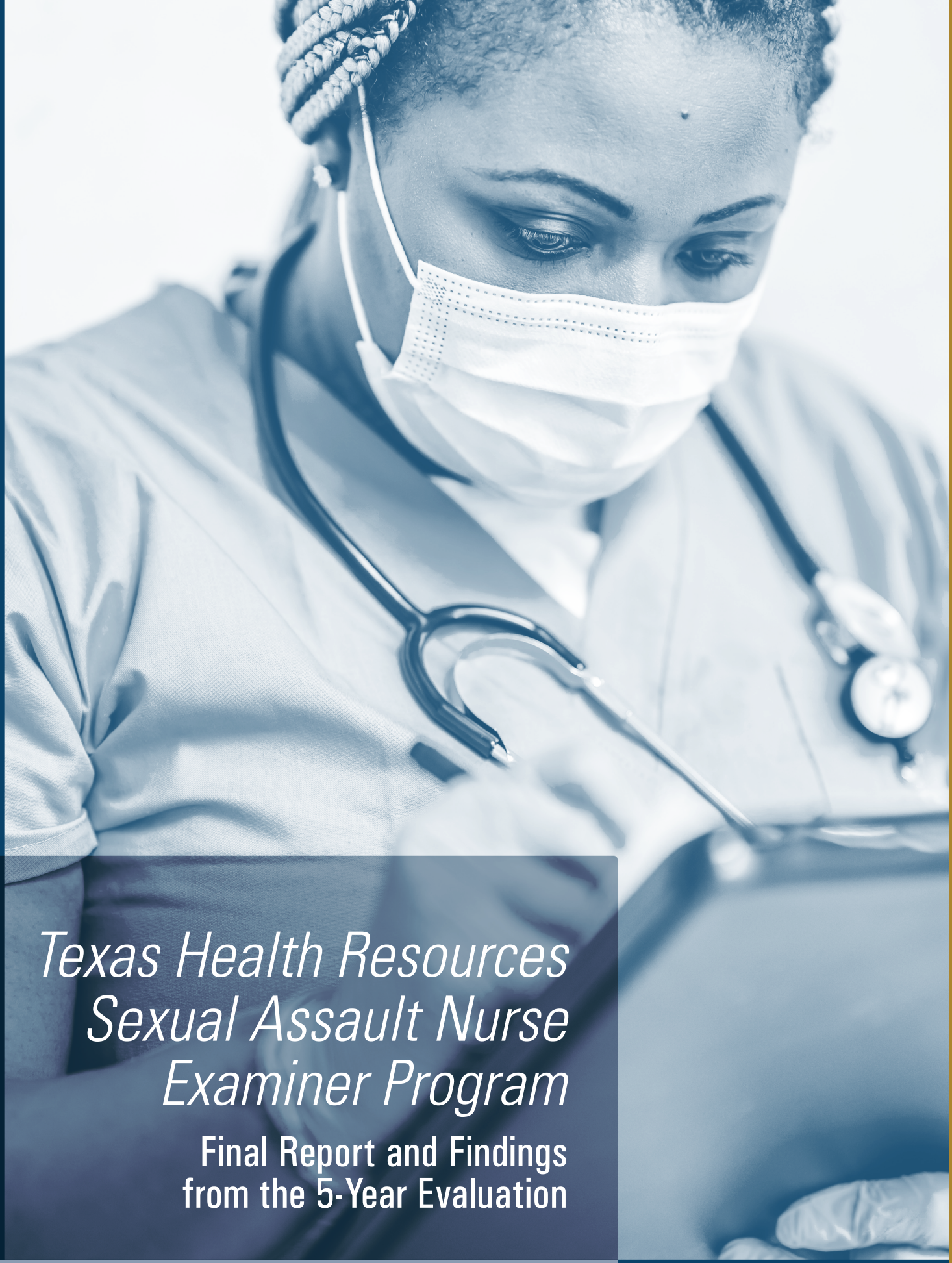

Texas Health Resources Sexual Assault Nurse Examiner Program

Final Report and Findings from the 5-Year Evaluation

NATIONAL POLICE FOUNDATION
Advancing Policing Through Innovation and Science

TEXAS HEALTH RESOURCES SEXUAL ASSAULT NURSE EXAMINER PROGRAM

Final Report and Findings from the 5-Year Evaluation

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NATIONAL POLICE FOUNDATION
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EXECUTIVE SUMMARY

Purpose and Charge

The National Police Foundation (NPF) conducted an evaluation of the Texas Health Resources (THR) Sexual Assault Nurse Examiner (SANE) Program during a five-year (2016-2020) expansion of the program funded by the Communities Foundation of Texas (CFT). Anticipated goals of the SANE program across the Dallas-Ft. Worth area included:

1. *Implementing a comprehensive SANE program across the THR hospital network*
2. *Providing community education and prevention services*
3. *Increasing public safety relating to sexual assault*

Methods

NPF staff conducted a participatory evaluation of the program, engaging SANE program staff in the evaluation process itself. Key components of the evaluation included:

- Monthly meetings/calls with SANE program staff
- Analysis of metrics including number of sexual assault exams, transfers, number of sexual assault reports and convictions
- Focus groups, interviews, and surveys of SANEs
- Interviews with community stakeholders (law enforcement and advocacy organizations)
- Pre/post tests of participants in community education and prevention presentations

Key Findings/Metrics

- The number of sexual assault exams has gradually increased since 2015, until the pandemic hit; and sexual assault patient transfers have declined substantially.
- Criminal justice indicators (e.g., number of reports and convictions of sexual assault and aggravated sexual assault) were inconclusive, due to changes in state criminal justice reporting systems and reduction in court activity due to the pandemic.
- Overall job satisfaction for the THR SANEs meets or exceeds industry norms. Regardless, attrition of SANEs, especially PRN SANEs, is frequently requiring a regular influx of new SANEs.
- Law enforcement and advocates praised the professionalism, communication, and dedication of THR SANEs; however, both groups shared concerns regarding lengthy sexual assault exam times.
- Community education and prevention services provided 1,346 presentations to more than 50,000 adults and children. Target training goals were met or exceeded in each year after start-up with pre/post assessments showing significant increases in participant knowledge of the subject matter.

THR systemwide SANE program was ambitious in its scope and has achieved several key goals; first and foremost, providing high-quality forensic exams to sexual assault victims at 13 THR facilities across seven counties in the Dallas-Ft. Worth area.

I. INTRODUCTION

In 2015, Texas Health Resources (THR), with funding from the Communities Foundation of Texas (CFT), began a program to expand the availability of sexual assault nurse examiners (SANEs) to conduct forensic exams in its North Texas hospitals. The funded SANE program began with three goals to be completed by the end of the five-year grant period. The first goal of the project was to implement, expand, and sustain a high-quality, comprehensive SANE program across counties in North Texas. The second goal of the program was to provide sexual assault education to the community and prevention services across the North Texas counties. The third and final goal of the proposal was to increase public safety across the region.

In order to track THR's progression toward these goals and the overall efficacy of the SANE program, the National Police Foundation (NPF) was engaged to conduct an evaluation of the program over the five-year period. Following a participatory evaluation model, NPF researchers engaged THR SANE program staff in the evaluation process. This engagement allowed the evaluation to benefit from the expertise of practitioners and increased the likelihood that the evaluation would produce findings that could be used to improve program operation (Campbell et. al., 2008). In the assessment of THR's SANE program, staff from the NPF collected and analyzed data from interviews with program staff and community stakeholders (victim advocates, law enforcement, emergency department staff, etc.), exit interviews with SANEs after their departure, the number of exams by hospital, non-report exam rates, and criminal justice indicators, such as sexual assault reports and prosecution rates. The present report serves as a final presentation of the findings from the five-year evaluation, beginning with a review of the relevant literature.

Background

According to the Center for Disease Control and Prevention, sexual violence is an ongoing public health issue that affects millions of people in the United States every year. The National Intimate Partner and Sexual Violence Survey estimates that approximately 1 in 5, or roughly 25.5 million, women in the United States have experienced a completed or attempted rape at some point in their life (Smith et al., 2018). Moreover, 43.9% of women and 23.4% of men have experienced other forms of sexual violence at some point during their lifetime, with most individuals experiencing their first victimization before the age of 25 (Breiding et al., 2014). Sexual assault is a severe traumatic experience that can result in a number of long-term negative health outcomes if victims do not receive proper care (Campbell et al., 2008).

Traditionally, emergency department (ED) physicians have been charged with the primary responsibility of performing forensic examinations and overseeing medical care for patients who have suffered a sexual assault. However, rape victims require specialized care given the nature of the trauma they have experienced, and emergency departments frequently fail to meet this standard of care (Taylor, 2002). Many ED physicians are also reluctant to perform forensic exams, believing that their qualifications and experience in regard to evidence collection will be questioned if they are subpoenaed (Littel, 2001). If the ED is aware that the patient has been sexually assaulted, the patient may be prohibited from eating, drinking, or using the restroom during this period in hopes of preserving forensic evidence, sometimes at the expense of a patient's basic needs (Stermac et al., 2005; Taylor, 2002). Additionally, ED staff may fail to offer important medical services such as emergency contraception, STI testing, and STI

prophylaxis (Campbell, 2008). Victims also risk having their experience invalidated by medical staff who may hold misconceptions about sexual assault (Campbell, 2008).

Recognizing these challenges to the effective treatment of sexual assault patients, some hospitals began adopting SANE programs in the late 1970s. However, it was not until the mid-1990s that the widespread adoption of these programs began (Littel, 2001). SANE programs were designed to provide specialized, comprehensive care to victims of sexual assault by staffing emergency departments with nurses extensively trained in forensic evidence collection and post-assault care (Taylor, 2002). In order to obtain certification, SANEs are required to complete 40 hours of classroom training on forensic evidence collection, evidence chain of custody, use of specialized equipment for evidence documentation, pregnancy and STI screening, expert testimony, crisis intervention, and communication with victims (DOJ, 2006). Additionally, SANEs must complete 40-96 hours of clinical experience and observe courtroom proceedings for sexual assault cases (Taylor, 2002). Currently, there are more than 950 SANE programs located in the United States yet demand for such services continues to surpass program availability, especially in rural areas (GAO, 2018; IAFN, 2021). Specific aspects of SANE programs and evaluations of their efficacy across a number of dimensions are discussed further.

Comprehensive Treatment Approach

An important goal of SANE programs is improving the quality of care provided to sexual assault patients. In order to assess the quality of care provided to sexual assault patients seeking services in traditional ED settings, Amey and Bishai (2002) analyzed data from the National Hospital Ambulatory Medical Survey between the years of 1992 and 1998. They found that only 36% of sexual assault patients were screened for STIs; 34% of patients were provided with STI prophylaxis; and 20% were provided with emergency contraception (Amey & Bishai, 2002). These results indicate that there are a significant number of sexual assault patients who do not receive appropriate medical care from EDs without specialized systems in place for responding to sexual trauma. By contrast, hospitals with SANE programs have much higher rates of offering these services. In a national mail survey of 61 SANE programs, Ciancone et al. (2000) found that 90% offered STI prophylaxis, and 97% offered pregnancy testing and emergency contraception. In a national telephone survey of 110 SANE programs, Campbell et al. (2006) found that at least 70% of the programs routinely offered STI screening, STI treatment, information on the risk of pregnancy, pregnancy testing, emergency contraception, and referral to additional resources in the community for additional post-assault care.

The quality of care offered by SANEs has been shown to exceed that of standard EDs. Plichta and colleagues (2007) surveyed nurse managers from 82 EDs offering varying levels of SANE services throughout Virginia. Plichta et al. (2007) found that EDs with full-time SANE programs were significantly more likely to screen for drug facilitated assault, offer emergency contraception, and provide additional services such as connecting the patient with a victim advocate or comfort care in the form of a shower and change of clothes following the exam. They also found that only 43.5% of EDs trained new staff on the treatment of sexual assault patients and only 13.1% trained existing staff (Plichita et al., 2007). Similarly, Nielson et al. (2015) conducted a national survey of 1,503 ED nurses and discovered that 85.5% had never received training for the care of sexual assault patients. Furthermore, Nielson and colleagues (2015) also examined the attitudes of nurses with and without sexual assault training and found that those without specialized training held more negative beliefs surrounding sexual assault patients than those with training.

Negative attitudes toward sexual assault victims can also translate into a number of false beliefs that act as

barriers to effective medical treatment and patient care. One common misconception is that sexual assaults are most often perpetrated by strangers, when in reality the majority of assaults are perpetrated by someone the victim knows (Campbell, 2008). Medical staff without specialized training may also engage in victim blaming, which can manifest in secondary victimization of the sexual assault patient. For example, Campbell et al. (2001) interviewed 112 sexual assault victims in the Chicago area and found that more than half of the survivors they spoke with viewed their experience with the medical system as hurtful, especially when they were not connected with additional support resources (Campbell et al., 2001). A survey collected from 123 ED nurse managers in Ohio revealed that many ED nurses recognize the need for more comprehensive training. (Lewis et al., 2003). In responding to these challenges, SANE training has been shown to improve the knowledge of ED medical staff and dispel misconceptions surrounding sexual assault (McLaughlin et al., 2006; Patterson et al., 2017).

Beyond medical care, SANEs are also trained to deliver care in a manner that validates the victim's experience and provides psychological support. Following a sexual assault, survivors may be more prone to developing a number of psychological issues such as depression, thoughts of suicide, and post-traumatic stress disorder (PTSD), among other mental health challenges, if they do not receive trauma-informed care (Campbell, 2008). Forensic exams conducted in standard EDs are frequently performed by staff with inadequate training and often add to the trauma experienced by the victim, compounding feelings of guilt, shame, fear, and powerlessness (Campbell, 2008; Ullman, 1996). Conversely, SANEs are trained to provide care from a patient-centered approach where victims are treated with dignity and respect (Campbell et al., 2008). In doing so, SANEs typically explain the exam in detail before beginning and try their best to empower the victim by providing them with choices and constant communication throughout the exam (Campbell et al., 2008; Fehler-Cabral et al., 2011).

The quality of care provided by SANE programs is also highlighted by the firsthand accounts of sexual assault victims. In a series of qualitative interviews, 20 survivors served by a Midwestern SANE program perceived that their needs as patients were prioritized and described SANEs as caring and compassionate (Fehler-Cabral et al., 2011). Campbell and colleagues (2013) expanded upon this work by specifically focusing on the experiences of adolescent sexual assault victims across two Midwestern SANE programs. Overall, adolescents described their experiences as positive and appreciated the compassion and validation provided by SANEs (Campbell et al., 2013). Patients also expressed appreciation that SANEs did not pass judgment on their actions or behaviors preceding the assault (Campbell et al., 2013). Validation and nonjudgmental treatment approaches are key to sexual assault patient care, especially among adolescents who are nearly twice as likely to be victimized, yet less likely to seek out medical services following an assault (Campbell, 2008; Campbell et al., 2011).

Forensic Evidence Collection

Research has shown SANEs to provide higher quality forensic evidence collection than ED physicians in traditional treatment settings. Completion of sexual assault kits requires extensive examination of the victim's body in hopes of collecting evidence that can be used to support the prosecution of the victim's assailant. In an early study evaluating the efficacy of SANE evidence collection, Ledray and Simmelink (1997) compared 27 sexual assault kits completed by SANEs to 73 sexual assault kits completed by physicians without SANE training. Overall, they found that kits collected by SANEs were completed with fewer errors and more thorough evidence documentation, specifically in relation to swabbing, preparation of blood stain cards, and drawing blood for drug analysis (Ledray & Simmelink, 1997). Sievers and colleagues (2003) built upon these findings by comparing 279 kits completed by SANEs to 236 kits completed by non-SANEs across

10 criteria. Kits collected by SANEs were significantly more likely than kits collected by non-SANEs to have a clear chain of custody, complete crime lab report, sealed and accurately labeled specimen envelopes, an adequate number of blood samples, swabs, and body hair collected from the head and pubic regions, and include a vaginal motility slide to detect the presence of semen (Sievers et al., 2003). Additionally, in a comparison of six sites utilizing one of three intervention models (SANE-only, SANE-SART, or neither), Nugent-Borakove et al. (2006) found that sites with some form of SANE intervention collected a larger variety of evidence and resulted in more successful legal outcomes than sites without SANE intervention.

SANE programs are also accompanied by increased access to tools and specialized equipment for forensic evidence collection that are not typically found in ED settings. Many SANE programs have access to toluidine blue dye, which can be used to enhance the visibility of micro-lacerations prior to photographic documentation of the victim's injuries (Ledray & Simmelink, 1997). Most SANEs are also trained in the use of colposcopes and advanced photographic equipment which are capable of documenting lacerations and bruising below the skin and around other areas of the patient's body that are unable to be captured by a standard camera (Campbell, 2008). These tools in addition to the higher overall quality of evidence collection often assist law enforcement in collecting additional evidence by opening up new investigational avenues (Campbell et al., 2012a). In a content analysis of 343 sexual assault cases from three midwestern law enforcement agencies, Campbell and colleagues (2012a) found that cases processed by SANEs were significantly more likely to be referred to prosecution by police. Prior to the implementation of SANE programs, reliable forensic evidence was not consistently available to support the prosecution of assailants (Campbell et al., 2009).

Prosecution

Historically, prosecution rates of sexual assault cases have been found to range from 14% to 56% in communities without SANE programs, albeit percentages as high as the latter are rare (Campbell et al., 2005; LaFree, 1980; Spohn & Horney, 1992; Spohn et al., 2001). More recent studies report that prosecution rates for sexual assault cases most often fall between 14% to 18% of reported cases (Campbell et al., 2012b; Campbell et al. 2009). There is some evidence supporting the idea that SANE programs are capable of increasing prosecution rates and case progression in the communities where they are implemented. Solola and colleagues (1980) were among the first to examine case outcomes for sexual assault victims in the wake of the establishment of the first SANE program originally founded in Memphis, Tennessee. Solola et al. (1983) collected data on 621 sexual assault cases processed by the SANE program and found that prosecution rates were slightly higher than those reported by communities without SANE programs at 22%.

Stronger evidence in support of improved case outcomes resulting from SANE intervention can be found in recent quasi-experimental research comparing prosecution rates in communities over time. Crandall and Helitzer (2003) were the first to conduct a more rigorous evaluation of the impact of SANE programs by examining prosecution rates before and after the implementation of a SANE program in New Mexico. Crandall and Helitzer (2003) found that victims were significantly more likely to report (72% vs. 50%), opt for an exam (88% vs. 30%), and have their case result in a conviction (69% vs. 57%) after the program launched compared to before.

Rather than specifically focusing on prosecution rates, Campbell and colleagues (2012b) built upon the results of the aforementioned study by conducting a longitudinal analysis of overall case progression before and after the establishment of a Midwestern SANE program. Case progression was divided into four ordinal categories

ranging from (1) no referral to prosecution, (2) referral but not fit for prosecution, (3) fit for prosecution but dropped or acquitted, to (4) an end result of a conviction or guilty plea (Campbell et al., 2012b). Overall, Campbell et al. (2012b) found a statistically significant increase in case progression after implementation of the SANE program with fewer cases ending in stages 1 (43% vs. 49%) and 2 (15% vs. 17%), and more cases ending in stages 3 (13% vs. 10%) and 4 (29% vs. 24%).

