QUESTIONS:*

1. How should victim notification be approached?
2. When and why should victims be notified?
3. Who will make the decision that victim will be notified?
4. What should be achieved during the first contact?
5. Who should make the first contact with the victim?
6. How should the first contact with the victim be made?
7. What information should be given to victims at first contact?
8. What should happen after the initial contact?
9. How should victim notification staff be trained?

# Discussion Q1: How should VN be approached?



## Discussion Points:

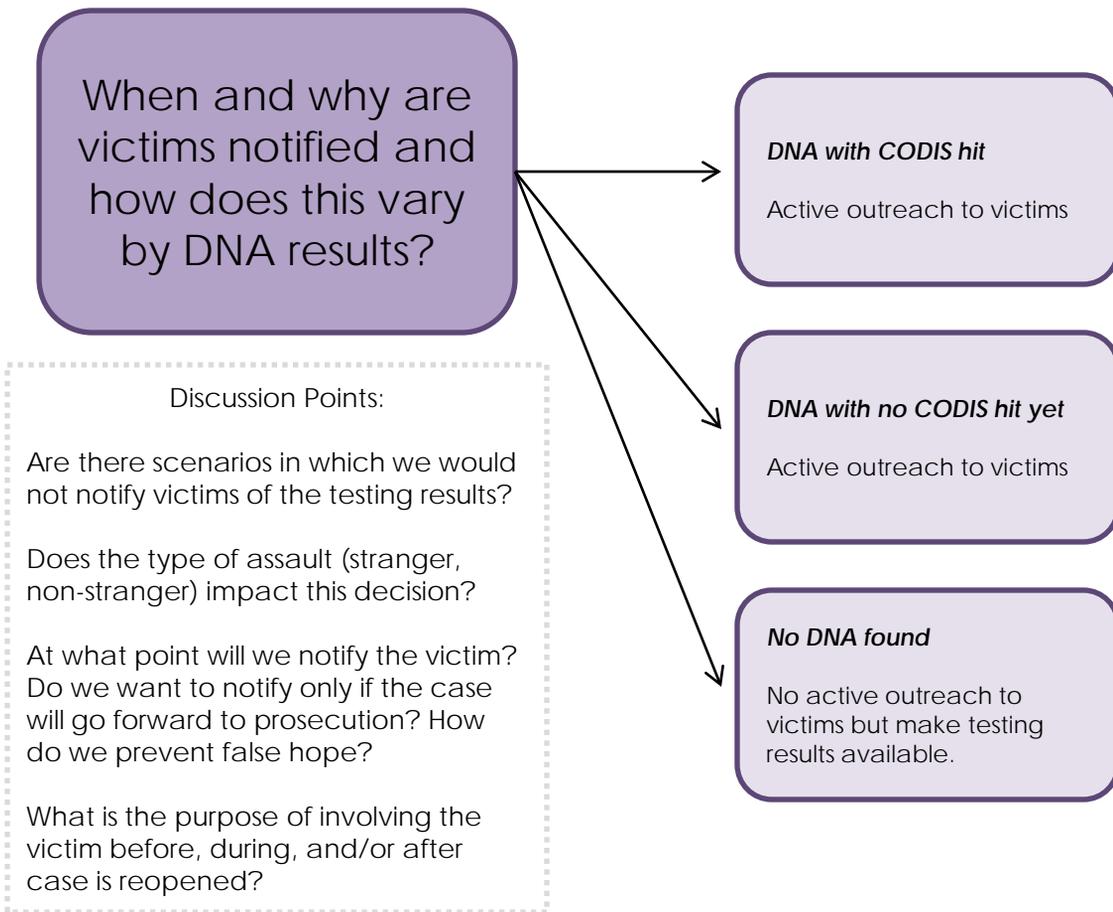
If we use a standardized approach, how can we try to ensure that it applies to all/most cases?

If we use a customized approach, how can we prepare providers to know when and why to use certain VN methods?

Can we develop a set of guiding principles for how to do VN AND customize what strategies to use for each case/victim?

Does the type of case (stranger, non-stranger) impact this decision?

## Discussion Q2: When and why are victims notified?



### Different Types of SAK Testing Results

1

**DNA WITH CODIS HIT:** Testing identified a DNA profile and a perpetrator was possibly identified through a CODIS hit.

2

**DNA WITH NO CODIS HIT YET:** Testing identified a DNA profile but DNA was not (yet) linked to a possible perpetrator in the CODIS database.

3

**NO DNA FOUND:** Testing did not produce a DNA profile. Identity of perpetrator will not be revealed through DNA.

# Discussion Q3: Who makes the decision that a victim will be notified?

Who makes the decision that a victim will be notified?

## Discussion Points:

Does the type of assault (stranger, non-stranger) impact this decision?

What do we think will lead to better outcomes (for the victim and for prosecution)?

What is needed to create a team review process where everyone is involved and well-informed about each case?

If we decide on a team approach, where will the team be "housed"? Should one agency take the "lead"? If so, which one?

### **Law Enforcement Investigator (solely)**

**Pros-** Qualified SCU investigator has experience handling SA cases and may know what type of case is more likely to be warranted.

**Cons-** Doesn't bring in the perspective of other team members (prosecutors, advocacy). Does not keep everyone informed and up-to-date on case progress.

### **Prosecutor (solely)**

**Pros-** Qualified SAT prosecutor has experience handling SA cases and may know what type of case is more likely to be successfully prosecuted.

**Cons-** Doesn't bring in the perspective of other team members (LE, advocacy). Does not keep everyone informed and up-to-date on case progress.

### **Advocate (solely)**

**Pros-** Qualified advocate has experience and knowledge of victims' emotional and mental health needs.

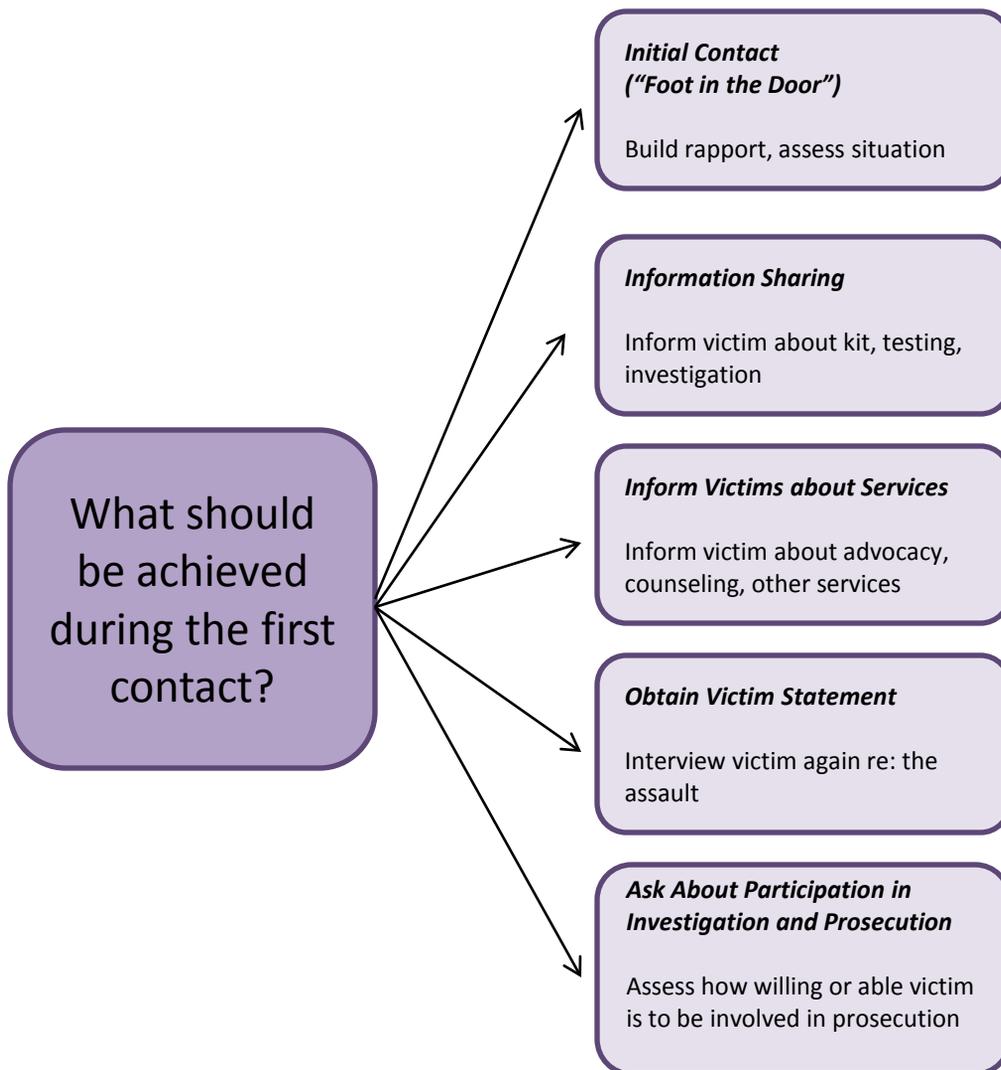
**Cons-** Doesn't bring in the perspective of other team members (LE, prosecutors). Does not keep everyone informed and up-to-date on case progress.

### **Multidisciplinary Team**

**Pros-** Decisions on what will happen in each case is made as a group (LE, Prosecutor, Advocacy), taking expertise from each discipline into consideration. Biases more likely to be challenged and resolved. All parties are informed and up-to-date on case progress.

**Cons-** Requires additional time and effort to work as a team. Challenging each others' perspectives may lead to conflict.

## Discussion Q4: What should be achieved during the first contact?



### Discussion Points:

How do we ensure that initial contact does NOT cause unnecessary trauma?

Are there benefits to making victim notification a process rather than a "one-time" experience?

What type of follow-up and continued social services will be needed for victims?

Does the type of case (stranger, non-stranger) impact this decision?

# Discussion Q5: Who should make the first contact with the victim?

Who should make the first contact with the victim?

## Discussion Points:

Does the type of assault (stranger, non-stranger) impact this decision?

What do we think will lead to better outcomes (for the victim and for prosecution)?

What is needed to create a team review process where everyone is involved and well-informed about each case?

If we decide on a team approach, where will the team be "housed"? Should one agency take the "lead"? If so, which one?

### **Legal Investigator Only**

**Pros-** simple, less overwhelming than having more than one person. Can provide resources for advocacy when appropriate. Able to discuss details about case.

**Cons-** Victims distrust of LE, not willing to talk to LE, or feel like they are in trouble. Reactivation of trauma worse if prior negative experience with LE. No other services immediately available.

OR

### **Community-Based Advocate only**

**Pros-** Immediate crises intervention and services for negative effects of reactivating trauma. Independence from legal system is less threatening.

**Cons-** Survivor may not want "crisis intervention" immediately. If advocate is not informed about case, she may not be able to answer questions about case.

OR

### **Legal System-Based Advocate only**

**Pros-** Immediate crises intervention and services for negative effects of reactivating trauma. May be able to answer questions about case.

**Cons-** Survivor may not want "crisis intervention" immediately. May not trust an advocate that is affiliated with the criminal justice system.

OR

### **Investigator AND social worker/advocate**

**Pros-** Ability to answer questions about case immediately. Crisis intervention and services for negative effects of reactivating trauma.

**Cons-** Victims may feel overwhelmed by multiple people. May not want "crisis intervention" immediately.

# Discussion Q6: How should the first contact be made?

How should the first contact be made?

## **Phone call**

**Pros:** Not invasive as home contact. Fewer resources used. Build rapport and answer immediate questions.

**Cons:** Difficult to locate current #, no answer or call backs. No follow-up from victim re: prosecution and/or obtaining services. Impersonal. Can come across as harassing.

## **In Person Contact**

**Pros:** Personal approach, able to provide social services immediately. Build rapport and answer immediate questions.

**Cons:** Difficult to locate, transient population. Distrust of LE; not opening door. Perception of harassing victims. Outing victims in front of those who live with them/privacy issues. Requires more time and resources.

