



# Evaluation of a Situational Crime Prevention Approach in Three Jails: The Jail Sexual Assault Prevention Project

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## **EVALUATION OF A SITUATIONAL CRIME PREVENTION APPROACH IN THREE JAILS: THE JAIL SEXUAL ASSAULT PREVENTION PROJECT**

### **EXECUTIVE SUMMARY**

Researchers for the Jail Sexual Assault Prevention project (JSAP) tested the application of violence reduction strategies informed by situational crime prevention theory (SCP) within three jail facilities. The project collected and synthesized data from multiple sources in order to understand contextual factors surrounding violence at each jail and identify and implement interventions to address the unique safety challenges of each jail: an officer tour system in Site A, a recording camera system in Site B, and crisis intervention training at Site C. In the final phase of the project, the research team evaluated each intervention's impact on violence and its cost effectiveness. The evaluation results, while constrained by significant study limitations, offer some tentatively positive, but ultimately inconclusive, evidence on the effects of the interventions in terms of inmate perceptions, actual incidents, and officer attitudes. Overall, the findings suggest that situational crime prevention may be a useful framework for identifying and applying strategies in correctional settings and that more research is needed on the effectiveness of the individual intervention approaches under study.

In recent years, the issue of sexual assault in American correctional facilities has received increasing attention from correctional staff and administrators, criminal justice officials, and policymakers. Data from the Bureau of Justice Statistics (BJS) indicate that 3.1 percent of inmates in local jails reported being sexually victimized by inmates or staff during a 12-month period (Beck et al. 2010). Given the traumatic nature of sexual assault and its long-lasting negative effects, even low levels of victimization are cause for serious concern. Furthermore, sexual assault is only one manifestation of a larger problem of violence in correctional facilities, which includes high rates of physical assault as well as self-inflicted violence such as suicide and self-harm. One study found that 20 percent of inmates at 14 state prisons reported being the victim of physical violence perpetrated by another inmate during the previous six months (Wolff et al. 2007). The most recent national figures indicate that the suicide rate in local jails (42 suicides annually per 100,000 inmates) is more than four times the rate among comparable non-incarcerated populations (Noonan 2010).





The problems of sexual assault, physical violence, and self-inflicted violence in correctional facilities are not unconnected; indeed, the causes, dynamics, and consequences of these three modes of violence are often related. Sexual assaults are frequently accompanied by physical violence, and the traumatic psychological consequences of sexual or extensive physical victimization can drive individuals toward suicide and self-harm. There is significant overlap between the characteristics that put inmates at risk for sexual victimization, physical victimization, and suicide and self-harm. Perhaps most importantly, similar situational and environmental factors, such as overcrowding, inadequate supervision, and inmate access to weapons, can facilitate all three types of violence. The good news is that the situational and environmental factors that create opportunities for violence are, in many cases, within the control of correctional administrators and staff. By identifying and addressing these factors, administrators can reduce all types of violence in their facilities. This report summarizes the experiences and results of three jail facilities that applied situational crime prevention to reduce violence and acts of self-harm.

## **THE JSAP PROJECT**

The Jail Sexual Assault Prevention project (JSAP) was launched by the Urban Institute (UI) in 2006 with the goal of aiding three county jail facilities in identifying and addressing the factors driving violence in their facilities and evaluating the success of the selected interventions in reducing levels of violence. While funding for the project came from the National Institute of Justice's program of Research and Evaluation on Sexual Victimization in Corrections, JSAP focused not only on sexual assault but on the interrelated issues of physical violence and suicide and self-harm.

The JSAP project was an action-research partnership between UI researchers and management and staff at each of the jail facilities, providing an opportunity for researchers and practitioners to learn from one another. The action research design allowed researchers to test the real-world application of violence reduction strategies posited by situational crime prevention theory (SCP), an approach that focuses on the situational and environmental factors that create or inhibit opportunities for crime and violence. The SCP theoretical framework was coupled with extensive site-specific data collection to develop a research-driven approach to violence reduction that was tailored to each site.

The first phase of the project entailed collecting and synthesizing data from multiple sources—site observations, administrative data, staff and inmate interviews,



and other sources—to obtain a picture of violence in each facility and identify key issues that were contributing to violence. Drawing from the results of these analyses, the second phase entailed the development of a series of recommendations for addressing the key issues; researchers worked with management in each of the facilities to select interventions that were promising, feasible, and affordable. Each facility then implemented the selected interventions over a period of several months. In the final phase of the project, the interventions’ impact on violence and their cost effectiveness were evaluated through an analysis of administrative data, inmate and staff surveys, site observations, and staff interviews.

The JSAP project was unique in several regards that have already been mentioned: its action research design; its focus on the connections between sexual assault, physical violence, and self-inflicted violence; and its application of an SCP approach to reducing violence in correctional settings. Another distinguishing factor of the project was its concentration on local jails. As has been the trend in much corrections research, the vast majority of studies on sexual assault and violence in correctional facilities have been conducted in state and federal prisons. Local jails, with their diverse inmate populations, rapid population turnover, connections with local communities, and other distinctive characteristics, are in need of their own jail-specific research. The JSAP project aimed to provide lessons for jail administrators and policymakers around the country regarding effective approaches for reducing sexual assault and other forms of violence in jails.

## **THEORETICAL UNDERPINNINGS**

Since the enactment of the Prison Rape Elimination Act (PREA), there has been renewed interest in the issue of sexual assaults in correctional facilities, and recent work has aimed to identify promising approaches (English, Heil, and Dumond 2010; Owen and Wells 2006; Zweig et al. 2006) and provide practitioners with informational resources (see <http://nicic.gov/PREA>) to address these problems. However, much of this work has been qualitative, and the current study is distinct in its theoretical framework for conceptualizing these risks and the methods of combating them. Situational correlates of correctional violence are often amenable to manipulation, yet much of the prior research on violence prevention in corrections relies on traditional criminological theories, which focus mainly on offenders’ internal dispositions and individual characteristics. By contrast, SCP focuses primarily on the environmental factors that influence offenders’ decisions to commit



crimes. The SCP model is based on rational choice theory, which posits that potential offenders make purposeful, rational<sup>1</sup> decisions to commit crime after weighing the potential costs and benefits of the criminal activity in question (Cornish and Clarke 1986). Cornish and Clarke (1986) posit that situational interventions adjust the cost-benefit ratio of offending opportunities by (1) increasing the effort involved in committing the crime; (2) increasing the risk of being apprehended; (3) decreasing the rewards of the crime; (4) reducing provocations of criminal behavior; and (5) removing excuses.

Wortley (2002) was the first scholar to propose a comprehensive model of how SCP theory can be applied to correctional facilities to reduce sexual assault, suicide and self-harm, and other forms of violence. His work represents the most comprehensive, well-developed articulation and application of a situational model for understanding correctional violence. This theoretical model focuses on the environmental and situational factors that drive violence in correctional facilities and stands in contrast to deprivation theory, importation theory, and other traditional explanations for correctional violence that focus on individual propensities to perpetrate or be victimized (Homel and Thompson 2005; Jiang and Fisher-Giorlando 2002; Muntingh 2009). Wortley's model is similar to Cornish and Clarke's earlier (1986, 2003) framework, but also includes two overarching categories (*controlling regulators* and *controlling precipitators*), adds a new strategy of *increasing anticipated punishments*, and excludes *removing excuses* from his model. Wortley's strong theoretical framework for translating the SCP approach to a corrections environment, along with the documented successes in applying SCP in other settings (Clarke 1997), suggest that SCP measures can effectively reduce violence in jails, particularly because the highly controlled settings of correctional facilities are very amenable to environmental manipulation (Wortley 2002).

The SCP theories developed by scholars such as Cornish and Clarke and extended to correctional settings by Wortley and others are just beginning to be tested rigorously by researchers as a means of reducing violence in correctional facilities. The JSAP project aimed to examine the implementation of this promising theoretical framework by partnering with practitioners to develop and test SCP-based interventions.

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<sup>1</sup> Rational decisionmaking can be "bounded" by intoxication or drug use, mental illness, or an individual's inclination to discount the future costs of his or her actions (Cornish and Clarke 1986).



## **STUDY DESIGN**

The section below provides a brief overview of the three sites and a review of the study design outlining each phase of the project: preliminary data collection and analysis, development and selection of interventions, and implementation and evaluation. The discussion also documents some limitations of the JSAP project and explains alterations made to the research methodology at one of the sites.

## **PROJECT SITES**

UI researchers partnered with three county jail systems and selected one facility in each system on which to focus their efforts. Two of the jurisdictions (Sites B and C) are major metropolitan areas with very large jail systems housing 8,000 to 10,000 inmates each, placing them among the nation's 10 largest jail systems in terms of inmate population. The third jurisdiction, Site A, is a city with a smaller, but still sizeable, jail system housing between 3,000 and 4,000 inmates, ranking it within the top 30 systems nationwide. All three jurisdictions were urban areas with significant African American (25–45 percent) and Hispanic (5–25 percent) populations.

One facility within each jail system was selected for the project. In the smallest jurisdiction (Site A), the project focused on a large facility that holds the majority (approximately 2,500) of the system's inmates. The two larger jail systems (Sites B and C) have a number of facilities within their systems, and the facilities selected for the project each house approximately 1,000 inmates. All three facilities selected for the project house primarily pretrial inmates; one facility houses both male and female inmates; and two facilities house inmates of all security classifications while one houses maximum security inmates only. More detailed background information is included in each site case study.

## **DATA COLLECTION**

The JSAP data collection served two purposes: informing the selection of an intervention and evaluating the impacts of the intervention. The first phase of the study involved gathering and synthesizing quantitative and qualitative data on violence and related acts of misconduct and self-harm in each facility. The data came from four main sources: site observation, incident data analysis, staff interviews, and inmate interviews. The second phase of the study was to select an intervention based



on this information, while the third phase involved collecting additional incident data and administering surveys for the evaluation of the intervention's impacts.

### **Site Observations**

UI researchers began their data collection activities by conducting an extensive tour of each facility, observing the physical environment and identifying potential design and environmental factors that might contribute to violence. The tour also provided researchers with their first view of staffing and operations in each facility.

### **Incident Data**

Jail data on reported incidents were collected for the period of January 1, 2005 (22 months before the project began) through September 30, 2010 (12 months after the interventions were implemented). Data include all instances for which an inmate or staff member suffers physical violence or injury, including all incidents of sexual assault, suicide, self-harm, and physical violence (physical fights, attacks, assaults, etc.) that come to the attention of staff. The data also include all seizures of weapons and contraband and any use of physical force by correctional staff when responding to inmate disturbances.

### **Staff Interviews**

The researchers collected qualitative data by conducting one-on-one, semi-structured interviews with staff and inmates. During the first phase of the project, between 21 and 30 staff members were interviewed at each site, including jail administrators, midlevel management, and line correctional officers; medical and mental health clinicians; social workers and counselors; and departmental sexual assault, internal affairs, and gang investigators. The research team took care to interview a diverse array of staff representing all scheduled shifts, multiple areas of the facility, and a range of experience levels. Participants were selected by the research team from lists provided by jail management, which included staff members' names, ranks, and assignments. Participants were asked about the prevalence and dynamics of sexual assault, fights and physical violence, and suicide and self-harm; gang issues and other causes of violence; procedures for responding to incidents of violence; inmate access to weapons and contraband; and general management and operational issues.



Staff interviews (N=3–14) were also conducted during the implementation period and at the completion of the project to obtain staff perceptions on the impacts of the intervention. Interview protocols covered topics such as perceived impacts of the intervention on inmates, staff, and the facility; implementation challenges; satisfaction with the intervention; and areas for improvement. These interviews were used to understand better the impact of the three site interventions and to learn lessons about implementation to assist other facilities considering similar measures.

### **Inmate Interviews**

Between 15 and 21 inmates were interviewed at each site, including five women at the facility that houses inmates of both sexes. Inmates were selected to represent as many of the general population housing units in each facility as possible (inmates from disciplinary segregation, mental health, and juvenile housing units were excluded). The interview instrument asked respondents about the general level of safety in the facility; the prevalence and dynamics of sexual assault, fights and physical violence, and suicide and self-harm; gang issues and other causes of violence; access to weapons and contraband; staff supervision and response to incidents of violence; and the mental healthcare provided by the jail. In general, participants were not asked about their individual experiences of violence, but rather about their overall perceptions of violence and what they had witnessed in the facility involving other inmates.

### **Inmate Surveys**

UI researchers also collected data on inmate perceptions of safety within the facilities through a survey instrument about physical violence, sexual victimization, and self-harming behavior. The surveys were administered both before and after the implementation of the new safety interventions. The research team surveyed between 105 and 177 inmates during the first round of surveys, between 14 and 19 months before the interventions<sup>2</sup> were implemented. Thirteen months after the interventions

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<sup>2</sup> The procurement process for all three sites was much lengthier than anticipated, causing significant delays in the implementation of each site's intervention. Due to these lengthy delays, the inmate surveys were administered far in advance of actual implementation.



had been implemented, the research team again surveyed between 101 and 188 inmates at each site.<sup>3</sup>

Inmates were selected to represent a range of the general population housing units in each facility, which created diversity in terms of participants' security classification, offense severity, age, and criminal status (pretrial or sentenced). As with the interviews, inmates in disciplinary segregation, mental health units, and juvenile housing units were excluded from participation. Within each housing unit, inmates were randomly selected from a list provided by jail management that included all inmates 18 and older who had resided in the facility for at least 45 or 90 days, depending on the facility. No attempt was made to survey the same individuals for both survey rounds; this would have been nearly impossible given the rate of jail population turnover.

Participants were asked about the prevalence of physical violence, suicide and self-harm, sexual assault, and consensual sexual activity in the facility; the locations where these types of incidents typically occur; whether these incidents usually come to the attention of staff; inmate access to weapons and privacy, both of which can facilitate assaults; the incidence of gang involvement among inmates; and inmate access to mental healthcare. Participants were also asked about their own experiences of physical violence (number of times another inmate "hurt" or "tried to hurt" them), participation in physical fights, and self-harming behaviors (number of times they "tried to hurt" themselves or tried to commit suicide) in the previous 30 days. In addition, they were asked about the situational dynamics surrounding these incidents, such as where and when they occurred and what weapons or methods were involved. Participants were not, however, specifically asked about their own experiences with sexual assault or consensual sex, because of the highly sensitive nature of the topics.

### **Officer Surveys**

One of the sites had a different study methodology due to significant changes in inmate population type. Rather than survey inmates at Site C, the research team administered "pre" and "post" surveys to correctional officers participating in a crisis intervention training (the intervention chosen for that site). The survey covered attitudes and perspectives regarding violence, victimization, and mental health issues

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<sup>3</sup> No follow-up surveys were administered to Site C due to a change in study design, as explained below.



in correctional settings; knowledge of effective staff behaviors for preventing and responding to violence; and opinions on the training. The survey was conducted at three points in time: immediately prior to the training, immediately after the training, and 7 to 14 months after the training.

### **Cost Analysis Survey**

Sites A and B completed cost analysis surveys during the implementation period. Since cost-effectiveness analysis is dependent on incident outcome data, which were unavailable at Site C, no cost analysis was completed for this site. The survey asked about financial impacts of the intervention, including funding sources; direct costs of intervention installation and maintenance; indirect costs (e.g., labor, meetings and planning activities, utilities and administrative costs, required environment alterations, and other necessary changes); and monetary benefits and reductions in facility expenditures .

### **Other Data Sources**

In addition to the data collection activities described above, the researchers gathered data from a number of other important sources. Relationships with jail management proved crucial, as the research team communicated with them frequently to verify, clarify, and expand on information gained from the other data collection activities. Administrative data, such as staff and inmate counts, housing unit designations, and staff assignments and posts, provided important insights into jail operations. Some of the sites provided maps to help the research team understand the physical layout of the facility. Written policies and protocols governing staff practices and inmate behavior were obtained whenever possible to determine official operating procedures and verify information gleaned from staff and inmate interviews. Staff training materials provided by some sites offered a view into staff members' preparation for responding to violence.

## **SELECTION AND IMPLEMENTATION OF INTERVENTIONS**

For each site, the research team combined the findings from all data sources to identify key themes regarding violence in each facility and situational and environmental factors that were contributing to violence. Once the major factors contributing to violence in each facility were identified, the research team developed





a set of site-specific recommendations for addressing these issues based on SCP, rational choice, and other criminological theories.

The process of selecting the most promising interventions was a joint effort between the research team and jail administrators, in keeping with the action research design of the project. The researchers contributed their theoretical knowledge and research findings while the jail administrators provided practical expertise and experiential information regarding conditions in the facilities.

The three jails chose different avenues to improve safety in each of their facilities. Site A selected an officer tour system intended to increase accountability for officer rounds by electronically tracking an officer's stops throughout the facility. Site A's indirect supervision structure, along with the reported lack of rounds being completed according to policy, created a supervision need at the facility. While the proposed change would not convert the facility to a direct supervision design, it would move operations closer to that ideal by increasing the amount of time officers are directly supervising inmates.

Theoretically, this intervention should simultaneously (a) increase the perceived risk to officers of being caught neglecting their job duties, and (b) increase the perceived risk to inmates of being caught misbehaving by an officer conducting more frequent rounds. It may also reduce the rewards of the misconduct, because inmates know they may have to stop shortly if an officer enters the housing unit (e.g., put out a cigarette shortly after starting, halt an attack before intended injuries are accomplished). Finally, the intervention removes excuses for officers who might claim they were unaware that rounds expectations were a strict requirement. With the knowledge that officer rounds are being tracked and monitored (and with consequences for neglected rounds), it is clear that the jail leadership is interested in officers conducting rounds according to policy.

Site B chose a recording camera system to eliminate blind spots, provide recorded evidence for incident investigations, and improve staff conduct. In particular, cameras were needed to view blind spots at the rear of the bottom and top tiers of cells, areas identified as high risk for violence and suicide attempts. Similar to the officer tour system, the intervention should theoretically increase perceived risk to both inmates and officers who know they are being recorded. However, these risks would not be expected to increase for remaining blind spots not observed by cameras.



Rather than focus on surveillance and accountability, Site C decided to implement a training curriculum to improve officer interactions with inmates. The training involved crisis intervention skills and also educated officers on issues related to mental illness and sexual assault. Site C's training theoretically falls into the *reducing provocations* or *controlling precipitators* categories of SCP. Crisis intervention training teaches officers how to de-escalate emotionally intense situations and avoid unknowingly saying or acting in ways that could further provoke an inmate. The education component may provide officers with a greater sensitivity to mental health and sexual violence issues, which should allow inmates to feel better respected and understood, possibly reducing stress and frustration among inmates. The educational component also removes excuses for officers failing to address active symptoms of mental illness, suicidal ideation, or sexual victimization. Trained officers should have a clear understanding of how to respond properly to these signs. This intervention was seen as particularly appropriate for Site C, as the new inmate population would consist primarily of those needing daily medications, including a significant number of individuals with mental health issues.

The interventions described above were implemented by the sites beginning in the summer of 2009. JSAP project funding provided a \$25,000 subgrant to each site to offset the cost of the interventions. Researchers worked with jail administrators to select appropriate vendors offering the best quality and price for the services and technology associated with the interventions. The research team monitored implementation of the interventions for a period of 12 months through phone and e-mail communication with jail administrators, site visits, and interviews with jail management and staff. This evaluation component served two purposes: to understand the implementation process and glean lessons for other sites considering similar interventions, and to ensure that the interventions were being implemented with fidelity and could therefore provide confidence in the validity of the evaluation results.



## **ANALYSES FOR INTERVENTION EVALUATION**

The research team evaluated the impact of the interventions over a 12-month period through an analysis of incident data and inmate surveys, site observations, and staff interviews.<sup>4</sup> Details of these analyses are presented below.

### ***Incident Data Analyses***

Incident data were used to measure changes over time in the number of sexual, physically violent, self-harming, contraband, and use of force incidents. All incident reports from January 1, 2005, through September 30, 2010, were used for this analysis. The incident data were obtained, cleaned, and coded. UI researchers used both ARIMA (autoregressive integrated moving-average) time series analyses and structural break analyses to examine whether the incidence of these types of dangerous events was impacted by the implementation of the JSAP intervention.

Models were produced for nine categories of incidents. In both sites, the prevalence of sexual assaults and other sexual incidents (N= 72 for Site A and N= 33 for Site B) was too low to reliably analyze with time series methods. In addition, incidents of self-harm and insubordinate or threatening inmates were not analyzed at Site B due to small numbers.

The ARIMA modeling controlled for other events and changes in the jail, and both types of analyses controlled for inmate-to-staff ratios. Separate models were run for (a) immediate shifts in incident rates beginning the week after an intervention was implemented and continuing until the start of a new event (i.e., a new mean number of incidents during that time period) and (b) both shift effects and time-variant intervention effects which can change over time (e.g., a new camera system leads to an immediate reduction in incidents, but the impact quickly degrades over time as inmates learn that the camera system does not record). The model which best fit the data, according to the Akaike Information Criteria (AIC), was chosen for each incident category.