Both of these studies provide support for the notion that SANE programs enhance the ability of sexual assault cases to progress through the criminal justice system, in addition to their other benefits. However, research in the area is limited, and true experimental designs are not practical given the ethical implications of randomly assigning victims to SANE and non-SANE interventions for treatment. As such, there is a need for more empirical evaluations of SANE programs following a quasi-experimental approach.

Community Engagement

SANE programs have also been found to be useful for engaging community organizations in order to develop a more unified response to sexual violence. SANE programs often partner with victim advocacy organizations to provide patients with hospital accompaniment and additional services, such as legal assistance or mental health counseling (Campbell, 2008). The involvement of victim advocates at the initial stages of a sexual assault exam can both empower victims and make them feel supported (Campbell, 2008). In turn, these victims may be less likely to experience the fear, shame, and judgment that are often associated with the decision to not report the assault to law enforcement (Stermac et al., 2005). Additionally, SANE programs have also been found to facilitate the creation and maintenance of Sexual Assault Response Teams (SARTs), which serve as a method of delivering a coordinated community response to sexual assault (Campbell et al., 2011). SARTs are often comprised of law enforcement, prosecutors, medical staff, and victim advocates who work to improve the victim's experience with the criminal justice system and increase prosecution rates for sex crimes.

SANE programs can serve an important role on these committees by bringing stakeholders together to address the interests of the legal system while helping to prioritize care and treatment of the victim. As part of Crandall and Helitzer's 2003 SANE evaluation, they examined community partnerships before and after the program's implementation. Researchers found that implementation of the SANE program improved delivery of services and centralized the community's response to sexual assault cases (Crandall & Helitzer, 2003). The program was able to accomplish this by hosting SART meetings and assisting with case review and the standardization of response protocols (Crandall & Helitzer, 2003).

Although SANE programs are designed to provide more comprehensive care to sexual assault patients, they also serve as important tools for the collection of forensic evidence and must maintain a certain level of objectivity, which may sometimes result in conflict. In a national telephone survey of 231 SANE programs, Cole and Logan (2008) found that roughly 1/3 of programs had experienced difficulties with advocacy organizations and problems with their SART due to conflicts arising from unclear roles and responsibilities. Campbell and colleagues (2011) highlighted issues concerning burnout and overcommitment within these collaborations. Given these potential challenges, evaluations of SANE programs and how they function within SARTs is essential to addressing issues as they arise and improving both prosecutions and the quality of services provided by these programs.

Purpose and Structure of This Report

This report summarizes evaluation work carried out by

the NPF over the five years of the THR SANE program expansion funded by CFT. During that time, NPF collected data on program metrics to assess program success in meeting the goals set forth in the grant proposal of the Foundation. These included:

- **Implement a comprehensive SANE program across the THR hospital network**

  The CFT grant would make it possible to have SANEs available throughout the network of THR hospitals in the Dallas-Fort Worth region to conduct forensic exams. Fewer patients at satellite facilities would need to be sent to locations other than the one they presented at to get an exam from a highly skilled professional.

- **Provide community education and prevention services**

  THR staff would form partnerships with advocate programs in order to educate students and faculty at area high schools and universities about preventing sexual assault and other crimes. Community safety would be enhanced.

- **Increase public safety from sexual assault**

  The combination of the work with sexual assault patients and community education would increase reporting of sexual assaults and increase the rate of successful sexual assault prosecutions, thereby enhancing community safety from sexual assault.

In this report, we describe the roll out of the CFT-funded SANE program and how the program evolved over the five-year grant period. We then examine metrics to assess some of the key program goals, including number of sexual assault forensic exams conducted, number of patients that had to be transferred to a facility other than the one at which they presented, and community safety measures including trends in the number of sexual assault reports, arrests and successful prosecutions. Next, we present findings on staff perceptions of the program and findings on how the program was viewed by victim advocates and police investigators. This is followed by a section that provides some insight into a currently hot topic in the field—victims who request a forensic exam, but choose not to report the assault to the police. The penultimate section provides an assessment of the community education component of the SANE program. Last, we summarize findings and draw conclusions about the success of the program.

II. EVOLUTION OF THE THR SANE PROGRAM

The THR SANE Program aimed to implement system-wide access to sexual assault forensic exams administered by certified SANEs across THR's seven-county service area in North Texas. Prior to the start of the system wide SANE program, THR provided SANE services in five hospitals. Each of the following hospitals operated their own SANE program independent of the others: THR Dallas, THR Ft. Worth, THR Plano, THR Allen and THR Stephenville. The $5 million grant from CFT was intended to create a unified SANE program to provide medical forensic exams by SANEs at all thirteen THR hospitals in the 7-county region by the end of the 5- year grant period.

This model is distinct from approaches that some other jurisdictions have adopted. For example, Austin has a central community clinic that administers forensic exams: Victims who request forensic exams at other Austin-area facilities are transported to the community clinic (Busch-Armendarez, et. al. 2019) if that is their preference. Another approach has been funded by the federal Office for Victims of Crime in Massachusetts and Pennsylvania. Those states have adopted a telemedicine model in which nurses in smaller hospitals that conduct few forensic exams are guided through forensic exams. Video conference technology connects the onsite clinician to an experienced SANE who can answer questions and guide the person performing the exam in real time on procedures, patient care and support, evidence collection and documentation (Hanson, 2017).

SANE Program Structure

The THR Systemwide SANE Program was built around two facilities: THR Fort Worth, and THR Dallas. These two hospitals would eventually serve as regional "hub" facilities for the system wide SANE program, providing a home base for SANEs for coordination and training purposes as well as specialized rooms and equipment for treating sexual assault patients. As THR increased the number of SANEs the program would be able to provide on-call response to other outlying THR hospitals.

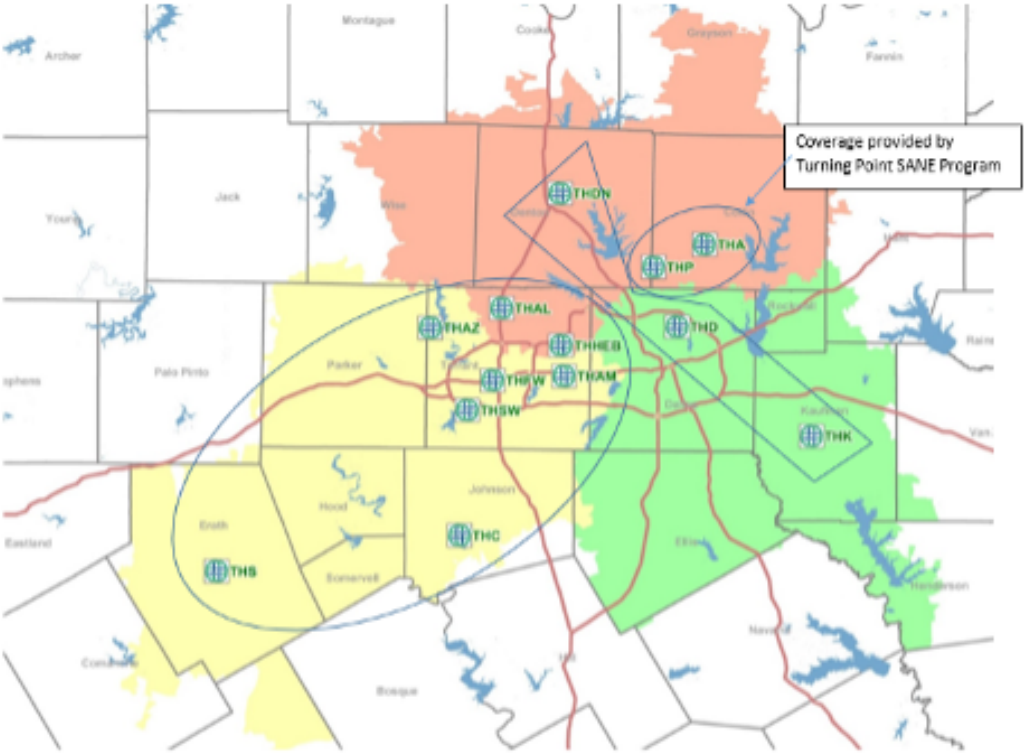
Satellite hospitals (**Table 2.1**) were brought 'on-board' in 2016, 2017 and 2018. THR Southwest had an already established relationship with THR Fort Worth due to their close proximity making for easy expansion of the program into that facility. THR Stephenville, had an existing small SANE program which was folded into the systemwide program.

Table 2.1 – THR Hospitals Incorporated into System-wide SANE Program

HOSPITAL NAME	DATE
THR Dallas	Original hospital
THR Fort Worth	Original hospital
THR Southwest	February 2016
THR Stephenville	April 2016
THR Arlington	October 2017
THR HEB	December 2017
THR Kaufman	January 2018
THR Denton	January 2018
THR Alliance	January 2018
THR Azle	January 2018
THR Cleburne	February 2018

THR Plano and THR Allen both participate in a local SANE program run through Turning Point, the rape crisis center in Collin County. The Collin Co SANE program is strong with a number of SANEs and wide community support.

Figure 2.1 – THR SANE Program Regions



A strategic decision was made early on to build the THR systemwide SANE program without THR Plano or THR Allen. If at some point the Collin County SANE program began to struggle, the systemwide SANE program could bring THR Plano and/or THR Allen on board, if needed.

As the systemwide SANE program continued its roll out ultimately to all THR facilities by 2018, a plan was developed that included hubs and satellites. The THR hospitals in the Dallas Fort Worth area were grouped into three SANE program regions (See **Figure 2.1**). The three regions appear outlined in blue on the map. SANEs belong to one region and only respond to hospitals in that region. THR Dallas and THR Fort Worth serve as hub hospitals for their two regions. A program manager was located at each of the hub hospitals to provide supervision and back-up coverage.

SANE Staffing

The original plan for the THR SANE project relied heavily on on-call nurses, or PRNs.[1] High volume THR hospitals including THR Dallas and THR Fort Worth would have full-time SANEs on staff. Other hospitals would be served by a network of PRNs —registered nurses who had completed SANE certification and were available, on an on-call basis, for dispatch to hospitals in the THR system.

Increasing the number of PRN SANEs was a critical goal of this program and key to its success. Grant objectives proposed a total of 48 PRN SANEs by June 2016 and 63 PRN SANEs by November 2016. To reach these goals and ensure sufficient staffing, THR implemented its own SANE training program. SANE certification includes completion

1 PRN comes from a Latin term meaning pro re nata – or "as needed". The PRN nurses fill in the gaps in coverage for forensic exams.

of 40 hours of classroom training, 10 supervised pelvic exams, courtroom observations, and eight supervised medical forensic exams. The THR SANE program offered the required 40-hr classroom training twice each year and coordinated opportunities for supervised pelvic examinations and medical forensic exams.

Attrition during the certification process, which often took 6-12 months to complete, was high. The biggest obstacle to certification was difficulty in completing the required number of supervised pelvic exams and supervised medical forensic exams. With large numbers of SANE trainees, it could be difficult to find available slots for supervised work. Achieving the number of supervised forensic exams was doubly challenging since, when a trainee was placed on a shift, there was no guarantee that a sexual assault patient present to the emergency department during their shift.

Attrition of SANEs after certification was high as well. SANE program leadership speculated, and results of SANE focus groups and surveys confirmed (see Section IV. Staff Perceptions of the SANE Program and Working Environment for more information), that many of the SANEs held full-time nursing positions in THR or other area hospitals in addition to their PRN SANE position. When family or other responsibilities grew, maintaining both a full-time job and PRN SANE position proved challenging, resulting in the dropping of the SANE PRN position.

Program administrators worked to be responsive to these concerns and in late 2016 implemented a tiered on-call schedule that allowed PRNs flexibility to choose the number of 12-hr shifts they took during a six-week cycle. **Table 2.2** illustrates how SANEs could choose to sign up for either 3, 6, or 9 shifts each during each 6-week scheduling cycle, with increased pay to incentivize the selection of a greater number of shifts.

Program administrators also suggested that renumeration might be contributing to attrition. PRNs only earned $2.25/hour while on call unless they were asked to respond to a call. To learn more about renumeration, NPF staff examined the THR Dallas SANE on-call schedule in 2017 and analyzed how often SANEs were called in to a hospital to provide an exam to a sexual assault survivor and the overall renumeration a SANE would receive.

Table 2.2 – Tiered On-Call Scheduling

NUMBER OF 12-HR SHIFTS PER 6-WEEK SCHEDULE	PAY RATE WHEN CALLED IN FOR AN EXAM
3	$40/hr
6	$50/hr
9	$55/hr

In general, a SANE with THR Dallas was called in to conduct an exam in 1 out of 3 shifts they worked. Very rarely, they were called in twice during a shift. As **Table 2.3** shows, on-call SANEs averaged $125.76 for each 12-hour shift they worked, or around $10/hour, including both the $2.25/hour for time spent on-call and their earnings when they were called in. However, in nearly two-thirds of the shifts, SANEs were not called in, resulting in just $27 for being available for work for a 12-hour period.

Table 2.3 – Likelihood of SANE Being Called in During a 12-Hour Shift and Associated Earnings

	SHIFTS, %	SHIFT EARNINGS
Not called in	64%	$27.00
Called in once	34%	$288.50
Called in twice	2%	$577.00
AVERAGE EARNINGS PER SHIFT		$125.76

Moreover, there were other reasons why PRN SANEs left the program. NPF conducted exit exams with SANEs who left the program and identified several frequent concerns (a full description of the findings from the exit interviews is contained in Appendix B):

- *Insufficient work for on-call SANEs* – The low rate of call-ins for part-time SANEs resulted in complaints from PRNs about the low rate of actually being summoned to perform an exam. The infrequent call-ins resulted in little pay for PRNS and difficulty keeping up with the changing requirements of the job.
- *Lack of flexibility in SANE assignments* – The program did not allow the flexibility that some PRNs needed in their on-call hours.

By the end of 2016 and early 2017, as illustrated in **Figure 2.2**, it became clear that the target number of PRN SANEs as outlined in the grant would not be attained and that extensive reliance on PRN staff was problematic.

In mid-2017, the SANE program director was approved to create new positions for full-time SANEs. Full-time positions would mean that for SANEs, their work as a SANE would be their primary job, potentially reducing turnover. This staffing decision resulted in one full-time program director, three full-time SANEs at THR Dallas and three full-time SANEs at THR Fort Worth (the two hub hospitals). By staggering the hours of full-time SANEs, a SANE could be present at the hospital, ready to assist a sexual assault patient about 75% of the time. A reduced group of PRN SANEs would be used to fill in scheduling gaps at THR Dallas and THR Ft. Worth, provide coverage when more than one sexual assault patient required an exam, and to respond to calls at the satellite hospitals. These changes took effect in November 2017.

Hiring full-time positions increased program costs, but program leadership believed that it would be counterbalanced by a reduction in on-call costs and training costs. NPF conducted an analysis to determine whether these costs offset each other. **Figure 2.3** displays the annual salaries of full time SANEs and on-call

Figure 2.2 – Target Versus Action Number of SANEs, 2016-2017

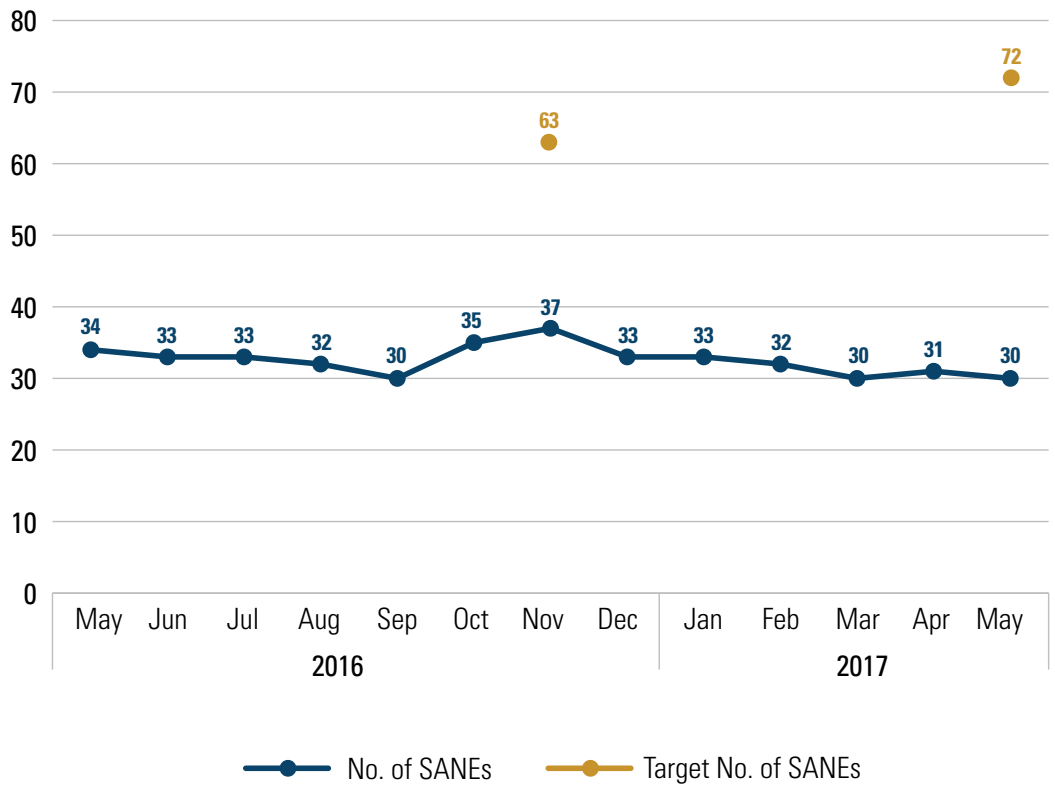
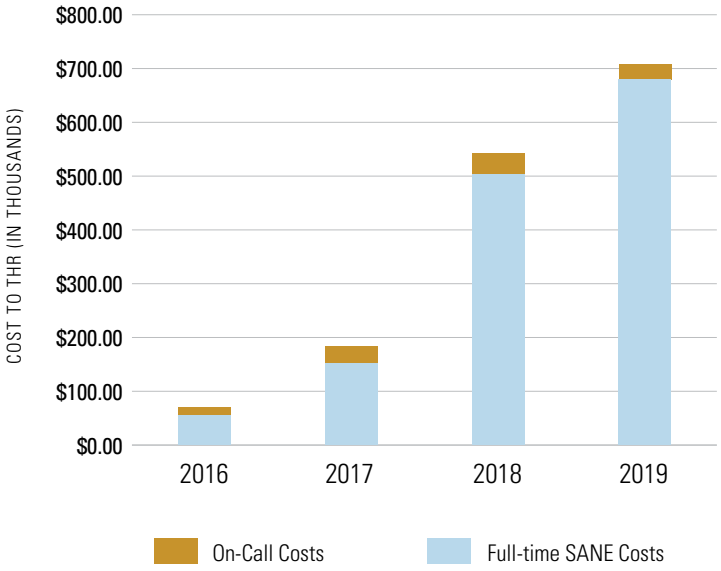


Figure 2.3 – SANE Personnel Costs by Year, 2016-2019

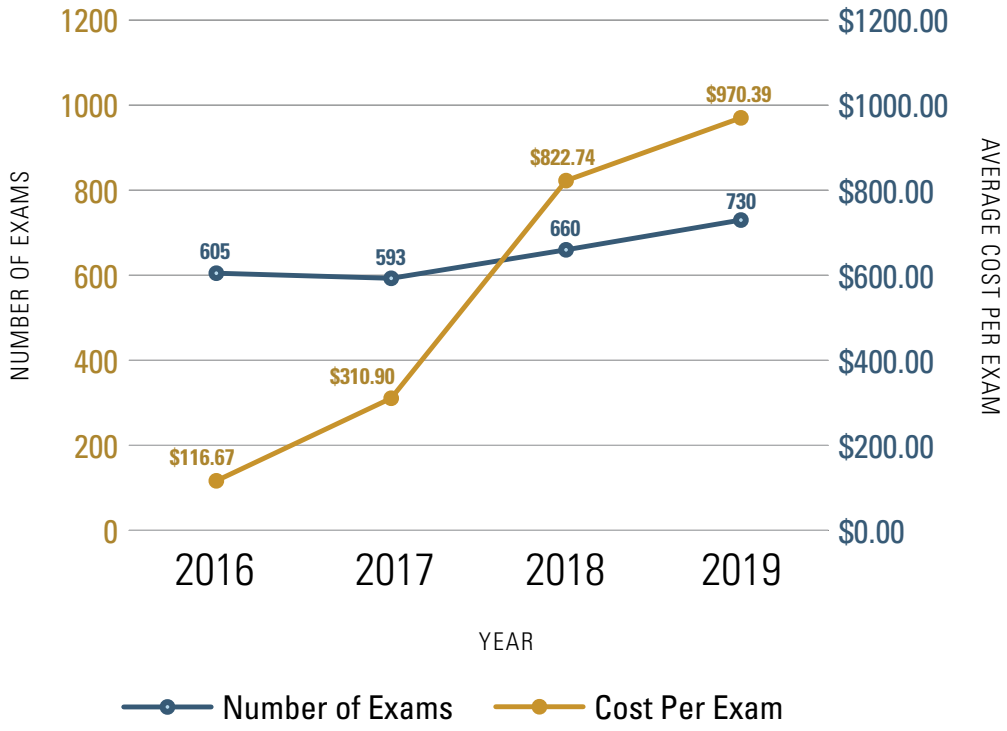


costs. Salaries of full time SANEs increased dramatically in 2018 with the adoption of the new program model. Contrary to expectation, on-call costs did not change appreciably.