## **Mailed Letter**

**Pros:** Not invasive as personal contact or phone call. Gives victim time to process information.

**Cons:** Need to have current mailing address. Not personal approach. Not able to address initial concerns or questions from victim. More likely to disregard letter altogether. Violation of privacy if opened by another person.

## **Public Notice**

**Pros:** Places choice in victim's hands. Ability to reach more people at one time. Ability for system leader to offer public apology re: handling of SAKs.

**Cons:** Requires phone line or website set up and management of new system. May lead to public outcry about problem.

### Discussion Points:

When should we use one strategy over another? Should there be a process that outlines which one to try first, then second, etc.?

Under what circumstances/types of cases would we try which strategy first, second, third, etc.?

How can we work to ensure that the victim's privacy is protected in each strategy?

Is there another strategy we have not considered?

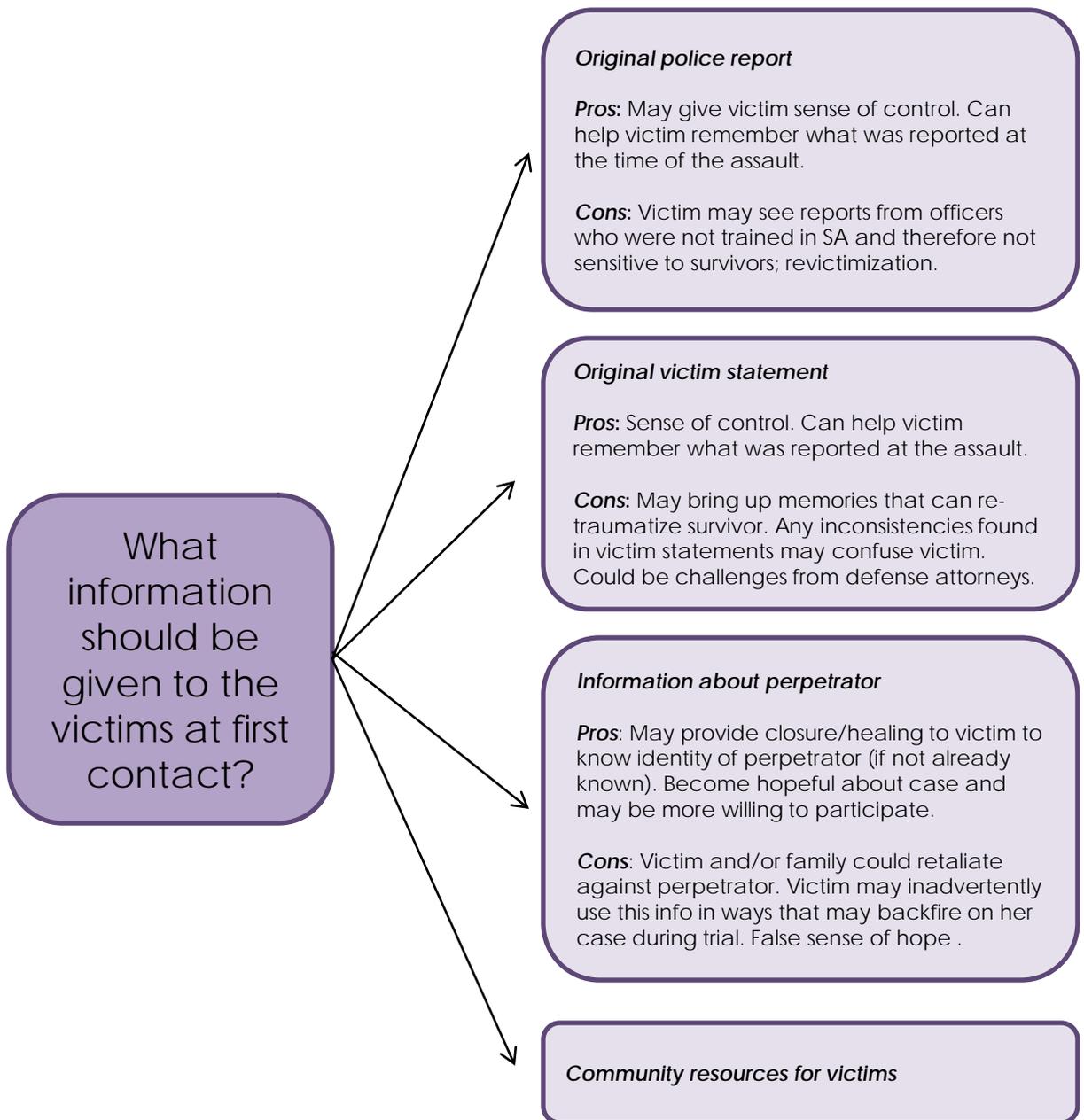
How "generic" or detailed should these strategies be? Who should be involved in creating these strategies?

What is needed to make locating victims easier? What search engines or search strategies were useful in other VN projects?

Is there an appropriate time to "close" a case after all strategies are exhausted?

Who should the letters and phone calls come from? Investigators? Advocates?

# Discussion Q7: What information should be given to the victims at first contact?

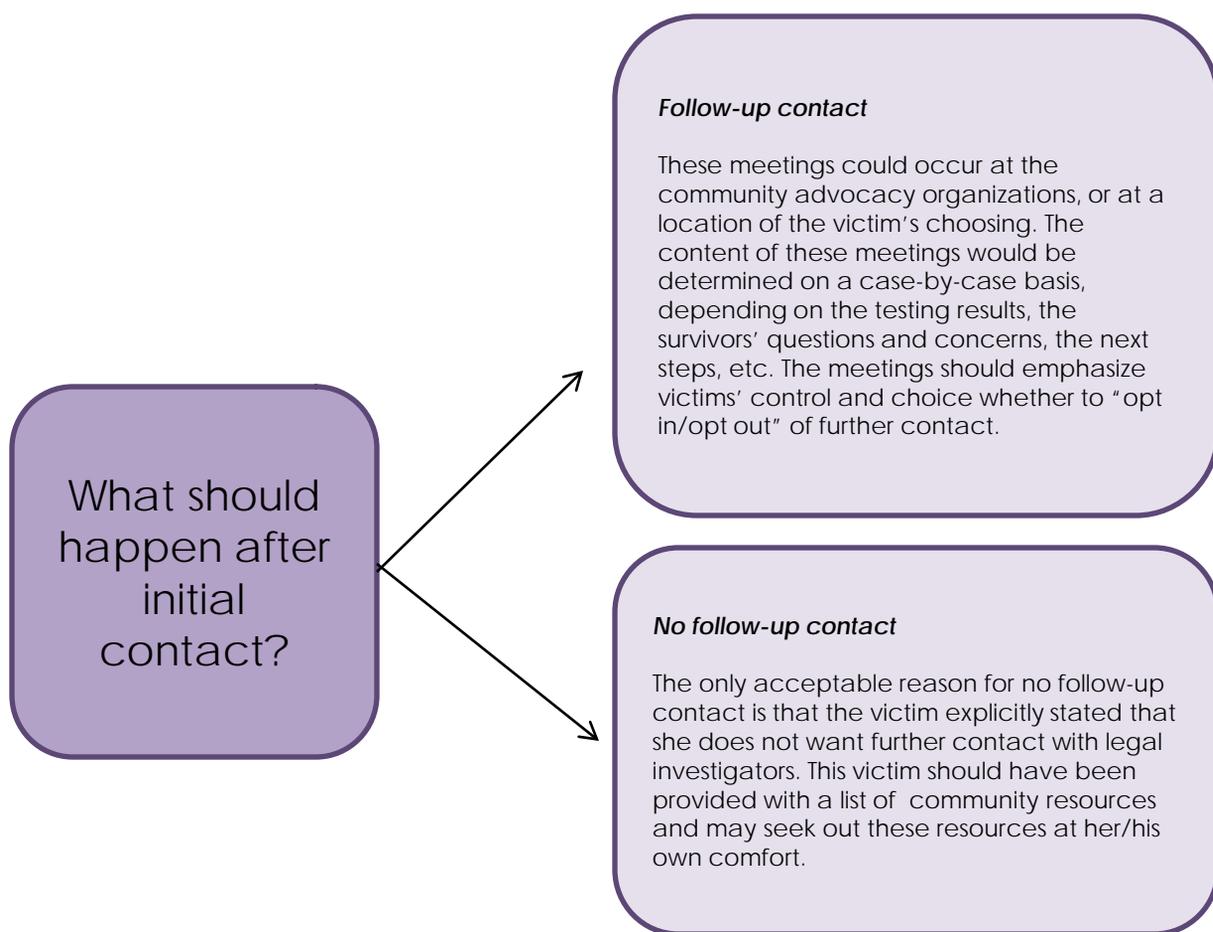


## Discussion Points:

What do we do if victims ask for certain documentation? Do they have the right to access these documents? Are there circumstances in which information may be more harmful than helpful? If yes, who gets to make that decision, and how is it made?

Should we provide the same information to different types of victims?

## Discussion Q8: What should happen after initial contact?



### Discussion Points:

How much detail may be provided to victims at first contact if victims are requesting more information? What information is only appropriate to give at a later contact?

How will a second contact be coordinated with advocates in a timely fashion?

How should investigators approach the possibility that a person identified in CODIA was a consensual partner? As follow-up, how do they suggest taking a buccal swab from said consensual partners to prevent their DNA from being uploaded in CODIS?

# Discussion Q9: How should victim notification staff be trained?

How should victim notification staff be trained?

## Discussion Points:

Who needs to be trained re: notification? Why?

What resources are needed to conduct such training? Where will those resources come from?

Who should develop and conduct this training?

Are case reviews useful? How can we make them most productive?

Should our training/planning be tailored to the type of case? (Stranger vs. Non-stranger)

### **SA training**

**Pros:** LE, Prosecutors, and advocates will learn about how DNA and CODIS affects SA cases. Understand value of DNA in stranger and non-stranger cases. Able to discuss DNA and CODIS in layman's terms.

**Cons:** Requires additional training time and resources.

### **DNA/CODIS training**

**Pros:** LE, Prosecutors, and advocates will learn about how DNA and CODIS affects SA cases. Understand value of DNA in stranger and non-stranger cases. Able to discuss DNA and CODIS in layman's terms.

**Cons:** Requires additional training time and resources.

### **Scripts and role-plays**

**Pros:** Practice victim-centered approach for notification. Become comfortable with various situations that may come up during notification.

**Cons:** Requires additional training time and resources.

### **Written checklist**

**Pros:** Keep providers accountable and on task. Everyone is on the same page about best practices.

**Cons:** Another "policy" that may or may not be followed and/or enforced properly. May not allow for flexibility "in the moment" of notification.

### **Team case reviews**

**Pros:** Input from different disciplines/approaches to learn from each other. Analyze case from varying perspectives.

**Cons:** Requires time to coordinate bringing everyone to the table.

## A Discussion of Public Apologies

It is very possible that some members of your collaborative group will request that a public apology be issued due to the fact that SAKs have not been consistently tested. This topic might raise some concern for your group. Consider the following pros & cons of issuing an apology:

### *Pros:*

Acknowledgement by the community that SAKs had not been consistently tested.

Possibly meaningful and reparative for survivors to have a public apology.

Negative legal ramifications are unlikely.

### *Cons:*

Must decide which organization or organizations will issue the apology.

Potential disagreement regarding whether an apology is warranted.

Consider potential legal risks of admission of wrong-doing.

## Evaluating the Protocol

Consider trying out your newly developed protocol with a relatively small number of cases and then re-assess how it worked and what might need to be changed.

Develop tracking tools that can chart the steps/efforts taken by the legal investigators to find victims for notification & to record their perceptions of what happened in each notification contact.

## Protecting Confidentiality After the Retreat

Updates on the victim notification process should be limited to those directly involved with the victims, regardless of what other confidentiality agreements have been put into place.

Be sensitive to the fact that different disciplines involved in the victim notifications have differing rules regarding the disclosure of confidential information. For example, community-based victim advocates are not allowed to share information about their experiences with victims with the group (without written authorization to do so).