Due to limitations of the ARIMA time series analysis, including gradual implementations of the intervention, inexact dates of other facility events, and the presence of overlapping events, structural break analysis was also used to analyze the

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<sup>4</sup> The analyses described in this section were not conducted for Site C; the evaluation analyses that were used for Site C are described in section 3.5 *Alternate Evaluation Design at Site C*, below.



impact of the site interventions on incidents. Structural break analysis is a well-documented econometric approach for evaluating programs with inexact implementation dates (Piehl et al. 2003). Although structural break analysis is less theoretical than traditional analyses and runs the risk of overstating statistical significance, it can be more appropriate for cases with “fuzzy” implementations and unknown timing of events that need to be controlled for, compared to ARIMA approaches, which rely strongly on specific intervention and event dates.

The research team considered also including a simple pre/post comparison t-test of the average number of incidents per month in the year before and after implementation of the interventions. However, with the number of other changes in the jail and the incremental intervention implementation, it was determined that the pre/post tests would be too vulnerable to validity threats to be useful.

### ***Inmate Surveys and Other Qualitative Analyses***

The research team also analyzed inmate survey data from both before and several months after the intervention began. Comparison analyses (t-tests and chi-square tests of independence) were used to determine whether inmate perceptions of safety changed after the intervention was implemented. Correlations were run to determine whether perceptions of safety varied by respondent characteristics; significant correlations were only reported when present in both the *pre* and *post* samples. UI researchers also incorporated information from site observations and qualitatively analyzed staff interviews to learn about staff perceptions of the impacts of the intervention and lessons learned from the implementation.

### ***Officer Surveys in Site C***

Officer participating in crisis intervention training (CIT) were surveyed immediately before, immediately after, and 7 to 14 months after the training. Researchers used descriptive statistics to examine sample characteristics and opinions of training, as well as between-subjects ANOVA, and post-hoc Tukey tests to determine whether officer attitudes, confidence, and knowledge changed after participating in the training.



### **Cost-Effectiveness Analysis**

Finally, the research team conducted cost-effectiveness analyses to assess the direct and indirect financial impacts of the interventions in sites A and B, including costs or direct monetary benefits associated with equipment/infrastructure, installation, maintenance, meetings and other administrative activities, data monitoring/review, environmental or structural modification, utility changes, adverse events, discontinued programs, hiring or removal of staff, and other labor spent. Costs were then compared to the change in incidents found through the incident analyses; however impacts on incidents are not assigned monetary values as in cost-benefit analysis due to a lack of empirical literature on cost estimates for correctional victimization and other types of incidents.

### **LIMITATIONS**

Although the described study has a strong quasi-experimental design involving multiple data sources, certain limitations should be noted. First, the evaluation design relies on analyses of changes in incidents and inmate survey responses across time. Since there are no control groups, it is impossible to determine definitively whether any changes are due to the implemented intervention or to other changes at the facilities. However, researchers addressed this weakness by tracking other events and changes occurring in the jails during the study period and using a time series test for the analysis of incident data. Time series analysis helps to control for other factors which might have an impact on the outcome measure. Jail administrators were regularly asked about policy and facility changes and confirmed a timeline of these events.

Secondly, the environments at each site were far from stable. Each site had a variety of changes occurring over the study period, and some of these changes took place over extended periods of time, making it difficult to pinpoint when the impact of these changes would be experienced by the inmate population (e.g., changes to locks in housing units made over a period of several months). The lack of a stable baseline made detection of intervention effects more challenging. In some cases, it was also impossible to distinguish whether observed changes were due to the intervention or other events occurring at the facility around the same time. The structural break analyses are also unlikely to detect short-term impacts that occur over less than seven months. Furthermore, these data are only as valid as the reporting by the administrators. In some cases, specific dates had to be estimated



when administrators were unable to provide an exact date for an event (e.g., March 1, 2009, would be selected to use in analyses for the given date, “March 2009”).

Readers of this report should also take caution in interpreting the incident data. It is ill-advised to compare the number of incidents across facilities, as the three jails have different reporting policies and standards. For instance, one jail might report only serious physical assaults, whereas another jail might report every type of physical altercation between inmates. In addition, only the most serious incident of each event was coded, so some incidents may be underestimated. For example, only the staff attack would be coded for an event where an inmate attacks an officer after refusing to surrender a cellular phone and flooding his cell (which could also be coded as noncompliance, contraband, and intentional flooding). Other types of incidents were collapsed under overarching categories due to lack of detailed information about the incident (e.g., for Site A, all suicides, suicide attempts, and self-harming acts were combined under one self-harm code). More information about these limitations is available in the methods discussion for each site’s case study.

There are also limitations associated with the inmate surveys. Although attempts were made at all sites to select participants randomly, Site B experienced challenges with random selection and passive refusals, which may have resulted in some selection bias (see section 5.2 *Data Collection* for more detail). Inmate surveys rely on self-reported perception data as a measurement of change in the jail. These findings should not be interpreted as direct measures of the true prevalence of incidents or behavior and instead should be examined in the context of other evidence. In addition, the inmate pre-intervention surveys were administered many months (16–19 months, depending on the site) prior to the intervention due to unexpected and extensive delays in the procurement process for the interventions, allowing for more time for other changes to occur in the interim. Site C’s alternate design relies on officer self-report for changes in attitudes and behaviors. However, no other outcome measure could be used to verify reported changes, due to significant changes in inmate population. Any measurable change in officer behavior or inmate safety could be due to the training or to the different population of inmates.

Finally, findings from both staff and inmate interviews should be interpreted with caution. The sample size for pre-intervention interviews ranged from 21 to 30 for staff interviews and from 15 to 21 for inmate interviews. The sample size for post-intervention staff implementation interviews ranged from 3–14. These findings may not be generalizable across the facility; however, they do serve as valuable qualitative



data about the context and perceptions of violence and self-harm in the facilities, despite the limited sample size.

## **EVALUATION FINDINGS**

The following evaluation findings are presented independently by site, highlighting findings stemming from each of the data collection and analysis activities described above.

### **Site A**

Site A implemented an officer tour system to help ensure that officers were conducting rounds according to policy. The system consisted of sensor buttons mounted on walls that would record data on the location and timing of rounds when officers touched a “pipe” to the button. Sergeants reviewed data from the system daily to monitor the rounds of line officers. Results from inmate surveys and incident data analysis paint a mixed picture of the impact that Site A’s selected intervention, the officer tour system, may have had on violence and self-harm in the facility.

Interviews with staff (including line officers, supervisors, and jail administrative leaders) indicated that the new system changed officer behavior and resulted in staff conducting more rounds. However, some staff felt that these rounds were of questionable quality and opinions were mixed on whether or not the system affected inmate behavior. Staff opinions of the system varied markedly by rank of the respondent. Line officers were more likely to dislike the system, while supervisors and jail leadership had more positive opinions of the system’s role in jail management. All levels of staff had complaints about the quality and durability of the equipment.

Inmate perceptions were obtained through surveys administered both before and one year after the implementation of the officer tour system. Most inmates felt that physical violence was likely; however, in comparison, fewer respondents believed sexual violence, consensual sex, or self-harm were likely to occur. Cells were seen as a prime location for both sexual and physical violence, while the dayroom and recreation area were also seen as likely locations for physical fights or assaults.

After the officer tour system was implemented, fewer inmates believed that physical violence was likely in the recreation area (however, this was not an area where the tour system was installed). In addition, perceptions of the prevalence and



ease of acquiring contraband decreased. However, there was no change in perceptions of the likelihood of self-harm, sexual assaults, consensual/ “exchange” sex, or sex with an officer. Inmate opinions of healthcare access also remained stable (and poor). Interestingly, inmates did not appear to feel as though they had lost more privacy after the officer tour system was installed. While the safety gains made in the areas of physical violence and contraband are promising, it is unclear if these are due to the intervention. Inmates also had conflicting opinions of whether the tour system improved safety, although the majority of inmates endorsed positive statements about officer presence. Inmates seemed more concerned with other improvements in the jail, recommending staff changes and improved quality of life as solutions to making the jail safer.

Analyses of actual incidents were also unclear as to the impacts of the system. Two types of statistical methods revealed conflicting results, with the exception of a finding that incidents involving force decreased in February 2010, after the jail began monitoring the officer tour system reports. The first analysis, ARIMA time series, indicated that the officer tour system might be related to an overall decrease in reported main incidents, suicide/self-harm, and use of force, and increase in physical assaults, including staff assaults. The second analysis, structural break analysis, only had one significant finding: a decrease in staff use of force. Both of these analyses have substantial limitations related to the available data and multitude of other changes occurring at the jail. The strengths and drawbacks of each methodology are described in greater detail in the report. Due to these limitations and conflicting results, it is difficult to determine what the true impact of the officer tour system was on the number of incidents in the jail.

The intervention cost the jail \$25,365 for equipment, infrastructure, and installation. Economic labor costs associated with planning, development of the data system and customized reports, monitoring of the data produced by the system, inspections, and investigations of staff behavior amounted to approximately \$192,000. However, the jail was able to incorporate these new staff responsibilities into existing staff schedules, resulting in no added financial costs to the jail for this time spent by staff. Using the results of the ARIMA time series analysis, it appears that the overall investment of \$217,364 (or \$25,365 not counting labor time) may have been associated with a potential decrease of 271 main incidents (particularly self-harm and use of force) and increase of 150 physical assaults over the year-long implementation period. Readers are again cautioned that this comparison is based on





the findings of the ARIMA time series analysis, which has substantial limitations to consider.

Overall, it is uncertain whether the officer tour system had an impact on safety in the jail. Findings from staff interviews, inmate surveys, and analyses of the incident data did not reveal a clear or consistent picture of how safety changed after the system was implemented by Site A. There is an additional challenge, in that interventions such as the one studied here can have effects on both (a) inmate likelihood of committing acts through deterrence/fears of being caught; and (b) likelihood of staff to identify behavior that was occurring before but not being detected. Therefore, true impacts of the system may be masked by a combination of deterrence effects (decreasing *actual* incidents) and detection effects (increasing *reporting* of already existing incidents).

## **Site B**

Site B selected housing unit cameras as their intervention. Although originally intended to deter violence on the housing unit tiers, the jail leadership quickly began to view the cameras as a tool for incident investigations and staff improvement. The camera system began with two cameras in six housing units, but was eventually expanded to six cameras in three housing units and two cameras (with altered viewing angles) in the remaining three intervention housing units. While all intervention units had cameras on the tiers, three of the units also had cameras that viewed the officer's console area, entrance to the unit, and dayroom. All cameras recorded; video footage was reviewed for every incident occurring in the housing unit, and monthly one-hour reviews of randomly selected footage were conducted by shift commanders.

Interviews with staff revealed a similar pattern to Site A where management and jail leadership found the intervention to be a useful tool for the jail, while line officers had more negative opinions, often centering around the use of cameras to monitor their own behavior instead of inmate behavior. Respondents reported that while inmates might be behaving better because of the cameras, cameras would not deter inmates who were intent on fighting. Instead, staff at all levels pointed to the usefulness of the cameras for investigations of inmate incidents. According to an interviewee, inmates also appreciated this role of cameras and often requested that staff view the cameras to corroborate their story.



Surveys were administered to inmates prior to and one year after implementation of the camera system to assess changes in inmate perceptions of safety at the jail. After implementation of the cameras, fewer respondents believed consensual and forced sexual behaviors were likely to occur. Violence was also perceived as less likely to occur in cells, and a smaller percentage of respondents reported being threatened or involved in fights in the past month. *Post* respondent inmates also thought it was easier to access medications, which could also reduce inmate violence. These changes are encouraging; however, it is surprising that these changes would occur when other areas viewed by the cameras (such as the dayroom) did not experience any changes in perceptions of violence. Therefore, it is unclear whether these improvements are due to the camera intervention or other reasons. Inmates also were unsure of whether the cameras increased safety overall, although the majority of respondents believed the cameras had benefits, including reduction of violence, creating fair investigations, and verifying concerns about staff. Like the inmates at Site A, survey responses indicated that respondents were most concerned about staff and quality of life issues when it came to jail safety.

Due to large limitations in available data and lack of knowledge on when other important changes in the jail occurred, the analysis of incident data does not provide a clear answer to the question of whether cameras improved safety at Site B. Because the facility could not provide exact dates for many changes in the jail, ARIMA time series analysis had to be abandoned. Structural break analyses were conducted to determine whether there were any substantial changes in the number of incidents across time; however, no significant changes were found. Due to the structure of the data and timing of events at the site, it is difficult to detect any changes in the data taking place in less than seven months, so it is possible that short-term changes occurred but were not detected by the method of analysis.

The camera system, including equipment, infrastructure, and installation, cost the site \$54,740, as well as an additional \$30,260 of staff labor for time spent planning the system and reviewing video footage. However, no staff members were hired, so there were no additional budget expenditures for staff. New responsibilities were incorporated into current staffing schedules. While changes in inmate perceptions occurred, there was little evidence of change in actual incidents. Due to data and analytical limitations, however, it is possible that effects were not detected with the available methods. Furthermore, as already explained in Site A's case study, detection intervention systems are particularly difficult to measure, since impacts of



the system can be masked by a combination of deterrence (decreasing *actual* incidents) and detection effects (increasing *reporting* of already existing incidents).

## Site C

Site C chose CIT as its SCP intervention based on the premise that violence would be reduced if staff had the ability to detect changes in inmate attitudes and behaviors, to intervene calmly and nonviolently in potentially problematic situations, and to communicate in a positive manner with inmates and other staff. As was discussed previously, the project evaluation plans for Site C had to be changed to address the dramatic shift in the facility's inmate population that occurred during the project. The use of incident data and inmate surveys to evaluate the intervention was no longer feasible; therefore, researchers conducted surveys with the corrections officers who participated in the training instead. They also obtained qualitative information on the intervention by observing part of the training, speaking with the training providers about the development of the training, and interviewing jail supervisory and management staff to learn their perceptions of the impacts of the training on the facility.

Interviews with facility staff 15–18 months after the training revealed that, on the whole, the training was a positive experience for interviewed participants. Importantly, the facility administrator and officers described the training as a useful tool to respond to inmates with mental health conditions, noting a marked change in officer behavior toward inmates. Prior to the training, one respondent reported that officers were more likely to exhibit aggressive behavior toward inmates due to a lack of knowledge about the inmate's condition. However, after the training, officers have responded to inmate misconduct in new ways. In many instances, officers were able to de-escalate incidents without resorting to use of force. Notably, the facility administrator expressed that the training imbued officers with new knowledge about mental health that has contributed to greater patience, understanding, and compassion. In addition, staff respondents perceived a shift in inmate behavior since the officer training, noting that inmates were more compliant because of improved officer interactions and understanding.

Surveys of correctional officers who participated in CIT shared these positive views about the value of the intervention and its impact on safety. Overall, correctional officer survey respondents provided a highly favorable review of the CIT training, giving it high marks across the board and indicating an interest in receiving



additional training on related issues. At the time of the follow-up survey, they continued to praise the training and offered examples of how it had improved their job performance. Respondents did, however, suggest some areas for improvement, proposing that the training be better adapted to the correctional/jail context and that it cover additional topics, such as traumatic brain injury and special populations (e.g., veterans, female inmates, juveniles). Numerous respondents found the role-playing activities valuable and suggested additional time for these in future trainings.

Assessed outcomes include a knowledge scale; a confidence scale; and four topical attitude scales for (1) violence, detainee aggression and crisis response (hereafter referred to as “physical violence”); (2) mental health issues; (3) suicide and self-harm; and (4) sexual assault. Employing ANOVA and Tukey’s post-hoc tests to comparisons of correctional officer attitudes across survey waves suggests that the training improved attitudes and confidence for correctional situations related to mental health, suicide/self-harm, and sexual assault issues (but not physical violence). Furthermore, the impacts appeared to sustain over time, evidenced by the nonsignificant differences between responses given immediately after training and 7–14 months later. An overall Confidence scale was also created to measure respondents’ confidence in their abilities and preparation to handle crisis situations in all four topical domains. Officers’ confidence significantly changed across the survey waves (see Table 30), with statistically significant increases in confidence between the *pre* and *post* and *pre* and follow-up surveys, but not between the *post* and follow-up surveys. This suggests that the training had a statistically significant impact on respondents’ confidence in their own abilities and preparation to respond effectively to violence and crisis situations, and this impact did not diminish over time. Analyses also showed significant changes between the means across the survey waves on a measure of officer knowledge, with significant differences between all pairs of waves, indicating that the training improved knowledge on the topics of mental health and suicide/self-harm. This increase in knowledge, however, was partially lost in the months that followed, although it remained higher than the pre-CIT levels.

The above analysis results suggest that the CIT training implemented by Site C holds significant promise for improving the ability of correctional officers to respond appropriately and effectively to various types of violence and crisis situations. While CIT is well established in law enforcement, it is fairly new to the area of corrections. This research suggests that CIT has significant potential benefits for the corrections field. Given the strong positive response of the officers who participated in the



training and the positive findings from our outcome analysis, practitioners should consider CIT training as a valuable mechanism for improving officers' abilities and preparedness. However, due to the small sample size of this training group, its location in a single facility, and reliance on self-reported measures, future research is needed to better understand the impact of CIT training on officers' behavior in their day-to-day work environment.

## CONCLUSIONS AND IMPLICATIONS

The results of the evaluations of each of these interventions are both promising and inconclusive. In Site A, inmate surveys yielded no changes related to sexual assault incidents due to the officer tour system, but inmates did perceive reduced violence in the recreation area, less contraband, and greater overall safety due to officer presence. Incident analyses were less definitive but do point to reduced officer use of force incidents, suggesting that the officer tour system technology may have had a favorable impact on officer/inmate relations: by encouraging officers to walk around and interact with inmates, the system may have had a secondary impact on how officers chose to respond to inmate threats and altercations, choosing a verbal approach to diffusing tensions rather than a physical one.

In Site B, fewer inmates believed consensual and forced sexual behaviors were likely to occur following installation of recordable cameras. Violence was also perceived as less likely to occur in cells, and a smaller percentage of respondents reported being threatened or involved in fights in the past month. *Post*-respondent inmates also thought it was easier to access medications. Analyses of actual incidents, however, yielded no significant changes in incidents following the implementation of the camera system—a finding that could be due to displacement of violence beyond the view of cameras, a combination effect of greater deterrence *and* detection, or limitations in data access. Nonetheless, the overall evaluation findings were inconclusive.

Site C's intervention focused on officer training. Surveys of correctional officers who participated in the CIT indicated that the training holds significant promise for improving their ability to respond appropriately and effectively to various types of violence and crisis situations. The officers who participated had uniformly high praise for the training, with 98 percent indicating that they would recommend it for other correctional officers and 100 percent saying the training helped the jail and provided them with new information, skills, and confidence. Analysis of the outcome



measures in the survey indicates that the training had a positive impact on participants' attitudes and confidence related to appropriately and effectively responding to situations involving mental health, suicide/self-harm, and sexual assault. The training also increased participants' overall confidence in their abilities and preparation to respond effectively to violence and crisis situations, as well as their knowledge of mental health, suicide, and self-harm issues. However, in the absence of *pre-* and *post-*training inmate surveys and incident analyses, it is difficult to discern the degree to which CIT had a real impact on incidents of violence and self-harm in the facility.

As with many evaluations, this study raises more questions than it answers and falls short of producing definitive impact findings, largely due to data and study design limitations. That said, it appears that all three interventions yielded some positive impacts, at least with regard to perceptions of safety and staff effectiveness in their jobs. The absence of stronger effects may be due to the lack of integrating these interventions with additional staff training or an accompanying inmate behavior management strategy. Overall, the findings suggest the situational crime prevention approach may hold promise as an effective framework for identifying and applying strategies in correctional settings and calls for more implementation and evaluation of such measures.

Despite the somewhat tentative findings with regard to the effectiveness of the interventions evaluated in this report, this study suggests that the strategies employed by each site were theoretically sound, guided by a thorough analysis of facility vulnerabilities, and have the potential to be cost effective. This study also sheds light on specific areas of vulnerability within jail facilities and how targeted strategies may be the most effective response. Below is a list of recommendations for other researchers, practitioners, and policymakers derived from the study's findings and the research team's experience on this study.

- Overall, when considering new safety interventions for jail settings, it is recommended that jail administrators use a four-step process: (1) identify precipitating factors around dangerous incidents by analyzing the dates, times, locations, and contexts surrounding past events; (2) use evidence-based strategies (such as situational crime prevention) to address the unique needs and vulnerabilities of the facility; (3) integrate those strategies within a comprehensive system of best practices in inmate classification, supervision,



management, and facility design; and (4) continually evaluate the success of the safety interventions, making changes as needed along the way.