An increase in costs may be expected when the number of exams also increases. **Figure 2.4** shows that the number of exams conducted increased across the life of the SANE project, but more gradually than personnel costs. Comparing 2019 to 2016, the number of exams increased 20% while personnel costs increased 910%. As a result, personnel costs per exam rose 736% between 2016 and 2019.

This is a very narrow analysis: full time SANEs assist the ED staff in ways other than conducting forensic exams. They also engage in real time education, attending staff meetings and skills fairs and making weekly rounds with the ED staff to answer any questions they have. Nonetheless, it is clear that the new model is significantly more costly than the original plan.

Figure 2.4 – Exams Conducted vs. Personnel Costs Per Exam, 2016-2019



III. SANE PROGRAM METRICS

Based on the SANE Program Goals, NPF staff identified and tracked key program metrics to measure the impact of the SANE program. These metrics include the number of sexual assault exams conducted and transfers of sexual assault patients out of a THR hospital. In addition, based on the THR proposal for funding of the SANE program, we also requested data from the Texas Department of Public Safety on number of sexual assault reports and conviction rates in the seven-county area that the THR SANE program serves.

Each set of data comes in unique forms: For some metrics, we have data by month and for others only by quarter. Where possible, we compiled data for the period of the SANE program (2016-2020) as well as data before the program began. However, data on some metrics were only collected after the start of the SANE grant. In these instances, we are more limited in what we can say about SANE program impact.

Statistical analyses were conducted to determine if there were discernable trends in indicators over time. In particular, we are interested in evaluating whether the implementation of the program in the first quarter of 2016 coincides with a change in the number of exams, transfers out of the system, and criminal justice indicators.

Number of Forensic Exams Administered

Quarterly data on the number of forensic exams conducted were available from 2016 through 2020. However, prior to the system-wide SANE program, we only have one data point—the number of exams conducted in 2015. This precluded conducting any sophisticated analyses. All we can say is that the number of forensic exams increased from 560 in 2015 to 641 in 2016 after the SANE program was funded (see **Figure 3.1**).

Figure 3.1 – Annual Number of Forensic Exams Conducted by Year, 2015-2020

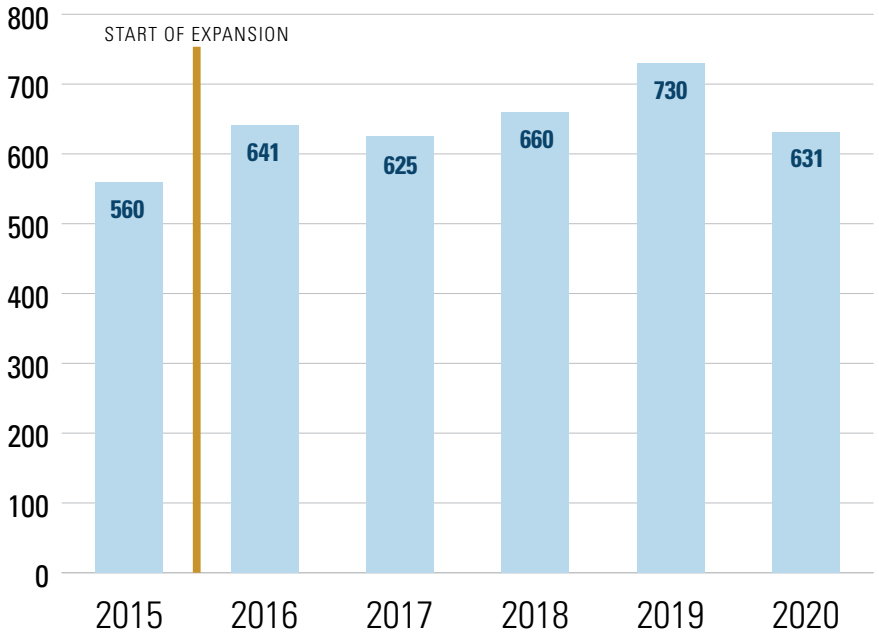
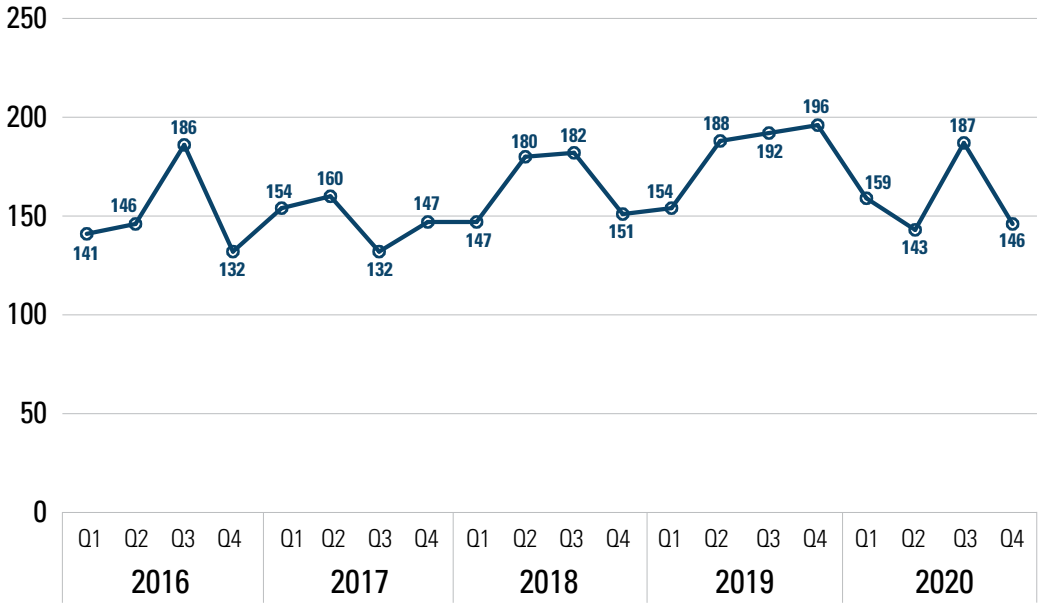
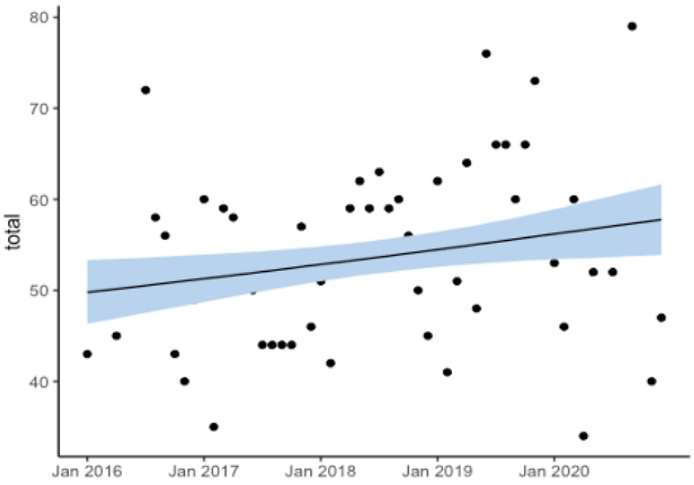


Figure 3.2 – Number of Sexual Assault Exams Conducted Per Quarter, 2016-2020



With limited pre-implementation data, we instead analyzed whether the number of exams increased over time, which might be expected if the slow program roll out resulted in more exams being conducted at satellite THR facilities. **Figure 3.2** suggests that there is a small increase in quarterly exams over the period of the CFT grant, at least until the second quarter of 2020, the start of the COVID-19 pandemic.

Figure 3.3 – Poisson Regression—Exams Over Time, 2016-2020



To verify the visual trend, we fitted a Poisson regression model to the number of exams over time (see **Figure 3.3**). This model indicated that there was a gradual increase over time—roughly a .03 increase in the log count of exams over the course of one year [0, .04]. The result is consistent with the hypothesis that exams would increase due to the SANE program. However, lack of any pre-2016 data prevents drawing any causal conclusions. Appendix A provides details on this analysis.

Number of Patients Transferred to Other Hospitals for Exams

With SANEs being made more available through the CFT grant, THR anticipated in its grant proposal to CFT that there would be less need to transfer patients who presented at THR hospitals without SANEs to other hospitals with SANE-certified staff. Transfers were

almost exclusively confined to the smaller satellite hospitals that did not have reliable SANE services available until 2018. **Figure 3.4** depicts the total number of transfers out of the system over time, with the start of the expansion to the satellite facilities in 2018 marked by a vertical red line. There was a striking decrease in transfers starting in the first quarter of 2018 coincident with the SANE program expansion to all 13 THR facilities. In relative terms, the transfers showed a decrease of 80%. The probability of obtaining this effect by chance is very small, so the effect can be considered statistically significant. See Appendix C for details of the statistical analysis.

Figure 3.4 – Transfers Out of the THR Program

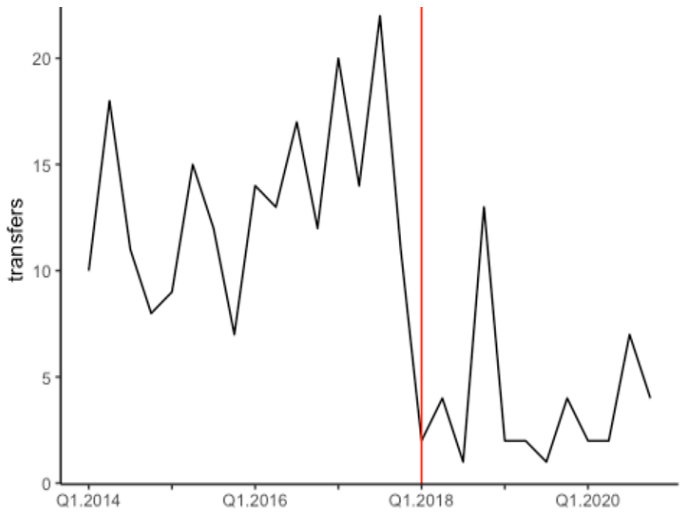


Table 3.1 displays the total number of transfers at each THR hospital for both 2015 (the year immediately prior to the systemwide program start and NPF evaluation) and 2020 (the final year of the program evaluation). Just one case was transferred out of the Dallas or Fort Worth hub in 2015 or and none in 2020. However, at nine of the 11 smaller THR satellite facilities, transfers declined, for example going from 10 to 1 at THR Kaufman, 9 to 0 at THR HEB, and 8 to 1 at THR Arlington.

Table 3.1 – Number of Sexual Assault Patients Transferred Out, 2015 vs. 2020

HOSPITAL	2015	2020
THR Southwest	1	4
THR Stephenville	3	1
THR Kaufman	10	1
THR Denton	5	1
THR Azle	2	2
THR Alliance	3	0
THR Arlington	8	1
THR HEB	9	0
THR Cleburne	3	3
THR Allen	1	2
THR Plano	1	0
THR Dallas	0	0
THR Ft. Worth	1	0
ALL HOSPITALS	47	15

Criminal Justice Indicators

In its grant application to CFT, THR anticipated short- and long-term outcomes for the SANE expansion program. Two of the long-term outcomes stemmed from a goal to "*Increase public safety from sexual abuse and assaults.*" These outcomes included:

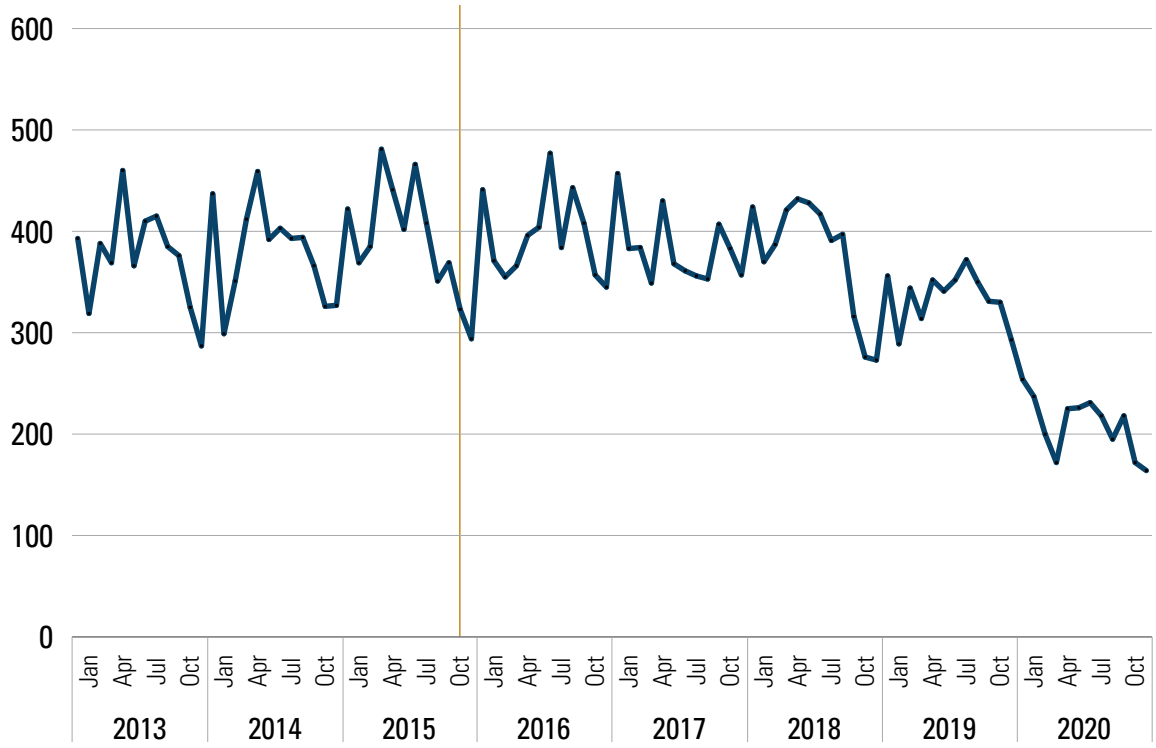
- Increased community level reporting of sexual assault and abuse
- Improved judicial outcomes (e.g., indictments, plea deals and successful prosecutions)

Because sexual assault related crimes are underreported, an increase in reporting could be seen as a positive sign that victims are more willing report sexual assaults to the

police. On the other hand, an increase in sexual assault reports could also mean that crime has increased, so it's an ambiguous indicator. The proportion of sexual assault court filings that result in a conviction is a less ambiguous measure: an increase in the percentage of convictions is a positive thing for society.

Of course, there's a real question about how much a SANE program—even one as broad in scope as the THR SANE expansion—could actually affect these indicators. An argument could be made that the community education component of the SANE expansion program could encourage more victims to come forward and the higher quality care offered through the SANE exams could similarly encourage more victims to request a forensic exam and report the incident to law enforcement. It could also be argued that SANE nurses make for better witnesses in court cases and that their testimony leads to more convictions. However, both of these arguments are highly speculative.

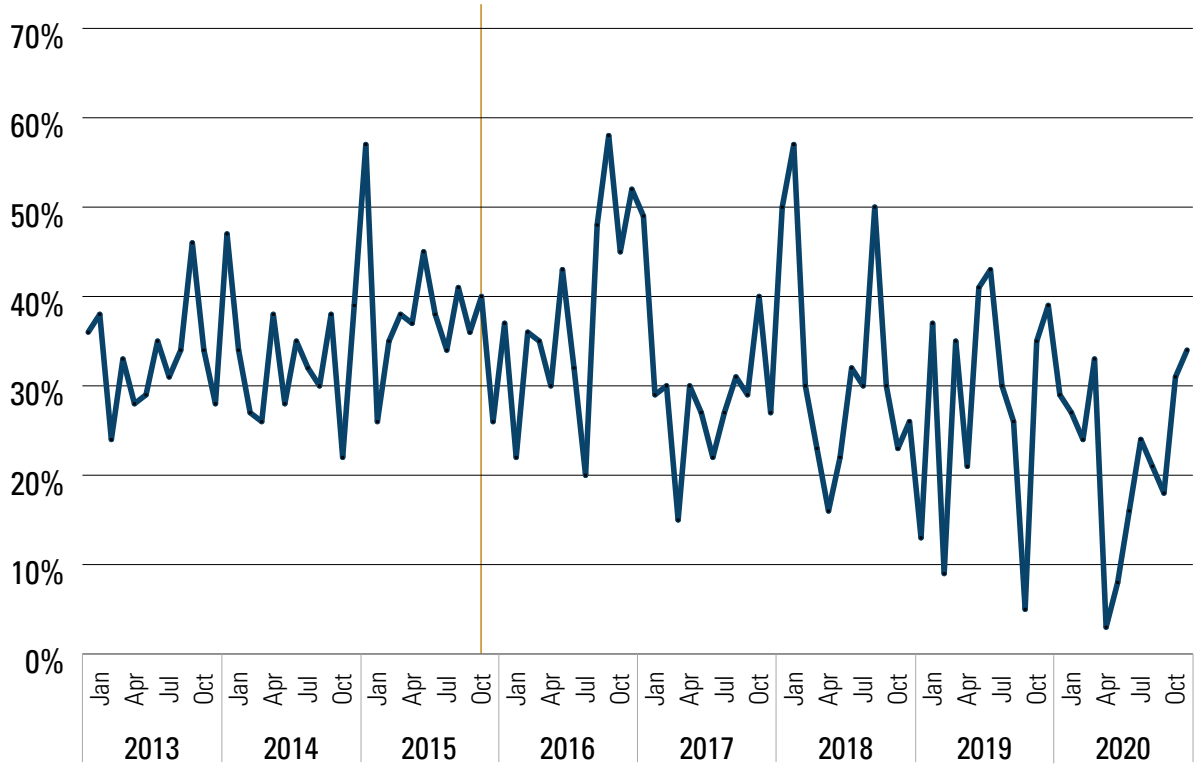
Figure 3.5 – Trends in Reported Sexual Assault and Aggravated Sexual Assault Offenses, 2013-2020



Data on sexual assault reports and court dispositions were obtained from the Texas Department of Public Safety and the Texas Office of Court Administration for the seven-county Dallas Ft. Worth area. These data were provided as monthly counts for each of the seven counties between January 2013 and December 2020.