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# Victim Notification

## Common Questions Victims/Survivors May Ask

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*A Resource for Practitioners*

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UPDATED: FEBRUARY 2013

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

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# Victim Notification

## Common Questions Victims/Survivors May Ask

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### *A Resource for Practitioners*

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Victim notification is the process of contacting victims/survivors about the status of their cases and/or sexual assault kit (SAK) results. Typically, the term “victim notification” is used when a substantial period of time has passed between when the assault occurred and when law enforcement, advocacy, or other professionals are attempting to re-contact the victim/survivor.

Victims/survivors will likely have many questions about their cases, the SAK results, and what might happen next.

The purpose of this document is to provide law enforcement, advocacy, medical personnel, prosecutors, and other professionals who may be involved in victim notification with a list of common questions victims/survivors may ask and sample answers that can be provided.

The answers have been written in clear, simple language so that they can be understood by the lay person, unfamiliar with the forensic terminology, medical terminology, or the steps and stages of the criminal justice system.

The answers provide general information that applies to most cases. The information provided in this document should be used in conjunction with case-specific information that can be provided to the victim/survivor

This document is a resource for practitioners conducting victim notification. Please do not give this to victims/survivors. Instead, use it as a resource to guide a **conversation** with victims/survivors.

A resource packet of community services is available to give to victims/survivors (“Detroit-Wayne County Community Services”).

## Questions

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### » What is a sexual assault kit (SAK)?

A sexual assault kit is also called a SAK, or frequently referred to as a rape kit. The SAK is used as part of a medical forensic examination to collect evidence after a sexual assault. This might include swabs of any area where there was contact between the victim and the perpetrator or hair samples.

### » When and where is the SAK done?

The SAK is collected after a sexual assault at a hospital or other medical facility. It is usually collected within the first 96 hours after the assault, but sometimes after that time frame. They try to do it as soon as possible so as to collect as much evidence as possible.

### » Who does the SAK?

A health care provider, like a doctor or nurse, collects evidence from the victim's/survivor's body. This is just ONE of the services a health care provider can offer. The health care provider can also do a full exam to care for any injuries, and provide the victim with emergency contraception (the morning after pill) or other medication (perhaps to prevent contracting a sexual transmitted disease [STD] or HIV).

### » Why is the SAK done?

The SAK is intended to help in the collection and preservation of potential evidence in a sexual assault case. Police and prosecutors may use this evidence to help them investigate a case.

### » What is evidence?

Evidence is anything that can provide information as to what occurred. One piece of evidence from the SAK that may be very valuable is biological evidence (such as blood, saliva, and/or semen) that can be tested to identify the DNA from the perpetrator.

## » **What is DNA?**

It stands for deoxyribonucleic acid. It exists in human cells, like in blood, bone, teeth, and hair, and is like a blueprint for how each human should be built. DNA is similar to fingerprints. Each person has unique fingerprints and each person, except for identical twins, has unique DNA unlike anyone else.

## » **Why is DNA so valuable/important?**

DNA is like a fingerprint. No two people have the same fingerprint, and no two people, except for identical twins, have the same DNA. If someone's fingerprints are found somewhere, it can be used to prove that they were there. Similarly, if someone's DNA is found somewhere, it can be used to prove they were there.

## » **How does DNA get left behind?**

DNA is in human cells. DNA is in saliva and skin cells. It is in sperm, blood, and other bodily fluids. A perpetrator may leave these fluids or skin cells on a sexual assault victim's body. When these fluids or cells are left behind, DNA is too and might be able to be collected.

## » **What happens after a SAK is done?**

The SAK may contain evidence of a crime, like DNA. It is important that the healthcare provider handle the evidence with care. If the victim decided to make a police report about the sexual assault and signed a release, the health care provider will turn over the completed SAK to a police officer. The next step is to take the SAK to the crime lab so that trained scientists can analyze it for DNA.

## » **How does the crime lab analyze for DNA?**

The crime lab looks at the swabs and other items in the kit. They go through some of the swabs and samples to check for DNA. It is possible that they won't find any DNA. If they do find DNA, they will create a DNA profile.

## » **What is a DNA profile and how is it used?**

A DNA profile is a unique pattern of genes, specific to an individual. DNA profiles can be created from biological evidence found at the crime scene, such as blood, saliva, and/or semen. Once a DNA profile is created, it can identify an unknown suspect, confirm the presence of a known suspect, and/or connect an offender to multiple crime scenes.

## » **How are DNA profiles matched?**

DNA profiles can be stored in a computer database. When a new DNA profile is created, it can be entered into the computer database and the database can scan to see if there is a match. In the United States, there is a master computer database called CODIS.

## » **What is CODIS?**

CODIS stands for the Combined DNA Index System. There are two ways in which DNA is put into CODIS. One way is when a DNA profile from an unknown perpetrator is created from crime scene evidence and entered into the database. Another way is when the DNA profile from a known perpetrator is entered into the database.

## » **How does CODIS work?**

CODIS stores DNA profiles. When a new DNA profile is created following a crime, it is entered into CODIS. If there is a match between the new DNA profile and an existing DNA profile in CODIS, it comes back as a “hit.” The new DNA profile will also be stored in CODIS for future searches.

## » **What is a CODIS “hit?”**

A “hit” is when a new DNA profile is entered into CODIS and there is a match between this new DNA profile and some other DNA profile in the database.

» **If there is a CODIS hit, does it mean that the suspect has been identified?**

Not necessarily. The hit could be a match between the DNA collected in the SAK and the DNA of a known person. But it also could be a match to a DNA profile of an unknown suspect in another case, from a crime scene where the suspect has not yet been identified.

» **Why was the victim's kit not analyzed before?**

A task force has been formed to look into this issue and figure out why this happened and to make sure it won't happen again. At this point, we don't have all the answers, but we are very sorry that this happened in this case.

» **What is going to happen next for this case?**

The Detroit Police Department and Wayne County Prosecutor's Office are reviewing the information from CODIS. They will be working to gather more evidence and the victim will be updated when more is known about the case. The victim can also contact an advocate if he/she has additional questions or would like to know the current status of the case (provide advocate information).

## References

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- National Human Genome Research Institute. (2012). *Deoxyribonucleic acid (DNA)*. Available at: <http://www.genome.gov/25520880>

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**WAYNE COUNTY PROSECUTOR'S OFFICE**

1441 ST. ANTOINE, ROOM 1220

DETROIT, MI 48226

313-224-7270

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# Detroit–Wayne County Community Resources

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UPDATED: FEBRUARY 2013

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

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## SEXUAL ASSAULT SERVICES

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» **Wayne County SAFE (Sexual Assault Forensic Examiner)**

Phone: (313) 964-9701

Crisis pager: (313) 430-8000

Address: 2727 2nd Ave, Suite 120, Detroit, MI 48201

Website: [www.wcsafe.org](http://www.wcsafe.org)

*Services provided:* Sexual assault medical forensic examinations, free group and individual counseling, crisis intervention, court accompaniment, and advocacy. Volunteer opportunities and community outreach efforts.

» **First Step**

Phone: (734) 722-1772, (888) 453-5900

24-hour crisis intervention line: (734) 722-6800

Address:

4400 S. Venoy, Wayne, MI 48184

44567 Pinetree Drive, Plymouth, MI 48170

Website: <http://www.firststep-mi.org/>

*Services provided:* Sexual assault medical forensic examinations for women ages 12 and up. Crisis intervention for survivors of domestic violence and sexual assault. Temporary emergency shelter for survivors; individual counseling or group sessions available.

» **Turning Point**

24-hour crisis intervention line: (586) 463-6990

Phone: (586) 463-4430

Address: 158 S. Main St., Mt. Clemens, MI 48043

Website: [www.turningpointmacomb.org/tp/about-turning-point](http://www.turningpointmacomb.org/tp/about-turning-point)

*Services provided:* Sexual assault medical forensic examinations for women and children. Crisis intervention for survivors of domestic and sexual violence. Temporary emergency shelter for survivors; individual counseling or group sessions available.

» **Detroit Police Victim's Assistance Program**

Phone: (313) 833-1660

Address: 4707 Antoine, Suite M-167, Detroit, MI 48201

Website: <https://www.detroitmi.gov/DepartmentsandAgencies/PoliceDepartment/VictimsAssistance.aspx>

*Services provided:* Free individual and group counseling services to sexual assault and domestic violence survivors, counseling also available for people whose family members were victims of homicide.

» **YWCA of Metropolitan Detroit-Sexual Assault and Advocacy Services and Interim House**

Crisis Line (313) 861-5300

Address: P.O. Box 21904, Detroit, MI 48221

Website: [www.ywcadetroit.org](http://www.ywcadetroit.org)

*Services provided:* Referrals, group counseling, individual counseling, 24-hour hotline, and emergency shelter.

» **Detroit Receiving Hospital-Life Stress Center**

Phone: (313) 745-4811

Address: 4201 St. Antoine Blvd, Detroit, MI 48201

Website: [www.drhuhc.org](http://www.drhuhc.org)

*Services provided:* Mental health services for psychological issues and life stressors. Specializing in helping trauma victims with completing application for crime-related medical care. They offer individual outpatient therapy, including psychotherapy for crime victims.

» **Wayne County Prosecutor's Office**

Phone: (313) 224-5777 or (517) 224-5800

Address: 1441 St. Antoine, Detroit, MI 48226

Website: [www.co.wayne.mi.us/prosecutor/index.htm](http://www.co.wayne.mi.us/prosecutor/index.htm)

*Services provided:* The prosecutor's office will work with victims to help them locate information regarding their legal case. They will also advocate for victims' rights within the criminal justice system.

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## DOMESTIC VIOLENCE SERVICES

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» **National Domestic Violence Hotline 24 Hours/Day**

Phone: (800)799-SAFE; (800) 799-7233; TTY (800) 787-3224

Website: [www.ndvh.org](http://www.ndvh.org)

*Services provided:* Crisis intervention for victims and anyone calling on behalf of a victim. Individuals are provided with safety planning strategies and resources to agencies in their area.

» **Detroit Police Victim's Assistance Program:  
Domestic Violence (2<sup>nd</sup> Floor)**

Phone: (313) 833-9813

Address: 1151 Taylor St. Bldg 6, Detroit, MI 48202

Website: [www.detroitmi.gov/DepartmentsandAgencies/PoliceDepartment/VictimsAssistance/tabid/1928/Default.aspx](http://www.detroitmi.gov/DepartmentsandAgencies/PoliceDepartment/VictimsAssistance/tabid/1928/Default.aspx)

*Services provided:* Free individual and group counseling services to sexual assault and domestic violence survivors.

» **Personal Protection Order (PPO) Advocate**

Phone: (313) 224-6292

Address: Coleman A. Young Municipal Building,  
2 Woodward, Detroit, MI 48226

Website: [www.co.wayne.mi.us/wcpo\\_divisions\\_dv.htm](http://www.co.wayne.mi.us/wcpo_divisions_dv.htm)

*Services provided:* Free Personal Protection Orders (PPO). There may be a cost to have the offender served with a copy of the PPO.

» **Interim House – Metropolitan YWCA**

Crisis Line (313) 861-5300

Address: P.O. Box 21904, Detroit, MI 48221

Website: [www.ywcadetroit.org](http://www.ywcadetroit.org)

*Services provided:* Referrals, group counseling, individual counseling, 24-hour hotline, and emergency shelter.

» **First Step**

Phone: (888) 453-5900

24-hour crisis intervention line: (734) 722-6800

Address: 4400 S. Venoy, Wayne, MI 48184

Phone: (734) 722-1772

44567 Pinetree Drive, Plymouth, MI 48170

Phone: (734) 416-1111

Website: [www.firststep-mi.org](http://www.firststep-mi.org)

*Services provided:* SANE (sexual assault nurse examiner) free forensic sexual exams for women ages 12 and up. Crisis intervention for survivors of domestic violence and sexual assault. Temporary emergency shelter for survivors, individual counseling or group sessions available.

» **Turning Point**

24-hour crisis intervention line: (586) 463-6990

Phone: (586) 463-4430

Address: 158 S. Main St., Mt. Clemens, MI 48043

Website: [www.turningpointmacomb.org/tp/about-turning-point](http://www.turningpointmacomb.org/tp/about-turning-point)

*Services provided:* Free forensic sexual exams for women and children. Crisis intervention for survivors of domestic and sexual violence. Temporary emergency shelter for survivors, individual counseling or group sessions available.