- Interventions should be developed with the understanding that different types of violence and acts of self-harm have different contextual factors and opportunity structures that require targeted interventions.
- Cells may be a particular area of vulnerability, as they were identified by inmates across sites as being at high risk for sexual violence, physical violence, self-harm, and contraband. This creates unique challenges: the cell is the only area in a jail facility that is not under constant supervision or surveillance, and privacy requirements restrict the placement of cameras directly in cells. Strategic placement of recording cameras, however, could help to identify those who enter and exit cells during day and evening hours when inmates are out and around in the dayrooms. In addition, a more constant, direct officer presence in the housing unit—either through the employment of direct supervision management, or with more frequent, extended rounds—can prevent incidents, or enable officers to intervene quickly before they escalate further.
- Women may experience jail dangers differently from men; these differences should be taken into consideration when developing safety interventions.
- While the focus of this study was on the reduction of sexual violence, assessing both physical and sexual violence acknowledges the ways in which these two types of incidents are interconnected. Furthermore, physical violence is an important safety outcome in its own right, which inmates perceive (and incident data appear to confirm) is more likely than sexual assault.
- Contraband is a critical precipitator and facilitator of both sexual and physical violence and likely serves as a proxy for staff security breaches; focusing on contraband prevention could go a long way toward reducing both violence and staff misconduct.
- Corrections administrators should adopt a zero tolerance policy regarding staff sexual misconduct as well as inmate-on-inmate consensual sex; both serve as potential precipitators of violence and can mask more serious sexual coercion or force (e.g., a victimized inmate claims the behavior is



“consensual” under threat by the perpetrator). As referenced in the National Standards to Prevent, Detect, and Respond to Prison Rape (28 CFR Part 115), correctional administrators should also promote the view that staff-inmate sexual contact cannot be considered “consensual” under any circumstances, considering the power differential involved.

- When asked what changes could lead to a safer jail environment, the number one recommendation given by inmates was to improve the quality of staff. Corrections administrators should seek ways to train, motivate, and incentivize officers to approach their jobs with the highest degree of professionalism and develop accountability and performance measures.
- Improve access and quality to correctional healthcare. Many inmates expressed dissatisfaction with medical care; limitations in the ability to provide mental healthcare and prescription medicine to inmates could serve as a precipitator for violence, victimization, and self-harm.
- An action research approach has both its benefits and challenges. The current study was fortunate to have the opportunity to implement theoretically supported interventions within a real-life setting and collaborative partners at each site who saw value in this research endeavor and facilitated a greater understanding of each jail. However, it also entailed significant challenges which limited the research design, including delayed implementations, data collection challenges, data limitations, and the dynamic nature of correctional environments which do not permit clean and stable baseline comparisons. Researchers who aspire to conduct this type of research should prepare themselves for the challenges of working in this unique environment.

While many of these recommendations represent good operating practices in the field of corrections, others offer insights regarding the need both to identify the underlying causes of specific types of violence in correctional settings as well as to develop strategies that consider the larger context of the jail culture. The overarching theme of this study pertains to the importance of correctional staff. Regardless of the nature of the problems encountered in a particular facility, or the solutions posed, the success of any intervention rests in large part on ensuring that staff approach their jobs with consistency, accountability, and professionalism. Whether this is supported with technology or training, staff serve as the linchpin for any successful violence reduction strategy.





## **CHAPTER ONE: Introduction**

In recent years, the issue of sexual assault in American correctional facilities has received increasing attention from correctional staff and administrators, criminal justice officials, and policymakers. Data from the Bureau of Justice Statistics (BJS) indicate that 3.1 percent of inmates in local jails reported being sexually victimized by inmates or staff during a 12-month period (Beck et al. 2010). Given the traumatic nature of sexual assault and its long-lasting negative effects, even low levels of victimization are cause for serious concern. Furthermore, sexual assault is only one manifestation of a larger problem of violence in correctional facilities, which includes high rates of physical assault as well as self-inflicted violence such as suicide and self-harm. One study found that 20 percent of inmates at 14 state prisons reported being victims of physical violence perpetrated by another inmate during the previous six months (Wolff et al. 2007). The most recent national figures indicate that the suicide rate in local jails (42 suicides annually per 100,000 inmates) is more than four times the rate among comparable nonincarcerated populations (Noonan 2010).

The problems of sexual assault, physical violence, and self-inflicted violence in correctional facilities are not unconnected; indeed, the causes, dynamics, and consequences of these three modes of violence are often related. Sexual assaults are frequently accompanied by physical violence, and the traumatic psychological consequences of sexual or extensive physical victimization can drive individuals toward suicide and self-harm. There is significant overlap between the characteristics that put inmates at risk for sexual victimization, physical victimization, and suicide and self-harm. Perhaps most importantly, similar situational and environmental factors, such as overcrowding, inadequate supervision, and inmate access to weapons, can facilitate all three types of violence. The good news is that the situational and environmental factors that create opportunities for violence are, in many cases, within the control of correctional administrators and staff. By identifying and addressing these factors, administrators can reduce all types of violence in their facilities. This report summarizes the experiences and results of three jail facilities that applied situational crime prevention to reduce violence and acts of self-harm.

### **1.1 THE JSAP PROJECT**

The Jail Sexual Assault Prevention project (JSAP) was launched by the Urban Institute (UI) in 2006 with the goals of aiding three county jail facilities in identifying



and addressing the factors driving violence in their facilities and evaluating the success of the selected interventions in reducing levels of violence. While funding for the project came from the National Institute of Justice's program of Research and Evaluation on Sexual Victimization in Corrections, JSAP focused not only on sexual assault but on the interrelated issues of physical violence and suicide and self-harm.

The JSAP project was an action-research partnership between UI researchers and management and staff at each of the jail facilities, providing an opportunity for researchers and practitioners to learn from one another. The action research design allowed researchers to test the real-world application of violence reduction strategies posited by situational crime prevention theory (SCP), an approach that focuses on the situational and environmental factors that create or inhibit opportunities for crime and violence. The SCP theoretical framework was coupled with extensive site-specific data collection to develop a research-driven approach to violence reduction that was tailored to each site.

The first phase of the project entailed collecting and synthesizing data from multiple sources—site observations, administrative data, staff and inmate interviews, and other sources—to obtain a picture of violence in each facility and identify key issues that were contributing to violence. In the second phase, based on this research, a series of recommendations was developed for addressing the key issues, and researchers worked with management in each of the facilities to select interventions that were promising, feasible, and affordable. Each facility then implemented the selected interventions over a period of several months. In the final phase of the project, the interventions' impact on violence and their cost effectiveness were evaluated through an analysis of administrative data, inmate and staff surveys, site observations, and staff interviews.

The JSAP project was unique in several regards that have already been mentioned: its action research design; its focus on the connections between sexual assault, physical violence, and self-inflicted violence; and its application of an SCP approach to reducing violence in correctional settings. Another distinguishing factor of the project was its concentration on local jails. As has been the trend in much corrections research, the vast majority of studies on sexual assault and violence in correctional facilities have been conducted in state and federal prisons. Local jails, with their diverse inmate populations, rapid population turnover, connections with local communities, and other distinctive characteristics, are in need of their own jail-specific research. The JSAP project aimed to provide lessons for jail administrators



and policymakers around the country regarding effective approaches for reducing sexual assault and other forms of violence in jails.

## **1.2 REPORT ROADMAP**

This report presents findings from the JSAP project to provide further understanding of the factors driving violence in local jails and the effectiveness of various strategies for reducing violence. The report begins with a review of the research literature on sexual assault, physical violence, and suicide and self-harm in correctional facilities; the relationship between these interconnected phenomena; and the situational and environmental factors related to these three modes of violence. The literature review is followed by a discussion of the project design and research and evaluation methodologies.

The bulk of the report is composed of case studies of the three sites, each of which include (1) a description of the site, (2) details of the data collection activities at the site, (3) an examination of the research findings regarding violence in the facility, (4) a discussion of key interventions for reducing violence that were recommended by the research team and selected by the site, (5) an overview of the implementation of the selected intervention(s), and (6) evaluation findings regarding the impact of the intervention(s), as well as a cost-effectiveness analysis. The case studies are followed by a review of findings and themes from across the three sites. The report closes with a discussion of findings that might hold promise for other jurisdictions, as well as areas for future exploration.



## CHAPTER TWO: Literature Review

The JSAP project aims to build knowledge about violence in local jails and develop strategies for addressing this issue. The section below examines the existing research literature on sexual assault, physical violence, and suicide and self-harm in correctional settings and the ways in which these phenomena are interconnected, both theoretically and empirically. It also discusses the literature on situational crime prevention theory and its potential application to reducing violence in correctional settings.

### 2.1 THE PREVALENCE OF VIOLENCE IN LOCAL JAILS

Among its many provisions, the Prison Rape Elimination Act (PREA) of 2003 requires that the Bureau of Justice Statistics (BJS) regularly collect comprehensive data on sexual assault in the nation's correctional facilities. In response to this mandate, BJS initiated the National Prison Rape Statistics Program, which includes the first large-scale national survey of sexual violence in local jail facilities. The most recent survey was fielded in 2008 and 2009 with over 48,000 inmates in 286 jails (Beck et al. 2010). Based on the survey findings, BJS estimates that 3.1 percent of jail inmates nationwide are sexually assaulted in jail during a 12-month period.<sup>1</sup> Two percent of jail inmates report being assaulted by staff members and 1.5 percent of jail inmates report being assaulted by other inmates; 0.4 percent report being assaulted both by other inmates and by staff.<sup>2</sup> Female inmates are significantly more likely than male inmates to be assaulted by other inmates (3.1 percent of females compared to 1.3 percent of males), while males are more likely than females to be assaulted by staff members (1.5 percent of females compared to 2.1 percent of males).<sup>3</sup> Findings from BJS's most recent survey are fairly similar to the results of their first national

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<sup>1</sup> The BJS survey asks about sexual victimization in the previous 12 months or, if the respondent has been in the facility for less than 12 months, about victimization since the respondent's entry into the facility. The average participant in the survey had been in jail approximately 3.4 months; therefore most inmates were reporting their experiences from an exposure period significantly shorter than 12 months.

<sup>2</sup> Because inmates cannot legally consent to sexual contact with correctional staff, BJS's reporting of sexual assaults by staff members includes all sexual encounters between staff and inmates. For inmate-on-inmate encounters, only nonconsensual sexual encounters were classified as assault and included in the statistics.

<sup>3</sup> Wolff and Shi (2009) found a similar pattern.



survey of inmates, conducted in 2007 with 40,000 inmates in 282 jails (Beck and Harrison 2008).

Prior to the initiation of BJS's large-scale national inmate survey, the vast majority of research on sexual assault in correctional facilities was focused on prisons rather than jails (Gaes and Goldberg 2004). Findings from these prior studies vary widely, with lifetime prevalence rates among inmates for sexual assault by force ranging from 0 percent to 16 percent. A number of studies estimated that 2 percent or less of inmates have been sexually assaulted during the course of all their incarcerations (Gaes and Goldberg 2004). The BJS inmate survey attempts to address many of the limitations of this prior body of research through its inclusion of jail inmates, its massive scope (over 80,000 inmates surveyed in the most recent study), and its advanced methods (the use of audio computer-assisted self-interview [ACASI] technology that makes survey completion more private and anonymous).

The BJS inmate survey also attempts to obtain more accurate data by asking inmates themselves about their experiences, rather than relying on official reports that reach the attention of correctional administrators. Less than a quarter of inmate victims tell anyone (a family member or friend, another inmate, a correctional officer, etc.) about their sexual assaults, and far fewer officially report it to correctional authorities (Beck and Harrison 2008). As in the community, victims may not report their experiences due to shame and stigma, as well as fear of consequences and retaliation from the perpetrator, other inmates, or correctional staff (Human Rights Watch 1996, 2001; Miller 2009). Not surprisingly, the statistics self-reported by inmates in the BJS survey are several times the rates found in official reports. Official administrative records show an average of two allegations of sexual assault per 1,000 inmates each year in the nation's jails (Guerino and Beck 2011).

While BJS now collects reports directly from inmates to accurately determine rates of sexual assault, the agency still relies on administrative data sources to estimate the prevalence of other forms of physical violence. In June 2000, 1,668 state and federal correctional facilities surveyed by BJS reported the occurrence of 34,400 inmate-on-inmate assaults and 18,000 inmate-on-staff assaults during the previous 12 months (Stephan and Karberg 2003).<sup>4</sup> This translates to 28.0 inmate-on-inmate assaults and 14.6 inmate-on-staff assaults per 1,000 inmates, rates that are roughly

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<sup>4</sup> Statistics for jails were not published.



the same as those reported in a similar census in 1995.<sup>5</sup> However, as in the case of sexual assault, inmate physical violence often goes unreported and therefore official counts underestimate its true prevalence (Bottoms 1999; Wolff et al. 2007; Wolff and Shi 2009). Self-reported data from inmate surveys often show much higher rates of victimization. A survey of nearly 8,000 adult inmates in 14 state correctional facilities found that one in five reported being the victim of physical violence perpetrated by another inmate during the previous six months (Wolff et al. 2007).<sup>6</sup> This victimization rate is 10 times higher than in the community (Wolff et al. 2009). One-quarter of male inmates reported being physically assaulted by staff, while just 8 percent of women reported the same (Wolff et al. 2009). Clearly, physical violence is a pervasive problem affecting a significant share of inmates. Staff are also at risk: BJS data show that, over a 12-month period, local jails reported 48.8 inmate-on-staff assaults per 1,000 employees (Stephan 2001).

Another major concern in the area of correctional violence is self-inflicted violence, which is a particular problem for local jails. Suicide is the leading cause of death in jails and has been since the 1980s. It currently accounts for 29 percent of jail inmate deaths (Noonan 2010). The average annual suicide rate is 42 completed suicides per 100,000 jail inmates, though rates have been declining in recent years, from 48 per 100,000 in 2000 to 36 per 100,000 in 2007 (Noonan 2010). Suicide rates are 2.6 times higher among jail inmates than among those incarcerated in state prisons and 4.4 times higher among jail inmates than among the general population, when adjusted for differences between the jail and general populations in age, race, and gender (Noonan 2010). The disparity is particularly high for women, who are 5.4 times more likely to commit suicide in jail than in the general population. While completed suicides come to the attention of correctional administrators, self-harming behaviors such as cutting, scratching, or hitting oneself are much harder to track. These actions often go unreported and unnoticed by correctional staff and, when brought to the attention of staff, may not be recognized as self-inflicted. Currently, there are no well-established national prevalence rates of inmate self-harm in local

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<sup>5</sup> These statistics include both physical and sexual assault, but because the official rates of sexual assault reported by correctional administrators are low (see previous paragraph), one can assume the vast majority are physical assaults.

<sup>6</sup> As with much corrections research, studies of inmate violence often focus on state and federal correctional facilities. The degree to which these findings can be generalized to local jails is unknown, but they represent the best proxy available for prevalence rates in jails.



jails. In one of the few national studies available, mental health professionals representing 473 state prisons estimated that 2.4 percent of inmates in their facilities engage in self-injuring behavior (Kaminski et al. 2009).

## **2.2 THEORETICAL CONNECTIONS BETWEEN SEXUAL ASSAULT, PHYSICAL VIOLENCE, AND SELF-INFLICTED VIOLENCE**

Sexual assault, physical violence, and acts of self-harm in correctional settings are highly interconnected, both theoretically and empirically. Many theorists of sexual assault assert that the act is about power, control, and violence as much as it is about sex (Brownmiller 1975; Groth et al. 1977; Man and Cronan 2002), and this dynamic holds true in correctional settings. Although there can be an element of sexual gratification involved in the act, sexual assault perpetrated by both inmates and staff members frequently serves the same purposes as physical violence: to humiliate and degrade the victim, to control the victim, and to lower the status and power of the victim while increasing that of the perpetrator (Dumond 1992; Human Rights Watch 1996, 2001; Knowles 1999; O'Donnell 2004).

The fact that sexual assaults in correctional settings are frequently accompanied by violence or the threat of violence further demonstrates that sexual assault takes place within a larger context of violence in jails (Human Rights Watch 2001). Studies by Struckman-Johnson and colleagues (1996, 2002) found that 75 percent of sexual assaults on male inmates and 63 percent of sexual assaults on female inmates are perpetrated through the use of force or the threat of force. According to the BJS jail inmate survey, 37 percent of male victims and 8 percent of female victims of inmate-on-inmate sexual assault report being injured as a result of the assault(s) (Beck et al. 2010). Staff-on-inmate sexual assaults can be violent as well; in the BJS survey, approximately half of jail inmates who were sexually assaulted by staff report that force or the threat of force was used in the assault (Beck et al. 2010). Victims of sexual assault are not only at risk of experiencing physical violence during the assault. A study of state prisoners by Wolff and Shi (2009) found that three-quarters of men and half of women who reported being sexually assaulted in prison also reported being the victims of other instances of physical violence in the previous six months.

The connection flows in the other direction as well: the perceived threat of sexual assault can contribute to a culture of violence in correctional settings and may influence rates of inmate-on-inmate physical assault (Dumond 1992; Kunselman et



al. 2002). Some studies that conclude the actual incidence of sexual assault to be extremely low have nonetheless found a widespread belief among inmates that sexual violence is common in their own or other facilities (Saum et al. 1995). Research suggests that these perceptions, whether accurate or not, can lead to violence and aggressive behavior, as some inmates commit violence to indicate their “toughness” to other inmates in order to avoid becoming victims themselves (Dumond 1992; Kunselman et al. 2002).

The atmosphere of violence that inmates encounter in jail can extend inward to self-inflicted violence. Like sexual assault and physical violence, suicide and self-harm may be about asserting control in an environment where individuals typically have little control over themselves or their surroundings. Inmates who are repeatedly victimized by sexual or physical violence, for example, sometimes see suicide as their only possibility for escape (Human Rights Watch 2001). Assault victims often experience depression, anxiety, extreme psychological distress, suicidal thoughts, and other symptoms of rape trauma syndrome (Dumond and Dumond 2002; Human Rights Watch 2001; Zweig et al. under review). Research shows that victims of sexual and physical violence are more likely than other inmates to inflict harm on themselves, including attempting suicide (Dumond and Dumond 2002; Human Rights Watch 2001; Wortley 2002). In one study, inmate victims of sexual violence were asked about the emotional consequences of the worst sexual assault they experienced while incarcerated, and 36 percent reported contemplating suicide as a result of the assault (Struckman-Johnson et al. 1996).<sup>7</sup>

## **2.3 SHARED RISK FACTORS AND SITUATIONAL CORRELATES**

Similar factors put inmates at increased risk for sexual victimization, physical violence, and self-harming behavior, and, as outlined in the previous section, these three modes of violence are closely interrelated. In addition to the theoretical and conceptual connections examined above, these three modes of violence have situational and individual risk factors in common.

For example, the inmates at greatest risk for sexual victimization include those who are young, well-educated, homosexual or bisexual, unfamiliar with jail culture,

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<sup>7</sup> For more on the long-term consequences of in-prison victimization, including the impact on behavior after release, see Zweig et al. (under review).





and first-time offenders or sex offenders (Beck and Harrison 2008; Beck et al. 2007, 2010; Dumond 2000; English and Heil 2005; Knowles 1999; Man and Cronan 2002; Struckman-Johnson et al. 1996; Wortley 2002). Jail inmates who are male, white, under age 18 or over age 45, or are being jailed for a violent offense are more likely to commit suicide (Mumola 2005; Noonan 2010). In addition, inmates who have previously been sexually assaulted, especially those who have been assaulted in another correctional facility, are at high risk of being assaulted again (Beck and Harrison 2008; Beck et al. 2010; Struckman-Johnson et al. 1996). Similarly, inmates who harm themselves frequently tend to have long histories of self-harm and other mental health problems (Hayes 1995; Shaw et al. 2003). Inmate perpetrators of sexual and/or physical violence are also likely to share common traits related to age, race, class, incarceration histories, and histories of violence (Cunningham et al. 2005; English and Heil 2005; Man and Cronan 2002).

While interventions to reduce violence in jails should take these victim and perpetrator characteristics into consideration, a situational approach to these problems requires that one also understand the institutional characteristics and contextual patterns surrounding these incidents. These include the fact that sexual and physical violence is more likely to occur in barrack or dormitory-style housing; in overcrowded, understaffed, and inadequately supervised facilities that house a high number of maximum security violent offenders; and in blind spots within facilities (English and Heil 2005; Man and Cronan 2002; Struckman-Johnson and Struckman-Johnson 2000, 2002; Wortley 2002). Overcrowded maximum-security facilities and small facilities housing less than 50 inmates have also been found to have higher suicide rates (Huey and McNulty 2005; Noonan 2010; Wortley 2002).

Inmates are at greatest risk for both suicide and sexual assault when they first arrive at a facility (Frottier et al. 2002; Lockwood 1980; Mumola 2005; Nacci and Kane 1984; Wortley 2002). According to official BJS data, half of jail suicides occur among inmates who have been in jail for seven days or less (Noonan 2010). The most common location for inmate-on-inmate sexual assault is an inmate cell; staff-on-inmate assault frequently occurs in inmate cells as well, though it is most common in a closet, office, or other locked room (Beck and Harrison 2008; Beck et al. 2007, 2010). Similarly, 80 percent of jail suicides take place in inmate cells (Mumola 2005; Wortley 2002). Physical violence often occurs in inmate cells and is also likely to take place in shared public areas, such as hallways, mess halls, and yards (Wolff and Shi 2009; Wortley 2002). Both sexual assault and related violence can be facilitated



through the use of tools and weapons: research has shown that around one-quarter of inmate sexual assaults and physical assaults on staff and other inmates involve the use of a weapon (Struckman-Johnson et al. 1996; Wortley 2002). Hanging is the method employed in 90 percent of successful inmate suicides and has often been accomplished by anchoring bedding to cell window bars (Shaw et al. 2003; Wortley 2002).