Figure 3.5 displays the trend in sexual assault reports over the seven county area from 2013 through 2020. The number of arrests for sexual assault and aggravated sexual assault offenses remained relatively stable after the SANE expansion began in 2016, until decreases in 2019 and 2020. The Department of Public Safety indicated that the decrease coincided with a change in reporting of

Figure 3.6 – Percentage of Sexual Assault Filings Resulting in a Conviction 2013-2020



sexual assaults; during that period agencies transitioned from providing summary crime data under the Uniform Crime Reporting (UCR) to incident-based reporting under the National Incident-Based Reporting System (NIBRS). A formal analysis of the trend in reported sexual assault (Appendix C) demonstrates a steep and statistically significant decrease in reports over time – the opposite of stated SANE outcomes. However, the change in reporting systems makes interpreting the reasons for this change impossible. We conclude that we were unable to demonstrate an increase in sexual assault reports following implementation of the THR SANE expansion.

Figure 3.6 displays sexual assault convictions as a percentage of all dispositions between 2013 and 2020. There was no apparent change coinciding with the start of the THR SANE program in 2016. However, the proportion of court filings resulting in conviction does appear to decline after 2018. In fact, the conviction rate from 2016 through 2020 is 13 percentage points lower than the 2013 to 2015 period. However, the 2020 data must be considered in light of the ongoing public health crisis. Courts and case processing were substantially slowed as agencies attempted to adapt to required health and safety protocols. Appendix C presents a formal analysis of the trends in convictions. Despite the decline in convictions over time, the statistical significance of the trend was marginal once observations in 2020 were excluded. Taken together, we were unable to demonstrate any significant change in conviction rates following the introduction of the THR SANE program.

IV. STAFF PERCEPTIONS OF THE SANE PROGRAM AND WORKING ENVIRONMENT

Starting in 2016, NPF staff began soliciting THR SANE staff views of the program and the nature of their relationships with hospital ED staff and law enforcement. The first effort to tap into staff perceptions was informal, through means of a focus group. Later NPF staff developed a survey instrument that included quantitative measures of job satisfaction.

Focus Group (2016)

NPF staff conducted a focus group with SANEs on December 15, 2016. The group included approximately 20 nurses attending a SANE educational session. The purpose of the focus group was to gain information about participants' motivations for participating in the program and how they viewed the program.

The focus group revealed that trainees were highly motivated and enthusiastic about the SANE Program. Many had been SANEs assigned to a specific hospital, or 'entity SANEs,' prior to the establishment of the systemwide SANE program. Among others, the group included four labor nurses and an OR nurse who participated because they felt passionately about the work. One of the focus group participants had this to say about the SANE Program:

> *This is not a money making job. We do this job because we love it. If I could do this full time, I'd do it. I love the one-on-one patient care.*

The THR SANE Program was created so that victims would not have to travel long distances to find a skilled professional to conduct a forensic exam. NPF staff asked focus group participants to discuss the pros and cons of conducting forensic exams at one (or two) centrally located designated hospitals versus having SANEs travel to the area hospitals where sexual assault victims come for an exam. One nurse said that some law enforcement personnel prefer that victims have exams at one designated hospital because the hospital can more easily offer a full range of services, including counseling and referral to other community programs that victims may need to put their lives back together.

On the other hand, a number of the nurses supported the plan to provide SANE services at local hospitals. When victims have to travel to receive SANE services, they are typically responsible for their own travel. Unless there is injury, patients are not transferred by ambulance. Once they arrive at the second facility, victims must re-tell their story, which some patients feel is re-traumatizing. One participant summed up the arguments for the THR systemwide SANE Program:

> *The whole reason we went to a system based system is so patients can get quality care wherever they go. It's better to send the SANE to the patient. The SANE travels, not the patient. In the past when we transferred a patient, they had to provide their own transport. Some survivors just never went.*

NPF staff also asked focus group participants, as system SANEs traveling from one hospital to another, about their interactions with emergency department staff at different hospitals. By and large, participants indicated that their presence in different hospitals was well coordinated. However, one nurse mentioned that there had been some problems at one hospital with a large

staff of emergency department doctors and nurses that was subject to frequent turnover. She said that, since the SANE uniforms are identical to emergency department staff, emergency department nurses and doctors assume they were regular emergency department nurses. She felt that different uniforms would help set the traveling SANEs apart from regular emergency department staff.

Another focus group participant said that, in some instances, emergency room nurses want nothing to do with sexual assault patients; they instead hand the patients over completely to the SANE. She said that emergency room staff need to understand that sexual assault patients need to be trauma cleared before the SANE nurse arrives and starts the medical forensic exam. She felt that helping other ER nurses understand the difference between medical exams and forensic exams would be helpful.

Finally, NPF staff asked what the SANEs liked about the program and what could be made better. Again, the idea of more thoroughly educating emergency department staff about the responsibilities and limits of SANEs came up, as did better support from hospital administrators. Some of the things participants liked about the program included:

> *The program managers are dedicated and appreciated. They pay you for your training. And they are really hands on with their training.*

One of the complaints was the time commitment. One SANE suggested that if the SANE had a full-time position with THR in another capacity (in addition to being a PRN SANE) that they should get a reduction in on-call time for their primary job. Another said:

> *More staff would be an improvement. People get burnt out pretty quickly.*

A third nurse also felt that the commitment had been burdensome at the beginning of the program, but had become manageable after the introduction of a tiered system for the amount of call worked by SANEs:

> *It is hard work, but I like it enough that I'm OK with it. Previously, THR Ft. Worth had 24 hour shifts, so now a 12 hour shift seems great.*

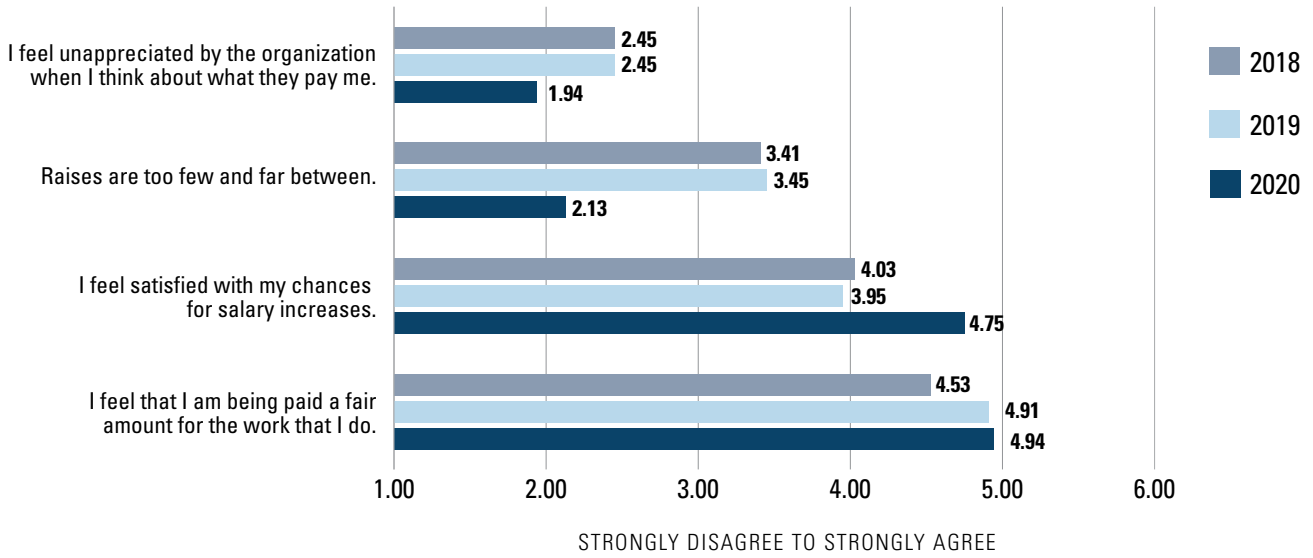
The program grappled with issues that would be expected of a start-up effort, including figuring out how to integrate the role of traveling SANEs into emergency room operations and developing scheduling practices that don't overburden SANE participants. But the enthusiasm for the work that NPF staff witnessed in the focus group bode well for the ultimate success of the program.

Survey of SANEs (2018-2020)

Beginning in 2018 NPF staff administered a survey to 29 SANEs to assess job satisfaction including what was working well and what to improve. The survey was a subset of the Job Satisfaction Survey (JSS), a widely used and validated instrument. In August 2019, a modified follow-up was administered to capture changes in satisfaction, the on-call system, and ideas for decreasing exam times. Additional questions were added to examine SANE program-specific features, processes, and working relationships with law enforcement officers and emergency department staff. The 2019 survey was provided to 23 examiners, 22 responded. In May 2020, additional modifications were made to the survey and a final follow-up was distributed to 18 SANEs, 16 of whom responded.[2] These modifications were designed to collect data from SANEs regarding the on-call system, continuing education offered by THR, factors influencing SANE job retention and attrition, the COVID-19 pandemic, and supervision. Questions examining the working relationships of SANEs with law enforcement officers

2 Because the surveys were anonymous, we do not know what the overlap is in respondents from one year to the next.

Figure 4.1 – Items Comprising the JSS Pay Subscale, 2018-2020



and emergency room staff were reduced as relatively little change was anticipated based on the results of the 2019 survey.

Table 4.1 – Comparing SANE Averages by Subscale to JSS Norms, 2018-2020

SUBSCALES	2020* (N=16)	2019 (N=22)	2018 (N=29)	NORMS**
Pay	19.6	16.9	16.9	10.5
Communication	15.6	12.9	13.8	14
Contingent Rewards	21.3	17.9	18.7	13.4

* Differences between 2020 and 2019 are statistically significant at the .05 level for each of the three subscales by single sample t-tests.

** From Spector, P. (1985). Measurement of human service staff satisfaction: Development of the Job Satisfaction Survey. *Am J Commun Psychol* 13, 693–713 (1985). https://doi.org/10.1007/BF0092979

The 2018 survey contained seven JSS subscales. The 2019 survey was shortened to only include three subscales where SANEs expressed the lowest overall satisfaction. These subscales focused on pay, contingent rewards, and communication. The same three subscales were included in the 2020 survey.

In 2019, SANEs reported slightly lower overall job satisfaction than they did in 2018, with the exception of the pay subscale where the average remained the same. By 2020, however, SANEs reported statistically significant increases in satisfaction across all three subscales from 2019 to 2020 (see **Table 4.1**). The results also show that SANE scores across all three subscales surpass JSS norms.[3] Communication remained the lowest of the three subscales, but still above non-profit sector norms. Individual item scores on the three subscales are examined in the following section.

3 These norms are based on JSS scores collected in 1985 from nearly 3,000 employees across the non-profit and human service job sectors.

Detailed JSS Results

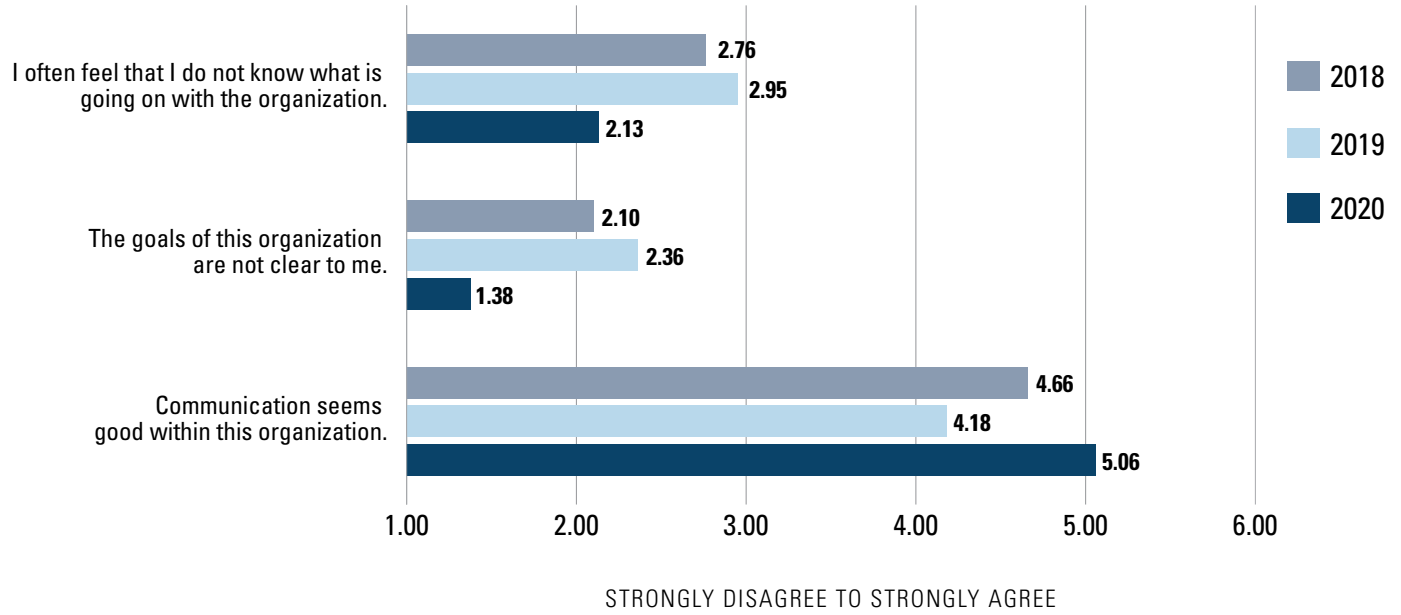
PAY SUBSCALE

SANEs generally reported pay as satisfactory (**Figure 4.1**). On a scale of 1 to 6, with 6 being 'agree very much' and 1 'disagree very much,' when presented with the items "I feel satisfied with my chances for a salary increase," and "I feel I am being paid a fair amount," SANEs averaged around a 5, indicating moderate agreement for both statements. When asked, "I feel unappreciated…when I think about what they pay me," and "raises are too few and far between" respondents averaged around a 2, indicating moderate disagreement. Relative to 2019, SANEs in 2020 were less likely to report feeling unappreciated by the organization and less likely to report feeling that raises were too few and far between. SANEs in 2020 were more likely to feel satisfied with their chances for a salary increase. SANEs continued to strongly agree that they were being paid a fair amount for the work that they do.

COMMUNICATION SUBSCALE

Consistent with the previous subscales, SANEs also reported greater satisfaction with organizational communication (**Figure 4.2**). In the 2020 survey, SANEs averaged a score of 5.1, expressing moderate to strong agreement with the statement that "Communication seems good within this organization." This is a notable improvement from prior years where agreement actually experienced a slight decline from 4.7 in 2018 to 4.2 in 2019. SANEs also expressed greater degrees of disagreement with negatively worded sentiments regarding communication than prior years. When prompted with the statement "The goals of this organization are not clear to me" SANEs in 2020 averaged a 1.4, demonstrating strong disagreement. This is a marked improvement from 2019 where there was less disagreement with the sentiment, indicating that the goals of the organization were less clear. With respect to the statement "I often feel that I do not know what is going on with the organization" respondents averaged around 2.1, moderately disagreeing with the statement.

Figure 4.2 – Items Comprising the JSS Communication Subscale, 2018-2020



By contrast, averages from 2018 and 2019 only indicated slight disagreement with this statement.

CONTINGENT REWARDS SUBSCALE

In regard to the contingent rewards subscale, which encompasses employee perceptions of appreciation and recognition, SANEs generally reported that the work they do was adequately acknowledged. In 2020, SANEs averaged a 5.6 out of 6 when asked if they received the recognition that they should for good work (**Figure 4.3**). When asked to rate their agreement with negative sentiments such as "I do not feel that the work I do is appreciated," "There are too few rewards for people who work here," and "I do not feel my efforts are rewarded," they averaged responses of less than 3, indicating disagreement. Compared to 2019, SANEs in 2020 were more likely to report they were recognized for doing a good job. They were also less likely to report that their work was unappreciated, that there were too few rewards, or that their efforts were not rewarded.

Policies, Procedures, and Supervision

Beyond the JSS subscales, items were added in the 2020 survey to assess perceptions about program features given recent changes to SANE leadership and supervision. The first question regarding policies and procedures was scored on the same 1 to 6 scale as the items from the JSS, with 1 being "disagree very much" and 6 being "agree very much." When asked to rate their agreement with the statement, "My efforts to do my job are rarely hampered by SANE policies and procedures," respondents averaged around a 4.2 indicating slight agreement. In other words, on average, SANEs did not report that the ability to do their job was constrained by the policies and procedures. However, the fact that agreement with this statement was not stronger, may serve as an indication that some policies and procedures are viewed by some SANEs as potential obstacles to the work that they do.