» **Detroit Receiving Hospital-Life Stress Center**

Phone: (313) 745-4811

Address: 4201 St. Antoine Blvd, Detroit, MI 48201

Website: [www.drhuhc.org/](http://www.drhuhc.org/)

*Services provided:* Mental health services for victims of crime, victims of trauma.

» **La Vida Program/CHASS Clinic**

Phone: (313) 849-3104

Address: 5635 W. Fort St., Detroit, MI 48209

Website: [www.chasscenter.org/laVida.html](http://www.chasscenter.org/laVida.html)

*Services provided:* A domestic and intimate partner violence prevention, support, and education program. Individual counseling and support groups available for Spanish speaking women and youth.

» **SAFE (Sisters Acquiring Financial Empowerment)**

Phone: (800) 757-4919 xt. 15

Address: 269 Walker Street, #721 Detroit, MI 48207

Website: [www.newsafestart.org](http://www.newsafestart.org)

*Services provided:* Domestic violence survivors are taught how to manage and end the cycle of economic abuse. They also have employment-training programs to help people find jobs.

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## MENTAL HEALTH SERVICES

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» **Wayne County 24 hour Crisis Line**

Phone: (313)-224-7000

*Services provided:* Information referral line for shelter locations, emergency care, utility assistance, mental health services, crisis counseling.

» **Detroit-Wayne County Mental Health & Human Services-Access Center**

Phone: (800)-241-4949

*Services provided:* Referral to enroll in mental health programs and 24-hour crisis line for mental health.

» **Detroit-Wayne County Health & Human Services Crisis Center**

Phone: (313) 745-3546

Address: 4201 St. Antoine, Detroit, MI 48201

Website: [www.waynecounty.com/hhs\\_mh.htm](http://www.waynecounty.com/hhs_mh.htm)

*Services provided:* Crisis center for individuals needing immediate assistance receiving medication or mental health.

» **Black Family Development**

Phone: (313) 758-0150

Address: 2995 E. Grand Boulevard, Detroit, MI 48202

Website: [www.blackfamilydevelopment.org/index.html](http://www.blackfamilydevelopment.org/index.html)

*Services provided:* Outpatient mental health services and intensive outpatient services for substance abuse. Provide referrals.

» **Care First Community Health**

Phone: (313) 846-5020

Address: 8097 Decatur Street, Detroit, MI 48228

*Services provided:* Outpatient facility for mental health, anger management classes, parenting classes, domestic violence classes, and behavioral treatment for sex offenders

» **Catholic Social Services of Wayne County**

Phone: (313) 883-2100

Address: 9851 Hamilton Ave., Detroit, MI 48202

Website: [www.csswayne.org/index.html](http://www.csswayne.org/index.html)

*Services provided:* Mental health treatment and counseling, child welfare programs, and education training.

» **Detroit Central City Community Mental Health, Inc.**

Phone: (313) 831-3160

Address: 10 Peterboro St., Detroit, MI 48201

Website: [www.dccmh.org](http://www.dccmh.org)

*Services provided:* Outpatient mental health treatment (referrals or walk-ins), and substance abuse counseling.

» **Detroit Hispanic Development Corporation**

Phone: (313) 967-4880; TTY 800-649-3777

Address: 1211 Trumbull St., Detroit, MI 48216

Website: [www.DHDC1.org](http://www.DHDC1.org)

*Services provided:* Mental health counseling for youth. Referrals for clothing, employment training, and job placement. Substance abuse counseling for low income or uninsured adults, free tattoo removal for gang members, English classes, GED, peer support groups, free HIV testing (Must live in Detroit).

» **Detroit Receiving Hospital-Life Stress Center**

Phone: (313) 745-4811

Address: 4201 St. Antoine Blvd, Detroit, MI 48201

Website: [www.drhuhc.org](http://www.drhuhc.org)

*Services provided:* Mental health services for victims of crime/trauma.

» **Detroit-Wayne County Community Mental Health & Human Services Agency**

Phone: (313) 833-3232

Address: 640 Temple, 8<sup>th</sup> fl Detroit, MI 48201

*Services provided:* Referrals to crisis hotline, mental health services, and outpatient screening.

» **Family Service of Detroit and Wayne County**

Phone: (313) 579-5989

Address: Peter Claver Building, 450 Eliot, Detroit, MI 48201

Address: 14200 Kercheval Detroit, MI 48215

Address: 13550 E. McNicholas, Detroit, MI

Website: <http://www.fsiwc.org>

*Services provided:* Mental health counseling, domestic violence programs, employee assistance program, sliding scale fee.

» **Kids-TALK Children's Advocacy Center**

Phone: (313) 833-2970

Address: 40 East Ferry Street, Detroit, MI 48202

Website: <http://www.guidance-center.org/kids-talk>

*Services provided:* Comprehensive free treatment to suspected child victims of sexual abuse, physical abuse, neglect or other forms of psychological trauma. Services include forensic interviewing, advocacy and therapy as well as forensic medical examinations through referrals to qualified pediatricians at Children's Hospital of Michigan.

» **Northeast Guidance Center**

Address:

12800 E. Warren Ave, Detroit, MI

(313) 824-8000

20303 Kelly Road, Detroit, MI

(313) 245-7000

2900 Conner Street, Detroit, MI

(313) 824-5623

Website: [www.neguidance.org](http://www.neguidance.org)

*Services provided:* Mental health treatment.

» **NSO Tumaini Center**

Phone: (313) 961-7990

Address: 3430 Third Ave., Detroit, MI 48201

Website: [www.NSO-mi.org](http://www.NSO-mi.org)

*Services provided:* Adults homeless services including crisis intervention, mental health services, healthcare, referral services, group and individual counseling, emergency food, clothing, and shower facilities.

» **New Center Community Mental Health**

Phone: (313) 961-3200

Address: 2051 W. Grand Blvd., Detroit, MI 48208

Website: [www.newcentercmhs.org](http://www.newcentercmhs.org)

Central District—Detroit

(313) 596-1300

Southwestern District—Detroit

(313) 596-5300

Northeastern District—Detroit

(313) 596-1100

Western District—Detroit

(313) 596-1200

Eastern District—Detroit

(313) 596-5900

Northwestern District—Detroit

(313) 596-5600

*Services provided:* Mental health treatment.

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## SUBSTANCE ABUSE SERVICES

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### HELP LINES

» **The National Clearinghouse for Alcohol and Drug Information**

Phone: (800) 729-6686

Website: [www.ncadi.samhsa.gov](http://www.ncadi.samhsa.gov)

*Services provided:* Treatment referrals, information about drugs and alcohol abuse.

» **Alcoholics Anonymous Support Meetings**

Detroit & Wayne County Office:

Phone: (313) 831-2555 10am-6pm or 24hr. hotline (313) 831-5550

Address: 4750 Woodward Ave #407, Detroit, MI 48291

Website: [www.aa-semi.org](http://www.aa-semi.org)

*Services provided:* Referrals for meetings, treatment centers, and assessments.

» **Narcotics Anonymous Meeting**

Detroit Help line (248) 543-7200

Website: [www.na.org](http://www.na.org)

*Services provided:* Supportive meetings for addicts wanting a drug-free lifestyle.

## **INPATIENT & OUTPATIENT**

### » **CASS: Transitional Housing for Women and Children (Mom's Place)**

Phone: (313) 883-2277

Address: 11850 Woodrow Wilson Street, Detroit MI, 48206

Website: [www.casscommunity.org](http://www.casscommunity.org)

*Services provided:* Residential program for homeless women and children, substance abuse treatment program, case management, and housing placement assistance.

### » **Catholic Social Services of Wayne County**

Phone: (313) 883-2100

Address: 9851 Hamilton, Detroit, MI 48202

Website: [www.csswayne.org](http://www.csswayne.org)

*Services provided:* Outpatient substance abuse treatment and prevention, foster care services, and adoption. Substance abuse funding is free for those on parole, sliding scale fee for all other residents.

### » **Detroit LIGHT House Program**

Phone: (313) 832-1300

Address: 3800 Woodward Ave, Ste 400, Detroit, MI 48201

Website: [www.pnlh.org](http://www.pnlh.org)

*Services provided:* Substance abuse inpatient and intensive outpatient services, community funding for uninsured individuals (a referral is required).

### » **New Life Home for Recovering Women**

Phone: (313) 245-4357

Address: 17131 Gitre St, Detroit, MI 48205

Website: [www.sacredheartcenter.com/index.aspx](http://www.sacredheartcenter.com/index.aspx)

*Services provided:* Residential long-term treatment (more than 30 days) alcohol and drug abuse counseling; sliding fee scale.

» **Jefferson House- Capuchin Community Center**

Phone: (313) 331-8900

Address: 8311 East Jefferson Avenue, Detroit, MI 48214

Website: [www.mhweb.org/wayne/jeffhouse.htm](http://www.mhweb.org/wayne/jeffhouse.htm)

*Services provided:* Residential substance abuse treatment services for men.

» **Detroit Recovery Project**

Address:

Comprehensive Outpatient Recovery Services Program, 18954 James Couzens, Detroit, MI 48235; Phone: (313) 864-5306

Trent Recovery Home 355 West Grand Blvd., Detroit, MI 48207

Phone: (313) 579-5462

West Side Recovery Center, 1145 West Grand Blvd, Detroit, MI 48208

Phone: (313) 324-8900

Website: [www.recovery4detroit.com](http://www.recovery4detroit.com)

*Services provided:* Intensive outpatient, free intake assessments, one-on-one counseling, group therapy, psycho-education relapse prevention, sober living skills, family counseling, case management, dual diagnosis treatment, free aftercare groups, driving under the influence classes, drug diversion class, alcohol and drug screening, sliding scale payment options.

» **Operation Get Down Inc.**

Phone: (313) 921-9422

Address: 10100 Harper St., Detroit, MI 48213

Website: [www.operationgetdown.org](http://www.operationgetdown.org)

*Services provided:* Residential and outpatient substance abuse treatment, uninsured, low-income residents receive state funding for services.

» **Salvation Army Detroit Harbor Light (Acres of Hope)**

Phone: (313) 361-6136

Address: 3737 Lawton Street, Detroit, MI 48208

Website: [www.usc.salvationarmy.org/usc/www\\_usc\\_detroitl.nsf/vw-text-ind](http://www.usc.salvationarmy.org/usc/www_usc_detroitl.nsf/vw-text-ind)

*Services provided:* Residential substance abuse treatment, outpatient and intensive outpatient substance abuse treatment, emergency shelter for single men, substance abuse treatment program for women.

» **Self Help Addiction Rehabilitation and Education (SHARE)**

Address:

1852 West Grand Blvd., Detroit, Mi 48208

(313) 894-8444

4216 McDougall, Detroit, MI 48207

(313) 923-6300

Website: [www.sharinc.org](http://www.sharinc.org)

*Services provided:* Substance abuse residential and outpatient treatment for men, and transitional housing, 30-90 day residential programs.

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## HEALTH & HUMAN SERVICES

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» **United Way 211**

Phone: (800) 552-1183

Address: 660 Woodward Avenue, Ste 300, Detroit, MI 48226

Website: <http://211us.org>

*Services Provided:* Help with food, housing, utilities, employment, transportation, health care, counseling, and more.

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## MEDICAL & DENTAL SERVICES

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» **American Indian Health & Family Services**

Phone: (313) 846-3718

Address: 4880 Lawndale, Detroit, MI 48210

Website: [www.aihfs.org](http://www.aihfs.org)

*Services provided:* Referrals for dental services for low-income Native Americans.

» **Children's Center Clinic**

Phone: (313) 833-2895

Address: 79 Alexandrine, Detroit, MI 48201

Website: [www.thechildrenscenter.com](http://www.thechildrenscenter.com)

*Services provided:* Hospital dentistry. Comprehensive pediatric care, operation room dentistry, sedation services, handicapped/special needs patients, orthodontics, cleft palate/lip management, craniofacial anomalies.