## **2.4 A SITUATIONAL CRIME PREVENTION APPROACH TO ADDRESSING VIOLENCE IN CORRECTIONS**

Since the enactment of PREA, there has been renewed interest in the issue of sexual assaults in correctional facilities, and recent work has aimed to identify promising approaches (English, Heil, and Dumond 2010; Owen and Wells 2006; Zweig et al. 2006) and provide correctional administrations with informational resources (see <http://nicic.gov/PREA>) to address these problems. However, much of this work has been qualitative, and the current study is unique in its theoretical framework for conceptualizing these risks and the methods of combating them. Situational correlates of correctional violence, such as those outlined above, are often amenable to manipulation, yet much of the prior research on violence prevention in corrections relies on traditional criminological theories, which focus mainly on offenders' internal dispositions and individual characteristics. By contrast, SCP focuses primarily on the environmental factors that influence offenders' decisions to commit crimes. The SCP model is based on rational choice theory, which posits that potential offenders make purposeful, rational<sup>8</sup> decisions to commit crime after weighing the potential costs and benefits of the criminal activity in question (Cornish and Clarke 1986). Cornish and Clarke (1986) posit that situational interventions adjust the cost-benefit ratio of offending opportunities by (1) increasing the effort involved in committing the crime, (2) increasing the risk of being apprehended, (3) decreasing the rewards of the crime, (4) reducing provocations of criminal behavior, and (5) removing excuses.

Wortley (2002) was the first scholar to propose a comprehensive model of how SCP theory can be applied to correctional facilities to reduce sexual assault, suicide and self-harm, and other forms of violence. His work represents the most

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<sup>8</sup> Rational decisionmaking can be "bounded" by intoxication or drug use, mental illness, or an individual's inclination to discount the future costs of his or her actions (Cornish and Clarke 1986).



comprehensive, well-developed articulation and application of a situational model for understanding correctional violence. This theoretical model focuses on the environmental and situational factors that drive violence in correctional facilities, and stands in contrast to deprivation theory, importation theory, and other traditional explanations for correctional violence that focus on individual propensities to perpetrate or be victimized (Homel and Thompson 2005; Jiang and Fisher-Giorlando 2002; Muntingh 2009). Wortley's model differs from Cornish and Clarke's earlier (1986, 2003) framework by separating SCP strategies into two overarching categories: (1) controlling precipitators and (2) controlling regulators. *Controlling regulators* incorporates many of the categories found in Cornish and Clarke's model, including *increasing perceived effort*, *increasing perceived risks*, and *reducing anticipated rewards*. However, this overarching category also includes the strategy of *increasing anticipated punishments*. *Controlling precipitators* is similar to Cornish and Clarke's category of *reducing provocations*; however Wortley further divides this approach into the following: *controlling prompts*, *controlling pressures*, *reducing permissibility*, and *reducing provocations*. Wortley's model does not include the strategy of *removing excuses*. Wortley's strong theoretical framework for translating the SCP approach to a corrections environment, along with the documented successes in applying SCP in other settings (Clarke 1997), suggests that SCP measures can effectively reduce violence in jails, particularly because the highly controlled settings of correctional facilities are very amenable to environmental manipulation (Wortley 2002).

While the majority of correctional violence-reduction interventions that have been documented by researchers to date focus on identifying potential offenders and victims and reducing their motivation to harm themselves or others, some evaluations of interventions guided by SCP theory have begun to emerge. Britain's Safer Cells program altered the design of inmate cells based on SCP principles, with the aim of preventing suicide and self-harm. A qualitative study of the implementation and impact of the program in six prisons found the approach to be promising, although more research is needed to determine its long-term impact on suicide and self-harm rates (Burrows et al. 2003). Studies of the use of closed-circuit television cameras (CCTV) in Australian prisons found that the cameras did deter inmates from nonviolent misbehavior and planned acts of violence but not spontaneous violent acts such as fights (Allard et al. 2008). In the 1990s, Rikers Island jails installed a computerized inmate phone system designed to save money and reduce illegitimate



calls by inmates. Although the system was not intended to reduce violence nor was it designed with SCP principles in mind, it did reduce inmate-on-inmate violence over the use of the phones by restricting access, as would be expected by SCP theory (La Vigne 1994). A recent Urban Institute study aimed to evaluate the use of RFID (radio frequency identification) ankle bracelets to track inmate movement as a means of preventing sexual assault, violence, and other misbehavior; however, due to implementation problems, the researchers were unable to evaluate the effectiveness of the technology (La Vigne et al. 2009).

The SCP theories developed by scholars such as Cornish and Clarke and extended to correctional settings by Wortley and others are just beginning to be rigorously tested by researchers as a means of reducing violence in correctional facilities. The JSAP project aimed to examine the implementation of this promising theoretical framework by partnering with practitioners to develop and test SCP-based interventions.



## CHAPTER THREE: Research Design

The JSAP project was a multistage effort spanning four years and three local jail facilities. UI researchers gathered and synthesized quantitative and qualitative data to identify key situational and environmental factors driving sexual assault, physical violence, and suicide and self-harm at the three sites. Based on the research findings, as well as SCP and other criminological theories, the researchers worked with administrators at each site to select interventions designed to reduce violence in the facilities. The interventions were implemented and tracked over a period of several months, and their impact and cost effectiveness were evaluated.

The action research design meant that the practitioner partners communicated and collaborated with the research team throughout the study. Jail administrators and staff at the sites were expected to be actively engaged partners, facilitating access to their facilities for data collection, responding to UI's recommendations and working closely with the research team to select the most promising interventions, and assisting in UI's efforts to track and evaluate the implementation of the interventions. While the level of participation of the site partners varied over time and across sites, the action research dimension of the project was an important component of the design that shaped the research activities from start to finish. A more detailed discussion of the successes and challenges of working closely with practitioner partners is included in section 7.4 *Benefits and Challenges of Action Research*.

The section below provides a brief overview of the three sites and a review of the study design outlining each phase of the project: preliminary data collection and analysis, development and selection of interventions, and implementation and evaluation. The discussion also documents some limitations of the JSAP project and explains alterations made to the research methodology at one of the sites. Specific details on the research activities at each site, such as the number of interviews conducted or surveys fielded at a given site, are included in the site case studies.

### 3.1 PROJECT SITES

UI researchers partnered with three county jail systems and selected one facility in each system on which to focus their efforts. Two of the jurisdictions (Sites B and C) are major metropolitan areas with very large jail systems housing 8,000 to 10,000 inmates each, placing them among the nation's 10 largest jail systems in terms of



inmate population. The third jurisdiction, Site A, is a city with a smaller but still sizeable jail system housing between 3,000 and 4,000 inmates, ranking it within the top 30 systems nationwide. All three jurisdictions were urban areas with significant African American (25–45 percent) and Hispanic (5–25 percent) populations.

One facility within each jail system was selected for the project. In the smallest jurisdiction (Site A), the project focused on a large facility that holds the majority (approximately 2,500) of the system's inmates. The two larger jail systems (Sites B and C) have a number of facilities within their systems, and the facilities selected for the project each house approximately 1,000 inmates. All three facilities selected for the project house primarily pretrial inmates; one facility houses both male and female inmates, and two facilities house inmates of all security classifications while one houses maximum security inmates only. More detailed background information is included in each site case study.

### **3.2 DATA COLLECTION**

The JSAP data collection served two purposes: informing the selection of an intervention and evaluating the impacts of the intervention. The first phase of the study involved gathering and synthesizing quantitative and qualitative data on violence and related acts of misconduct and self-harm in each facility. The data came from four main sources: site observation, incident data analysis, staff interviews, and inmate interviews. The second phase of the study was to select an intervention based on this information, while the third phase involved collecting additional incident data and administering surveys for the evaluation of the intervention's impacts.

#### **Site Observation**

UI researchers began their data collection activities by conducting an extensive tour of each facility, observing the physical environment, and identifying potential design and environmental factors that might contribute to violence. The tour also provided researchers with their first view of staffing and operations in each facility. UI researchers developed a checklist (see Appendix B) to guide the observation, and each team member took detailed notes, along with photographs of physical design features at the sites.



## **Incident Data**

To obtain a detailed understanding of violence in the facilities, the research team collected and analyzed administrative data on “incidents,” meaning all events and situations that require correctional staff to file an official “incident report,” details of which are maintained by the jail. These administrative data include all instances where an inmate or staff member suffers physical violence or injury, including all incidents of sexual assault, suicide, self-harm, and physical violence (physical fights, attacks, assaults, etc.) that come to the attention of staff. The data also include all seizures of weapons and contraband and any use of physical force by correctional staff when responding to inmate disturbances. Other events, such as inmate health problems caused by accidents or preexisting medical issues, are included in the incident data but were not analyzed for this project.

The researchers obtained incident data covering the period of January 1, 2005 (22 months before the project began) through September 30, 2010 (12 months after the interventions were implemented). One of the sites maintained its incident data electronically, and the data were easily transmitted to the research team for cleaning and coding. At the other two sites, data were only available in the form of hard-copy reports, which had to be manually entered into an electronic database by members of the research team, then cleaned and coded. The incident data were used for both the selection and evaluation of interventions.

## **Staff Interviews**

The researchers collected qualitative data by conducting one-on-one, semi-structured interviews with staff and inmates. During the first phase of the project, between 21 and 30 staff members were interviewed at each site, including jail administrators, midlevel management, and line correctional officers; medical and mental health clinicians; social workers and counselors; and departmental sexual assault, internal affairs, and gang investigators. The research team took care to interview a diverse array of staff representing all scheduled shifts, multiple areas of the facility, and a range of experience levels. Participants were selected by the research team from lists provided by jail management, which included staff members’ names, ranks, and assignments.

UI research staff developed three staff interview instruments: one for conducting interviews with jail management, one for line correctional officers, and a third for



civilian staff (medical and social workers, etc.) (see Appendix C). Though the instruments were tailored to different participants, they shared many of the same questions and content. Participants were asked about the prevalence and dynamics of sexual assault, fights and physical violence, and suicide and self-harm; gang issues and other causes of violence; procedures for responding to incidents of violence; inmate access to weapons and contraband; and general management and operational issues. Extensive notes were taken during the interviews and coded into tables that combined the responses from all interviews for each site. The findings from the interviews for a given site were synthesized to identify common themes regarding violence at that facility.

In the third phase of the study, staff interviews were also conducted during the implementation period and at the completion of the project to obtain staff perceptions on the impacts of the intervention. At each site, 3 to 14 staff members (not necessarily the same as those previously interviewed) were interviewed across the implementation period. The research team aimed to interview a mix of staff, stratified by shift. Interview protocols covered topics such as perceived impacts of the intervention on inmates, staff, and the facility; implementation challenges; satisfaction with the intervention; and areas for improvement. These interviews were used to better understand the impact of the intervention and to learn lessons about implementation to assist other facilities considering similar measures. Interview protocols for both the initial and implementation staff interviews are included in Appendices C and D.

### **Inmate Interviews**

Between 15 and 21 inmates were interviewed at each site, including five women at the facility that houses inmates of both sexes. Inmates were selected to represent as many of the general population housing units in each facility as possible (inmates from disciplinary segregation, mental health, and juvenile housing units were excluded). Because facilities generally house similar inmates together, the representation of a wide range of housing units contributed diversity in terms of participants' security classification, offense severity, age, and criminal status (pretrial or sentenced). Within each housing unit, inmates were randomly selected from a list





provided by jail management that included all inmates 18 and older who had resided in the facility for at least 60 days.<sup>9</sup>

The interview instrument asked respondents about the general level of safety in the facility; the prevalence and dynamics of sexual assault, fights and physical violence, and suicide and self-harm; gang issues and other causes of violence; access to weapons and contraband; staff supervision and response to incidents of violence; and the mental healthcare provided by the jail. In general, participants were not asked about their individual experiences of violence, but rather about their overall perceptions of violence and what they had witnessed in the facility involving other inmates.<sup>10</sup> Extensive notes were taken during the interviews and coded into tables that combined the responses from all interviews for each site. The findings from the interviews for a given site were synthesized to identify common themes regarding violence at that facility. An example interview protocol is included in Appendix E.

### **Inmate Surveys**

UI researchers also collected data on inmate perceptions of safety within the facility through a survey instrument about physical violence, sexual victimization, and self-harming behavior. The survey was administered both before and after the implementation of the new safety intervention. The research team surveyed between 105 and 177 inmates during the first round of surveys, between 14 and 19 months before the intervention<sup>11</sup> was implemented. Thirteen months after the interventions had been implemented, the research team again surveyed between 101 and 188 inmates at each site.<sup>12</sup>

Inmates were selected to represent a range of the general population housing units in each facility, which created diversity in terms of participants' security

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<sup>9</sup> The research team targeted inmates who had been in the facility for this designated period of time, because they felt that inmates with more experience in the jail could provide more accurate and reliable information about its environment.

<sup>10</sup> NIJ advised the research team to refrain from asking about self-reported victimization due to concurrent efforts to estimate the prevalence of sexual abuse in correctional facilities by the Bureau of Justice Statistics.

<sup>11</sup> The procurement process for all three sites was much lengthier than anticipated, causing significant delays in the implementation of each site's intervention. Due to these lengthy delays, the inmate surveys were administered far in advance of actual implementation.

<sup>12</sup> No follow-up surveys were administered to Site C due to a change in study design explained below.



classification, offense severity, age, and criminal status (pretrial or sentenced). Inmates from disciplinary segregation, mental health, and juvenile housing units were excluded from participation. Within each housing unit, inmates were randomly selected from a list provided by jail management that included all inmates 18 and older who had resided in the facility for at least 45 or 90 days, depending on the facility. No attempt was made to survey the same individuals for both survey rounds; this would have been nearly impossible given the rate of jail population turnover.

As one means of protecting participants from viewing each other's sensitive answers, as well as to provide cover for those who may not want to reveal that they answered questions pertaining to these topics, UI researchers informed respondents that not all surveys asked the same questions. UI researchers developed four versions of the survey, varying the order of sets of questions and also including additional mock or "dummy" questions that were outside the scope of the evaluation. The core questions (other than the dummy questions) were included on all four versions of the survey. Participants were asked about the prevalence of physical violence, suicide and self-harm, sexual assault, and consensual sexual activity in the facility; the locations where these types of incidents typically occur; whether these incidents usually come to the attention of staff; inmate access to weapons and privacy, both of which can facilitate assaults; the incidence of gang involvement among inmates; and inmate access to mental healthcare. Participants were asked about their own experiences of victimization (number of times another inmate "hurt" or "tried to hurt" them), participation in physical fights, and self-harming behaviors (number of times they "tried to hurt" themselves or commit suicide) in the previous 30 days. They were also asked about the situational dynamics surrounding these incidents, such as where and when they occurred and what weapons or methods were involved. Participants were not, however, specifically asked about their own experiences with sexual assault or consensual sex, because of the highly sensitive nature of the topics. A copy of one version of the survey is included as Appendix F.

### **Officer Surveys**

One of the sites had a different study methodology due to significant changes in inmate population type (explained in greater detail in section 3.5 *Alternate Evaluation Design at Site C*). Rather than survey inmates at Site C, the research team administered "pre" and "post" surveys to correctional officers participating in a crisis intervention training (the intervention chosen for that site). The survey covered



attitudes and perspectives regarding violence, victimization, and mental health issues in correctional settings; knowledge of effective staff behaviors for preventing and responding to violence; and opinions on the training. The survey was conducted at three points in time: immediately prior to the training, immediately after the training, and 7 to 14 months after the training. A copy of one version of the survey is included as Appendix G.

### **Cost Analysis Survey**

Sites A and B completed cost analysis surveys during the implementation period. Since cost-effectiveness analysis is dependent on incident outcome data which was unavailable at Site C, no cost analysis was completed for this site. The survey asked about financial impacts of the intervention, including funding sources; direct costs of intervention installation and maintenance; indirect costs (e.g., labor, meetings and planning activities, utilities and administrative costs, required environment alterations, and other necessary changes); and monetary benefits and reductions in facility expenditures (see Appendix H).

### **Other Data Sources**

In addition to the data collection activities described above, the researchers gathered data from a number of other important sources. Relationships with jail management proved crucial, as the research team communicated with them frequently to verify, clarify, and expand on information gained from the other data collection activities. Administrative data, such as staff and inmate counts, housing unit designations, and staff assignments and posts, provided important insights into jail operations. Some of the sites provided maps to help the research team understand the physical layout of the facility. Written policies and protocols governing staff practices and inmate behavior were obtained whenever possible to determine official operating procedures and verify information gleaned from staff and inmate interviews. Staff training materials provided by some sites offered a view into staff members' preparation for responding to violence. When available, materials from the jail systems' web sites, commissioned reports on the jail systems completed by local government or outside consultants, and media articles about violence in the sites' jails all offered valuable background information.



### 3.3 SELECTION AND IMPLEMENTATION OF INTERVENTIONS

In order to develop and select interventions tailored to the needs of each site, UI researchers synthesized data from multiple sources, including (1) site observations, (2) incident data from January 1, 2005, to December 31, 2006, (3) staff interviews, (4) inmate interviews, and (5) other data sources such as maps, procedures documents, etc. (see section 3.4 *Analyses* below for detail on analyses). For each site, the research team combined the findings from all data sources to identify key themes regarding violence in each facility and situational and environmental factors that were contributing to violence. A report was produced for each site that presented findings on the following topics: facility background information, sexual violence, physical violence, suicide and self-harm, and weapons and contraband. The focus was on developing a clear picture of the issues at each site independently, not synthesizing findings across the three sites. Once the major factors contributing to violence in each facility were identified, the research team developed a set of site-specific recommendations for addressing these issues based on SCP, rational choice, and other criminological theories.

The process of selecting the most promising interventions was a joint effort between the research team and jail administrators, in keeping with the action research design of the project. The researchers contributed their theoretical knowledge and research findings while the jail administrators provided practical expertise and experiential information regarding conditions in the facilities. The process began with the researchers presenting their key findings and most promising recommendations to jail management at each site in the form of a written memo and in-person presentation.

The jail administrators provided feedback on the findings and recommendations, as well as information on changes that had already been implemented during the course of the project. After the initial meeting, the research team conducted additional research on the recommendations that were identified by jail management as the most promising and feasible options. An iterative process of research and communication with the site partners continued over a period of months until the research team and jail administrators jointly settled on an intervention to be implemented by each site. While the researchers encouraged sites to implement multiple interventions to strengthen the impact of the safety strategy, each of the three sites decided on a single approach to address safety within their facilities.



The selected interventions were implemented by the sites beginning in the summer of 2009. JSAP project funding provided a \$25,000 subgrant to each site to offset the cost of the interventions. Researchers worked with jail administrators to select appropriate vendors offering the best quality and price for the services and technology associated with the interventions. The research team monitored implementation of the interventions for a period of 12 months through phone and e-mail communication with jail administrators, site visits, and interviews with jail management and staff. This evaluation component served two purposes: to understand the implementation process and glean lessons for other sites considering similar interventions, and to ensure that the interventions were being implemented with fidelity and could therefore provide confidence in the validity of the evaluation results.

### **3.4 ANALYSES**

The research team conducted analyses for three main purposes: (1) to synthesize data to inform the selection of interventions, (2) to evaluate the impact of the intervention, and (3) to analyze the cost effectiveness of the intervention. These evaluation activities are described below, as well as some changes that were made to the evaluation design for one of the sites. Site-specific details are included in the methods section of each case study.

#### **Analyses for Intervention Selection**

Urban Institute researchers synthesized information from the site observations, incident data, and staff and inmate interviews to identify key themes regarding violence in the facility and situational and environmental factors which contributed to violence. These data were used to develop tailored intervention recommendations for each of the sites.

Two years of incident data, from January 2005 through December 2006, were collected and analyzed for this purpose. After obtaining, cleaning, and coding the data, the research team analyzed, by incident type, the number of incidents, the rate of incidents in proportion to the size of the inmate population, and trends in incident levels over time. Researchers also examined the situational characteristics of the incidents, such as when and where they occurred, what weapons or other methods were used, and how many inmates and staff were involved. Narratives of select



incidents were reviewed to expand the understanding of the dynamics surrounding violent events, particularly for incidents like sexual assault and suicide that occur infrequently. Results from the incident data analysis were compiled into a brief overview memorandum for each site documenting the rates and situational characteristics of incidents by category: sexual assault, inmate-on-inmate physical violence, inmate-on-staff physical violence, suicide, self-harm, weapon and contraband seizure, and uses of force by correctional staff.

### **Analyses for Intervention Evaluation**

The research team evaluated the impact of the interventions over a 12-month period through an analysis of incident data and inmate surveys, site observations, and staff interviews.<sup>13</sup> Details of these analyses are presented below.

#### ***Incident Data Analyses***

Incident data were used to measure changes over time in the number of sexual, physically violent, self-harming, contraband, and use of force incidents. All incident reports from January 1, 2005, through September 30, 2010, were used for this analysis. The incident data were obtained, cleaned, and coded as described in the previous section (*Analyses for Intervention Selection*). UI researchers used both ARIMA (autoregressive integrated moving-average) time series analyses and structural break analyses to examine whether the incidence of these types of dangerous events was impacted by the implementation of the JSAP intervention.