Figure 4.3 – Items Comprising the JSS Contingent Rewards Subscale

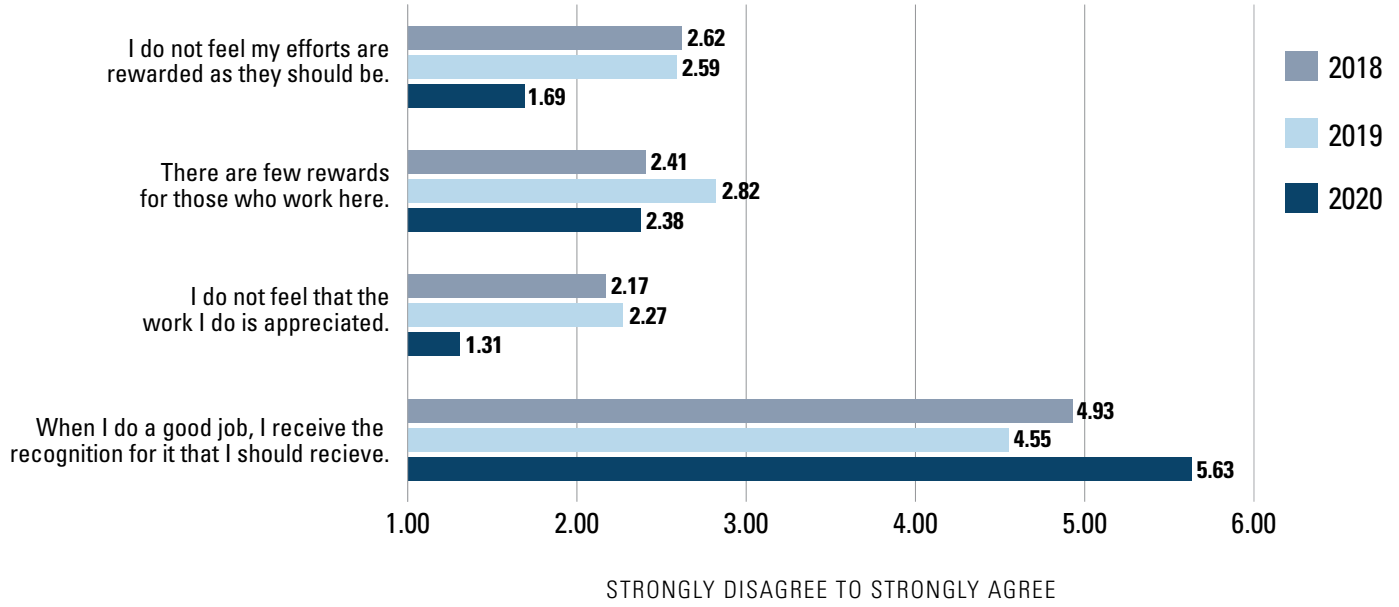
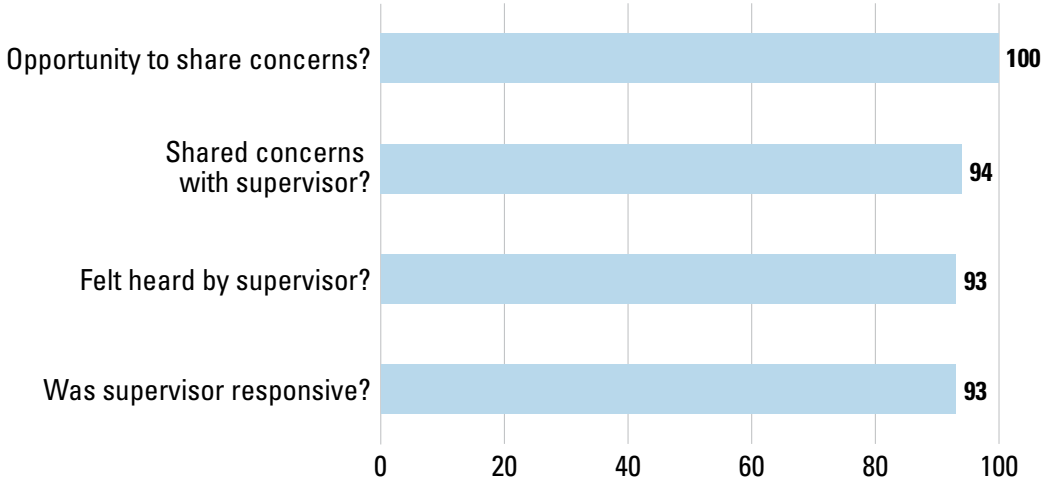


Figure 4.4 – Sharing Concerns with Supervisor



SANEs were also asked several questions concerning supervision (see **Figure 4.4**). In response to the question "Are there opportunities to confidentially share concerns you have regarding specific cases or the overall program with your supervisor?," all respondents answered "yes." When asked "Have you shared any concerns with your supervisor?," 15 out of 16 respondents answered "yes." Respondents who answered "yes," were prompted with two follow-up questions on (1) Whether or not they felt heard when sharing their concerns and (2) whether or not their supervisor was responsive to their concerns. Of the 15 respondents presented with these questions, 14 replied "yes" to both, meaning that they felt heard and believed their supervisor was responsive. One respondent replied "no" to both questions. These responses indicate that nearly all SANEs report being comfortable bringing concerns to their supervisor and when they bring up concerns, they are taken seriously.

SANE Experience

The 2020 survey included a series of open-ended questions posed to respondents about their overall experience as SANEs. When asked about what motivates them to continue working as a SANE, 12 out of the 16 respondents indicated that they are driven by their passion for helping others and the belief that they were able to make a difference in the lives of their patients. Respondents stated that the position gives their nursing "purpose," and allows them to be a part of the "healing process" for those who have survived traumatic experiences. One SANE elaborated:

> *It may be cliché, but I feel like I can make a difference. Every case is different, every patient and their experiences unique to them alone. I understand the daunting statistics related to domestic violence, mental health, substance abuse, and trauma and their often intertwining role with sexual assault violence. Acknowledging the systematic breakdown at times and the poor prosecution rates for the Adult/Adolescent population I am certified to care for can be frustrating. However, I remind myself often that the words justice and care form their own definitions before each of our own eyes. No two patients give me the same answer when I ask them what care means to them and how can I care for them in that moment?*

Along similar lines, another SANE acknowledged that, although other on-call positions would be more lucrative, they view this position as both "a privilege and a calling."

Aside from the opportunity to assist others, several SANEs noted the relative independence provided by the position as something that motivated them in their work.

Respondents were asked if there were any factors that made it difficult for them to continue working as a SANE. Nine of the 16 respondents stated that there was nothing currently deterring them from continuing with their work. However, seven SANEs provided insight as to circumstances that make maintaining the position challenging. A few cited busy schedules and difficulty balancing personal and professional responsibilities as one area of concern. Others divulged that they found the work to be emotionally taxing. Still, others expressed dissatisfaction with the on-call system. One respondent suggested that it would be easier for the full-time SANEs to manage their designated shifts throughout the week if they were not also assigned additional on-call work. (This issue is further explored below in the discussion of PRN and full-time SANE responses.) In spite of the challenges cited, when prompted with whether or not they see themselves continuing to work as a SANE a year from now, all 16 respondents indicated their intent to remain a part of the program. This sentiment reinforces the findings reported above on the high rate of job satisfaction as measured on the JSS.

PRN V. FULL-TIME SANES

Of the 16 survey respondents of the 2020 survey, nine were full-time and seven were PRN SANEs. All indicated that they had participated in the on-call system. When prompted what changes they would make to the on-call system, two full-time SANEs requested that the 12-hour on-call shift for full-time staff be optional. These responses are consistent with the 2019 survey responses suggesting that working full-time as a SANE and being on the on-call schedule can be overwhelming.

Those who identified as PRN staff were asked if the schedule was financially worthwhile and enough to maintain forensic skills. Three of the seven PRNs reported they were called in enough to make the work financially worthwhile; however the remaining four disagreed. When asked whether the on-call schedule is "too rigid" (i.e., not allowing PRNs to have flexibility in the number of on-call hours each time period), 15 of the 16 respondents said that it was not.

All seven PRN respondents reported that they performed enough exam opportunities to maintain their SANE-related skills. However, one commented that others who left the program felt differently, "We have lost several PRN SANEs since adding full time staff because they aren't receiving as many exams with the full times scheduled. It is difficult as [a] PRN to being committed to staying on top of the latest updates to [the] program."

CONTINUING EDUCATION

In the 2018 and 2019 surveys, SANE respondents noted that they valued the continued education benefits available through THR. They also mentioned additional opportunities they would like to avail themselves of, especially conferences and guest lectures. In the 2020 survey, NPF staff introduced a Likert matrix that allowed respondents to indicate "how likely they would be to take advantage of [insert program] if it was available?" Respondents were asked to rate the likelihood that they would use each type of opportunity, ranging from 1 (not likely) to 5 (very likely). The program types described included conferences, professional certifications, academic journals, case reviews, and forensic nursing lectures. Case review and forensic nursing lectures had the highest responses, but at least 13 of the 16 SANEs responding indicated that they would be extremely likely to take advantage of each five of the options.

COVID-19 SAFETY MEASURES

In the 2020 survey, respondents were also asked about how safe they feel working as SANEs with the protocols that have been implemented in response to the COVID-19 pandemic. All 16 respondents indicated that they felt safe under the current COVID-19 related protocols, with seven SANEs stating that they felt "very safe."

SANE Relationships with Emergency Department Staff and Law Enforcement Officers

In the 2018 survey, SANEs suggested that the patient exam-time could be reduced by changes enacted by the emergency department staff and law enforcement officers. In response to their suggestion, the 2019 survey asked several questions about patient interactions with emergency department and law enforcement staff and what could be changed. In the 2020 iteration, questions focused on changes within the last 12 months.

SANE VIEWS OF RELATIONSHIPS WITH EMERGENCY DEPARTMENT STAFF

In 2018, some SANEs suggested that the emergency department (ED) staff need further training on the needs of sexual assault patients. In 2019, SANE staff rated their working relationship with ED staff as "neutral." In 2020, findings suggest little had changed. The survey prompt was "ED staff is coordinating well with me in coordinating the care of sexual assault patients," with response options 1 for "disagree very much", and 5 for "agree very much" (3 was neutral). The response average was 3.75, which is relatively neutral. In response to an open-ended question about how ED staff could improve coordination of forensic exams, one SANE said:

> *They do not know the process or policy on SANE patients. They take care of CP and Stroke patients and have no issues. However, when it comes to SANE patients it's like they have no idea what to do or do not want to deal with the patients. They pawn them off on us and do not want to have anything to do with them, like they are an annoyance… They sometime get an attitude with us as well, when we are just trying to help.*

Other SANE comments noted that ED staff need more concerted training on the SANE process and policy:

> *It would be so helpful if the ED staff would include us in their new hire orientation or allow us to create a myTalent for the ED staff. We struggle with the staff using the tools that we have created for them in terms of paging us via Vocera appropriately and utilizing the SANE Consult form when a SA patient presents to the ED.*

Another SANE expressed concerns about THR's administration:

> *I just wish we as a department and our patients were taken more seriously and treated with a little more respect all the way around. As far as the organization as a whole changes are made that affect our process without even conferring with our manager and director.*

SANE VIEWS OF RELATIONSHIPS WITH LAW ENFORCEMENT OFFICERS

In 2019, SANE staff rated their working relationship with law enforcement as "neutral." In the 2020 survey, findings suggested there was improvement. The survey prompt was " law enforcement is coordinating well with me in the care of sexual assault patients," with response options 1 "for disagree very much", and 5 for "agree very much" (and 3 as neutral). The response average was 4.5, indicating relatively strong agreement.

Some comments focused on the Sexual Assault Authorization Form implemented statewide in the fall of 2019, which required police to state a reason if they chose not to authorize a sexual assault exam. One SANE stated:

> *I honestly feel our relationship with law enforcement has improved so much over the last couple of years which has made things move so much smoother in the long run…. [However] it would be good if more officers were familiar with the [Sexual Assault Authorization] form. It would expedite things if they would give the patient the completed form at the station and instruct the patient to bring it with them to hospital. Other than that law enforcement has been amazing!*

V. HOW VICTIM ADVOCATES AND POLICE INVESTIGATORS VIEW THE SANE PROGRAM

An essential component of SANE programs is their relationships with law enforcement agencies and victim advocacy services. THR's SANE program has greatly expanded over the past five years and now offers its services to a wide array of communities across Northern Texas. As a result, collaboration with local law enforcement and victim advocacy services has also expanded. Although many aspects of these collaborations have been largely positive, there have also been a number of challenges in adapting the program to best meet the needs of sexual assault patients.

Initial Interviews

The NPF staff conducted interviews with law enforcement officers and victim advocates working alongside THR's SANE Program in 2018 and 2019. Detectives were interviewed from Arlington Police Department (APD) and Ft. Worth Police Department (FWPD); advocates were interviewed from the Dallas Area Rape Crisis Center (DARCC).

In 2018, Ft. Worth detectives shared that they preferred bringing victims to John Peter Smith (JPS) Hospital (not part of the THR network) over the local THR hospital for two reasons: (1) the shorter wait time and (2) the fact that JPS had a designated SANE suite that offered victims a greater level of privacy than the emergency department exam rooms that were used by THR. The interview also revealed that FWPD often denied authorization for sexual assault exams based on the perceived odds of successful prosecution. In February of 2019, Cindy Burnette (THR Ft. Worth Program Manager 2019) and Kat Gann (THR SANE Program Director 2019) met with detectives from FWPD in an effort to address these issues. Following the meeting, Cindy Burnette established more open and regular contact with the detectives from Ft. Worth resulting in a stronger working relationship. Detectives began denying fewer exams, and the number of sexual assault patients examined per month at THR Fort Worth nearly doubled in 2019.

NPF staff also interviewed detectives from APD in August of 2019. Overall, detectives were pleased with the training, communication, and the quality of exams performed by THR's SANEs. The areas of desired improvement concerned sexual assault victim wait times and privacy.

Victim advocates from DARCC who were interviewed in 2018 were also pleased with the professionalism of THR's SANEs. However, the victim advocates did not express the same concerns as detectives regarding victim privacy and wait times. Rather, one advocate emphasized their appreciation of the privacy provided by THR to sexual assault patients. Additionally, one advocate shared their belief that exams were conducted on an expedited basis with total stays of only 4-5 hours at the hospital. Follow-up interviews with DARCC were not conducted in 2019, since the advocates did not raise any notable concerns.

The evaluation staff also sought to interview advocates from the Women's Center of Tarrant County in 2017 and 2018 to gain a secondary advocacy perspective. However, staff from the Center declined to comment on their relationship with THR's SANE program in the form of a semi-structured interview. Instead, they recommended that the evaluation team look to the Center's quarterly reports submitted to THR for comments on the strengths

and challenges of THR's SANE program.

In these reports, the Women's Center identified several strengths of the program such as the frequent communication between advocates and SANEs, improved SANE coverage across THR facilities, and reduced SANE response times due to the hiring of additional full-time SANEs. In terms of challenges, they highlighted the length of sexual assault patients' hospital stays in contrast to JPS, and patient privacy issues such as the failure to use designated SANE suites, movement of patients throughout the ED, and the need for soundproofing of exam rooms.

The SANE Program Manager had responses to each of these challenges. In regard to length of patient hospital stays, she clarified that JPS and THR differ in their delivery of services to sexual assault patients. At JPS, patients are not required to receive medical clearance from the ED prior to the exam and the exam process is structured differently, resulting in shorter stays. In reference to the privacy-related concerns, medical clearance by the ED may require patients to be transported to different rooms and in these cases, SANEs are supposed to ensure that patients are covered with more than just a gown. Steps were also taken to soundproof the SANE suite in response to these concerns. The program manager at the time did not comment on how the movement of patients is handled prior to SANE arrival or why the SANE suite was not always utilized.

Second Round of Interviews

The NPF conducted a second round of interviews with law enforcement officers and victim advocates in November of 2020. Law enforcement interviews were conducted with detectives from APD, Cleburne Police Department, Dallas Police Department, FWPD, and Stephenville Police Department. Three advocates from non-profits providing victim advocacy services in the regions served by the THR SANE program were also interviewed. The victim advocates from the Women's Center of Tarrant County and the Cross Timbers Family Crisis Center in Stephenville provided extensive feedback on their work with THR's SANE program. Research staff also attempted unsuccessfully to contact advocates from the Dallas Area Rape Crisis Center (DARCC) and the Johnson County Family Crisis Center in Cleburne.

STRENGTHS

During the second round of interviews, detectives made numerous comments praising the professionalism, communication, and dedication of THR's SANEs. One detective from Dallas PD stated:

> *The THR SANE program is the preeminent program in the Dallas area. They go above and beyond. Very communicative. Very helpful, especially in the time of COVID. They have helped coordinate getting kits to the labs, since the labs are no longer are able to pick up the kits. I know the program will do the exam right…when the victim has gone to [Texas Health Presbyterian] I almost breathe a sigh of relief.*

All of the detectives also spoke to the exceptional quality of THR SANEs' evidence collection and documentation. Detectives from FWPD noted their appreciation of the SANEs' photographic evidence documentation, as well as the clarity of the victim narratives included as part of the exam kit. Dallas detectives also applauded THR's standardization of exam procedures across their hospitals, specifically the consistency of swabbing procedures. Additionally, of the detectives who witnessed SANE testimony, they all claimed that the SANEs did an excellent job communicating information on the stand.

A detective from Stephenville Police Department summarized the quality of THR's SANE Program as follows:

> *I think it has tremendous value to our investigation into the crime and post-investigation for prosecution purposes and court testimony…It is helpful to have a forensic nurse professionally trained to talk to and*

> *interview the patient and get the forensic evidence we need. You know these sexual assault cases are tough. Some of them are very difficult to prosecute or have a successful case in court. It is crucial for us to be able to get the evidence, especially any physical evidence that there is and sometimes we don't. But having that professional person who knows what to look for, how to collect it, and knows how to testify and what our procedures are, it's priceless.*

More rural jurisdictions, such as Cleburne and Stephenville, expressed gratitude at the availability of SANE services at their local hospitals, whereas previously victims would have to travel to Dallas—Ft. Worth to receive an exam. The detective from Stephenville noted:

> *It is definitely a help for us to be able to have our victim go to our local hospital and have an exam done there, versus, you know, travelling 60 miles to Ft. Worth…. It's just a matter of convenience for us as well as the victim being able to get that service here locally.*

Due to restrictions in place as a result of the COVID-19 pandemic victim advocacy agencies were unable to offer in-person accompaniment for a large portion of 2020. Therefore, respondents were asked to primarily refer to their experiences with the SANE program prior to the pandemic when providing feedback.

Advocates from the Women's Center of Tarrant County and Cross Timbers Family Crisis Center claimed to have well-developed working relationships with SANEs at the THR hospitals they respond to, stating that the SANEs are friendly, cooperative, and empathetic. One advocate stated:

> *What I have seen personally, the nurses have been very supportive, empathetic, letting the victim know that none of it was their fault. I know they go through a lot of training and they wouldn't be doing the work they do if there wasn't the empathy. Maybe with a few over the years some of that goes away, but I've never seen that with any of the SANEs I've worked with.*

CHALLENGES

Detectives at APD and Dallas Police Department made the point that patient wait time and the length of exams was a substantial challenge the program should work on addressing. According to a detective from Dallas Police Department, some victims have commented on their desire to leave before the SANE arrives because the wait and triage is too time intensive. A detective at Arlington Police Department cited a recent case where a victim waited 3 hours for an exam and spent a total of seven hours at the hospital between arrival and discharge. The detective stated that the wait was not unusual for sexual assault patients seeking services from THR hospitals.

The long wait times not only inconvenience the victim, but also law enforcement agencies. Officers accompanying victims at the hospital often are required to stay for the entirety of the exam process, removing them from other duties. The detectives attributed the lengthy waits at the hospitals to ED staff and procedures that they felt did not prioritize sexual assault victims.

Echoing the primary concern raised by law enforcement, advocates from both agencies also viewed the lengthy exam process as a problem. Both advocates also attributed this issue in large part to the lengthy triage and check-in process. One of the advocates referenced the expedient triage and exam process for sexual assault patients at JPS Hospital. As mentioned earlier, in contrast to THR hospitals, JPS does not require sexual assault patients to receive medical clearance by the ED prior to a forensic exam. The same advocate was also concerned that the ED staff did not treat sexual assault patients as actual trauma victims, contributing to lengthy wait times. The advocate also mentioned that the checkout process was unusually long and could benefit from streamlining. The advocate went on to say:

> *We've had it where it could be upwards of 12 to 14 hours that a patient is at the hospital, from when they check in to when they check out… [It's]challenging to us in terms of providing advocacy for the entire time*

because a lot of our advocates are volunteers.