» **Community Health and Social Services**

Phone: (313) 849-3920

Address: 5635 W. Fort St, Detroit, MI 48209

Website: [www.chasscenter.org](http://www.chasscenter.org)

*Services provided:* Primary and preventive medical care to all individuals living in Detroit. Sliding scale fee, but also accepts Medicaid, private insurance, and, MICHild.

» **Covenant Community Care Inc.**

Phone: (313) 554-1095

Address: 559 West Grand Blvd., Detroit, MI 48216

Website: [www.covenantcommunitycare.org](http://www.covenantcommunitycare.org)

*Services provided:* On-site dental care (appointment needed). Accepts Medicare and select Medicaid plans accepted.

» **Detroit Community Health Connection**

Address:

(Eastside) 7900 Kercheval, Detroit, MI 48215 (313) 921-5500

(Bruce Douglass) 6550 W. Warren, Detroit, MI 48210 (313) 897-7700

(Nolan Center) 111 W. Seven Mile Rd, Detroit, MI 48203 (313) 369-2600

Website: <http://www.dhcquality.org/index-6.html>

*Services provided:* Comprehensive and emergency medical, OB/GYN, and pediatric services.

» **Detroit Community Health Connection**

Woodward Corridor

Phone: (313) 832-6300

Address: 611 Martin Luther King Jr. Blvd., Detroit, MI 48201

Website: [www.dhcquality.org/index-6.html](http://www.dhcquality.org/index-6.html)

*Services provided:* Comprehensive and emergency medical, OB/GYN, and pediatric services.

» **Detroit Health Department-Herman Kiefer Family Health Center, Pediatric Dental Clinic**

Phone: (313) 876-4239

Address: 1151 Taylor, Detroit, MI 48202

*Services provided:* Cleanings, exams, X-rays, fillings, extractions. No root canals or braces. Must be a Detroit resident up to 18 years old (if high-school age must be enrolled in regular high school). Monday - Friday, 6 a.m. - 2:30 p.m. Appointments only.

» **Detroit Health Department-Herman Kiefer Family Health Center, Adult Dental Clinic**

Phone: (313) 876-4164

Address: 1151 Taylor, Detroit, MI 48202

*Services provided:* Cleanings, fillings, exams, X-rays, root canals, and oral surgery. Typically two-week wait for new patients. Must reside in Detroit. Monday and Tuesday 9 a.m. - 5 p.m. Appointments for preventive only. Wednesday 7 a.m. walk-in for oral surgery only.

» **Detroit Hope Hospital**

Phone: (313) 874-0100

Address: 801 Virginia Park, Detroit, MI 48202

Website: [www.detroithope.com](http://www.detroithope.com)

*Services provided:* Affordable community-based hospital, including emergency and dental care services. Free transportation is available.

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## **PREGNANCY & WOMEN'S HEALTH SERVICES**

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» **Pregnancy Aid**

Phone: (313) 882-1000

Address: 17235 Mack Ave, Detroit, MI 48224

Website: [www.pregnancyaid.com](http://www.pregnancyaid.com)

*Services provided:* Pregnancy testing, counseling, baby clothes, and supplies.

» **Planned Parenthood-Detroit Health Center**

Phone: (313) 831-7776

Address: 4229 Cass Ave., Detroit, MI 48201

Website: [www.plannedparenthood.org/health-center/centerDetails.asp?f=2890&a=90630&v=details](http://www.plannedparenthood.org/health-center/centerDetails.asp?f=2890&a=90630&v=details)

*Services provided:* Pregnancy testing, options counseling, emergency contraception, STD screening, HIV testing, and medical exams.

» **Women's Center Michigan**

Phone: (313) 526-3600

Address: 15650 East 8 Mile Rd., Detroit, MI 48205

Website: [www.abortiononline.com](http://www.abortiononline.com)

*Services provided:* OB/GYN medical services, abortion services, STD testing, birth control, pap smears.

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## HIV TESTING SERVICES

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» **AIDS Partnership Michigan: Information and Referral Line**

Phone (313) 446-9800

Address: 2751 East Jefferson, Ste 301, Detroit, MI 48207

Website: [www.aidspartnership.org](http://www.aidspartnership.org)

*Services provided:* Free HIV testing

» **Community Health Awareness Group**

Phone: (313) 963-3434

Address: 1300 W. Fort St., Detroit, MI 48226

Website: [www.chagdetroit.org](http://www.chagdetroit.org)

*Services provided:* Free HIV testing and support groups

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## DISABILITY SERVICES

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» **Disability Network Wayne County Detroit Center**

Phone: (313)-923-1655

Address: 5555 Connors, Detroit, MI 48213

*Services provided:* Provide referrals for individuals with disability regarding housing availability.

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## LGBT SERVICES

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» **Kick**

Phone: (313) 285-9733

Address: 41 Burroughs Ste 109, Detroit, MI 48202

Website: <http://e-kick.org>

*Services provided:* LGBTQeducation and advocacy, mental health groups for members of the LGBTQcommunity.

» **Ruth Ellis Center**

Phone: (313) 252-1950

Address: 77 Victor Street, Highland Park, MI 48203

Website: [www.ruthelliscenter.org](http://www.ruthelliscenter.org)

*Services provided:* Residential and drop-in programs for LGBTQyouth, street outreach, and drop-in center for LGBTQyouth.

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## CLOTHING & FURNITURE ASSISTANCE

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» **Capuchin Soup Kitchens: Emergency Goods, Clothing, and Household Furnishings**

Phone: (313) 925-0514

Address: 6333 Medbury St., Detroit, MI 48211

Website: [www.cskdetroit.org/services\\_services.cfm](http://www.cskdetroit.org/services_services.cfm)

*Services provided:* Emergency food, clothing, household furnishings, and substance abuse. Referrals required to receive furniture and appliances from shelter. Must have at least one child under the age of 18. Must bring Social Security card, photo identification and lease or rental application, proof of income if available, and birth certificate if available.

» **St. Dominic Outreach Center**

Phone: (313)831-6070

Address: 4835 Lincoln, Detroit, MI 48208

Website: [www.stdominicoutreach.org/Pages/default.aspx](http://www.stdominicoutreach.org/Pages/default.aspx)

*Services provided:* Furniture, transportation cash, food pantry; must live in the west side of Detroit, must provide proof of income, and residency if available.

» **Habitat for Humanity Detroit Restore**

Phone: (313) 653-4890

Address: 17181 Mack Avenue, Detroit, MI 48224

Website: [www.metrorestores.org/locations/detroiteast](http://www.metrorestores.org/locations/detroiteast)

*Services provided:* Gently used furniture at bargain prices.

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## FOOD ASSISTANCE

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» **All Saints Parrish**

Phone: (313) 841-1428

Address: 7824 W. Fort St., Detroit, MI 48209

Website: [www.parishesonline.com/scripts/hostedsites/Org.asp?ID=15840](http://www.parishesonline.com/scripts/hostedsites/Org.asp?ID=15840)

*Services provided:* Meals served Monday, Wednesday, & Thursday 11:00am-12:30pm

» **Capuchin Soup Kitchens**

Address: 4390 Conner, Detroit, MI 48215 (313) 822-8606

Mon-Sat Breakfast (8:30 – 9:30,) Lunch (11:00- 1:00), Dinner (4:00-6:00)

Address: 1264 Meldrum, Detroit, MI 48207 (313) 579-2100

Mon-Fri., Breakfast (8:30-9:30am), Lunch (11:00am-1:00pm)

Website: [www.cskdetroit.org/services\\_services.cfm](http://www.cskdetroit.org/services_services.cfm)

*Services provided:* Provides hot meals to anyone.

» **CASS Community Social Services: Food Services**

Phone: (313) 883-2277

Address: 11850 Woodrow Wilson St., Detroit, MI 48206

Website: [www.casscommunity.org](http://www.casscommunity.org)

*Services provided:* Homeless services, emergency food boxes, eviction prevention, utility assistance, Saturday community lunch, free health clinic, clothing, appliances and furniture for homeless, emergency homeless shelter for women and children, rotating shelter for women and men, skill building program, lunch daily Mon- Sun, 12:00-1:15.

» **Crossroads of Michigan**

Address:

Main Office, 2424 W. Grand Blvd., Detroit, MI 48208 (313) 831-2787

Crossroads East Office, 21230 Moross, Detroit, MI 48215 (313)822-4441

Website: [www.crossroadsofmichigan.org/index.html](http://www.crossroadsofmichigan.org/index.html)

*Services provided:* Food pantry and Sunday afternoon soup kitchen 12-3pm.

» **Focus Hope**

Phone: (313) 494-4600

Address:

6353 W. Vernor Hwy, Detroit, MI 48209

1300 Oakman Blvd., Detroit, MI 48238

9151 Chalmers, Detroit, MI 48213

Website: [www.saveourchildrencoalition.org/basic-needs/focus-hope.html](http://www.saveourchildrencoalition.org/basic-needs/focus-hope.html)

*Services provided:* Distributes supplemental food items such as infant formula, milk, meat, and vegetables monthly. Eligibility: Pregnant women, parents with children under 6 years old, or senior citizens. Must bring photo identification and proof of income or local address. Hours: Monday-Thursday 9-5pm, Friday-9-12pm.

» **PantryNet.org**

Website: [www.pantrynet.org](http://www.pantrynet.org)

*Services provided:* A website to help locate food pantries within your area.

» **St. Christine Christian Services**

Phone: (313) 535-7272

Address: 15317 Dacosta, Detroit, MI 48233

Website: [www.sccsdetroit.org/Contacts.htm](http://www.sccsdetroit.org/Contacts.htm)

*Services provided:* Provides hot meals to anyone. Soup kitchen-Tues: 2:30-4:30pm, Saturday: 12-2pm. Food pantry-Tues: Seniors & Individuals with disabilities-1:30-2:30pm, Able-bodied: 2:30pm-4:30pm

» **St. Leo's Church Soup Kitchen**

Phone: (313) 897-6565

Address: 4860 15th Street, Detroit, MI 48208

*Services provided:* Provides hot meals from the soup kitchen M-Sat.  
11:30am-12:30pm.

» **PeaceMakers International**

Phone: (313) 923-5939

Address: 5322 Chene St., Detroit, MI 48211

Website: [www.peacemakersinternational.org](http://www.peacemakersinternational.org)

*Services provided:* Hot lunch on Mon, Tues, Fri @ 12:00 – 1:00, Breakfast on Wed @ 9:00- 12:00, Box Lunch on Tues (2:00) and Friday (11:00), have to attend services in order to receive box lunch, clothing services on Tuesday at 2:30pm

» **St. Vincent de Paul Society: Detroit**

Phone: (313) 393-2930 or (877) 788-4623

Address: 3000 Gratiot, Detroit, MI

Website: [www.svdpdet.org/vec.cfm](http://www.svdpdet.org/vec.cfm)

*Services provided:* Emergency food assistance (10-2pm), thrift store (weekdays 9-5pm) and furniture. Referrals needed. People in need of food assistance can contact a participating Catholic church. This agency will complete a referral form that can be taken to a community food depot. Call for participating locations.

» **Wayne County Office Department of Human Services**

Address: Go online for application

Website: <https://www.mibridges.michigan.gov/access>

*Services provided:* Application for MI Bridge card.

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## HOUSING ASSISTANCE

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### NETWORK

» **Community Housing Network**

Phone: (866) 282-3119

Website: [www.communityhousingnetwork.org/activek/content.asp?catid=3&tid=1](http://www.communityhousingnetwork.org/activek/content.asp?catid=3&tid=1)

*Services provided:* Help individuals who are homeless, have a disability, or need help finding a secure housing.

» **Tumaini Neighborhood Services Organization (NSO) Homeless Services**

Phone: (313)832-3100

Address: 3430 Third Avenue, Detroit, MI 48201

Website: [www.nso-mi.org/services.php](http://www.nso-mi.org/services.php)

*Services provided:* Referral to affordable housing options for those individuals with income or homeless.