Models were produced for nine categories of incidents (see Table 1). In both sites, the prevalence of sexual assaults and other sexual incidents (N=72 for Site A and N=33 for Site B) was too low to reliably analyze with time series methods. In addition, incidents of self-harm and insubordinate or threatening inmates were not analyzed at Site B due to small numbers.

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<sup>13</sup> The analyses described in this section were not conducted for Site C; the evaluation analyses that were used for Site C are described in section 3.5 *Alternate Evaluation Design at Site C*, below.



**Table 1. Analyzed Incident Types**

<i>Incident Type (Jan 1, 2005–Sep 30, 2010)</i>	<i>Site A</i>	<i>Site B</i>
All incidents	N=13,319	N=1,254
Main incidents ( <i>including physical assaults, sexual incidents, suicide/self-harm</i> )	N=4,442	N=664
Suicide/self-harm	N=1,197	N=101
Physical assaults ( <i>combined assaults on inmates and staff</i> )	N=3,173	N=539
Inmate-on-inmate assaults	N=2,984	N=353
Inmate-on-staff assaults	N=189	N=182
Contraband seizure	N=392	N=231
Combative/uncooperative inmates ( <i>Site A</i> ) or insubordinate/threatening inmates ( <i>Site B</i> )	N=1,789	N=148
Use of force by staff	N=2,474	N=521

The ARIMA modeling controlled for other events and changes in the jail, and both types of analyses controlled for inmate-to-staff ratios. Separate models were run for (1) immediate shifts in incident rates beginning the week after an intervention was implemented and continuing until the start of a new event (i.e., a new mean number of incidents during that time period) and (2) both shift effects and time-variant intervention effects which can change over time (e.g., a new camera system leads to an immediate reduction in incidents, but the impact quickly degrades over time as inmates learn that the camera system does not record). The model which best fit the data, according to the Akaike Information Criteria (AIC), was chosen for each incident category. For further detail on the methodology of the incident analyses and a brief explanation of ARIMA time series and structural break analyses, please see Appendix I.

Time series analysis with ARIMA modeling is reliant (as any model) on the inclusion of accurate and comprehensive data. If an event's date is incorrect, the model will not accurately estimate the effect of that change (as it will be looking for the effect of that event at the wrong time). Furthermore, if multiple events happen in close proximity, it will be difficult to determine which event caused any detected changes. If another unknown event occurred at the same time as an event or intervention included in the model, any effect may be falsely attributed to the event specified in the model when it is actually due to other events not included. In order to minimize these risks, the researchers asked jail administrators about changes occurring in the facility during routine phone calls throughout the course of the



project. However, even with this practice, some dates were inexact estimates and other changes may have occurred about which the jail did not inform research staff.

In addition, all sites experienced a variety of changes during the study period, some happening in close proximity to the intervention or other events, leading to an unstable baseline and difficulty attributing changes to specific events. The existence of many key events across the study period shortens the period of time available for detection of impacts, since the changes in incidents can only be assessed until the following event. For instance, if one intervention occurs three weeks after another, the estimated effects of the first intervention can only be observed independently during those three weeks. Thus, the estimated impact of that intervention is based only on three weeks of data, which in most models used here represents only three observations. This is analogous, in more traditional analyses, to estimating a program's impacts based on only three participants. Because of analytic constraints, the models included only the most important changes in the jail expected to significantly influence incident rates.

Due to limitations of the ARIMA time series analysis, including gradual implementations of the intervention, inexact dates of other facility events, and the presence of overlapping events, structural break analysis was also used to analyze the impact of the site interventions on incidents. Structural break analysis is a well-documented econometric approach for evaluating programs with inexact implementation dates (Piehl et al. 2003). Although structural break analysis is less theoretical than traditional analyses and runs the risk of overstating statistical significance, it can be more appropriate for cases with “fuzzy” implementations and unknown timing of events that need to be controlled for, compared with ARIMA approaches, which rely strongly on specific intervention and event dates.

Structural break analysis was used to identify the optimal set of break points (i.e., changes in the mean level of a series of time data) for the time series of each incident type. Once significant breaks were identified, the dates of these breaks were interpreted within the context of the known timeline of events at each facility.<sup>14</sup> For instance, if no break was seen at the time of intervention implementation or shortly after, there is likely no effect of the intervention. However, if a break occurred around the time of the implementation, it is possible that this change was due to the

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<sup>14</sup> We tested for multiple break points using the method developed by Bai and Perron (1998), performing analyses with the R statistical language and using functions provided by the *strucchange* package (Zeileis et al. 2001).





intervention (or any other known events occurring at that time). An impact value can be assigned to the break, showing the magnitude of change occurring at that point in time. Autocorrelation was accounted for in the model, and the model that fit the data best was chosen from a model with only shift effects and a model that included both shift and time-variant effects; no intervention dummy variables are included.

It is important to note that tests for structural change require the analyst to define the minimum length of a “regime” or potential period of time related to hypothetical events. This is often set to 15 percent of the total series length (approximately 11 months in this case). However, because of the rapid and frequent changes occurring in jail environments, a 10 percent regime length was used instead (approximately seven months). Changes that occur for a shorter period of time than this would be unlikely to be detected.

The research team considered also including a simple pre/post comparison t-test of the average number of incidents per month in the year before and after implementation of the interventions. However, with the number of other changes in the jail and the incremental intervention implementation, it was determined that the pre/post tests would be too vulnerable to validity threats to be useful.

### ***Inmate Survey and Other Qualitative Analyses***

The research team also analyzed inmate survey data from both before and several months after the intervention began. Many of the survey items used a four-point Likert scale with different types of response options. All scale items were coded in the following way: (-3), (-1), (1), (3), although these codes indicate different responses depending on the question. However, for all questions, more positive values designate “safer” perceptions (see Table 2).



**Table 2. Coding of Survey Likert Items**

<i>Survey Item</i>	<i>-3</i>	<i>-1</i>	<i>1</i>	<i>3</i>
In this jail, how likely is it than an inmate would force another inmate to have sex?	Very Likely	Likely	Unlikely	Very Unlikely
If an inmate was attacked or in a fight, how likely is it that staff would find out?	Very Unlikely	Unlikely	Likely	Very Likely
How easy is it for an inmate to get counseling/mental healthcare in this jail?	Very Hard	Hard	Easy	Very Easy
In this jail, how many inmates have weapons?	Most Inmates	Some Inmates	Just a Few Inmates	None
The cameras in the housing units make the jail more safe	Strongly Disagree	Disagree	Agree	Strongly Agree

Comparison analyses (t-tests and chi-square tests of independence) were used to determine whether inmate perceptions of safety changed after the intervention was implemented. Correlations were run to determine whether perceptions of safety varied by respondent characteristics; significant correlations were only reported when present in both the *pre* and *post* samples.

UI researchers also incorporated information from site observations and qualitatively analyzed staff interviews to learn about staff perceptions of the impacts of the intervention and lessons learned from the implementation.

### **Cost-Effectiveness Analysis**

Finally, the research team conducted a cost-effectiveness analysis to examine what costs were associated with implementation of the intervention, including initial start-up costs and ongoing costs. Data from cost analysis surveys were used to assess the direct and indirect financial impacts of the intervention, including costs or direct monetary benefits associated with equipment/infrastructure, installation, maintenance, meetings and other administrative activities, data monitoring/review, environmental or structural modification, utility changes, adverse events, discontinued programs, hiring or removal of staff, and other labor spent. Costs were then compared to the change in incidents found through the incident analyses; however, impacts on incidents are not assigned monetary values as in cost-benefit analysis due to a lack of empirical literature on cost estimates for correctional victimization and other types of incidents.



### **3.5 ALTERNATE EVALUATION DESIGN AT SITE C**

During the course of the project, the composition of the inmate population at Site C changed significantly. As a result of jail policy changes, the population in the facility shifted over a period of months from maximum security, general population inmates to inmates of all security levels who require daily medication, including a significant number of individuals with mental health issues. Because a key factor in the facility dynamics changed so drastically, the evaluation design was altered for this site. An overview of the changes is provided below and additional details can be found in the Site C case study.

The selected JSAP intervention at Site C was a one-week training for correctional officers on mental health, suicide and self-harm, sexual assault, and physical violence, framed around the theme of crisis response. The training expanded on the crisis intervention training (CIT) model that has been documented as successful in equipping law enforcement officers to manage encounters with individuals with mental health problems, extending the CIT model and strategies to include issues of sexual assault and inmate violence and applying the training to a correctional setting.

While pre-intervention inmate surveys were conducted at Site C, the inmate population changed significantly after they were fielded, such that post-intervention inmate surveys would be of almost no use as the samples would be too different to allow for any meaningful comparisons. In response to this complication, surveys of the correctional officers who participated in the training were substituted for the inmate surveys. The officer surveys enabled the research team to measure the effect of the training on the correctional staff who participated, although evaluation of the training's subsequent impact on violence in the facility was no longer feasible due to the population change.

Forty-five officers participated in the training, and they were surveyed immediately before, immediately after, and 7 to 14 months after the training. The survey measured their knowledge, attitudes, and perspectives regarding physical violence, inmate aggression, mental health, suicide and self-harm, sexual assault, and other forms of inappropriate sexual activity. It examined their knowledge about and use of effective, appropriate strategies for responding to crisis situations and asked them to evaluate their abilities to handle these types of situations. The survey also asked the officers to evaluate the training's effectiveness and value for their work. Researchers used descriptive statistics to examine sample characteristics and opinions



of training, as well as between-subjects ANOVA, and post-hoc Tukey tests to determine whether officer attitudes, confidence, and knowledge changed after participating in the training.

### **3.6 LIMITATIONS**

Although the described study has a strong quasi-experimental design involving multiple data sources, there are some limitations which should be noted. The main limitations of the project methodology are outlined below.

First of all, the evaluation design relies on analyses of changes in incidents and inmate survey responses across time. Since there are no control groups, it is impossible to definitively determine whether any changes are due to the implemented intervention or to other changes at the facilities. However, the researchers addressed this weakness by tracking other events and changes occurring in the jails during the study period and using a time series test for the analysis of incident data. Time series analysis helps to control for other factors which might have an impact on the outcome measure. Jail administrators were regularly asked about policy and facility changes and confirmed a timeline of these events.

Secondly, the environments at each site were far from stable. Each site had a variety of changes occurring over the study period, and some of these changes took place over extended periods of time, making it difficult to pinpoint when the impact of these changes would be experienced by the inmate population (e.g., changes to locks in housing units made over a period of several months). The lack of a stable baseline made detection of intervention effects more challenging. In some cases, it was also impossible to distinguish whether observed changes were due to the intervention or other events occurring at the facility around the same time. The structural break analyses are also unlikely to detect short-term impacts that occurred over less than seven months. Furthermore, these data are only as valid as the reporting by the administrators. In some cases, specific dates had to be estimated when administrators were unable to provide an exact date for an event (e.g., selecting March 1, 2009, to use in analyses for the given date, “March 2009”).

Readers of this report should also take caution in interpreting the incident data. It is ill-advised to compare the number of incidents across facilities, as the three jails have different reporting policies and standards. For instance, one jail might report only serious physical assaults, whereas another jail might report every type of



physical altercation between inmates. In addition, only the most serious incident of each event was coded, so some incidents may be underestimated. For example, only the staff attack would be coded for an event where an inmate attacks an officer after refusing to surrender a cellular phone and flooding his cell (which could also be coded as noncompliance, contraband, and intentional flooding). Other types of incidents were collapsed under overarching categories due to lack of detailed information about the incident (e.g., for Site A, all suicides, suicide attempts, and self-harming acts were combined under one self-harm code). More information about these limitations is available in the methods discussion for each site's case study.

There are also limitations associated with the inmate surveys. Although attempts were made at all sites to select participants randomly, Site B experienced challenges with random selection and passive refusals, which may have resulted in some selection bias (see section 5.2 *Data Collection* for more detail). Inmate surveys rely on self-reported perception data as a measurement of change in the jail. These findings should not be interpreted as direct measures of the true prevalence of incidents or behavior and instead should be examined in the context of other evidence. In addition, the inmate pre-intervention surveys were administered many months (16–19 months, depending on the site) prior to the intervention due to unexpected and extensive delays in the procurement process for the interventions, allowing for more time for other changes to occur in the interim. Site C's alternate design relies on officer self-report for changes in attitudes and behaviors. However, no other outcome measure could be used to verify reported changes, due to significant changes in inmate population. Any measurable change in officer behavior or inmate safety could be due to the training or to the different population of inmates.

Finally, findings from both staff and inmate interviews should be interpreted with caution. The sample size for pre-intervention interviews ranged from 21 to 30 for staff interviews and from 15 to 21 for inmate interviews. The sample size for post-intervention staff implementation interviews ranged from 3 to 14. These findings may not be generalizable across the facility; however, they do serve as valuable qualitative data about the context and perceptions of violence and self-harm in the facilities despite the limited sample size.



## **CHAPTER FOUR: Case Study for Site A**

### **4.1 SITE DESCRIPTION**

#### **Local Jurisdiction and Jail System**

Site A is located in a large city in the South with a local population of close to 1 million. The majority of the county's population is white and one-third of the residents are African American. The local area has a unified city/county government, where the sheriff's office is responsible for both local law enforcement duties and operation of the local jail system. This organizational structure helps facilitate communication between the two entities.

The local department of corrections (DOC) operates three correctional facilities: a large jail where intake and booking occurs and where three-quarters of the system's inmates are housed, most while awaiting trial; a jail housing medium and minimum security county-sentenced inmates; and a work-release and substance abuse treatment center for minimum security, nonviolent offenders. The DOC also manages a one-stop reentry center that provides discharge planning and service referrals to county residents returning from federal, state, and local incarceration.

Like many jail systems, over the past several years the DOC has seen an increase in admissions, average daily population, average length of stay, and serious felony offenses. The average daily population of the local jail system is between 3,500 and 4,000 inmates, and the DOC's facilities have been operating at up to 20 percent over capacity for the past six years. The DOC handles over 50,000 admissions and releases a year, with an average length of stay of 26 days (as of 2008). In 2008, 54 percent of those admitted were African American and 45 percent were white.

#### **Facility Description**

The largest facility operated by the local DOC was selected as the focus of the JSAP project. This jail, where intake and booking occurs for all individuals arrested in the county, houses three-quarters of the DOC's inmates. The facility (Site A) opened in the early 1990s and is located in the heart of the city, near the local courthouse. It houses all pretrial inmates in the county jail system, as well as county-sentenced inmates who serve as workers, county- and state-sentenced inmates on appeal, and



any maximum security inmates in the system. Three-quarters of the inmates are awaiting trial and the remaining one-quarter are sentenced.

When the project began in 2007, Site A had an average daily population (ADP) of around 2,600, nearly 20 percent over its rated capacity of 2,200. Overcrowding has been an issue at the facility since 2004, and in 2006 and 2007, an additional bunk was added to all double-bunked cells. Although the facility's rated capacity remains at 2,200 and infrastructure such as showers, program areas, and laundry facilities have not been expanded, the addition of triple-bunking has boosted available bed space to over 3,000. Female inmates comprise 11 to 12 percent of Site A's inmate population and a very small number of juveniles being tried as adults are also housed in the facility. Almost two-thirds of the inmate population is African American and over one-third is white with a small number (about 1 percent) of inmates reporting another race. Approximately three-quarters of the inmates (unsentenced and sentenced) are being held for felony charges. The average length of stay for inmates currently housed in the facility is around 90 days.

Site A has a vertical design, with seven main floors and five smaller mezzanine levels between floors. Movement between floors is via elevators, with separate elevators for inmates, staff, and visitors. The first floor houses inmate intake and processing areas as well as administrative offices. The remaining floors primarily contain inmate housing, as well as some program areas. The mezzanine levels are generally for staff only and contain areas like the staff dining hall. Inmates are allowed only on one mezzanine level, which houses inmate medical services.

The first floor is where intake and processing of arrested individuals takes place, as well as processing of transfers and releases. Although the first floor does not contain much long-term inmate housing, there are several holding cells of varying sizes and an open area where inmates await booking. The average processing time when an individual first comes to the facility is four hours. Also located on the first floor are the main entrance to the facility and offices for management and administrative staff.

Floors one through six hold the inmate housing areas, which are all maximum-security units even though they house inmates of all security levels. Each floor is divided into two wings where the inmate housing is located. Between the wings and directly in front of the elevators is a floor control booth from which officers control movement onto and off of the floor (via the elevators) and into and out of the wings



(via a hallway to each wing). Each floor has a recreation area, visiting area, and satellite medical clinic located in the central area near the floor control booth, as well as four isolation cells for housing special population inmates individually. Some floors have special program areas, including a law library, classrooms, and officer training room.

All wings are the same size and hold between four (large) and eight (small) housing units, depending on how the area is subdivided. The larger units have 24 cells and the smaller units have 12 cells. Altogether, each wing has a capacity of between 192 inmates (when all cells are double-bunked) and 288 inmates (if cells are triple-bunked). Some wings have small rooms that are used as staff offices or for inmate activities such as programming or counseling.

At the center of each wing is an enclosed central control booth (known as a “pod”) surrounded by the inmate housing units. From this raised booth, officers have a view (through glass) of all housing areas in the wing, although there are some blind spots. The booth is staffed by at least one officer who supervises all housing areas in the wing and electronically controls access to the units, lighting within the units, and the cell door locks. The officer communicates with inmates using an intercom located in the dayroom of each unit. In addition to the officer(s) in the central control booth, each wing has one or more officers who are assigned to provide intermittent direct supervision by touring the housing units on a regular basis.

General population inmates typically move unescorted to authorized areas of the facility and move from floor to floor via the elevators dedicated for inmates. The pod officers control their movement in and out of the housing units and the floor control officers control their movement on and off each floor and into and out of the nonhousing areas on the floor. Inmate movements are communicated from officer to officer so that the appropriate staff members are alerted that inmates are in transit.

Each housing unit has a central dayroom with two stories of cells laid out against the back wall and two sets of stairs leading to the second level of cells. Cell doors are mostly glass, allowing for significant visibility into and out of the cells, and officers can see into many of the cells from the central control booth. Each cell has a toilet and sink, and there is an open shower area (no modesty wall) in the dayroom that is visible from the central control booth. The dayroom also holds fixed steel tables and stools, and inmates take their meals in the dayroom. For about 16 hours a day, inmate





cell doors are left open and inmates are allowed to move around the housing unit freely.

Altogether, there are 59 housing units on the second through sixth floors. Five house women and four house male juveniles.<sup>15</sup> Sight and sound dividers are used to eliminate any contact between these inmates and other inmate populations. Eight units are dedicated for male inmates on administrative confinement and those with mental health issues. There are also two 12-cell units designated for self-harm inmates, one for males and one for females. More detail on the self-harm units and how they operate is included in the suicide and self-harm section of *4.5 Findings from Preliminary Research*.

The lower level (below the first floor) has three dormitory-style housing units that house the 200 to 250 county-sentenced inmates who work in the facility preparing food, doing laundry, and performing other basic duties. These units have a different configuration than other housing units in the jail. All inmates sleep on metal bunks in a single open area, rather than in cells, and inmates generally have less privacy than in the other housing units. The dormitory also contains a bathroom area with showers, toilets, and sinks; fixed metal tables and stools; and metal storage lockers with padlocks for inmates to store their belongings. Officers supervise the inmates from an enclosed pod located within the unit.

The facility chief reports directly to the DOC director, who in turn reports to the sheriff. The chief is assisted by four captains/assistant chiefs and five lieutenants who manage various jail functions (training, support services, etc.), as well as nine lieutenants who oversee shift operations. In terms of line correctional staff, Site A has approximately 70 sergeants and 350 officers, three-quarters of whom are male. The median amount of time that line correctional staff have been employed by the local DOC is 10 years. Correctional staff shifts run from 7:00 a.m. to 3:00 p.m., 3:00 p.m. to 11:00 p.m., and 11:00 p.m. to 7:00 a.m. Unlike some other jail facilities, at Site A there is no regular rotation of officers' shift assignments or posts. Some shift and post assignments do change throughout the year as people are promoted, but generally they stay fairly constant. There are around 75 civilian staff members working in the facility, including medical and mental health staff and social workers.

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<sup>15</sup> There are typically few or no female juveniles in the facility. If there are female juvenile inmates, they are housed in special cells on the first floor.



## 4.2 DATA COLLECTION

While the basic procedures for data collection were outlined above in section 3.2 *Data Collection*, this section will cover the details of the data collection specifically for Site A. The following section discusses the process of collecting data from a variety of sources, including site observations, incident data, staff and inmate interviews, and inmate surveys. Before data collection began, a kickoff meeting was held in November 2006, which provided the opportunity for the UI research team to meet key jail administrators in person and present them with an overview of the project. The jail staff present at the meeting included the chief and four key deputies, as well as a staff member with expertise in the jail's data systems. The researchers and the jail management team discussed the project tasks and timeline, with a particular focus on the data collection activities to occur in the first phase of the project. The main data collection activities were then carried out during site visits between February 2007 and October 2010.