Both advocates raised concerns regarding the physical setting at some THR hospitals. The advocate from Cross Timbers in Stephenville noted that victims are required to enter the hospital and wait in the same area as other patients prior to triage. This poses a safety concern for victims who come without police accompaniment are out in the open and vulnerable to further harm if the perpetrator tracks them to the hospital parking lot or ED waiting room. Both advocates also mentioned that at smaller facilities such as THR Stephenville and THR Hazel, victims are required to travel down long hallways to get to the forensic exam room after triage leaving them feeling exposed and vulnerable.

VI. NON-REPORTED EXAMS

In this section, we take up an issue that has been the topic of much discussion in the sexual assault advocate community – that is, victims who request a forensic exam, but do not wish results reported to the police. Texas' non-reported sexual assault evidence program[4] is a statutorily created program that allows for the collection of evidence through a sexual assault medical forensic exam without an accompanying report to law enforcement. Effective Sept 1, 2009, the non-report program represents an understanding that collecting forensic evidence is time sensitive and should not be delayed based on a sexual assault survivor's ability or willingness to immediately make a police report. Non-report exam evidence is stored by the Texas Department of Public Safety until a survivor releases the evidence by making a report to law enforcement or five years has passed, whichever occurs first. As one SANE described the program, *"They can have the evidence collected, they can go home and think about it, sleep on it and decide which direction to go because it can be such a big deal."*

In the Fall of 2019, the NPF conducted an analysis of reported and non-reported sexual assault exams conducted at THR facilities between January 1, 2018, and August 31, 2019. Of the 1,193 sexual assault exams conducted during the time frame, 1053 (88%) were reported to law enforcement and 141 (13.5%) were not reported. In some cases, sexual assault patients provided reasons for why they did not want to make a report to law enforcement. The most common reasons provided for non-reports were:

- victim needs more time to decide or doesn't want to deal with this right now (19 instances);
- rapist is friend or doesn't want them to get in trouble (11 instances);
- concern about interacting with law enforcement (8 instances);
- unsure act was a sexual assault or doesn't remember (6 instances);
- wants to speak with family, friend, or lawyer first (3 instances);
- patient didn't know or did not give an explanation (3 instances);
- converted to a reported case (2 instances); and
- other (6 instances).

To investigate if there is a pattern to the non-report data, NPF researchers analyzed the non-report exams by THR facility, victim demographic characteristics, and forensic exam duration.[5] **Table 6.1** indicates that there were large differences between THR facilities in the rate of non-report cases. Roughly one in five victims chose a non-report sexual assault exam at three THR facilities: THR HEB, THR SW and THR Ft. Worth. By contrast, less than 5% of victims chose that option at THR DN, THR K, and THR AL. Looking over all of the hospitals, reporters and non-reporters differed in some demographic characteristics: White victims were significantly more likely to choose a non-report exam than victims of other races and victims in the 22-27 age group were more likely to choose a non-report exam than victims in other age groups.

There was interest in learning more about what factors might correlate with either higher or lower rates of non-report exams, and if SANEs or emergency department administrators could offer explanations for the reported disparities in non-report utilization.

4 https://www.dps.texas.gov/crimelaboratory/nrsa.htm

5 Researchers had hoped to include the police department with jurisdiction over the case, believing that police officers might exert some influence over victims' decision to file a report about the incident. However, identifying the law enforcement department that would have had jurisdiction had the exam been reported was not possible given the information that SANEs collect in their notes.

Table 6.1 – Contextual and Demographic Factors Associated with Reporting to Authorities

	REPORT TYPE	
	REPORT (N=905)	NON-REPORT (N=141)
THR Facility		
THAL (n=21)	95%	5%
THAMH (n=115)	88%	10%
THAZ (n=17)	94%	6%
THC (n=39)	92%	8%
THD (n=545)	85%	14%
THDN (n=50)	98%	2%
THFW (n=147)	81%	18%
THHEB (n=49)	78%	22%
THK (n=20)	95%	5%
THS (n=9)	89%	11%
THSW (n=41)	80%	20%
Race*		
White (n=503)	83%	17%
Black (n=266)	91%	9%
Latino (n=181)	89%	11%
Native (n=8)	100%	0
Other (n=59)	83%	17%
Age**		
18--21 (n=228)	87%	13%
22--27 (n=238)	77%	22%
28--37 (n=234)	86%	12%
38--96 (n=221)	89%	10%

* $p < .05$ ** $p < .001$ by chi-square tests

To better understand the differences between hospitals, in the Fall of 2020, NPF researchers conducted interviews with emergency department administrators (directors, managers, and charge nurses) and SANEs at four THR facilities. One facility with very high rates of non-report exams, two facilities with very low rates of non-report exams and the once THR facility in a college-town, but with a medium rate of non-report exams, were selected as interview sites. Three interviews were conducted with eight emergency department directors, managers and charge nurses at THR Stephenville, THR HEB, and THR Alliance in the Fall of 2020.[6] Interviews were also completed with three SANEs who were identified as conducting the most sexual assault exams at THR Stephenville, THR HEB, THR Alliance, and THR Kaufman.

In addition to questions regarding their emergency room processes and staff training, administrators and SANE at THR HEB, THR Alliance and THR Kaufman were asked if they had explanations or theories for why their facilities might have either *higher* or *lower* than average numbers of sexual assault patients who decide to have a medical forensic exam, but not make a report to law enforcement (i.e., utilize the non-report program). Respondents suggested a variety of factors which may influence non-reports rates and are described below:

Potential Impact of Emergency Room Nurse vs SANE Informing Patient About Non-Report Program

Administrators and SANEs at all four facilities indicated they used the SANE Consult Form, a one-page list of questions meant to guide an emergency department nurse in the care and assessment of a sexual assault patient before a SANE arrives. Among other things, the SANE consult form asks if the sexual assault patient notified police, YES or NO, and is followed by instructions: "Do

6 National Police Foundation staff were unable to schedule an interview with administrative staff at THR Kaufman.

NOT call police, page SANE." Following this protocol ensures that sexual assault patients speak with a SANE who is able to fully inform them about their choice to report or not and have a medical forensic exam or not.

Despite these instructions, emergency department administrators at all three facilities reported that emergency room nurses asked sexual assault patients if they wanted law enforcement to be called. One manager said, "They ask if the patient notified PD and if they want the nurses to [call]," and another said, "ED nurses conduct a screening and ask if the patient wants the police called or if the patient has already called them."

Contrary to statements made by emergency room administrators, the interviewed SANEs expressed their belief that at all four facilities a SANE is typically the person to discuss the non-report program and the decision to report with the sexual assault patient. This could be an opportunity for additional training to ensure that protocols are understood and followed correctly.

In sum, all four facilities, to some degree, contacted law enforcement if the patient desired, but potentially before the patient had the opportunity to hear a full explanation of their option to have a medical forensic exam without making a report to law enforcement. Based on these interviews, there was no indication that differences in reporting rates between hospitals is attributable to different procedures followed by ED staff.

Potential Impact of Waiting for Law Enforcement Arrival and Interaction with Law Enforcement

When a sexual assault patient does want to report, staff discussed the challenges they face in determining the correct law enforcement jurisdiction. THR HEB is situated between three small towns, Hurst, Euless, and Bedford with other cities (e.g., Arlington, Irving, Ft. Worth, etc.) in close proximity. Jurisdictional lines in the area can be confusing and sometimes sexual assault patients are not clear on the exact location of the incident, either due to trauma or the effects of drugs or alcohol. At times ED staff make their "best guess" at the appropriate law enforcement agency to contact and if they are wrong, law enforcement will work it out. This confusion about jurisdiction can cause delays in law enforcement response to the emergency department. It could be theorized that an extended wait for law enforcement might "push" a sexual assault patient to choose the non-report option to expediate the medical forensic process. However, all three SANEs felt that waiting on law enforcement to arrive at the hospital was not a factor in victims' decisions not to report.

Potential Impact of Sexual Assault Patient Age

Some SANEs and administrators believed that the average age of sexual assault patients in their facilities might impact the non-report exam rate. One SANE noted that college students, "In general don't want to report because they are afraid of repercussions." A THR Stephenville SANE related that college-aged survivors didn't want to "ruin his life" or that survivors were more interested in making sure they were physically okay and receiving medication for potential sexually transmitted infection rather than collecting forensic evidence. However, neither THR Stephenville and THR Alliance, both thought to have younger clientele, had high non-report rates.

Potential Impact of Community Size/Type (Urban, Suburban, or Rural)

Staff at THR Alliance, with low non-report rates, hypothesized that it was due to the hospitals location in an upper-middle class, suburban area. One nurse

said, "When compared to my work downtown, there is less fear of retaliation. This is a protected community." We note, however, that the two THR facilities in urban centers (i.e., THR Ft. Worth and THR Dallas), both have average non-report rates. Based on these interviews, there is no clear implication that community context is a factor in whether survivors choose the non-report exam option or not.

Potential Impact of Sexual Assault Patient Race/Ethnicity

One SANE noted that Kaufman was majority White, and that White members of the community are more trustful of police and therefore more likely to report. By contrast to her speculation, the data presented above indicates that white victims had higher rates of non-reporting than other ethnic groups. Still, even though a majority of sexual assault patients are white at THR Kaufman, the hospital had one of the lowest non-report rates.

Potential Impact of Rape Crisis Center Advocate

One SANE noted the lack of rape crisis center hospital accompaniment services at THR Kaufman. The facility is more than one-hour away from the closest rape crisis center, which does not provide rape crisis center volunteers to accompany survivors at THR Kaufman. A rape crisis center advocate can play an important role educating survivors about options, including the non-report program, and supporting them in their choices. Yet, in spite of the lack of victim advocate support, THR Kaufman has very low non-report rates.

Policy and Process Improvement

As the foregoing discussion suggests, neither ED staff nor SANEs had a clear idea why there were large differences in rates of non-reports at THR facilities. SANEs were asked if there were any processes or policies, especially around the non-report program, that could be improved. All three SANEs thought the program was important and "a really good option for the patient. It's a big decision to try to make." One suggestion for improvement included holding the non-report evidence at the hospital for seven days before shipping to the Department of Public Safety. The SANE theorized that if a patient is going to change their mind and report "it usually happens within seven days." By holding on to the evidence, the hospital might make it easier for the survivor to release the kit to law enforcement.

VII. COMMUNITY EDUCATION

Community education and prevention services were incorporated into the design of the THR SANE program in recognition that more could be done to increase awareness about the dynamics of sexual assault and the SANE program. The original program narrative suggested that "THR does not conduct enough community outreach and prevention education with local advocacy groups." Community education can help dispel myths about sexual violence, promote support for survivors and increase community awareness about services like the SANE program.

Since THR never secured a collaboration with a school or university campus for a full campus education initiative, NPF was unable to administer a campus panel (longitudinal) survey. Instead, the evaluation staff developed pre/post tests to administer to participants at THR community education program presentations. The brief surveys were designed to assess increases in participants' topic area knowledge gained as a result of the presentation.

Goals of Community Education Program

The purpose of the community education and prevention program was to provide outreach and prevention education regarding sexual violence to students (school-age through college-age), and local law enforcement, and other community partners and stakeholder, as well as maintain partnerships with a diversity of advocacy and community organizations. Yearly community education goals were clearly defined and included:

- 80 presentations (20/quarter) for school-age and college-age students each year;
- 80 presentations (20/quarter) for local policymakers, law enforcement, and other community stakeholders each year;
- engage with at least 20 schools or other community organizations each year; and
- maintain partnerships with advocacy organizations that serve the hospitals where THR SANE program and services are available.

As seen in **Table 7.1**, community education goals were either met or exceeded every year except 2016. The low 2016 numbers were likely a result of necessary program ramp-up procedures such as the hiring of staff, creation of presentations, promotion and scheduling or presentations which reduced the overall number of community education presentations conducted that year. After 2016, the number of presentations to both school groups and community groups grew steadily through 2018 were they plateaued through 2019. In 2020, the COVID-19 pandemic reduced the number of presentations by the community education program to 152 school-based presentations and 142 community-based presentations.

To ensure a diversity of organizations were targeted for presentations, the community education program had a target goal to engage with at least 20 schools or other community organizations each year. The first year of the program, 2016, saw only 11 partnerships, but in all other years the target was met or exceeded, reaching a high of 38 in 2018.

To support community education efforts and build partnerships, the SANE program established formal Memorandums of Understanding (MOUs) with community advocacy organizations (rape crisis centers) that shared a service area with the hospitals where the THR SANE program was available. These five rape crisis centers were identified and signed MOUs with the THR SANE program to provide outreach and prevention activities in

Table 7.1 – Community Education Goals (Target and Actual) by Year, 2016-2020

COMMUNITY EDUCATION TARGET GOALS	COMMUNITY EDUCATION GOALS: ACTUAL					TOTAL
	2016	2017	2018	2019	2020	
80 (20/quarter) outreach or prevention education programs for school-age and college-age students each year	74	117	194	194	152	731
80 (20/quarter) outreach or prevention education programs for local policymakers, law enforcement, and other community stakeholders each year	59	94	171	150	142	616
Engage with at least 20 schools or other community organizations each year	11	33	38	31	20	133
Maintain partnerships with advocacy organizations that serve the hospitals where THR SANE program and services are available	2	4	5	5	5	5*

* Number is not cumulative. Partnerships were maintained with the same five advocacy organizations over the course of the grant.

their communities, effectively extending the reach of the SANE program's community education efforts. Each rape crisis center committed to providing 7-10 community education presentations each quarter. Presentations might be co-led with THR community education staff or literature about the SANE program might be handed out during the presentation. The first two MOUs were signed in 2016 and additional MOUs were signed in subsequent years as the THR SANE program expanded.

The rape crisis centers, in the order in which MOUs with the SANE program were signed included the Dallas Area Rape Crisis Center, Women's Center of Tarrant County, Turning Point (Plano), Cross Timbers Family Services (Stephenville), and Denton County Friends of the Family.

Building a Community Education Program from the Ground Up

Community education efforts began in April 2016 with the hiring of a Community Health Outreach Specialist (CHOS) who was charged with providing community education related to sexual assault and the SANE program to students of all ages as well as adult stakeholders throughout the entire Dallas-Ft. Worth area. In June 2016, NPF staff met with the CHOS for the first time and initiated monthly calls to monitor their efforts as well as support incorporation of evaluation components into her trainings whenever possible.

Creation of the program required significant investment of time and energy before the CHOS could make their first presentation. To begin, the CHOS focused on networking with existing community partners across the DFW area to gain a greater understanding of existing community education efforts and where the programs efforts might have the most impact. Community partners were often met through sexual assault response team meetings or other community events where the CHOS could share information about presentations that were available through the program. Early presentations often built on

existing THR connections within Dallas County, but as the CHOS became more familiar to community members and built partnerships with schools and other organizations, the program was able to provide presentations throughout the DFW area.

The majority of trainings in 2016 and early 2017 were stand-alone presentations. However, the CHOS endeavored to schedule multi-session trainings for a deeper exploration of topics and time for activities to support increased learning. By the end of 2017 and onward, multi-sessions trainings were a regular component of the community education program.

By 2018, valuable partnerships were forged with several schools and organizations such as Stockard Middle School, Rainbow days and Tarrant County Community College (TCCC), which not only hosted some of the largest presentations, but also repeatedly hosted the CHOS to provide presentations to their students. Collaboration with organizations such as these increases the credibility of the THR community education program and results in a more predictable and regular training calendar.

In 2019, D CEO Magazine awarded THR's SANE Community Education program the *Excellence in Healthcare Award for Achievement in Community Outreach*. This was the second year the program was nominated, but the first year to win. The award was recognition of the positive community impact created by the community education efforts of the SANE program.

Topics of Presentations

Community education was offered on a variety of topics related to sexual assault/violence. Presentations were often customized to meet the needs of audiences. For example, if class times available for presentations were shorter or longer than the original presentation, the presentation would be modified to fit the available time. If the age of participants was much younger or older than the originally designed presentation, it would be modified. Sometimes, presentations topics might be combined into one, or sometimes a presentation might be divided into two presentations to allow for increased learning time. The modifying and updating of presentations based on participant needs was the norm.

Despite regular modifications, core topics of the community education program included:

- Bullying
- Cyberbullying (Internet Safety)
- Consent
- Gender Stereotypes
- Healthy Relationships
- Human Trafficking
- Interpersonal Violence
- Sexual Assault 101
- Teen Dating Violence
- Bystander Intervention
- Dynamics of Child Sexual Abuse

Populations Trained

The community education program targeted both students and adults for programming related to sexual assault and SANE program awareness. College students were an ideal target for community education due to higher rates of victimization on college campuses and among the 18- to 25-year-old age range. Universities and Colleges that received training through the THR SANE community education program included: Tarrant County Community College (multiple campuses), Collin College, Texas Women's University, Southern Methodist University, and more. High schools and middle schools such as Bowman Middle School, Armstrong Middle School, Lancaster High School, and Pinkston High School provided opportunities to reach teens and preteens. Relationships with schools such as Stockard Middle School and Garland High School provided opportunities to present to the same group of students on multiple occasions. Elementary and Pre-

School aged children were reached through schools and organizations such as Spanish House Elementary, Marsalis Elementary, Rainbow Days, and Head Start.

Community education for adults often targeted parents of the children who were receiving education or adults who worked in professions that responded to sexual assault, such as law enforcement or nurses. Agencies or organizations that hosted professional development events through the community education program include the Dallas Police Department, Garland Police Department, Dallas County Juvenile Justice Department, Desoto ISD (school nurses), and Denton Public Safety Training Center.

Community members also received community education through clubs and churches such as the Plano Kiwanis Club, Arborlawn Church or the Jubilee Community Center. Finally, the community education program turned its efforts inwards to provide education to THR staff. Staff in emergency rooms received regular training regarding the SANE program and how it could be accessed. In addition, all THR Security watched a pre-recorded presentation by community education staff to increase their awareness of interpersonal violence.

Impact of COVID-19

Community education activities came to an abrupt halt in March 2020 because of the COVID-19 public health crisis. Staff pivoted quickly to offer online presentations to schools and community organizations via platforms such as Zoom and Microsoft Teams. On April 3, 2020, only three weeks after all face-to-face presentations had been cancelled, THR community education staff provided their first virtual presentation to eight students at Tarrant County Community College. Three additional online presentations were provided to Richland College students that same month.

Switching to online training meant more than changing delivery modes. The presentations developed by THR community education staff were interactive, relying on audience participation and engagement. That same level of engagement was not possible in an online format, which required a re-working of many presentations. Pre/post-tests were also transferred to an online format. Participants were given a link to the pre-test before the presentation and a link to the post-test after the presentation. Finally, community education staff had to master multiple new technologies and manage classrooms of students in an online environment, a completely new experience.

THR community education staff anticipated that the schools and organizations may need options allowing for increased flexibility. With this in mind, THR staff pre-recorded several of their presentations allowing schools and organizations to utilize those trainings at their convenience. While none of the recordings were utilized, their efforts demonstrate the dedication of the staff to working with their communities.

Evaluation Efforts

NPF staff first met with THR SANE program community education staff in June 2016 at which point regular monthly calls/meetings were set up to obtain regular updates on community education efforts. To gain a better understanding of the community education program, NPF staff attended several presentations by community education staff in both 2016 and 2017. The presentations were informative, and participants were engaged.