» **Detroit Housing Commission**

Phone: (313)877-8000

Address: 1301 East Jefferson, Detroit, MI 48207

Website: [www.dhcmi.org](http://www.dhcmi.org)

*Services provided:* Assist individuals with low-income housing for affordable housing options.

» **Detroit Non Profit Housing Corporation**

Phone: (313)972-1111

Address: 8904 Woodward Ave., Detroit, MI 48202

*Services provided:* Monthly education classes on home buying. Helps individuals through classes that prevent foreclosure.

## **TRANSITIONAL HOUSING**

» **Bethlehem House**

Phone: (313)923-6435

Address: 5603 Van Dyke, Detroit, MI 48213-2856

*Services provided:* Homeless shelter for females, money management, life skills training, individual and group counseling, legal referrals, medical referrals, laundry facilities, individual meal preparation, no children, working fulltime, preferable over age 40

» **Lakewood Manor**

Phone: (313) 821-0469

Address: 14200 Kercheval Street, Detroit, MI 48215-2848

*Services provided:* Transitional housing for mother and kids in Detroit area.

» **Salvation Army Denby Center for Children and Family Services**

Phone: (313) 537-2130

Address: 20775 Pembroke Ave, Detroit, MI 48219-1345

Website: [www.usc.salvationarmy.org/DenbyCenter](http://www.usc.salvationarmy.org/DenbyCenter)

*Services provided:* Residential shelter for families, single females, and veterans.

## TEEN HOUSING

### » **Alternative For Girls**

Phone: (313) 361-4000

Address: 903 West Grand Blvd, Detroit, MI 48208

Website: [www.alternativesforgirls.org](http://www.alternativesforgirls.org)

*Services provided:* Shelter, independent living program, prevention services for girls 15-21 years of age.

### » **Covenant House Michigan**

Phone: (313) 463-2000

Address: 2959 Martin Luther King Jr. Blvd, Detroit, MI 48208-2475

Website: [www.covenanthousemi.org](http://www.covenanthousemi.org)

*Services provided:* Homeless shelter for youth between the ages of 18 and 22, men and women, no expectant mothers or children, GED programs, alternative high school, career advancement program, free individual and group counseling, identification necessary.

### » **Detroit Rescue Mission Ministries: Teen Mom House I**

Phone: (313) 993-6692

Address 3840 Fairview., Detroit, MI 48214

Website: [www.drmm.org](http://www.drmm.org)

*Services provided:* Shelter stay for 90 days, daycare services, GED assistance, job search, support groups, group substance abuse treatment programs and referrals. Serves teen mothers only.

### » **Matrix Human Services: Off the Streets**

Phone: (313) 873-0678

Address: 680 Virginia Park, Detroit, MI 48202

Website: [www.matrixhs.org](http://www.matrixhs.org)

*Services provided:* Twenty-one day temporary shelter, individual and group counseling, prevention education for youth ages 12-17 years old.

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## JOB TRAINING PROGRAMS

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» **Crossroads of Michigan**

Address:

Main Office, 2424 W. Grand Blvd., Detroit, MI 48208 (313) 831-2000

Website: [www.crossroadsofmichigan.org/index.html](http://www.crossroadsofmichigan.org/index.html)

*Services provided:* Set up appointments for help creating and editing resumes.

» **Focus Hope**

Phone: (313) 494-5500

Address: 1400 Oakman Blvd, Detroit, MI 48238

Website: [www.focushope.edu](http://www.focushope.edu)

*Services provided:* Education and job training in technology, drop in program for school age children, and food supplement program.

» **Urban League of Detroit**

Phone: (313) 832-4600

Address: 208 Mack Ave, Detroit, MI 48201

Website: [www.detroiturbanleague.org/urban\\_league\\_of\\_southeastern\\_michigan\\_004.htm](http://www.detroiturbanleague.org/urban_league_of_southeastern_michigan_004.htm)

*Services provided:* Provides screening, employability skills training, job referrals and placement. Also, conducts an annual career/job fair.

» **Wayne County-City of Detroit Michigan Works! Service Centers Detroit's One Stop Service Center**

Address: 707 West Milwaukee, 1st Floor, Detroit, MI 48202 (313) 873-7321

Address: 455 West Fort St. 1st floor, Detroit, MI 48226 (313) 962-9675

Address: Samaritan Center 5555 Conner St, Detroit, MI 48213

(313) 579-4925

Address: 9301 Michigan Avenue, Detroit, MI 48209

(313) 846-0814

Monday thru Friday 8:00am-5:00pm; Thursdays 8:00am-7:00pm

*Services provided:* Employment services such as workshops geared around employability skills and help with resumes.

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**WAYNE COUNTY PROSECUTOR'S OFFICE**

1441 ST. ANTOINE, ROOM 1220

DETROIT, MI 48226

313-224-7270

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## APPENDIX D: Data Collection Instruments

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Appendix D1:	Interview Protocol for Detroit Stakeholders (First Interview)
Appendix D2:	Interview Protocol for Detroit Stakeholders (Second Interview)
Appendix D3:	Interview Protocol for National Stakeholders from Criminal Justice/Forensic Science and Violence Against Women Social Service Organizations
Appendix D4:	Questions Asked of Public Officials in Comparable Cities
Appendix D5:	Police Report Coding Sheets for Victim, Assailant, and Case Characteristics
Appendix D6:	Forensic Testing Outcomes Coding Sheets
Appendix D7:	Law Enforcement Tracking Sheets for Victim Notifications
Appendix D8:	Community-Based Advocates Tracking Sheets for Victim Notifications
Appendix D9:	Focus Group Protocol for Detroit Stakeholders

**APPENDIX D-1: Interview Protocol for Detroit Stakeholders (First Interview)****Detroit SAK Action Research Project  
Detroit Stakeholders Interview Protocol****First Interview for Longitudinal Interviews; Only Interview for Cross-Sectional Interviews****INTRODUCTION AND OVERVIEW**

Thank you so much for meeting with me today and for taking time out of your busy schedule. As you may already know, one of the evaluation goals of the Detroit SAK Action Research Project is to interview the core members of this project to gain a better understanding of why and how so many sexual assault kits remained untested in Detroit. Therefore, it is extremely helpful to have you share your expertise regarding this issue. Specifically, I will be asking you to share your perception as to the possible underlying causes of this problem, as well as how your organization handles sexual assault cases and sexual assault kits.

This interview should take between 1-2 hours to complete. If it is okay with you, I would like to record this interview for my own use in coding the interview later on—it's going to be hard for me to get everything down on paper, so the recorder can help me later on filling in anything I might have missed. The only people who might listen to this recording will be the two evaluators on this project. When we have completed coding the interview, the recording will be destroyed.

Everything we discuss today is private—your name will not be connected to anything you say. What we discuss during this interview will **not** be shared with other core members of the Detroit SAK Action Research Project or with individuals in your organization or other organizations. Your name will not be placed on this interview or the tape. As we're going through the interview, if you need to take a break or stop, just let me know. If there are any questions that you don't want to answer, just say so, and I will move on to the next section. You do not have to answer all of the questions in this interview.

Before we get started I need to go through the procedures to obtain your consent to be interviewed (go through procedures to obtain informed consent).

Do you have any questions before we start?

**SECTION 1: BACKGROUND INFORMATION**

*To get started, I would like to ask you some questions about your current position in your agency/organization.*

1. How long have you worked in... (law enforcement, law, sexual assault services, crime lab)?
2. What are your primary responsibilities of this position?
3. How long have you been in this position?
4. To what extent have you worked with sexual assault cases and/or victims? What is your involvement in sexual assault cases and/or sexual assault victims?

**SECTION 2: AGENCY/ORGANIZATION ROLE IN PROCESSING SAKs**

*In this next section, I would like to ask you about your agency's role in processing sexual assault kits. I want you to think about your organization as a whole (policies, procedures), not about the individuals who make up your organization.*

1. Thinking of your particular organization, what policies and procedures are in place to process sexual assault cases?
2. Have these policies changed over the past 10 years? How?
3. What policies and procedures are in place to process sexual assault kits? What are the steps taken to process SAKs?
4. Which procedures are the most effective in making certain that sexual assault kits are processed appropriately? Which procedures are the most ineffective?
5. Is there a person/or group who is in charge of overseeing such policies and procedures?
6. What resources (i.e., personnel, equipment, etc) are available to help make these procedures work?
7. Are there other resources (that are not part of current procedures) that would be useful in making sexual assault kits process more effectively?
8. Can you identify any gaps in the current policies/procedures that may have contributed to the large quantities of untested sexual assault kits?
9. How does your organization work/collaborate with other agencies in processing sexual assault cases/kits? How well do you think your organization is collaborating with other agencies to make this process work?
10. What are the norms and expectations regarding the importance of sexual assault cases in your organization? How does the processing of sexual assault cases compare to other crimes?

### **SECTION 3: INDIVIDUALS' ROLES RE: PROCESSING SEXUAL ASSAULT CASES/KITS**

*This next section is about your perception of how individuals within your organization process and handle sexual assault cases and kits. Here we will be discussing individuals' skills and abilities to perform their respective roles in processing SAKs.*

1. How many people are typically involved in handling sexual assault cases in your organization? Do people have specific roles that they adhere to? What are they?
2. What type of training is involved for the personnel in charge of processing sexual assault cases?
3. Do these individuals have supervisors? Do you think there is a gap in how these individuals were/are monitored/supervised that may have contributed to untested kits?
4. Would you say these individuals are knowledgeable about sexual assault in particular? (i.e., the impact of sexual assault on victims? Current stats on actual sexual assault incidents? Prevalence? How sexual assault cases are prosecuted?, etc.)
5. What would you say is the current social climate surrounding sexual assault cases? What are the attitudes and beliefs that individuals in your organization hold about sexual assault victims? Do you think these beliefs have changed over time? If so, how?
6. Do you think that the attitudes held by the individuals in your organization contributed to the way sexual assault cases/kits were handled? How so?

### **SECTION 4: CONCLUDING THOUGHTS**

*Thank you for sharing with me your thoughts and concerns about the processing of sexual assault cases/kits in your organization. This final section will ask you to share your overall feelings about the current problem.*

1. Overall, what would say has contributed the most to the problem of untested sexual assault kits over the last several decades?
2. What are the major strengths of your organization in handling sexual assault cases/kits? What are the major weaknesses?
3. What are the major strengths of the individuals within your organization in handling sexual assault cases/kits? What are the major weaknesses?
4. What do you foresee to be the most difficult task in responding to this problem? Both within your organization and across other responsible agencies/organizations?

**APPENDIX D2: Interview Protocol for Detroit Stakeholders (Second Interview)****Detroit SAK Action Research Project  
Detroit Stakeholders Interview Protocol****Second/Third Interview for Longitudinal Interviews****INTRODUCTION AND OVERVIEW**

Thank you so much for talking with me today and for taking time out of your busy schedule. During Phase 1, one of the evaluation goals of the Detroit SAK Action Research Project was to interview the core members to gain a better understanding of why and how so many sexual assault kits remained untested in Detroit.

Now that we are in Phase 2, we are continuing qualitative analyses on the problem as well as getting a better understanding of how this project has impacted the work of core/collaborative partners. Since you have served a significant role in this project during the past year, we would like to hear your thoughts. Specifically, I will be asking you what your current view of the **problem of untested kits** is, how **participating in this project has impacted/changed your views** about sexual assault, how it has impacted the work you do outside the project, and recommendations for the project as we move forward.

This interview should take about **30 minutes to complete**. If it is okay with you, I would like to record this interview for my own use in coding the interview later on—it's going to be hard for me to get everything down on paper, so the recorder can help me later on filling in anything I might have missed. The only people who might listen to this recording will be the two evaluators on this project. When we have completed coding the interview, the recording will be destroyed.

Everything we discuss today is **private**—your name will not be connected to anything you say. What we discuss during this interview will **not** be shared with other core members of the Detroit SAK Action Research Project or with individuals in your organization or other organizations. Your name will not be placed on this interview or the tape. As we're going through the interview, if you need to take a break or stop, just let me know. If there are any questions that you don't want to answer, just say so, and I will move on to the next section. You do not have to answer all of the questions in this interview.