### Site Observations and Other Materials

Over the course of the study, six site visits were made to the facility. In February 2007, three members of the UI research team conducted a detailed site observation visit to Site A. They took a comprehensive tour of the facility and spoke with jail management about physical design and facility operations. During subsequent visits, research team members often met with facility staff, took additional tours of the facility, and collected data. Other materials, such as written policies and relevant media articles, were also collected to supplement the researchers' understanding of the jail operations.

### Incident Data

Having gained an initial overview of the facility and its operations, the next step for the research team was to examine the prevalence of violent incidents in the facility and the situational factors surrounding these incidents. Administrative data were collected from the facility's incident reports. Site A maintains its incident data electronically, with the incident reports already categorized into incident categories by the facility. Although the most serious incident of the event was always coded, there was inconsistent coding of secondary incidents associated with the event (e.g., contraband may not have been listed in the incident record for an assault). The



following preestablished categories of incidents were collected for analysis: sexual assault, physical assaults,<sup>16</sup> self-harm, staff use of force, and weapon/contraband seizure.

Although there were significant benefits to having the data electronically in terms of staff resources, this also led to limitations in the categorization and availability of key data points. The data had no narrative descriptions of the event in question. The following things should be understood for interpreting incidents at Site A: (1) *alleged*, *attempted* and *completed* events are not distinguishable (e.g., an incident coded as a physical assault could be at attempted assault where no contact was made or an actual completed assault where injury occurred; an attempted suicide would be coded the same way as a completed suicide), (2) sexual incidents also include lewd behavior such as exposing oneself to a staff member, (3) sexual incidents could include either inmate or staff victims, (4) assaults on staff could be coded either as Battery on Law Enforcement Officer (BOLEO) or as Combative Inmate; staff assaults were typically only defined as BOLEO if injury occurred or charges were filed, (5) combative/uncooperative inmates could include both staff assaults and lower-grade noncompliant or resistant behavior that is not physical in nature, (6) self-harm includes self-harming as well as suicide actions and behavior, (7) it could not be determined whether there were group or individual perpetrators for incidents, (8) contraband was not defined so researchers were unable to determine whether these were weapon or nonweapon contraband, and (9) use of force incidents could include various types of restraint and force such as pepper spray, Tasers, the restraint chair, and other physical force from staff.

Incident data covering the period from January 1, 2005, to December 31, 2006, were transmitted to the UI research team in early 2007 for use in the preliminary analyses to guide the development of recommendations for safety interventions. A second extraction of data occurred in October 2010 to obtain all incident reports from January 1, 2005, to September 30, 2010, for the purpose of measuring changes in incident rates across time.

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<sup>16</sup> Assaults on staff are only available for the final analysis of all data for the evaluation. These data are not available for the analysis of incidents from January 1, 2005, to December 31, 2006, for the purposes of intervention selection.



## **Staff and Inmate Interviews**

To add qualitative context to the incident data, the UI researchers conducted interviews with staff and inmates in July 2007. Researchers interviewed 30 correctional and civilian staff at Site A about the prevalence and dynamics of sexual assault, fights and physical violence, and suicide and self-harm; gang issues and other causes of violence; procedures for responding to incidents of violence; inmate access to weapons and contraband; and general management and operational issues. Seven members of the jail management team were interviewed, including the chief in charge of the facility and six captains and lieutenants who oversee various elements of the jail's operations. Interviewed line-level correctional staff included seven officers and 10 sergeants; three of these line-level staff members were women. The correctional staff participants represented all three shift assignments, a range of experience levels, and a diversity of responsibilities. Researchers interviewed corrections officers in charge of inmate processing (intake, booking, release) and those involved in supervising general and special population housing units, including units housing women, mental health units, and worker inmates. They also interviewed five civilian staff: a medical nurse, two mental health nurses, a mental health counselor, and a member of the chaplaincy staff. In addition, a sexual assault investigator from the local police department's sex crimes unit was interviewed about sexual assault in the facility.<sup>17</sup>

During the same visit, researchers interviewed 21 inmates, 16 male and 5 female. The inmates were asked about the general level of safety in the facility; the prevalence and dynamics of sexual assault, fights and physical violence, and suicide and self-harm; gang issues and other causes of violence; access to weapons and contraband; staff supervision and response to incidents of violence; and the mental healthcare provided by the jail. The inmates who participated in the interviews were drawn from housing units across the facility and ranged in age, length of stay, and offense type. Some had never been incarcerated before, while others had been in correctional facilities, including Site A, multiple times. The participants' average age was 25 years, and they had been incarcerated at the facility for an average of eight months. Eighty percent were black, while the remaining interviewees were white.

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<sup>17</sup> Any incidents of sexual assault in the facility are investigated by the police department.



## **Inmate Survey**

In order to measure changes in inmate perceptions on safety within the facility, the UI researchers administered a survey about physical violence, sexual misbehavior and assault, and self-harming behavior both before and after the implementation of the new safety intervention. Prior to the implementation of the JSAP intervention, the research team surveyed 177 inmates in March 2008. In October 2010, 13 months after the intervention was implemented, the research team again surveyed 188 inmates. Surveys were administered in the jail's outdoor recreational area and in a classroom. The survey was anonymous, and the research team did not try to target the same individuals from the pre-intervention sample for participation in the post-intervention survey. Within each housing unit, inmates were randomly selected from a list provided by jail management that included all inmates 18 and older who had resided in the facility at least 45 days, were not on administrative confinement, and had no known mental health conditions.

## **4.3 SELECTION AND IMPLEMENTATION OF INTERVENTION**

Based on data synthesized through a combination of sources, the research team developed a set of recommendations addressing the unique issues of Site A and presented these recommendations, along with the findings on violence in the facility, to jail administrators on March 5, 2008. Through continued communication with the research team and additional research on the feasibility and cost of various recommendations, the management at Site A chose to implement an officer tour system that tracks officers' movement throughout the facility while conducting rounds. The research team tracked implementation over a period of 12 months through regular phone calls and two site visits. Through these phone calls and visits, the research team was able to identify changes to the intervention and implementation challenges.

## **4.4 ANALYSES**

Urban Institute researchers synthesized information from the site observation, incident data, and staff and inmate interviews to identify key themes regarding violence in the facility and situational and environmental factors that contributed to violence. Two years of incident data, from January 2005 through December 2006, were collected and analyzed for the purpose of developing intervention



recommendations for Site A. For each incident type, annual and monthly prevalence rates were calculated and situational factors, such as when, where, and how an incident occurred, were analyzed.

Incident data were also used to measure changes over time in incidents of interest, including sexual and physical violence, self-harm, contraband, combative/uncooperative inmates, and use of force incidents. All incident reports from January 2005 through September 2010 were used for this analysis. UI researchers used simple pre/post comparisons, ARIMA time series analysis, and structural break analysis to examine whether the incidence of violence and self-harm was impacted by the implementation of the intervention and other changes in the jail.

Two types of time series analyses were run for Site A: ARIMA time series analysis and structural break analysis. Both types of analyses were completed for the nine incident outcomes listed in Table 1. All time series analyses were conducted using weekly incident counts except for staff assaults and contraband, which used monthly incident counts. ARIMA time series models constructed for Site A included seven events in addition to the main intervention under study (see Table 11).

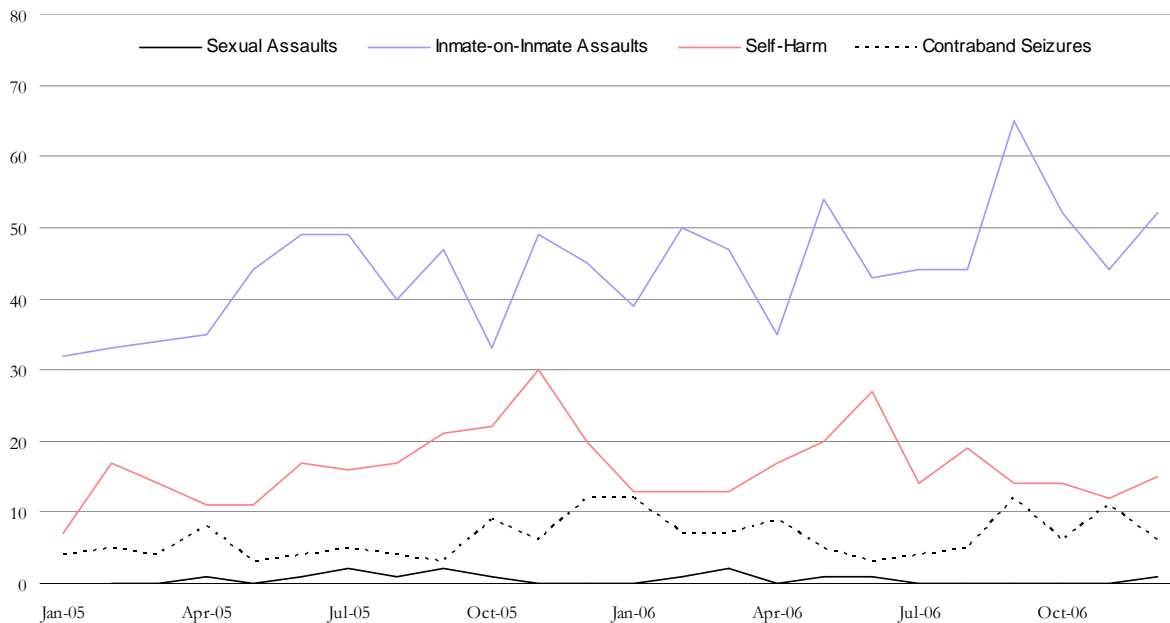
The research team also administered surveys to inmates both before the intervention and 12 months after the intervention began. Survey data were analyzed with independent sample t-tests and chi-square tests of independence to determine whether inmate perceptions of safety changed after the intervention was implemented. UI researchers also qualitatively analyzed staff interviews to learn about staff perceptions of the impacts of the intervention and lessons learned from the implementation. Finally, the research team conducted a cost-effectiveness analysis to examine how the intervention costs related to impacts on incidents.

#### **4.5 FINDINGS FROM PRELIMINARY RESEARCH**

After collecting data over a period of several months in 2007, the UI research team analyzed the data and synthesized findings across the data sources, primarily the incident data, staff and inmate interviews, and site observation. Findings were organized around the three main types of violence that are the focus of the JSAP project—sexual assault, physical violence, and suicide/self-harm—as well as the corollary issue of weapons and contraband (see Figure 1). These data were used to develop intervention recommendations for Site A (findings from the evaluation of the intervention are further below).



**Figure 1. Number of Monthly Incidents, 2005–2006**



*Note:* Categories include attempts.

## Sexual Assault

There are few incidents of sexual assault reported at Site A, and those that are reported are almost never prosecuted. In 2005 and 2006, only 14 incidents<sup>18</sup> were reported in the official incident data, a rate of about 2.9 incidents annually for every 1,000 inmates (based on an average daily population during those years of around 2,400). The reported incidents occurred at all times of day and nearly half happened in general population housing units, while the remainder happened in other areas. The jail's sexual assault investigator confirmed that serious allegations of sexual assault are rarely reported at the facility, and that these cases are very difficult to prosecute, making prosecutors hesitant to take them on.

Some staff interview participants, including the sexual assault investigator, believed that more incidents are occurring than are being reported, but most staff still reported that male inmate-on-inmate sexual assault is relatively infrequent at Site A.

<sup>18</sup> The incident data UI researchers had access to does not distinguish between inmate-on-inmate and inmate-on-staff sexual assault or between serious incidents perpetrated by force, coercive sexual behaviors, and more minor incidents like "lewd acts," so the figure here includes a wide range of types of incidents.



Some staff suggested that a significant number of the allegations that do arise are unfounded, while others are related to consensual sexual relationships that are based on manipulation or become coercive over time. Unlike staff, most male inmates reported that sexual assaults are happening at least occasionally in the facility. While male inmates had a range of opinions about the frequency of inmate-on-inmate sexual assault, several described specific incidents they were aware of, although many seemed to be describing the same few incidents. Most incidents that were described involved force; few inmates discussed other types of sexual victimization such as coercive sexual activity and sex in exchange for goods or protection.

In the incidents of male inmate-on-inmate sexual assault described by inmates during interviews, some common characteristics emerged, which echo findings in the academic literature. Interviewed inmates believed sexual perpetrators were usually physically large, with a criminal history and long sentence. They thought victims were more likely to be young, physically weak, small, Caucasian, and without a previous incarceration history. Inmates thought cells were the most likely location for sexual incidents, and they believed some were isolated occurrences, while others involved repeated victimization over time. Inmates also raised an important concern that, during some incidents, other inmates facilitate the attack by blocking the cell door so the victim cannot escape and the correctional officers cannot see what is happening.

Staff and inmates were of mixed views regarding the degree to which consensual sexual acts were occurring among male inmates. Some staff suggested that consensual sex is less common and less accepted in jail than in prison, because the shorter stays leave less time and provide less motivation for relationships to develop. Most staff and inmates believed that if consensual sex is happening, it is being kept fairly private, although other inmates and staff may be aware of it. A few inmates indicated that officers ignore rumors of consensual sex unless or until they catch inmates in the act, in which case the inmates will typically be moved to new cells and be written up in a disciplinary report.

According to both inmates and staff, forced sex is not happening among the female inmates. Consensual sex, however, is common and widely accepted among female inmates, as are close “girlfriend” relationships that may or may not be sexual. Sex was reported to happen in cells during the daytime. Few of the staff or female inmates interviewed believed sexual relationships among female inmates were a cause for concern.





The vast majority of both staff and inmates interviewed felt that sexual contact between staff and male or female inmates is not happening. However, several people mentioned the problem of male inmates intentionally masturbating in front of female staff, both correctional and civilian, or otherwise harassing them. At the time of the UI interviews, some staff and inmates reported that these incidents were happening almost daily and that the same small handful of the inmates was committing these acts. Some female staff felt that correctional officers were not quick enough to discipline inmates for this behavior and that even those inmates who were reported were not punished.

Staff reported taking some precautions to prevent sexual assault. While there is no formal policy governing how to house or supervise at-risk inmates, officers said that they sometimes watch at-risk inmates more carefully to ensure they are not being victimized. Inmates who are physically weak, small, Caucasian, mentally ill, homosexual, or have never been incarcerated are perceived by staff to be at additional risk of sexual assault and other kinds of victimization. Some staff indicated that transgender inmates are usually placed in the administrative segregation or mental health dorms, and gay inmates are often offered protective custody. Correctional staff receive an online sexual assault training covering reporting procedures and confidentiality requirements.

### **Physical Violence**

According to the incident data, an average of 44 incidents of inmate-on-inmate battery occur in Site A each month, which translates into about 1.5 incidents per day. Half of these incidents occur during the evening shift (3:00 p.m.–11:00 p.m.) and most of the remainder (40 percent) happen during the day shift (7:00 a.m.–3:00 p.m.). Staff reported that the evening shift was a prime time for violence, while inmates indicated that incidents happen at all times of day except at night when they are locked into cells. The vast majority (80 percent) of incidents in the official data occur in general population housing units, and certain housing areas have particularly high levels of violence. The seriousness of the incidents is difficult to determine, because documentation of weapon usage or injuries is optional for reporting officers.

Although incidents of violence are frequent, staff and inmate interviews indicate that serious incidents such as stabbings are rare, and few incidents involve weapons. The majority of incidents are one-on-one fights, although incidents involving multiple inmates do occur. Staff and inmates reported that most incidents occur in the



dayroom, particularly in a blind spot under the stairs; in the recreation area; and inside cells, especially those at the edges of the unit that may be out of the pod officer's line of sight. Although facility policy is to conduct rounds every 15 to 60 minutes, depending on the unit, interviewed staff and inmates disagreed about how often officers were leaving the booth at the center of the housing units and conducting security rounds within the housing units. Several inmates reported that officers in the booths are often on the computer or otherwise distracted, or are sleeping during the night shift.

The most common cause of fights, according to inmates, is the theft of commissary, food, or other personal belongings; and staff agreed that this is a major cause of violence. The problems with theft are due in part to the fact that inmates have no way to secure their personal belongings. Other significant causes of fights, according to inmates and staff, include gambling, card games, telephone use, issues from life outside the jail, and disrespect. Overcrowding in the facility and overall inmate stress and boredom were reported to exacerbate tension among inmates. Most inmates and staff interviewed said that gangs are not currently a major problem at the facility, though some staff suggested that their presence is growing. Far more common are inmate "cliques" based on neighborhood affiliation and friendships from the community. In the future, these cliques may develop into formalized gangs. Inmates also suggested that some violence is racially motivated and that white inmates are often targeted. Staff and inmates both believe that fights are most common among younger inmates.

Staff and inmates report that physical violence is infrequent among female inmates, as is the use of weapons. As with male inmates, female inmates report that theft of commissary and other personal belongings is the most common cause of fights. Interpersonal conflicts and relationship issues are also typical causes of physical violence among females.

According to staff interviews, relatively few major incidents occur in the intake area on the first floor. Staff attributed this to having a number of officers posted in the area, which enables them to respond quickly to any disruptions that do occur. Staff also mentioned that streamlining the intake process has reduced frustration for people going through the process. Incidents that do occur in this area are often one-on-one fights or attacks on staff that involve intoxicated, mentally ill, or agitated inmates.



## **Suicide and Self-Harm**

Completed suicides were relatively rare in Site A. Official incident data obtained by UI research staff show one suicide in the period covering 2005 and 2006. According to staff interviews, at least one suicide occurred in 2007 as well.

The incident data show a significant number of self-harm incidents throughout 2005 and 2006, around 16 incidents per month or about one every two days, although the seriousness of these incidents varies widely because the figures combine threats, attempts, and completed acts of self-harm and suicide. Incidents occurred throughout the building, although they were somewhat more common in the mental health and self-harm units. According to interviews with staff, incidents are also common in single-bunked isolation cells and threats often occur in the processing areas on the first floor. Half of the reports in the official incident data occurred during the evening shift (3:00–11:00 p.m.) and 37 percent happened during the day shift (7:00 a.m.–3:00 p.m.). While it may seem surprising that only 14 percent of the incidents were reported during the night shift (11:00 p.m.–7:00 a.m.), incidents occurring at night may not be detected by staff or reported until after the night shift.

Correctional and civilian staff had a range of opinions on how frequently serious suicide attempts or self-harm incidents occur. Both staff and inmates suggest that a significant share of attempts and threats are manipulative efforts by inmates to gain attention or get something they want within the system, rather than serious attempts to harm themselves. According to staff and inmates, the circumstances surrounding incidents of self-harm and suicide often depend on whether an attempt is serious or manipulative. Serious attempts often occur in a cell at night or in the early morning, or at other times and places where an inmate is alone and has privacy.

The most common method for inmates attempting suicide or self-harm is to cut themselves with razors. Inmates also attempt to hang themselves using sheets, clothes, towels, or pieces of mattress braided into rope; jump off the second tier of the housing units; or cut, scratch, or stab themselves using the metal piece on their armbands, pencils, pens, or paper clips. Those who attempt to hang themselves often tie themselves to the bunk or some other anchor point and rely on their own weight to tighten the noose.

Interviews suggest that the inmates at highest risk for suicide or self-harm are white, male, older or younger than the average inmate, incarcerated for the first time, and/or have a high-profile case. Intoxicated inmates who have just been admitted



from the street are also at risk. The triggers for self-harm and suicide include personal, family, or legal crises; holidays; phone calls or visits with family; and the period following sentencing or a court date. These inmate risk factors and high risk times are similar to those found in the academic literature on suicide in correctional facilities. However, staff also indicated that some successful suicides have no warning signs and occur among inmates who have not been flagged by the mental health system.

In interviews, inmates reported problems with the jail's mental health services that may be contributing to self-harm. Inmates reported multiple week-long delays in obtaining psychiatric medications and meeting with mental health staff, though other inmates disagreed with this assessment. Inmates also reported a need for more sources of informal counseling and support. Perhaps most revealing is the fact that during interviews staff mentioned several factors that help prevent suicide and self-harm in the facility, but mental health services were not typically cited as one of these factors.

In an effort to prevent suicide and self-harm, every inmate entering the jail receives a medical and mental health screening. Most staff believed that the intake screening successfully identifies a significant share of at-risk inmates. Flagged inmates are sent directly to mental health services or kept in the self-harm housing units until they can be seen by mental health staff. When incidents of self-harm do occur, the staff response appears to be swift and professional. Across the board, correctional staff expressed an understanding of the need to take any threat of self-harm seriously and that it is the responsibility of mental health staff to assess the legitimacy of a suicide threat or attempt. Staff generally reported feeling well-trained on how to respond to self-harm incidents. Inmates reported that staff took appropriate action when an inmate threatened self-harm. Staff and inmates feel that the self-harm units are effective at preventing suicide, although some suggest that if an inmate is truly determined to harm himself, he will.