In 2017, NPF staff worked with THR community education staff to develop pre/post-tests to assess whether participants knowledge of a topic increased and could be successfully measured as a result of attending a single presentation. Pre/post tests were piloted to ensure the distribution of pre/post-tests was feasible, and that the test was able to measure an increase in knowledge. The first pre/post-test developed was on cyberbullying and was piloted in three separate presentations to teens/pre-teens. While the actual results of the pre/posts tests

were mixed, the pilot provided enough information about the process and potential for evaluation of stand-alone presentations that the decision was made to create additional testing instruments on other topics.

Developing effective assessment instruments for the THR community education presentation was challenging since the presentations may be given to participants ranging from middle school students to adult professionals. A set of questions that works well for younger audiences may be too easy for older participants. In addition, since the presentations are constantly being modified or updated, pre/post-tests must also be modified or updated.

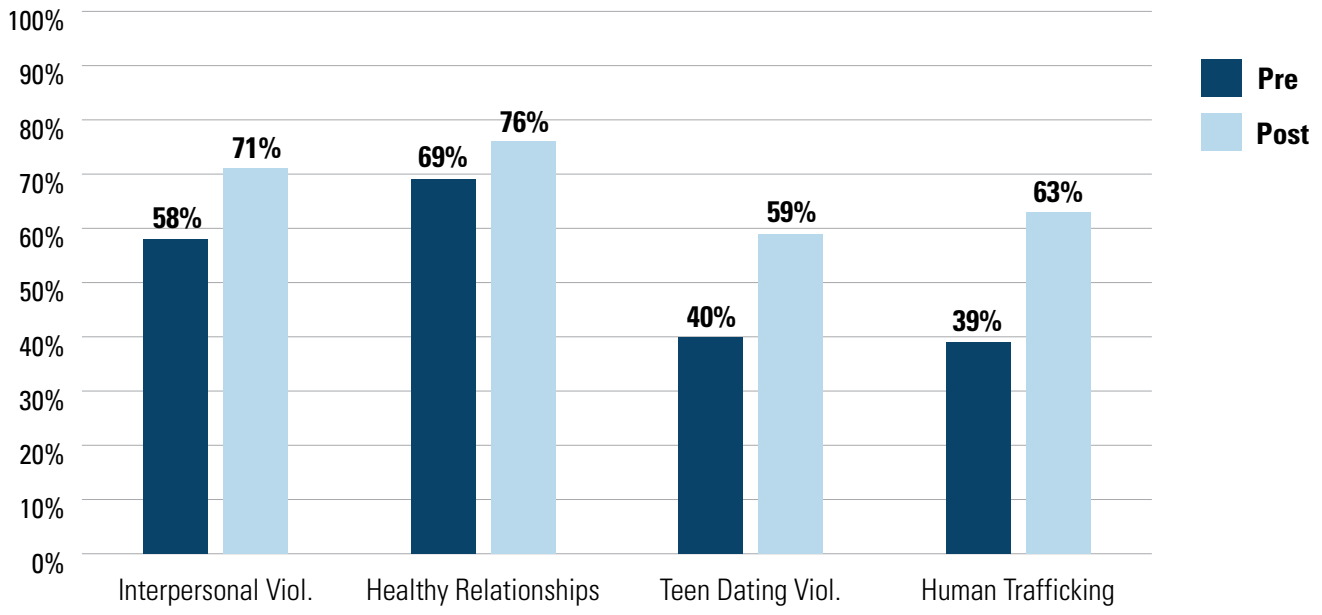
A process was created for the development of testing instruments (pre/post-tests). NPF staff would review the THR curriculum for each topic and then develop five to six fact-based, multiple choice questions based on the curriculum. The draft questions were reviewed and approved by THR community education staff before being incorporated into a final pre/post-test. Once finalized, community education staff would distribute the pre/post-tests during a presentation and share the completed tests with NPF staff. The researchers would review the responses and conduct an analysis and share that analysis with community education staff. Questions would be revised if it appeared, they were confusing to training attendees, too easy or too difficult.

Between 2016-2020, approximately 39 presentations were evaluated using this pre/post test system. The majority of assessments demonstrated a statistically significant increase in participant knowledge for community education presentations. The average percentage increase in scores from pre- to post-test across all 39 sessions was 10%.

Analysis of Community Education Trainings

In order to assess the efficacy of THR's community education program, Police Foundation staff compared the overall performance of training recipients on pre-test measures to the overall performance of training recipients on post-test measures across four topic areas. Trainings were administered to 1,423 community members and covered the topic areas of interpersonal

Figure 7.1 – Community Education Scores: Pre/Post Training



violence, healthy relationships, teen dating violence, and human trafficking. These four topics areas were chosen because they were the only trainings supplied on multiple occasions with consistent pre-test and post-test measures. **Figure 7.1** presents a summary of overall findings, while details on assessments for each topic area are provided below.

INTERPERSONAL VIOLENCE

In total, we were able to pool the results of seven trainings held by the community education staff on the topic of interpersonal violence. One training was given to young adults at Concorde College in January of 2018, five trainings were held across the Tarrant County Community College System in July of 2018, and one training was given to peer leaders from Tarrant County Community College in May of 2019. The pooled scores resulted in a sample of 156 young adults. Of the 156 tests, 133 were used in the analysis; there were 23 missing pairs.

The results indicate that the training is successful at improving participants' understanding of interpersonal violence. Between pre and post-test measures participants' scores increased by 13% overall from 58% on the pre-test to 71% on the post-test, a statistically significant result ($t\ [132] = 6.33$, $p<0.0001$).

HEALTHY RELATIONSHIPS

For analysis of the healthy relationships training module, we were able to compile the results from five trainings. These trainings were provided to Stockard Middle School students in March of 2019, Dallas County Juvenile Detention Staff in April of 2019, peer leaders from Tarrant County Community College in May of 2019, middle school and high school aged peer leaders through Rainbow Days in June of 2019, and Young Women's Leadership Academy High School students in February of 2020. The combined results of these trainings produced a sample size of 466, which was reduced to 433 after removing 33 missing pairs.

The analysis indicates that the training successfully enhances participant understanding of healthy relationships. More specifically, there was a statistically significant difference between pre- and post-test scores ($t\ [432] = 6.30$, $p<0.0001$). Overall, scores saw a 7% increase from an average of 69% on the pre-test to an average of 76% on the post-test.

TEEN DATING VIOLENCE

Out of all the trainings performed on the topic of teen dating violence, we were able to combine the test results from five for our analysis. The sample consists of Lancaster High School students trained in January of 2019, Stockard Middle School students trained in February of 2019, two groups of Young Women's Leadership Academy students trained in January and February of 2020, and one group of 11th and 12th graders from Garland High School who were also trained in February of 2020. These trainings were administered to 562 adolescents in total; however, we were only able to match 547 pre-tests and post-tests for analysis.

Across all of the trainings performed by THR staff, the teen dating violence module appears to result in the greatest increase in participant scores from pre to post. Although this may simply be due to the fact that we were able to gather a larger sample of scores than we were for the other trainings. Nevertheless, participant scores went from an average of 40% on the pre-test to 59% on the post-test, a nearly 20% increase. This improvement was also highly statistically significant ($t\ [546] = 18.43$, $p<0.0001$).

HUMAN TRAFFICKING

Analysis of the human trafficking training module was slightly different than the other modules due to the fact that pre- and pos-test measures changed across trainings. That being said, there were three items across all measures that remained consistent across multiple trainings. As a result, we cannot draw conclusions on the overall performance of participants on pre- and post-test measures, but we can assess their performance across the questions that remained consistent. In total, we were

able to achieve a sample size of 239 by compiling the test results of participants from three trainings. These trainings were administered to Rape Crisis Advocates and Staff from Denton, Texas, Stockard Middle School students, and medical staff in the Emergency Department of THR Ft. Worth. After removing 10 missing pairs from the sample, we were left with 229 tests for analysis.

Although we were unable to compare performance across pre- and post-test measures as a whole, analysis of the three items that remained consistent demonstrates that participants performed much better after receiving the training. In terms of correct responses, participants saw a 62% increase on Q1, a 50% increase on Q2, and an 18% increase on Q3. The analysis also indicates that the improvement in participant scores was statistically significant ($t [228] = 10.44$, $p < 0.0001$).

Online Trainings

As a result of the COVID-19 pandemic, the THR community education staff has had to rethink the ways in which they present trainings to members of the community. Since, in-person training sessions are no longer practical given the public health risk, the community education staff has made the effort to transition their training presentations to an online format. As to be expected, there have been some challenges in collecting pre- and post-test data for training participants during this transitionary period. Notably, we are unable to match pre- and post-test scores due to the lack of a shared identifiers across the online platforms used by THR staff to collect pre- and post-test responses from training participants. However, we were able to compile the results of one online training on human trafficking and two trainings on cyberbullying in order to conduct a slightly modified analysis.

The online human trafficking training was provided to 54 Grand Prairie ISD nurses in August of 2020. Unfortunately, only 40 nurses submitted completed pre-tests, and only 27 nurses submitted completed post-tests. Analysis of the results shows that there was an overall increase of 9% from a pre-test average of 53% to a post-test average of 62%, which is comparable to the post-test average of 63% achieved through the in-person human trafficking trainings. With the small sample size, we cannot reject the hypothesis that the results are due to chance ($t [65] = 1.56$, $p > .05$).

The online cyberbullying trainings were provided on two separate occasions to students at the Young Women's Leadership Academy in grades 6 through 12. Given the shared pre-test and post-test measures, results for these trainings were pooled. In total, the trainings produced pre-test scores from 130 students and post-test scores from 75 students. Analysis of the results shows that there was an overall increase of 11% from a pre-test average of 83% to a post-test average of 94%. In-person training averaged post-test scores of approximately 67% and overall score increases of 15% on average for other topics. Unfortunately, a direct comparison to averages from in-person trainings is not possible due to changes in pre-test and post-test measures across training administrations by program staff. However, the analysis indicates that the online trainings resulted in a significant increase in topic knowledge from pre-test to post-test ($t [203] = 2.71$, $p < .05$).

VIII. CONCLUSIONS

The THR systemwide SANE program was ambitious in its scope, aiming to provide high quality forensic exams to sexual assault victims at 13 THR facilities across seven North Texas counties.

- **Increase SANE coverage to cover 13 North Texas hospitals and decrease the number of victims transferred for exams to facilities (other than the one at which they were present)**

  The initial THR plan was to provide system-wide SANE coverage using a cadre of on-call SANEs. Ultimately, it proved unworkable for a variety of reasons including high staff turnover, poor incentives for nurses to enter and stay with the program, and insufficient opportunities to maintain skills. A revised plan put into effect in late 2017 that added several full-time SANEs to the program was successful in making SANE services available across the network, albeit at a higher cost. Data showed that the number of forensic exams rose by 14% between 2015 and 2016 when the SANE expansion program began and rose at a moderate level over the period of the CFT grant until the covid pandemic hit. Patient transfers declined substantially from pre-CFT grant levels in 2018 and beyond as the program expanded to all of the satellite facilities where transfers had been occurring.

- **Provide sexual assault/abuse community education and prevention services to communities across North Texas and increase community awareness of sexual assault**

  The community education component of the SANE program met or exceeded its goals on number of presentations made each year after the start-up year of 2016. It was able to do that by successfully forming partnerships with rape crisis centers. Lesson plans were developed and executed on a variety of victimization topics from cyber bullying to domestic violence. Pre/post assessments showed significant increases in participant knowledge of subject matter covered in the sessions.

- **Increase public safety related to sexual assault**

  We were unable to find evidence that the SANE program increased sexual assault reporting in the seven Dallas Metroplex counties where it was implemented. We also did not find any evidence that the prorgram increased the proportion of court cases resulting in convictions. These findings are not surprising.

Other Findings

NEW PROGRAM MODEL HAS ADVANTAGES, BUT IS MORE EXPENSIVE

The THR systemwide SANE program was built around THR Dallas and THR Ft. Worth which serve as hubs for the two SANE program regions. Full-time SANEs, housed out of these two hub hospitals, and a contingent of PRN SANEs provide forensic exams for each THR facility in their region. The original model for the THR SANE program relied on a high number of PRN SANEs. After experiencing challenges reaching and maintaining the number of needed PRN SANEs, the SANE program switched to a new model which includes seven full-time SANEs (an increase of four full-time positions). This increase in full-time SANEs was meant to reduce SANE turnover and ensure a SANE is available to conduct sexual assault forensic exams at all THR hospitals as needed but has resulted in higher costs per exam.

STAFF JOB SATISFACTION IS HIGH

Overall, job satisfaction for THR SANEs continues to meet or exceed industry norms for human service and public sector workers. In comparison to the 2019 and 2018 surveys, the results of the 2020 survey show improved ratings of job satisfaction across all three subscales. Not only were ratings of job satisfaction at an all-time high in the last year the survey was administered, but all respondents also saw themselves continuing to work for THR a year hence. A large majority of SANEs also appeared satisfied with the supervision that they receive: All survey respondents acknowledged that there are opportunities to share concerns with their respective supervisors, and in most cases SANEs also felt that their experiences with sharing concerns have been positive.

Survey responses indicated that scheduling remains a problem for both full-time SANEs and PRNs. Some full time SANEs would rather not have to be on call in addition to their full time hours. Some PRNs wish they had more work to make their on-call status more lucrative and to maintain their forensic skills. Lastly, SANEs noted improvement with their relationship with law enforcement officers. SANEs continued to have mixed feelings about their relationships with ED staff, and believed that improvement is needed in care for the patient and the SANE program as a whole.

SANES ARE HIGHLY THOUGHT OF BY POLICE, VICTIM ADVOCATES

While there were a number of complaints about lengthy patient waiting times to receive forensic exams, sexual assault detectives and ED staff spoke highly of the professionalism of the SANEs. There were in the early days of the program difficulties with the Tarrant County Women's Center and the Fort Worth Police Department, primarily over the issue of lengthy times that victims (and therefore advocates and police) spent waiting for forensic exams to be conducted. These relationships were successfully turned around by THR administrative staff.

REASONS WHY SOME VICTIMS CHOOSE NOT TO FILE POLICE REPORTS ARE POORLY UNDERSTOOD

ED directors, managers, charge nurses and SANEs all had ideas why non-report rates at their facilities might be higher or lower than at other hospitals in the THR network. Their centered reasons primarily focused on sexual assault patient or community characteristics but were often inconsistent with NPF's analysis of the characteristics of victims who choose not to file reports with the authorities. This is an issue that could be followed up on with a study that included systematic social observation and interviews with victims.

THE COMMUNITY EDUCATION PROGRAM MET ITS AMBITIOUS GOALS AND PROVIDED EFFECTIVE INSTRUCTION ON A NUMBER OF VIOLENCE-RELATED ISSUES

The community education component of the SANE expansion program sought out agencies to partner with to leverage its reach. Through these partnerships, the community education specialists were able to meet and exceed the number of presentations anticipated in the proposal to CFT. A series of pre- and post- session surveys demonstrated that participants gained factual information from the sessions. Moreover, this continued to be true when the presentations had to be made virtually because of COVID-19 restrictions.

Future of the SANE Program

The SANE program will continue to be sustained with remaining CFT grant funds for another year under the Department of Community Health Improvement (CHI) at THR. The program has been able to attract additional outside funding to make this extension possible. For example, this past year, the program has received two grants from the Texas Office of the Attorney General for $50,000 each to continue education and training of SANEs and support the full-time SANE positions. The program has been approached by Denton County to conduct pediatric forensic sexual assault exams and is

exploring possibilities of using social media to promulgate messages about sexual assault prevention, social media safety, and cyber bullying to the North Texas community.

Program administrators seem optimistic that, once CFT grant funds have been expended, the program will continue to be funded by THR. They argued that it makes sense for the hospital chain to support the entire program with its administrators in order to maintain the process of training and certifying SANEs.

One of the two paid staff on the community education component of the SANE program has departed. An intern has been added to assist the remaining staff member: for the foreseeable future while presentations can only be made online, there are no plans to fill the paid staff vacancy. Community education continues to be funded with accruals from the CFT grant. The SANE program administrator believed that CHI intends to maintain the SANE community education component and is considering how current sexual violence related community education can complement the department's focus on improving the health among communities with the poorest health outcomes.

Conclusion

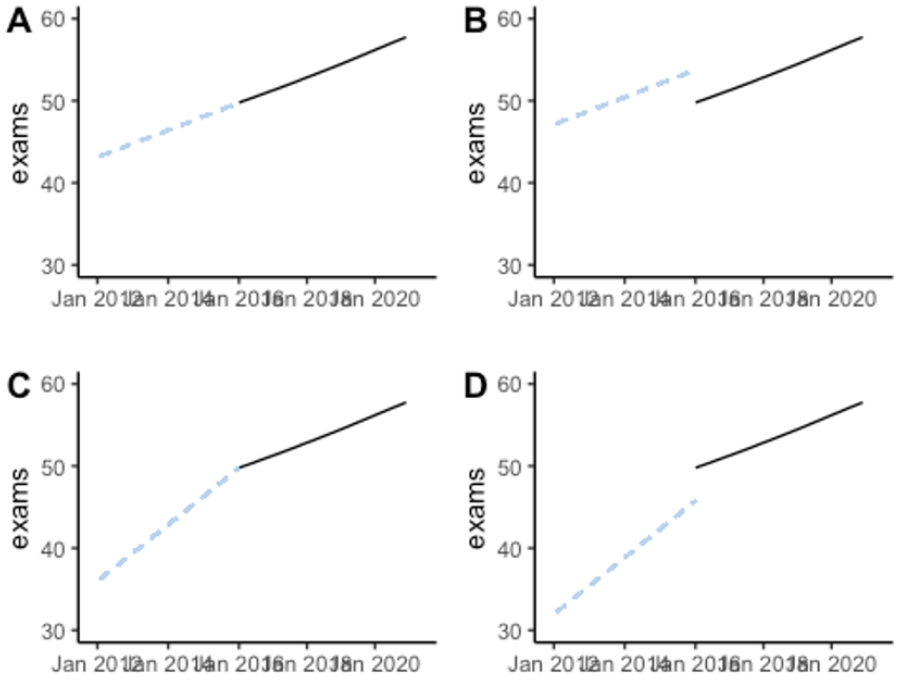
The CFT grant provided an opportunity for THR to greatly expand its SANE coverage, most notably to the smaller satellite hospitals where SANE coverage was often unavailable. THR made good use of the funds by experimenting with different program configurations until it found one that worked and that the hospital plans to continue once grant funds have been exhausted.

APPENDIX A: POSSIBLE SCENARIOS FOR TRENDS IN NUMBER OF EXAMS

It is important to emphasize that just because we have observed an increase during the SANE program period in the number of exams administered, that is not necessarily evidence that the program caused an increase in the number of exams. Below are four hypothetical patterns of data before the implementation of the program. The solid black line after 2015 is the model shown above, and the dashed blue line are hypothetical trajectories before the program was implemented.

In **Figure A.1**, Panel A indicates no effect of the program whatsoever. Panel B indicates a situation in which there is no change in the overall trajectory, but the program leads to an immediate shift in the overall number of exams. Panel C characterizes a situation in which the program causes the trajectory to flatten. Finally, Panel D would be characteristic of a program that leads to an immediate increase in the number of exams, but subsequently flattens the trajectory. Again, it's important to emphasize that we can't know what the true relationship of the pre-observation period is, and so even though there is a modest increase in the number of exams over time, this is not convincing evidence of whether the program has influenced the number of exams.