Do you have any questions before we start?

**SECTION 1: BACKGROUND INFORMATION**

*I would like to start off by asking you a few questions about your role in this project.*

1. What is your role in the SAK Action Research Project? What are your responsibilities?

**SECTION 2: THE PROBLEM OF UNTESTED SAKS**

*Now I would like to talk a little about the problem of untested kits in Detroit.*

2. Thinking about this past year and what you learned in this project, what would you say has contributed to the pile of untested/unsubmitted SAKs in Detroit?
3. Do you think that the SAK project is beginning to address any of these issues? How so?

**SECTION 3: THE IMPACT OF NIJ SAK ACTION RESEARCH PROJECT**

*Next, I would like to talk about how being part of this project has impacted your work and your overall thoughts about how this project is going.*

4. How has participating in this project impacted your work outside the project? (*probe: Has your participation affected the way you do work regularly? How so?*)
5. How have you been managing/balancing the work you do in the project and your regular on-going work?
6. Overall, how do you think the SAK project is going? What were the biggest challenges?
7. How do you think the different groups/core partners are working together? Is this what you expected when working with a multidisciplinary collaborative group?

**SECTION 4: CONCLUDING THOUGHTS AND RECOMMENDATIONS**

*Thank you. Finally, I would like to give you the chance to share any final thoughts and provide recommendations to the group.*

8. Knowing what you know now, are there things you think the group should have done differently to respond to the problem?
9. Do you have any recommendations for how the team proceeds with testing kits and victim notification?
10. As you know, what is done in this project will have national impact across other jurisdictions going through the same problem. Do you have any advice for how other cities respond to the problem of untested kits?

**APPENDIX D-3: Interview Protocol for National Stakeholders****Detroit SAK Action Research Project  
National Stakeholders Interview Protocol****(First Interview for Longitudinal Interviews; Only Interview for Cross-Sectional Interviews)****INTRODUCTION AND OVERVIEW**

Thank you so much for meeting with me today and for taking time out of your busy schedule. As you may already know, the National Institute of Justice funded two Action Research Projects in cities with large numbers of untested sexual assault kits (SAKs). We are the researchers from one of those projects—the Detroit site. As part of our work on this project, we wanted to reach out to national stakeholders to collect their thoughts about the complexities of SAK testing. Specifically, I will be asking you to share your perceptions regarding the utility of SAK testing to the work of the criminal justice system—and to victims—and your thoughts about best practices for victim notification.

This interview should take approximately 30-45 minutes to complete. If it is okay with you, I will be taking notes of our discussion. Everything we discuss today is private—your name will not be connected to anything you say. What we discuss during this interview will **not** be shared with the members of the Detroit SAK Action Research Project or with individuals in your organization or other organizations. Your name will not be placed on this interview. As we're going through the interview, if you need to take a break or stop, just let me know. If there are any questions that you don't want to answer, just say so, and I will move on to the next section. You do not have to answer all of the questions in this interview.

Before we get started I need to go through the procedures to obtain your consent to be interviewed (go through procedures to obtain informed consent).

Do you have any questions before we start?

**SECTION 1: BACKGROUND INFORMATION**

*To get started, I would like to ask you some questions about your current position in your agency/organization.*

1. How long have you worked in... (law enforcement, law, sexual assault services, crime lab)?
2. What are your primary responsibilities of this position?
3. How long have you been in this position?
4. To what extent have you worked with sexual assault cases and/or victims? What is your involvement in sexual assault cases and/or sexual assault victims?

**SECTION 2: PERCEPTIONS ABOUT SAK TESTING AND VICTIM NOTIFICATION**

*In this next section, I would like to ask you about your thoughts regarding the utility of SAK testing and best practices for victim notification*

1. Can you describe how SAK testing can be useful to the work of . . . (law enforcement, prosecutors, forensic scientists)?
2. How do you think SAK testing can be helpful to victims/survivors?
3. When/why do you think SAKs should be tested?
4. What are your thoughts about testing all vs. some unsubmitted SAKs in jurisdictions with large number of unprocessed SAKs?
5. In your professional opinion/experience, how/when should victims be notified about SAK testing?
6. What recommendations do you have for creating victim notification protocols?
7. What are key confidentiality, privacy, and safety concerns that ought to be attended to when creating victim notification protocols?

**SECTION 3: CONCLUDING THOUGHTS**

*Thank you for sharing with me your thoughts and concerns about the processing of sexual assault cases/kits in your organization. This final section will ask you to share your overall feelings about the current problem.*

1. Overall, what would say has contributed the most to the problem of untested sexual assault kits over the last several decades?
2. What advice do you have for jurisdictions struggling with large numbers of unsubmitted SAKs?

#### APPENDIX D-4: Questions Asked of Public Officials in Comparable Cities

##### Questions Regarding DNA Testing and CODIS

1. How many forensic labs serve \_\_\_\_\_ (name of city)?
2. What year did the lab(s) begin conducting DNA STR testing?
3. When did the lab(s) become accredited for CODIS? (and by what means?)
4. How many DNA scientists (“bench scientists”) did the lab have per year for DNA testing (focus years: 1990-2009)? (i.e., number of full-time scientists available for case work per year)

##### Questions Regarding Prosecution Resources

1. How many trial attorneys per year (1990 – 2009, if available)
2. Does the prosecutor’s office have a specialized prosecution unit for sexual assault? If so, describe; if so, year in which it was established.

##### Questions Regarding Medical/SANE Resources

1. Does \_\_\_\_\_ (name of city) have a SANE/SAFE program? If so, year it was established.
2. What is the average number of SANE/SAFE medical providers in the program (from beginning of program to 2009)?

##### Questions Regarding Victim Advocacy

1. Does the \_\_\_\_\_ (name of city) police department have a victim advocacy program? If so, describe; if so, how many staff are employed (vs. volunteer).
1. Does the \_\_\_\_\_ (name of city) have a non-profit sexual assault victim advocacy program/rape crisis center? If so, how many staff are employed (vs. volunteer).

<b>Appendix D5: Police Report Coding Sheets for Victim, Assailant, and Case Characteristics</b>		
Date of assault	Open entry field 888 = missing (because entire file missing) 999 = missing (because info not in file)	(reference variable)
Date of exam	Open entry field 888 = missing (because entire file missing) 999 = missing (because info not in file)	(reference variable)
How long ago assault occurred (in years, from December 31, 2013, as reference date)	Open entry field 888 = missing (because entire file missing) 999 = missing (because info not in file)	CASE CHARACTERISTIC
Time Between Offense and Exam (Days)	Open entry field 888 = missing (because entire file missing) 999 = missing (because info not in file)	CASE CHARACTERISTIC
Victim Gender	0= Female 1= Male 888 = missing (because entire file missing) 999 = missing (because info not in file)	VICTIM CHARACTERISTIC
Victim Race	0= African American 1= Arab American/Chaldean 2= Asian American/Pacific Islander 2= Caucasian 3- Hispanic/Latina 4= Multi-racial  888 = missing (because entire file missing) 999 = missing (because info not in file)	VICTIM CHARACTERISTIC
Victim Age	Open entry field 888 = missing (because entire file missing) 999 = missing (because info not in file)	VICTIM CHARACTERISTIC
Assailant Gender	0= Female 1= Male 888 = missing (because entire file missing) 999 = missing (because info not in file)	ASSAILANT CHARACTERISTIC
Assailant Race	0= African American 1= Arab American/Chaldean 2= Asian American/Pacific Islander 3= Caucasian 4= Hispanic/Latina 5= Multi-racial 888 = missing (because entire file missing) 999 = missing (because info not in file)	ASSAILANT CHARACTERISTIC
Assailant Age	Open entry field 888 = missing (because entire file missing) 999 = missing (because info not in file)	ASSAILANT CHARACTERISTIC

Victim-Offender Relationship	1= Stranger 2= By Sight/Nickname 3= Friend/Associate/Family Member 4= Current/Past Intimate Partner 888 = missing (because entire file missing) 999 = missing (because info not in file)	CASE CHARACTERISTIC
Assault Involved Multiple Perpetrators	0= No 1= Yes 888 = missing (because entire file missing) 999 = missing (because info not in file)	CASE CHARACTERISTIC
Alcohol and/or Drugs Involved in the Assault (either for the victim or the assailant)	0= No 1= Yes 888 = missing (because entire file missing) 999 = missing (because info not in file)	CASE CHARACTERISTIC
Weapon Used in the Assault	0= No 1= Yes 888 = missing (because entire file missing) 999 = missing (because info not in file)	CASE CHARACTERISTIC
Physical Force Used in the Assault	0= No 1= Yes 888 = missing (because entire file missing) 999 = missing (because info not in file)	CASE CHARACTERISTIC

<b>Appendix D6: Forensic Testing Outcomes Coding Sheets</b>	
SAK contained biological evidence	0 = no 1 =yes
SAK had sample(s) that passed serology screening and proceeded to DNA testing	0 = no 1 =yes
DNA Profile Entered into CODIS	0 = no 1 =yes
CODIS Hit (of any kind)	0 = no 1 =yes
CODIS Hit – Offender Hit (offender identified)	0 = no 1 =yes
If Offender Hit, was CODIS qualifying offense a sexual assault	0 = no 1 =yes
CODIS Hit –Forensic Hit (hit to another case, offender unidentified in both)	0 = no 1 =yes
If Forensic Hit, was CODIS qualifying crime scene evidence from a sexual assault	0 = no 1 =yes
CODIS Hit—Offender-Forensic Hit (hit to another case and offender identified)	0 = no 1 =yes
If Offender-Forensic Hit, was CODIS qualifying offense and/or crime scene evidence from a sexual assault	0 = no 1 =yes
If CODIS Hit (of any kind), case-to-case association to another NIJ SAK?	0 = no 1 =yes  If yes, provide ID number of which case(s) hit to each other

<b>Appendix D7: Law Enforcement Tracking Sheets for Victim Notifications</b>	
<b>LOCATE Tracking</b> (tracking all actions taken to locate the victim) ALL INFO COLLECTED FOR EACH ACTION TAKEN UNTIL VICTIM LOCATED.	
Date of Action	Open entry field
Time of Action	Open entry field
Name of Investigator Completing Action	Drop-down field (options include names of potential investigators)
Type of Action	Drop-down field (options include phone, email, database search, in person , letter)
Name of Database Searched (if action is database search)	Drop-down field (options include CLEMIS, CRIM, CRISNET, LEIN, LEXUS, ODYSSEY, OTHER, TLO)
Recipient of Action (if action is not database search, recipient of email, letter, phone call, or in person contact)	Open entry field
Outcome Type	Drop-down field (options include lead, negative)
Outcome Narrative	Open entry field
Next Step	Open entry field
<b>NOTIFICATION TRACKING</b> (tracking all VN interactions with the victim) ALL INFO COLLECTED FOR EACH VN INTERACTION WITH THE VICTIM	
Date of Action	Open entry field
Time of Action	Open entry field
Name of Investigator Notifying Victim	Drop-down field (options include names of potential investigators)
Location	Open entry field
Others Present for Victim Notification	Open entry field
Narrative of Interaction	Open entry field
What information was provided to the victim and in what form?	Open entry field
How did the victim react physically?	Open entry field
What was the victims' emotional demeanor? Did it change over the course of the interaction?	Open entry field
What questions did the victim have and were they answered?	Open entry field
What are the next steps for the case?	Open entry field
How did the notifier feel after the interaction?	Open entry field
What did and/or did not work, and what do you recommend for future notifications?	Open entry field

<b>Appendix D8: Community-Based Advocate Tracking Sheets for Victim Notifications</b>	
<b>NOTIFICATION TRACKING Advocate Database</b> (tracking advocate and investigator interaction with the victim)	
ALL INFO COLLECTED FOR VN MEETING WITH ADVOCATE, INVESTIGATORS, AND VICTIM	
What information was provided to the victim and in what form?	Open entry field
How did the victim react physically?	Open entry field
What was the victim's emotional demeanor? Did it change over time?	Open entry field
What questions did the victim have and were they answered?	Open entry field
How did the advocate feel after the interaction?	Open entry field
Would you make any recommendations to the notifier/investigator on what they could do differently?	Open entry field
Additional Notes	Open entry field

**APPENDIX D9: Focus Group Protocol for Detroit Stakeholders****Detroit SAK Action Research Project  
Detroit Stakeholders End-of-Project Focus Groups****INTRODUCTION AND OVERVIEW**

Prior to this meeting, everyone received a DRAFT of our analyses regarding key “lessons learned” throughout this project. Today, we will be discussing Table (INSERT NAME—census, testing, victim notification, overall project).