### **Facilitators of Violence**

The official incident data from 2005 and 2006 show an average of 6.4 incidents<sup>19</sup> of contraband seizure a month occurring throughout the facility, including in the intake

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<sup>19</sup> There was wide variation in the numbers of contraband seizures by site. As previously mentioned in section 3.6 *Limitations*, this may reflect differences in reporting requirements by site.



and processing areas on the first floor. Staff reported the presence of some “hard” contraband in the facility, such as drugs, tobacco, homemade alcohol, razors, and shanks. However, most contraband is “soft,” such as extra food, linens, or uniforms. Interviews with staff and inmates suggest that weapons are not common in the facility and violent incidents rarely involve weapons. When incidents do involve weapons, the weapon is typically a broom or mop handle, piece of mop bucket, razor, heavy item (soap, lock, etc.) put in a sock, or shank made from a toothbrush, comb, pencil, metal piece from cells, or piece of plastic.

According to inmates, contraband of all sorts comes from two main sources: from outside the jail or through the worker inmates. Visitors and corrupt officers are common sources of contraband in other jail facilities, but these two were rarely mentioned in interviews with staff and inmates at Site A. Interviews with inmates and staff suggest that worker inmates have access to many areas in the jail where they can obtain contraband either by stealing it or having someone bring it from the outside (by throwing it over the fence or leaving it in the lobby bathroom, for example). A common place for worker inmates to hide contraband is behind the ceiling tiles in the dormitory style housing units to which they are assigned.

Staff and inmates had differing opinions regarding the frequency and thoroughness with which worker inmates, including those with access to sensitive areas, are being searched. A significant number of inmates suggested that thorough shakedowns are not happening frequently, although some disagreed and said that shakedowns were common. Some inmates suggested that the most thorough shakedowns were those based on tips that targeted a specific cell or inmate. Many inmates stated that officers might search cells but not search inmates themselves, making it possible for inmates to keep contraband on their person during a shakedown. Inmates provided mixed reports on whether they are typically aware of a pending shakedown, affording them time to hide or discard their contraband. Indicators of a pending shakedown include warnings from worker inmates or officers carrying bags used to collect contraband.

#### **4.6 SELECTED INTERVENTION**

Although Site A did not seem to have as severe of a problem with sexual assault, extreme physical violence, weapons, or gangs compared with the other two JSAP sites, there were still some major areas of concern identified by the initial research. Physical violence was commonplace and suicide and self-harm were significant



issues, though one which staff and management seemed serious about addressing. As outlined in the previous section, the JSAP research activities produced a number of valuable findings regarding the factors driving violence and the dynamics surrounding violent incidents in Site A. While not all of these factors were within the control of the jail, several of them suggest potential intervention points where the jail could initiate changes that might reduce violence.

After synthesizing findings from their research, the UI project team developed a number of recommendations for reducing violence at Site A based on these findings (see Appendices J–K). Following the JSAP project’s action-research model, the UI researchers worked with jail management at Site A to select an intervention from the wide array of recommendations. In March 2008, the researchers presented their findings and recommendations to jail management via a memo and in-person presentation and meeting. The chief and other managers at Site A were interested in many of the recommendations made by UI. However, there were barriers to implementing some of the suggestions at that time. After extensive discussion and additional research, the UI and Site A teams settled on the intervention they felt was most feasible and effective: a system for ensuring officers complete their security tours.

An issue that came up frequently in the findings was the role of staff supervision and monitoring in preventing violence. For example, inmates suggested that closer supervision by officers could prevent incidents of self-harm, and both inmates and staff saw the self-harm housing units, which allow high-risk inmates to be monitored more closely, as effective in preventing suicide. The most common location for both sexual assault and suicide/self-harm was cells, and officers may not be fully aware of what is going on in the cells unless they are actively conducting security rounds within the housing units. Physical violence also typically occurs in areas of the housing units that officers cannot see from inside the control booth, such as the blind spot under the staircase and the cells at the edge of the unit. According to staff, inmates actively choose to perpetrate incidents in the places and times where they are less likely to be caught by officers.

Officers at Site A are required to conduct security rounds within the housing units every 15, 30, or 60 minutes depending on the housing unit. However, interviews with staff and inmates suggested that these security rounds were not happening as frequently as required, and many officers assigned to supervise inmates spent most or all of their shifts in the central control booth rather than out in the housing units.



In consideration of these findings, the UI researchers recommended increased staff supervision of all areas and particularly those known to be hotspots for violent incidents (cells, blind spots within the units). Site A's indirect supervision structure, along with the reported lack of rounds being completed according to policy, created a supervision need at the facility. It was suggested that staff supervision of inmates could be increased by (a) installing cameras or mirrors to enhance the ability of staff to monitor certain areas, especially blind spots; (b) prohibiting inmates from blocking the view into their cells; or (c) implementing a system to ensure officers are actively conducting security rounds within housing units.

While officers are required to log an entry into the jail's computer system each time they complete a round, there is no mechanism in place for confirming that an officer actually completed the round or for documenting how thorough it was. Direct supervision in concordance with an effective inmate management strategy is generally considered a best practice for corrections by many in the field, and research has shown that direct supervision is associated with reductions in violence and other serious incidents (Wener 2006). However, Site A's attempts to supplement its indirect supervision with intermittent direct supervision (i.e., officer rounds) were being undermined by this unreliable form of documentation. To ensure officers complete thorough, frequent security tours, the UI project team recommended implementing an electronic system to track data on officer rounds by having officers swipe a card or reader in front of sensors placed around the housing units.

Such a system would create an electronic log detailing when the officer was in the housing unit conducting rounds, allowing management to track staff compliance with the rounds schedule and increasing the amount of time officers are out in the housing units. Increasing the presence of officers within the housing units can serve as a major deterrent to violence and other forms of inmate misbehavior, and may help officers respond more quickly when incidents do occur to prevent escalation into violence. It can also help officers get to know the inmates better, improving their ability to anticipate problems and to gather intelligence from inmates. While the proposed change would not convert the facility to a direct supervision design, it would move operations closer to that ideal by increasing the amount of time officers are directly supervising inmates.

In their research, the UI team found two main types of technology available for tracking officer rounds electronically:



1. An RFID-based system that makes use of the RFID chips already in staff ID cards along with RFID readers that would be installed in the housing units. Officers would swipe their cards in front of each reader as they make their rounds. The readers would be wired to a central system and would instantly send information into a computer program that tracks the rounds. The estimate from Site A's current RFID vendor for installing a system with around 50 checkpoints was \$60,000.
2. A security tour system designed specifically for correctional facilities in which a series of inexpensive, passive sensors are placed throughout the housing units and officers carry around a small, handheld electronic device (a "pipe") during their tours that the sensors detect once touched. The system records data on which pipe is used to make contact with various identified sensors. The data are stored in the pipe, downloaded at the end of each shift, and sent to a specialized computer program that tracks and reports on the officer tours. Estimates for installing this type of system with around 200 checkpoints and 26 pipes were \$25,000.

The advantage of Option 1 is that the data are sent instantly to the central computer system where they are automatically linked to a specific officer, and there is no need for officers to do anything other than swipe their cards as they complete their rounds. Under Option 2, the officers have to take the reader to a base unit and download the data at the end of their shifts, and the data are not available until that point in time. The advantage of Option 2 is that the sensors are inexpensive and installation is simple, allowing greater flexibility in the system over time. In contrast, the RFID readers in Option 1 typically need to be wired to a central unit, making the system more expensive and installation more complicated.

Site A's leadership found the idea of a system to monitor staff security rounds very promising. They felt that such a system could significantly improve officers' job performance and that increased supervision of inmates would reduce violence and other problems in the facility. They believed the intervention would be cost-effective and could be installed throughout the building, producing benefits across the entire facility. Jail management and the researchers agreed that an officer tour system was the most promising, feasible intervention under consideration, and it was selected as Site A's primary intervention for the JSAP project. Site A decided on Option 2 as the most appropriate system for the facility's needs.





## **4.7 IMPLEMENTATION**

Once the site decided upon the officer tour system, it still took a number of months to lay the foundation for implementing the intervention. The system was installed in Summer 2009, and implementation officially commenced in early Fall 2009. Below is a discussion of the implementation process.

### **Vendor Selection**

Once a decision had been made regarding which intervention to focus on, the UI research team helped Site A's jail management identify a vendor from which to purchase the system. Site A had \$25,000 available to spend on the system, provided through a NIJ subgrant from the JSAP project to defray each site's costs for implementing the selected intervention. Site A and UI obtained estimates from three vendors outlining what type of system each could provide for under \$25,000. Two of the vendors offer a system that involves passive mounted sensors that are scanned by portable pipes which store the data (Option 2), while the other vendor offers a system of passive RFID cards that are scanned in front of RFID card readers which transmit the data to a central system (Option 1). Jail management at Site A received an in-person demonstration of each of the three systems from vendor representatives.

Site A selected the vendor they felt provided the best value and most appropriate product to meet their needs within the allotted budget. At \$25,000, the selected system provided 26 portable pipes (about 8 inches in length) and 210 passive sensors and mounts, enough to cover strategic locations in the facility. It also included the station for downloading data from the pipes and the customized software necessary to track and analyze the data, with a license for installation on all the jail's computers and simultaneous use on four computers. The selected vendor specializes in providing security tour systems for correctional facilities, while many other vendors focus primarily on the noncorrectional market (for example, systems for security guards in office buildings). Systems from the selected vendor are installed in correctional facilities across the country.

### **Installation and Launch**

Site A received the components for the officer tour system in July of 2009. One hundred and four buttons were installed within the facility in July. One captain and a few supervising lieutenants did walk-throughs of housing units with line officers to



identify the best locations for the sensor buttons. The tour system was installed in all housing areas of the jail. Typically these buttons were installed next to the isolation cells outside of the housing unit (2 buttons), along the bottom tier of a housing unit (1–2 buttons), and along the top tier of a housing unit (1–2 buttons). Installation of the sensor buttons took one week. Site A also received 26 pipes for officers to carry on their person while performing rounds. The jail administrators gave pipes to 10 percent of the correctional staff in July to test out the features. Site A was in this pilot testing period for two months before officially launching the program. In addition to the installation of buttons, Site A needed to set up a dedicated computer work station to download data from the pipes (done once daily) and install and program the software required for data download. The jail's IT staff worked for multiple months on creating a back-up system and customizing data report formats (see *Maintenance and Alterations*, below).

The officer tour system was launched for all correctional staff on September 9, 2009. Due to financial constraints, there were only 26 pipes for approximately 32 on-duty correctional staff who would need to conduct rounds during each shift (about two pipes per floor). This meant that while most officers could use the pipes to document their rounds, other officers would need to continue recording rounds in their computer system as done originally. Officers checked out pipes from the central booths where they were stationed, conducted the round with the pipe, and then returned the pipe to its designated location. No formal training or orientation occurred, although staff were sent a procedures document and were informally instructed on the system's use.

Supervising officers began having access to data from the officer tour system in November and were instructed to monitor the data and address any concerns they identified. Sergeants were expected to review the records on a daily basis, while lieutenants and a captain would monitor the data on occasion to ensure noncompliance was being addressed. If sergeants noticed a problem, they were instructed to conduct an informal investigation by speaking with the line staff doing rounds at that time and obtain an explanation for why rounds were not conducted according to policy. Lieutenants then wrote up a report for the captain. Based on the reasons for the neglected round and the number of times the officer has been reprimanded, the supervising officers will decide on whether admonition, additional training, or disciplinary responses are required.



## **Maintenance and Alterations**

Some minor changes occurred across the implementation period in order to refine the system. Maintenance issues also arose due to equipment problems. These alterations and maintenance challenges are detailed below.

Officers participating in the pilot study were asked for feedback before the full launch of the system. The officers complained that the pipes' size and weight (about 0.5 pounds) was not conducive to carrying the pipes on their key chains. In response to this feedback, Site A transitioned from attaching the pipes onto officers' key chains to storing them in the officer central booths. In addition, the jail had crafted braided wire rings on-site to attach to the ends of the pipes. Over time, these became frayed, causing discomfort to officers, so they were exchanged for solid metal rings which officers preferred.

Site A also had some challenges initially with the software used in conjunction with the officer tour system. They had to contact the vendor to troubleshoot problems and bugs encountered (e.g., download problems, shut-downs) when first trying to use the software. Beyond these issues, Site A also had to negotiate with their IT department about new responsibilities to create regular reports, and IT took some time to experiment with different report formats. Site A decided upon a set of customizable reports that showed when sensory buttons were activated (focusing on a particular button, pipe, housing unit, or time period). In addition, a second type of report was created to show "exceptions" when a button was not activated during a time period it should have been (e.g., no buttons were activated within a housing unit during an hour-long period where rounds are supposed to occur at least once hourly).

In addition, Site A experienced problems with damage to the sensor buttons. Some of the buttons were smashed inwards and were malfunctioning due to the damage. It was unclear at first whether the damage was due to direct vandalism (either by inmates or officers) or due to wear and tear. However, as buttons continued to become damaged over time, it became more likely that the sensor buttons were having trouble due, at least in part, to regular use. Site A contacted the vendor about the problem, and the vendor agreed to send replacement buttons until the one-year warranty expired. After that point, Site A plans to replace damaged buttons one at a time with more expensive sensors that the vendor claims are less susceptible to damage. Site A also had to return some of the pipes because of broken end caps due to manufacture error.



## **Future Plans**

Site A plans to continue using the officer tour system after the completion of the project. The officer tour system is scalable and can be expanded over time with additional sensor buttons. They have submitted a proposal to purchase more pipes so that *all* officers on a given shift can use the pipe instead of some needing to document rounds in the computer. In addition, they are considering expanding the system to other areas throughout the facility such as the intake area, processing area, kitchen, etc. The jail administrators also want to eventually purchase enough pipes so that every sergeant has access to pipes in the housing areas. They have considered adding a button on the officer's person so that the officer would only have to touch the pipe to their personal pipe to register they had checked out a pipe. The site is also contemplating adding sensory buttons in the officer pods to monitor sergeant supervision of officers. Site A plans to make these expansions gradually over time to prevent financial burden.

## **4.8 EVALUATION**

In order to evaluate the impact of Site A's officer tour system, the UI research team analyzed data from three sources: (1) program observations and staff interviews, (2) inmate surveys, and (3) incident data.

### **Program Observations and Staff Implementation Interviews**

UI researchers had bimonthly phone conversations with management at Site A and made two site visits to the facility to document the implementation of the officer tour system, observe its operation, and interview various staff members about the use and impacts of the system. Through these visits and conversations, the following information was obtained.

#### ***Interviews and Meetings with Jail Leadership***

During the beginning stages of implementation, the research team had regularly scheduled phone calls with jail administrators to discuss the status of the system, any problems or concerns with the system, and initial impressions of its impact. Overall, the jail administrators felt positively about the system. The leadership appreciated the increased accountability and felt the system was easy to learn (the administrators said no formal training was needed). The jail administrators also liked that the system



could provide some additional protection in regards to litigation by documenting officer whereabouts or appropriately completed rounds. However, the main goal of the system was to have more officer presence in the housing units. They reported it was concerning to see the first reports from the system, which showed that rounds were not occurring according to policy.

Early on in the implementation period, the administrators heard anecdotally from inmates that officers were in the housing units more frequently and, consequently, there were less contraband thefts, a common cause of fights. The administrators reported the officers were largely neutral about the system in the beginning months. However, some officers told the jail administrators they liked the system for its ability to ensure all officers were doing similar amounts of work, while a small number of officers were more resistant, saying the system would result in more work. The jail leadership tried to increase engagement by involving officers in decisions on button locations. Jail administrators reported that the supervisors accepted the system, but disliked the additional work involved with monitoring the data outputs.

The administrators reported that it would take some time to produce the cultural shift needed for officers to understand and accept the new practice. For example, officers now needed to problem-solve ways to continue conducting rounds even in the face of atypical circumstances, such as inmate movement or a low number of staff on a particular day. However, even during the first few months, supervisors were responding to officer round behavior; as of February 2009 seven investigations were underway to address officers underperforming rounds.

Throughout the implementation, the jail management's opinions remained mostly positive. However, equipment issues arose midway through implementation. The leadership had to deal with the replacement of sensor buttons and pipes due to manufacturing problems and low wear resistance. The jail leadership also would have preferred to have immediate, real-time data from the system instead of having to collect the pipes to download the data each day.

At the end of the implementation period, jail administrators expressed their overall satisfaction with the system, illustrated by their desire to expand the system to additional housing units as well as invest in more durable equipment. Product quality dissatisfaction aside, the administrators found that the primary virtue of the system was the increase of officer presence in the housing units from which a number of collateral benefits stemmed. From a management lens, administrators cited the



system as a useful resource to ensure officers are executing their jobs according to policy, document proper conductance of rounds when there have been allegations of officer neglect (either internally by an inmate or potentially for litigation), and increase opportunities for officers to intervene in inmate misconduct, violence, self-harm, or illness.

Furthermore, administrators reported that the system's improvement in officer presence in the housing units has had direct benefits for officers and inmates. Administrators again highlighted that the system has eased interpersonal conflict between officers that had largely stemmed from an imbalance in the number of rounds made by different officers. Although administrators reported that direct feedback from inmates was limited, they believed that the increase in officer presence within the housing units improved the sense of safety among inmates. Relatedly, administrators felt that the increased officer presence resulted in additional communication opportunities between officers and inmates, allowing for important information to be conveyed to officers related to safety concerns.

While administrators reported benefits of the system for officers, they acknowledged that the officers had mixed opinions. According to administrators, some officers might feel that the jail leadership did not trust that officers were doing their jobs according to policy. In addition, while the equipment was not as durable as expected, administrators suspected that part of the damage may have been due to vandalism by officers. Overall, however, administrators thought that most officers had become used to the new system and they were past the most intense resistance by the end of the implementation period.

### ***Interviews with Correctional Officers and Supervisors***

Interviews with 15 supervisors and line staff three months after the system had been launched revealed varying opinions on the officer tour system. An equal number of officers felt that the system increased the *number* of rounds as those who felt it decreased the *quality* of rounds. Those who felt it decreased the quality of rounds said that officers are more focused on attending to the buttons than viewing what is happening in the housing units.

In comparison to the previous system of recording rounds into the computer, only one-fifth of the officers felt the automatic data entry of the officer tour system was better. A couple officers said they still enter the rounds into the computer system,



because they worry the pipe might not record data accurately. This double-entry of rounds data duplicates efforts and reduces one of the benefits of the officer tour system, which is removing the need to manually enter rounds into the computer system. One-third of the interviewed officers also reported the sensory buttons did not always function properly. They reported they might have to touch the sensory button with the pipe multiple times to activate the button, and this caused wear and tear to the sensory buttons. Once the buttons began to become damaged, they were even more difficult to activate. Other issues related to the comfort of the system, including complaints about the weight of the pipes and the wire rings which unraveled and cut officers (the wire rings were made within the facility and were not part of the vendor system; the facility eventually changed these rings).

Overall, the most common complaint from officers was the difficulty of conducting rounds in the required time periods. Round requirements differ based on the housing unit (e.g., once per hour for general population, once per 30 minutes for close supervision, once per 15 minutes for mental health and juvenile units). Officers who had more frequent round requirements were more apt to report this difficulty. Complaints centered around competing responsibilities and distractions, pure time constraints, and inmates planning misbehavior based on round schedules. The fact that these complaints were due more to the rounds policy and less to the officer tour system itself likely suggests that officers were not previously conducting rounds according to policy. One interviewee also did not like how officers had to share pipes, and a supervisor reported extra burden from data report reviews.

Most officers were unsure whether the system had an impact on inmate behavior, but a small number of officers either thought the system decreased inmate problems or had no effect. A couple of officers said that the inmates were, overall, comfortable with the pipe system and would even remind officers if they accidentally missed a sensor button during their rounds. However, officers said that some inmates were concerned the pipe might be used as a weapon or were suspicious that the sensor buttons might be cameras or audio recorders. Some officers were concerned with inmate vandalism, reporting that in a small number of cases inmates had vandalized the buttons by putting toothpaste and cookie crumbs on the button casing. One officer feared the inmates might find a way to make a weapon out of the metal from the button casings or use the pipe as a weapon.

At the completion of the implementation period, a final set of interviews was conducted with twelve line staff and supervisors. On the whole, most officers put



forth both strengths and limitations of the system, with few offering an entirely positive or negative review of the system. The most commonly cited impact of the system was that officers more consistently made rounds according to policy. While supervisors found documentation of rounds to be particularly helpful in measuring the performance of officers, several supervisors and line staff alike found the frequency of rounds to be an imperfect measure.

Supervisors again voiced concerns about the quality of rounds, and officers reported that the frequency of rounds prevented them from tending to other urgent situations. Several officers expressed that the system also limited their interaction with inmates. Officers suggested that they had more freedom to talk to inmates and tend to their needs before implementation of the system. However, some officers reported that their focus has shifted from inmate care to round completion. While the opportunity to build rapport with inmates was limited from the officers' perspectives, many officers reported that the system had little impact on inmates. A couple interviewees thought the rounds actually hindered safety in some cases. For example, the juvenile unit has rounds every 15 minutes, and officers reported that juvenile inmates would sometimes plan attacks on the bottom tier while the officer was on the top tier.