Figure A.1 – Hypothetical Exams Numbers Prior to Program Expansion



APPENDIX B: SANE ATTRITION

Attrition among SANEs was a problem that plagued the THR SANE program from the beginning. The program initially envisioned relying primarily on a cadre of part-time SANEs who would be on call and travel to nearby sites when needed. The on-call SANEs were drawn primarily from among nursing staff in other departments of THR who were interested in earning extra income.

NPF staff conducted an analysis of expected earnings of on-call SANEs. Police Foundation evaluation staff examined the THR Dallas SANE on-call schedule and analyzed how often SANEs were called in to provide an exam to a sexual assault survivor. In general, a SANE with THR Dallas was called in 1 out of 3 shifts they worked. Very rarely, they were called in twice during a shift. We found that on-call SANEs averaged $125.76 for each 12-hour shift they worked, or around $10/hour. That includes both the $2.25/hour for time spent on-call and their earnings when they were called out. In the nearly two of three shifts in which SANEs were not called out, they earned $27 for being available for work over a 12-hour period.

Since it proved hard to retain staff in the on-call positions, the program began to rely more on full-time staff and de-emphasize the use of on-call SANEs. However, because the smaller hospitals in the THR family do not have sufficient numbers of sexual assault patients, the program continues to rely on on-call SANEs. As of December 2019, the program employs nine full-time SANEs and 15 part-time SANEs.

Because attrition among SANEs has continued to be an issue, we asked to examine the issues of staff attrition through two processes. First, we analyzed the statistics on the amount of time that nurses are active in the SANE program. As a follow-up to that, we sought permission to conduct brief exit interviews with staff who had left the program.

Exit Interviews with SANEs Who Have Departed the Program

We asked to speak with SANEs who had left the program in order to ask them a simple series of questions:

- Did they leave only the SANE program, or THR entirely?
- Did they leave for personal reasons or was it something about the job?
- Was there anything that could have induced them to change their minds and stay with the program?

The director of the SANE program sent an email to all nurses who had left the SANE program requesting that they contact us for an exit interview. Eight SANEs responded and were interviewed by phone. Two of the respondents indicated that they left for purely personal reasons – a better position or a pregnancy. The other six, however, said that they had issues with the work. These included:

INSUFFICIENT WORK FOR ON-CALL SANES

The low rate of call-ins for part-time SANEs resulted in two complaints from respondents. One was financial – remuneration for the hours on call was low – and the other was insufficient practical experience to gain certification or maintain skills. Two respondents said that the low rate of actually being summoned to perform an exam when on call made them rethink whether it was financially worth being in the program. According to one of them, the rate of call-ins for part-time SANEs plummeted when more full time SANEs were hired. One of the SANEs said she was called in just one in six on-call shifts over a two-year period. Two other SANEs also said that infrequent call-ins resulted in little pay and difficulty keeping up with the changing requirements of the job. Another SANE said

she left before certification since she was not able to log enough hours to become certified.[7]

TOO MANY DIVERSE REQUIREMENTS EXPECTED OF SANES

One respondent felt that she was expected to take on many tasks that she did not feel were part of the SANE job description. She said that, at her hospital, there had been a social worker on staff who took care of contacting the police, contacting victim advocates, and other administrative tasks. When that position was terminated, she was expected to step in to fill the gap and, as a result, did not feel that she was able to focus on patient healing.

LACK OF FLEXIBILITY IN SANE ASSIGNMENTS

One SANE complained that the program did not allow her needed flexibility in her on-call hours. When she returned from a two-week vacation, she said she was required to be on call two days per week to make up for the on-call days lost while she was on vacation. Since she had a full-time job as well, she had no days off for two weeks.

WORK WAS NOT SATISFYING

The most unusual reason for leaving was given by a SANE who said that she was only convinced that one of the few victims to whom she administered an exam were actually sexually assaulted. She did not feel it was worth her time to provide exams to women who she did not believe were victimized. (This is also a sentiment that we have heard from some police detectives, but we were very surprised to hear it from a SANE.) She also said she was uncomfortable working in a culture which she felt dictated that all women needed to be believed. She said she might have been convinced to stay had she had available a counselor to share her feelings with or a regular opportunity to debrief with management.

We believe that there are two ideas here that could help to convince nurses to remain with the SANE program longer. First, better compensation for part-time SANEs so that they are not trading their leisure hours for less than minimum wages. Giving part-time SANEs more freedom over their on-call schedule might also make the job seem less onerous. Second, regular debriefs with supervisors, counseling opportunities, and/or for SANEs to exchange ideas and experiences could act both as a stress release for SANEs as well as a source for ideas of how to improve the program.

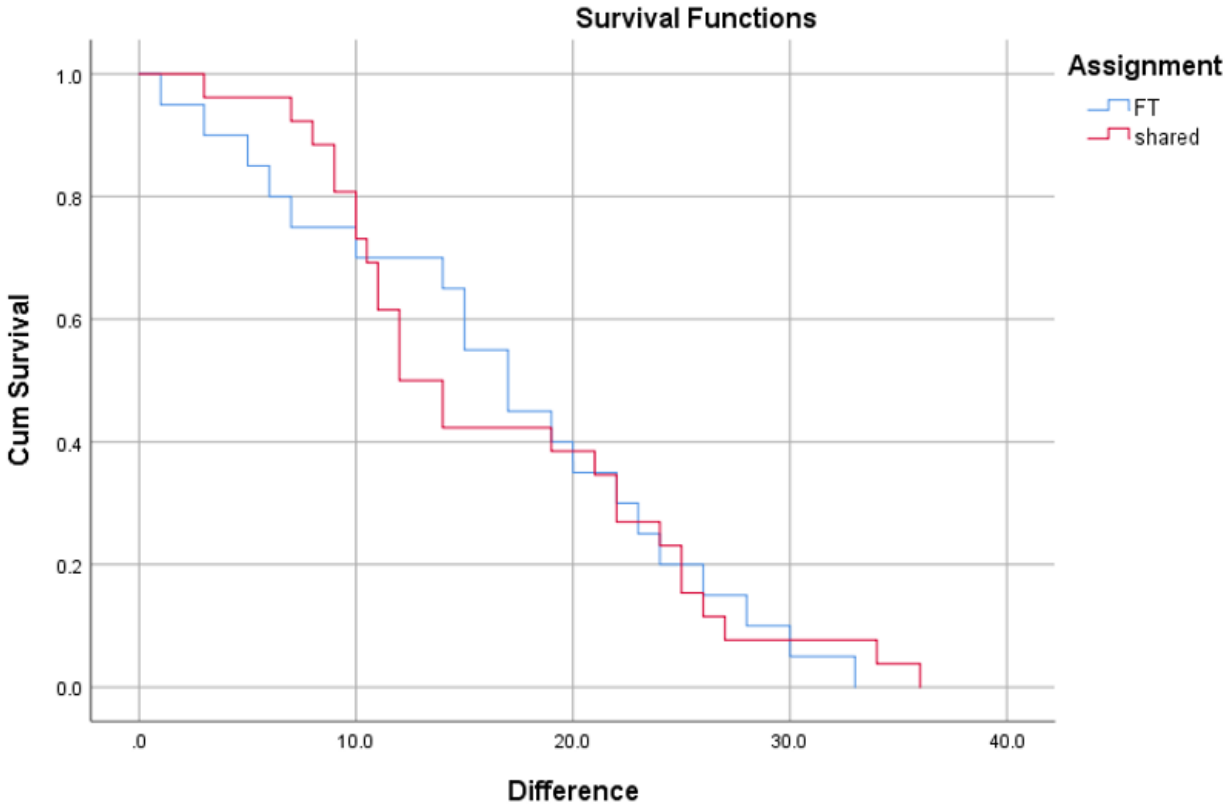
Analysis of Time in the SANE Program

Survival analysis is a technique for analyzing differences between groups in the duration of time to an event (in our case departure from the SANE program). Survival analysis is used with data that are *censored*, i.e., when the event of interest may or may not have occurred. Some SANEs have left the program and have a departure date while others remain in the program, so have no departure date. Survival analysis attempts to answer the question, "What is the proportion of a population which will survive past a certain time?" We were interested particularly in whether the on-call SANEs survive in the program less time than full time SANEs.

Given the complaints we heard about issues with on-call work, we expected to find that part-time SANEs would tend to exit the program more quickly than full-time SANEs (**Figure B.1**). However, the survival analysis returned a surprising result: There was virtually no difference overall in time in the program between full-time and part-time SANEs: In both cases, the average tenure was approximately 16.7 months, or about a year and a third. The survival function displayed below does show one interesting difference: Initially after

7 Note: The SANE program director said that trainees now are able to complete some of the hours needed for certification by conducting simulated exams.

Figure B.1 – Full-time vs. Part-time Survival Analysis



employment, full-time SANEs remain in the program less time than part-time SANEs (indicated in the figure as "Shared"). At about ten months, the curves for full-time and part-time SANEs reverse, and for the next ten months, part-time SANEs leave the program more rapidly than full-time SANEs. From twenty months on, the two curves are virtually identical.

Conclusion

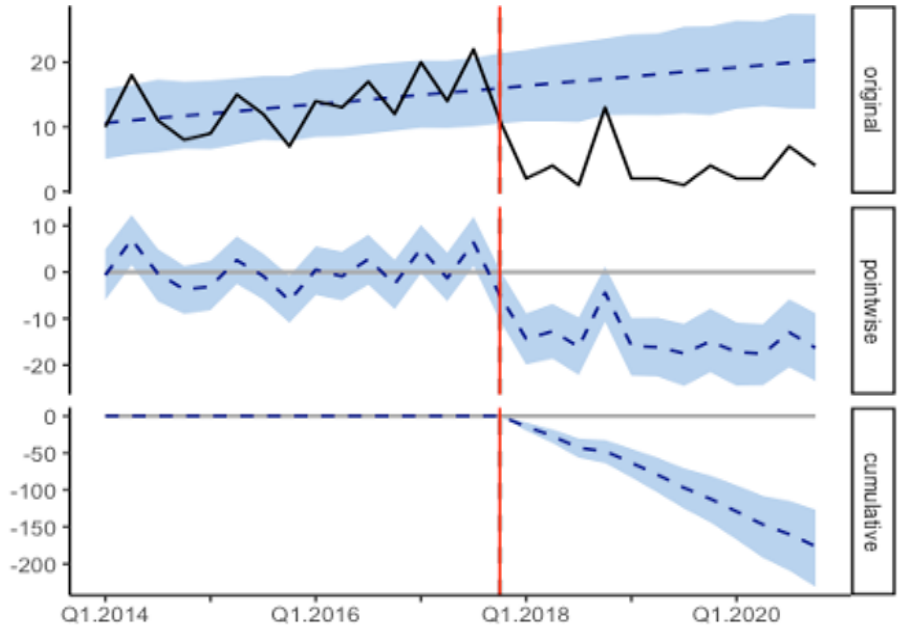
We conclude that, while attrition is often due to SANE's personal reasons there are things that the program can do to make the role—especially of part-time SANES—more attractive. These include making sure that part-time SANEs have enough work to make it worth their while and keep skills current and allow SANEs greater flexibility in covering shifts.

APPENDIX C: ENHANCED STATISTICAL TREND MODELING

Trends in Transfers out of THR Hospitals

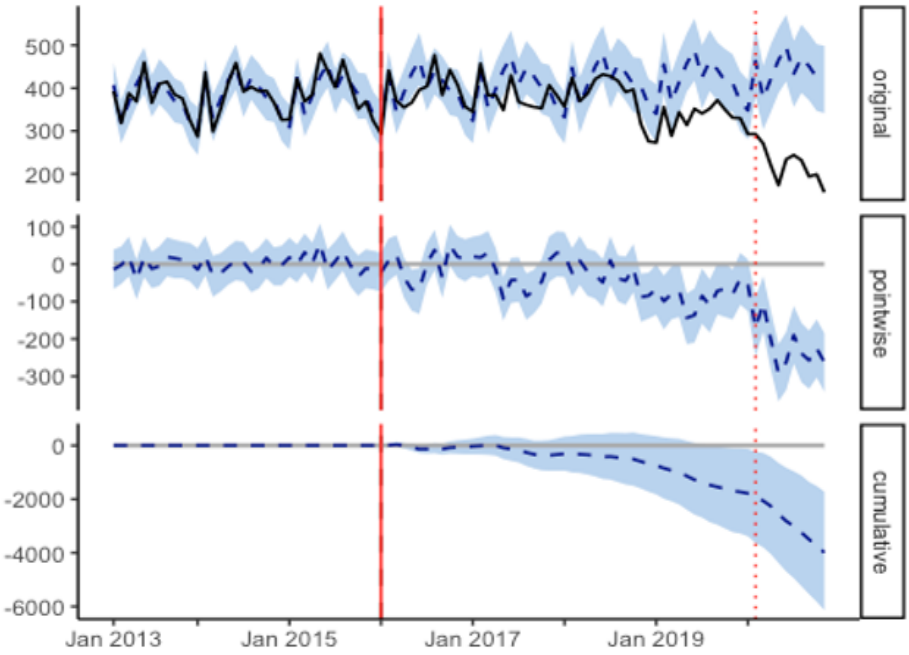
We fit a structural time series model to the pre-expansion period and used this model to evaluate the effect of the program on subsequent transfers out of the system. **Figure C.1** shows the results of this analysis. The top panel shows the data (solid line) and the model (dashed line), along with 95% uncertainty intervals. The middle panel shows the point-wise departures from the model (i.e., difference between model fit and observed data). For this panel, points where the dotted line and uncertainty band are below zero (as referenced by the horizontal line) indicate quarters in which the number of transfers is lower than we would have expected without the SANE program. For every quarter but one (Q4 of 2018), the observed data are lower than would be expected from the pre-intervention period.

Figure C.1. – Transfers: Results of a Bayesian Structural Time Series Model Fit to the Pre-Intervention Data and Extrapolated to the Post-Intervention Period, 2014-2020[8]



8 Top panel shows the observed data (black line, and model predicted values (dashed line), with 95% uncertainty intervals (blue shading). Middle panel shows pointwise departures between the model predictions and the observed data. Bottom panel show the cumulative effect of the intervention over time, summing across observed values, and the model predicted values.

Figure C.2 – Reported Sexual Assaults - Results of a Bayesian Structural Time Series Model Fit to The Pre-Intervention Data and Extrapolated to the Post-Intervention Period, 2013-2019[9]



The bottom panel shows the estimated cumulative effect of the program over time. This sums up the total number of observed transfers over time after the intervention point and does the same for the model predicted number of transfers. In this framing, we see that the roll out of the SANE program to THR satellite hospitals is robustly associated with a change in the number of transfers. In total, there are 44 transfers that take place after the program began in January 2018. The model estimates that, without the SANE expansion, we would have expected 219.9 transfers from January 2018 onwards, suggesting the program decreased transfers. In relative terms, the transfers showed a decrease of -80%. The 95% interval of this percentage is [-102%, -58%], indicating a large degree of uncertainty, but a definite decrease. The probability of obtaining this effect by chance is very small (Bayesian one-sided tail-area probability p = 0.001). This means the effect can be considered statistically significant.

Trends in Number of Sexual Assault Reports in Seven Counties

We performed a similar analysis on the number of reported sexual assaults reported monthly by seven Texas counties in the THR catchment area between January of 2013 to October of 2020. For this outcome, we considered the intervention start date as January 2016. We also added a 12-period seasonal component.

9 Top panel shows the observed data (black line, and model predicted values (dashed line), with 95% uncertainty intervals (blue shading). Middle panel shows pointwise departures between the model predictions and the observed data. Bottom panel shows the cumulative effect of the intervention over time, summing across observed values, and the model predicted values. The dotted red line marks February 2020, dates after which are excluded for some analyses.

Figure C.2 shows the results of this analysis. The top panel shows the data (solid line) and the model (dashed line), along with 95% uncertainty intervals. The middle panel shows the point-wise departures from the model (i.e., difference between model fit and observed data). For this panel, points where the dotted line and uncertainty band are below zero (as referenced by the horizontal line) indicate months in which the number of sexual assaults is lower than we would have expected without the SANE program. Starting in October of 2018, the number of sexual assaults is lower than expected for nearly every month with the exceptions of September, November, and December of 2019.

The bottom panel shows the estimated cumulative effect of the program over time. This sums up the total number of reported assaults over time after the intervention point and does the same for the model predicted number of assaults. In this framing, we see that there is a change in the number of assaults in the period that the SANE program is active, post January 2016. In total, there are 2.0109^{4} assaults that take place after the program began in January 2016. Based on 2013-2015 data, the model estimates that we would have expected 2.410013^{4} assaults from January 2016 onwards. Or, in other words, assaults showed a decrease of -17%. The 95% interval of this percentage is [-25%, -7.6%], indicating a modest degree of uncertainty. The probability of obtaining this effect by chance is very small (Bayesian one-sided tail-area probability p = 0.001).

A decrease in sexual assault reports is the opposite of what the THR proposal anticipated if the SANE and community education programs were effective. However, as we noted in the body of the report, staff of the Texas Department of Public Safety believe that the large drop off in sexual assault reports in 2019 and 2020 is the result of a new crime reporting system. Of course, COVID-19 may also have played a role in reducing reports of sexual assaults, either because fewer assaults occurred or because victims feared going to hospitals.

Trends in the Percentage of Sexual Assault Filings Resulting in Conviction

The final dataset analyzed details the percentage of sexual assault dispositions that ended in convictions on a monthly basis from January of 2013 to December of 2020. The analysis duplicates the model for reported assaults.

Figure C.3 shows the results of this analysis. The top panel shows the data (solid line) and the model (dashed line), along with 95% uncertainty intervals. The bottom panel shows the point-wise departures from the model (i.e., difference between model fit and observed data). For this panel, points where the dotted line and uncertainty band are below zero (as referenced by the horizontal line) indicate months in which the percentage of convictions are lower than we would have expected given the pre-2016 data. There are a handful of months where the percentage of convictions is higher than would be expected, but the majority of time points post-intervention are below the lower bound of the 95% uncertainty interval, indicating a lower percentage of convictions than would be expected.

Marginalizing across the entire post-intervention period, the conviction rate averaged 30%. By contrast, based on the pre-2016 data, we would have expected an average conviction rate of 43% The 95% interval of this counterfactual prediction is [36%, 51%]. Subtracting this prediction from the observed response yields a decline of 13 percentage points in the post-2016 period with a 95% interval of [-21%, -6.4%].

As mentioned in the body of the report, the pandemic may have significantly affected the 2020 court data both because courts conducted as little business as possible and because compiling statistical reports was challenging. Still, excluding the dates after the beginning of the pandemic does not appreciably change these results. Marginalizing across the entire post-2016

Figure C.3 – Percentage of Dispositions Resulting in a Conviction - Results of a Bayesian Structural Time Series Model Fit to the Pre-Intervention Data and Extrapolated to the Post-Intervention Period[10]

period, the conviction rate averaged 32%. By contrast, based on the pre-2016 data, we would have expected an average conviction rate of 43%, or 11 percentage points higher than what was observed. Again, this result is the opposite of what would be expected if the THR SANE expansion was successful, so a causal link between the program and convictions is highly unlikely.

10 Top panel shows the observed data (black line, and model predicted values (dashed line), with 95% uncertainty intervals (blue shading). Bottom panel shows pointwise departures between the model predictions and the observed data. The dotted red line marks February 2020, dates after which are excluded for some analyses.

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