We have the remaining (90 or 30) minutes in today’s meeting to discuss these findings and any other information you’d like to provide regarding “lessons learned.”

I appreciate that this group is used to working together, talking and sharing ideas regularly, even arguing respectfully with each other. Today, for this conversation, I want us to be mindful that everyone needs a chance to speak and be heard. Please monitor your own participation in the discussion so that everyone has a chance to talk and everyone feels comfortable talking. Please note that I may be asking you (verbally or through gestures) to hold back on your feedback to give others a chance to talk—or asking/encouraging you to weigh in, if you have not done so already. As with all other project activities, everything we discuss today is private—your name will not be connected to anything you say.

Do you have any questions before we start?

**QUESTIONS**

1. Let’s begin with overall reactions. What do you think are the most important lessons learned in the project with respect to (TOPIC) (conducting the census, developing testing plan, creating victim notification protocols, overall)
2. Looking back, what do you think we did right with respect to (TOPIC)
3. Looking back, what do you see are the most important “could’a, would’a, should’a’s” regarding (TOPIC)—what should we have done differently and why?
4. Let’s review each section of the table now—for each part, let’s open it up for questions/comments/challenges to the material presented.

## ERRATA

**FINAL REPORT: 2011-DN-BX-0001**

**“The Detroit Sexual Assault Kit (SAK) Action Research Project (ARP)”**

**PI: Rebecca Campbell, Ph.D., Michigan State University**

The equivalence tests reported in Chapter 4 of the Campbell et al. (2015) report were incorrect because of a typographical error in the R script used to run the analyses. We are issuing the following errata with corrected results and conclusions. The table below shows the original text in the report alongside corresponding corrected text. A corrected Final Report, along with this Errata document, will be submitted to the National Institute of Justice for distribution through the National Criminal Justice Reference Service. A corrected R script and updated raw statistical output will be submitted to the National Archive of Criminal Justice Data (NACJD).

	<b>Original text in published report (02/25/2015)</b>	<b>Corrected text for revised report (11/09/2015)</b>
Executive Summary	“In Testing Group 4, two different methods of DNA testing were compared: traditional vs. selective degradation. There was no significant difference between the two groups in CODS entry rates, indicating that the selective degradation method had no decrement in performance relative to customary methods. Comparisons of materials costs were also equivalent across the two groups, but the selective degradation method saved 1.10 hours of staff time per SAK. These savings, when aggregated across a large collection of SAKs, may substantially reduce personnel costs. These results merit replication prior to broad-based implementation.” (Campbell et al., 2015, p. vi)	“In Testing Group 4, two different methods of DNA testing were compared: traditional vs. selective degradation. There was no significant difference between the two groups in CODIS entry rates, indicating that the selective degradation method might yield rates equal to those obtained from customary methods, but the analyses did not provide sufficient evidence to firmly conclude that the groups had equivalent rates (they could differ by more than $\pm 5\%$ ). Materials costs were similar across the two groups, but the selective degradation method saved 1.10 hours of staff time per SAK. These savings, when aggregated across a large collection of SAKs, may substantially reduce personnel costs. These results merit replication (preferably with larger samples) prior to broad-based implementation.” (p. vi)

	<b>Original text in published report (02/25/2015)</b>	<b>Corrected text for revised report (11/09/2015)</b>
Conditional CODIS entry rates (moderator omitted)	<p>“The 4.0% difference between those two rates is precisely estimated (90% CI = [3.4, 4.7]), with all plausible values falling comfortably within the 5% margin of equivalence. The conditional entry rates are therefore functionally equivalent when we omit the presence of sperm moderator from the model.” (Campbell et al., 2015, p. 219)</p>	<p>“The 4.0% difference between those two rates is imprecisely estimated (90% CI = [-4.6, 12.6]), with the upper bound of the CI falling far outside the <math>\pm 5\%</math> margin of equivalence. So, the CODIS entry rates for the two groups are not equivalent because the rate may be more than 5% higher in the traditional testing group than in the DNase group.” (p. 219)</p>
Conditional CODIS entry rates (moderator included; sperm absent)	<p>“Directly examining the difference in the conditional CODIS entry rates (<math>\Delta = p_T - p_D</math>, rather than the difference in the odds of CODIS entries) when sperm was absent turns up a conflicting finding. Both the observed difference of -13.3% and the entire 90% CI = [-15.7, -10.9] fall outside the margin of equivalence, indicating that the rates are <i>not equivalent</i> because DNase yields a meaningfully higher conditional CODIS entry rate than traditional testing when there is no sperm in any of the SAKs tested. This looks at first glance like strong evidence for non-equivalence; unfortunately, both of these rates are estimated from very small numbers of SAKs (10-12 SAKs per group). We recommend viewing this result with caution in light of its discrepancy with the results from the continuation ratio model, which suggest that no such difference was clearly discernible from the same data.” (Campbell et al., 2015, p. 223)</p>	<p>“Directly examining the difference in the conditional CODIS entry rates (<math>\Delta = p_T - p_D</math>, rather than the difference in the odds of CODIS entries) when sperm was absent reinforces the finding from the difference test. The observed difference of -13.3% lies below the lower end of the <math>\pm 5\%</math> equivalence margin and the 90% CI = [-42.6, 19.5] is so wide (due to estimating the rates from just 10-12 SAKs per group) that it extends beyond the upper end of the equivalence margin. This indicates that the rates are not equivalent because the difference between them could be larger than 5% in either direction when sperm are absent.” (p. 223)</p>

	<b>Original text in published report (02/25/2015)</b>	<b>Corrected text for revised report (11/09/2015)</b>
Conditional CODIS entry rates (moderator included; sperm present)	“The equivalence test directly examining the difference in conditional CODIS entry rates also turned up an unusual result when sperm was present. The observed difference of 4.9% in favor of traditional testing lies right below the upper bound for the margin of equivalence. The 90% CI = [4.3, 5.6] therefore spans that boundary with almost half of the interval on each side. This means we do not have unambiguous evidence for equivalence. The two rates might differ by less than 5%, or they might differ by a little more than that.” (Campbell et al., 2015, pp. 223-224)	“The equivalence test directly examining the difference in conditional CODIS entry rates also turned up an unusual result when sperm was present. The observed difference of 4.9% in favor of traditional testing lies right below the upper bound for the margin of equivalence. The 90% CI = [-3.2, 13.2] therefore spans that boundary with almost half of the interval on each side. This means the rates are not equivalent. The two rates might differ by less than 5% (indicating equivalence), but it is almost equally plausible that traditional testing yields a rate more than 5% higher than that yielded by DNase testing.” (pp. 223-224)
Unconditional CODIS entry rates (moderator included; sperm absent)	“The equivalence test shows that the -3.4% difference in the unconditional CODIS entry rate when using DNase testing is small enough to be considered equivalent (90% CI = [-3.9, -2.9]) to the rate expected from traditional testing when sperm were absent. We have more confidence in this result than we did for the corresponding conditional rates because it is based on larger sample sizes (62-65 SAKs per group). It also seems prudent to note that both rates are low in the first place.” (Campbell et al., 2015, p. 225)	“The equivalence test shows that the difference in the unconditional CODIS entry rates is -3.4% (90% CI = [-11.0, 3.3]) when sperm were absent. Thus, the rates are not equivalent because the rate for the DNase group could be more than 5% higher than the rate in the traditional group. We have more confidence in this result than we did for the corresponding conditional rates because it is based on larger sample sizes (62-65 SAKs per group), but it also seems prudent to note that both rates are low in the first place.” (p. 225)

	<b>Original text in published report (02/25/2015)</b>	<b>Corrected text for revised report (11/09/2015)</b>
Unconditional CODIS entry rates (moderator included; sperm present)	“The unconditional CODIS entry rates were identical to the conditional rates when sperm was present (86.4% for the traditional group and 81.4% for the DNase group) because the DNA testing rate of 100.0% means they use the same denominator. Therefore, the <i>RR</i> and <i>NNS</i> statistics and the equivalence test results for the unconditional rates match those reported above for the conditional rates when sperm is present.” (Campbell et al., 2015, p. 226)	N/A. This statement remains accurate. (p. 226)
Chapter 4 Summary & Conclusions: Empirical Findings Regarding the Utility of SAK Testing	“Follow-up tests of equivalence established that the rates of DNA testing and CODIS entry were functionally equivalent across the two methods.” (Campbell et al., 2015, p. 231)	“Follow-up tests of equivalence showed that the CODIS entry rates for the two methods could differ by more than $\pm 5\%$ , indicating that they are not equivalent.” (p. 231)
Chapter 4 Summary & Conclusions: Empirical Findings Regarding the Utility of SAK Testing	“These data suggest that selective degradation is a promising method that could offer forensic laboratories significant personnel savings, without sacrificing outcomes. These results merit replication in other labs/settings prior to broad-based implementation.” (Campbell et al., 2015, p. 231)	“These data suggest that selective degradation is a method that could offer forensic laboratories significant personnel savings, but these results merit replication in other labs/settings prior to broad-based implementation. Future studies should use larger samples because narrower confidence intervals around the estimated difference between the CODIS entry rates associated with traditional and selective degradation DNA testing methods will clarify whether or not these rates differ meaningfully.” (p. 231)

	<b>Original text in published report (02/25/2015)</b>	<b>Corrected text for revised report (11/09/2015)</b>
Chapter 6 Key findings from the SAK Testing Results	<p>“For these analyses, we focused on rates of DNA testing and CODIS entry rates only. The results indicated no significance between the two groups, indicating that the selective degradation method had no decrement in performance relative to customary methods. Comparisons of materials costs were also equivalent across the two groups, but the selective degradation method saved 1.10 hours of staff time, per SAK. It is important to note that this experiment was conducted without automated testing, and given that selective degradation is suitable for automation, these time savings could be even greater. These data suggest that selective degradation is a promising method that could offer forensic laboratories significant personnel savings, without sacrificing outcomes. These results merit replication in other labs/settings prior to broad-based implementation.” (Campbell et al., 2015, p. 307)</p>	<p>“For these analyses, we focused on rates of DNA testing and CODIS entry rates only. The results indicated no significant difference between the two groups, indicating that the selective degradation method might have no decrement in performance relative to customary methods, but did not show that the groups had equivalent rates. The two groups had very similar materials costs, but the selective degradation method saved 1.10 hours of staff time per SAK. It is important to note that this experiment was conducted without automated testing, and given that selective degradation is suitable for automation, these time savings could be even greater. These data suggest that selective degradation is a method that could offer forensic laboratories significant personnel savings. These results merit replication in other labs/settings prior to broad-based implementation.” (p. 307)</p>
Chapter 6 Key findings from the SAK Testing Results	<p>“This limitation is a key reason why we recommend replication of the Testing Group 4 analyses prior to large-scale implementation.” (Campbell et al., 2015, p. 308)</p>	<p>“This limitation is a key reason why we recommend replication of the Testing Group 4 analyses prior to large-scale implementation; another key reason is that the our estimates were not precise enough to unambiguously determine whether or not any differences in CODIS entry rates between testing methods were small enough to be substantively unimportant.” (p. 308)</p>

## References

Campbell, R., Fehler-Cabral, G., Pierce, S. J., Sharma, D. B., Bybee, D., Shaw, J., . . . Feeney, H. (2015). *The Detroit sexual assault kit (SAK) action research project (ARP)* (NIJ 2011-DN-BX-0001, NCJRS Document No. 248680). East Lansing, MI: Michigan State University. Available from National Criminal Justice Reference Service website: <https://www.ncjrs.gov/pdffiles1/nij/grants/248680.pdf>