From a product quality perspective, officers overwhelmingly reported that technical problems with equipment contributed to their overall dissatisfaction with the system. The officers' frustration with both fragile pipes and buttons echoed challenges expressed during the initial implementation interviews. While few officers suggested terminating the use of the system, most officers suggested a desire for improved equipment, including more durable buttons and lighter, ergonomically designed pipes that are resilient.

### ***Observations***

Observations of the officer tour system during site visits showed procedures to be similar to that described by the jail administrators. A research team member examined the equipment and accompanied an officer on a round to witness the system in action. The pipe was somewhat heavy and attached to a key ring with braided wire that was fraying (the rings were exchanged during this same site visit for solid metal, welded rings). A round ID tag was also placed on the wire ring, which stated the housing unit to which the pipe was assigned. Both the ID tag and wire ring were made in-house. The pipe beeped and lit up to indicate that data had been





recorded. Some pipes had tape over the pipe to lower the volume of the beep. The captain said this was not allowed but officers were trying to keep the beep at a lower volume to not alert inmates they were making rounds.

Sensor buttons were placed on walls near the isolation cells outside the housing units and along the walls between cells in the housing units. Small housing units have two buttons (one on each level of tiers), and large housing units have three buttons (two on the top tier, one on the bottom) in between cells on the wall. Linear-style units have buttons at the end of the hallway. The researcher saw multiple buttons on the wall, including ones which looked to be functioning appropriately, ones which had been removed due to suspected vandalism, and a button remaining on the wall which officers indicated was difficult for the pipe to sensor and which also appeared damaged.

During the round observed by the UI researcher, the officer walked along the walls that had cells. As he passed a button, he touched it with his pipe, which beeped upon contact. There seemed to be no issues with the button sensing the pipe. However, the officer accidentally passed a button at one point, realized he missed it, and then went back to hit it. The officer looked into cells as he walked by and knocked on the door if an inmate was not visibly moving (e.g., asleep) to ensure the inmate was not injured. The researcher also observed the captain download data from a pipe. Data are downloaded in one location within the administrative offices. In order to download data, the pipe is placed on a console and data are downloaded to the computer system within a few seconds.

While both a jail administrator and an interviewed officer said no training was necessary for the system, several officers had questions for a jail administrator giving a UI researcher a tour of the system. While the majority of these questions were not about basic usage of the pipe (e.g., an officer asked about proper procedure when attacked if the officer has keys in one hand and the pipe in the other hand), these questions still might indicate a need for some minimal training.



## Inmate Surveys

Inmate surveys were administered at Site A 18 months<sup>20</sup> before and 13 months after the officer tour system was launched to assess for changes in inmate perceptions of safety at the jail. The survey asked about physical violence, sexual misbehavior and assault, and self-harming behavior and was administered to randomly selected inmates who fit the eligibility criteria. The results of these surveys are presented below, including basic descriptive statistics and comparison analyses between the *pre-* and *post-intervention* samples. Independent sample t-tests were used to detect differences between the *pre* and *post* samples for continuous variables (including four-point Likert scales), and chi-square tests of independence were used to detect differences for categorical variables. Comparisons for dichotomous variables used the continuity correction, and t-tests with a significant Levene score are based on the t statistic indicated for unequal variances. Significant differences are indicated with asterisks (\* =  $p < .05$ , \*\* =  $p < .01$ ), while marginally significant differences are indicated with a cross symbol († =  $p < .10$ ); all are highlighted in yellow in the tables that follow. Differences in sample characteristics were minor and were not consistently related to content-related survey responses across survey groups; therefore, no correction was made to account for these differences.

There were five different types of questions, including items asking about (1) the general likelihood of a particular safety risk, (2) the likelihood of that safety risk in certain locations of the jail, (3) the likelihood staff would learn of the safety risk, (4) access to health and mental health services, and (5) facilitators of violence (e.g., weapons, drugs). The response format for these questions generally followed a four-point Likert scale. However, the structure of these questions could vary. For example, one question might ask about the likelihood of an attack occurring (Very Likely to Very Unlikely), while another question might ask about the number of inmates who are in gangs (Most Inmates to None). Although the response options differ across the different types of questions, all four-point Likert-scale items were coded in the same way, (-3), (-1), (1), (3), where more positive values indicate safer perceptions. For example, the research team scored both an attack being “Very Unlikely” and an

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<sup>20</sup> The procurement process was much lengthier than anticipated, causing significant delays in the implementation of the officer tour system. Due to these lengthy delays, the inmate surveys were administered far in advance of actual implementation.



inmate reporting “None” for the number of inmates in gangs as (3) since both of these responses indicate a safer environment (see Table 2).

### ***Sample Characteristics***

Both the *pre* (N=177) and *post* (N=188) samples were similar in terms of demographics and background characteristics (see Table 3). The samples consisted primarily of male inmates with a small portion of female respondents (18 percent) and exhibited diversity in terms of race and ethnicity. The *post* sample had a larger number of black respondents (57 percent) than those surveyed before the intervention (46 percent), and a small number (5-9 percent) of respondents reported being Latino or Hispanic. The vast majority of the sample reported a heterosexual orientation.

**Table 3. Demographics and Criminal History**

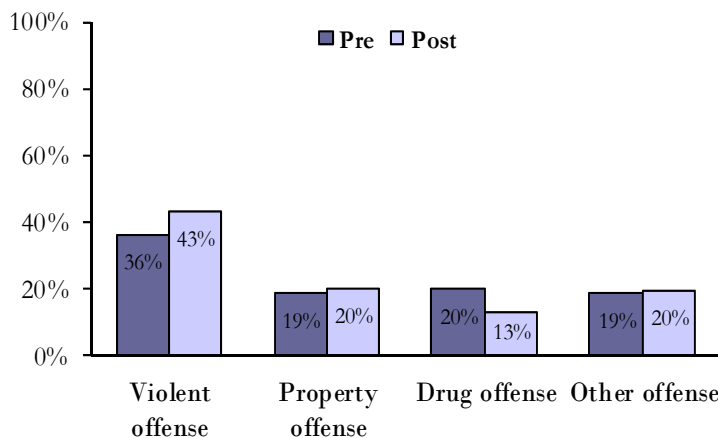
Variable		Pre	Post
Median age		29.0	28.0
% Female		18.1%	18.3%
% Black*		45.5%	57.0%
% Latino/Hispanic		5.20%	9.20%
% White/Non-Hispanic		36.4%	30.6%
% Heterosexual		92.7%	92.4%
% Violent Offense		37.6%	42.8%
% Property Offense		19.4%	21.1%
% Drug Offense		17.0%	11.7%
% Other Offense		26.1%	24.4%
Mean # Convictions		3.58	2.74
% First time at Site A		33.9%	34.4%
% Spent time at another jail		29.1%	35.2%
Mean # mos. served at jail		10.04	8.24
Status	Sentenced	33.3%	34.1%
	Awaiting trial	51.7%	56.0%
	Other	14.9%	9.9%

\* p<.05, \*\* p<.01, † p<.1



Current offenses varied, with violent offenses (36–43 percent) being the most common, followed by property offenses (19–20 percent) (see Figure 2). The respondents had significant criminal histories with around three convictions in their past. Around two-thirds of the sample had been incarcerated at this jail previously, and around one-third had spent time at another jail facility. At the time of the survey, inmates had spent about 8 to 10 months at the jail. The majority were awaiting trial (52–56 percent), although a sizable portion (33–34 percent) had already been sentenced.

**Figure 2. Current Offense of Respondents**



Although there was one significant difference between the two samples, there was no consistent relationship between survey perception responses and identifying as black or African American across the two survey groups. Because race did not appear to have a strong impact on the pattern of responses, no correction was made for this demographic variation across the two samples.

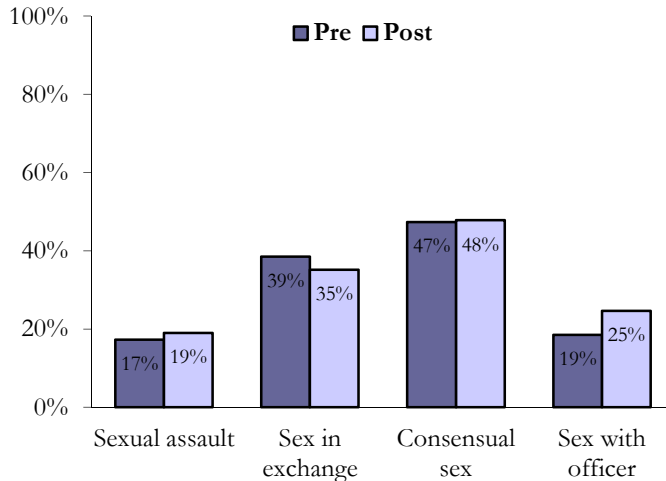
### ***Sexual Violence***

Table 4 displays findings from the survey for items about various sexual behaviors. The majority of items have a positive mean value on the four-point Likert scale (-3, -1, 1, 3) described earlier, indicating that inmates do not generally perceive sexual assaults and other sexual behaviors to be of high risk. Figure 3 shows the proportion of respondents who felt these different types of sexual behaviors were likely (“Likely” or “Very Likely”). Nearly half of inmates thought consensual sex was likely to occur in the jail, and over one-third thought that sex in exchange for



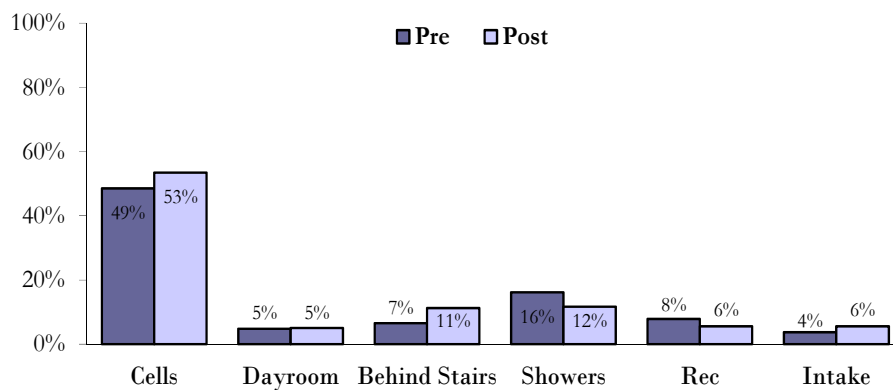
something was likely. Fewer inmates thought that sex with an officer (19–25 percent) or sexual assault (17–19 percent) were likely to occur.

**Figure 3. Likelihood of Sexual Behaviors**



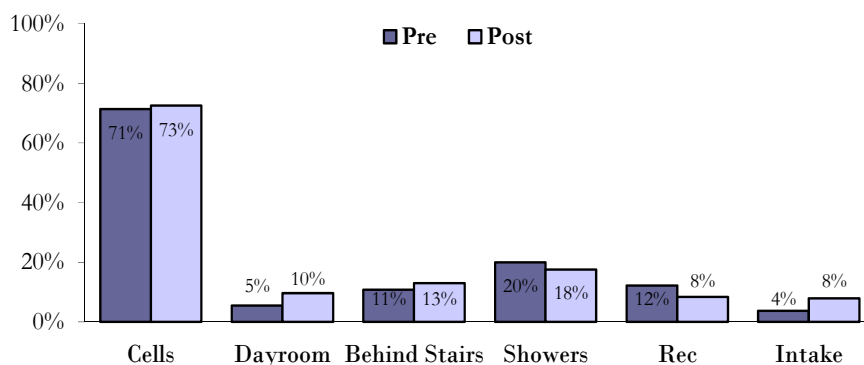
Cells were overwhelmingly seen as the most likely location for both sexual assault and consensual sex, with showers as the second most common location lagging far behind (see Figures 4 and 5). Open-ended questions asking where the most likely location would be for sexual assault and consensual sex mirrored these findings, with the vast majority of respondents replying with “cells.”

**Figure 4. Likelihood of Sexual Assault by Location**



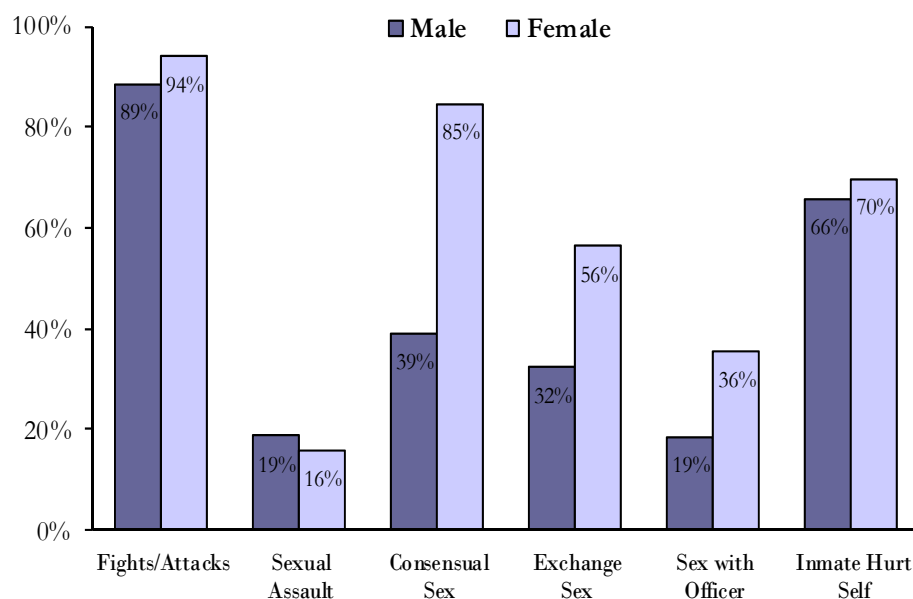


**Figure 5. Likelihood of Consensual Sex by Location**



Perceptions varied by respondent characteristics. Female inmates were more likely to think that consensual sex, sex in exchange for something, and sex with an officer were likely, although there were no gender differences in perceptions of the likelihood of sexual assault (see Figure 6). There was no consistent relation across survey administrations between sexual orientation and perceptions of consensual sex or sexual violence.

**Figure 6. Gender Differences in Perceptions**



Fewer inmates thought staff would learn about consensual sex (26–27 percent) compared to sexual assault (48–49 percent). Nearly half (45 percent) of respondents said they would not be comfortable reporting a sexual assault. The most common reasons given (N=67) were distrust of officers (officers were disrespectful or



unprofessional, would not care or believe the inmate, or would tell other inmates) (27 percent), fear of retribution (21 percent), sexual assault being personal or no one else's business (19 percent), and shame (13 percent). Older inmates were less comfortable reporting sexual assaults. Overall, there were no statistically significant differences in perceptions of sexual incidents between the *pre* and *post* samples, suggesting that opinions on these topics did not change between the two time points.

**Table 4. Perceptions of Consensual Sex and Sexual Violence**

Variable	Pre Mean	Post Mean	Pre %	Post %
Perceptions of Sexual Behavior				
Likelihood of sexual assault	1.40	1.46	17.3%	19.0%
Likelihood of exchange sex	0.49	0.63	38.5%	35.2%
Likelihood of consensual sex	0.12	0.13	47.3%	47.8%
Likelihood of sex with officer	1.30	1.36	18.5%	24.6%
Perceptions of Sexual Assault				
Likelihood in cell	0.03	-0.11	48.5%	53.4%
Likelihood in dayroom	2.13	2.12	4.8%	5.0%
Likelihood behind stairs	1.90	1.83	6.5%	11.2%
Likelihood in showers	1.65	1.67	16.1%	11.7%
Likelihood in rec area	2.07	2.11	7.8%	5.6%
Likelihood in intake	2.31	2.19	3.7%	5.6%
Likelihood staff find out	0.03	0.03	48.5%	48.3%
Comfort of reporting assault <sup>1</sup>	N/A	-0.28	N/A	55.5%
Perceptions of Consensual Sex				
Likelihood in cell	-0.93	-1.00	71.4%	72.5%
Likelihood in dayroom	2.09	1.92	5.4%	9.6%
Likelihood behind stairs	1.84	1.76	10.8%	13.0%
Likelihood in showers	1.48	1.59	19.9%	17.5%
Likelihood in rec area	1.90	1.99	12.2%	8.4%
Likelihood in intake	2.21	2.01	3.7%	7.9%
Likelihood staff find out	-1.01	-1.06	26.7%	26.4%

\*  $p < .05$ , \*\*  $p < .01$ , †  $p < .1$

<sup>1</sup>The item *Comfort of Reporting Assault* was only administered for the post survey, and has a scale of "Very Comfortable" to "Very Uncomfortable." Percentages shown are for respondents endorsing "Comfortable" and "Very Comfortable."



### ***Physical Violence***

In contrast to perceptions about sexual violence, the majority of items about physical violence have a negative mean value, indicating that inmates feel at high risk for physical violence (see Table 5 below). The vast majority of inmates (91 percent of *pre* and 88 percent of *post* inmates) reported fights or attacks were likely (“Likely” or “Very Likely”).

**Table 5. Perceptions of Physical Violence**

Variable	Pre Mean	Post Mean	Pre %	Post %
Likelihood of fight/attack†	-1.82	-1.57	91.3%	87.8%
Likelihood in cell	-1.33	-1.42	80.2%	86.0%
Likelihood in dayroom†	-1.6	-1.28	85.5%	77.7%
Likelihood behind stairs	-1.74	-1.89	85.7%	86.4%
Likelihood in showers	0.99	0.95	21.9%	26.9%
Likelihood in rec area*	-1.25	-0.83	80.5%	71.6%
Likelihood in intake	0.78	1.1	29.3%	26.3%
Likelihood staff find out	0.54	0.40	62.3%	61.7%
Number of inmates in gangs <sup>1*</sup>	0.33	-0.13	49.7%	59.1%

\*  $p < .05$ , \*\*  $p < .01$ , †  $p < .1$

<sup>1</sup> The item, *Number of Inmates in Gangs*, has a scale of “None” to “Most Inmates.” Percentages shown are for respondents endorsing “Some Inmates” or “Most Inmates.”

Figure 7 shows the proportion of respondents who believed physical violence was likely in various locations of the jail. Of the locations listed in the survey, inmates felt that cells, the dayroom, behind the stairs in the dayroom, and the recreation area were the most likely locations for physical violence. When asked to name other likely places for violence to occur, inmates reported court holding cells, “anywhere,” elevators, classrooms, near telephones, and the clinic as other possible locations. However, in an open-ended question inmates indicated that the most likely location for physical violence was the dayroom, particularly behind the stairs (same pattern for both *pre* and *post*). Male inmates were more likely to report that violence would occur behind the stairs in the housing unit, while female inmates were more likely to report that violence would occur in the shower area.

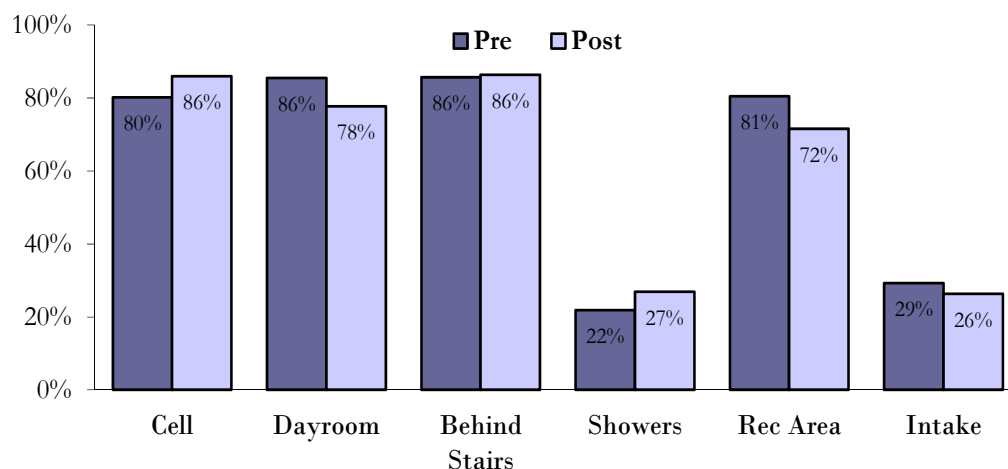
Unlike the findings for sexual incidents, the majority of inmates thought correctional staff would find out about physical violence. Female inmates were less likely than males to believe staff would learn about fights and attacks. Inmates had





mixed beliefs regarding the gang presence in the jail. About half of the inmates in the *pre* sample thought that “Some” or “Most” inmates were in gangs, while the other half felt that “Few” or “None” were involved in gang activity.

**Figure 7. Likelihood of Physical Violence by Location**



T-tests revealed potential changes in perceptions of physical violence, including a decrease in the likelihood of fights and attacks in the recreation area and marginally significant trends toward decreasing physical violence in the dayroom and for physical violence in general. In the opposite direction, respondents believed more inmates were involved with gangs in the *post* sample, consistent with qualitative reports from officers indicating that cliques existed in the jail that they were concerned might turn into gang membership.

### ***Self-Harming Behaviors and Healthcare Services***

Respondents had fairly negative perceptions of the jail’s healthcare and the risk of self-harm (see Table 6). Small numbers of inmates believed accessing needed medications (18–21 percent) and mental healthcare (28–33 percent) was “Easy” or “Very Easy” (see Figure 8). Many respondents who reported needing some type of healthcare themselves reported difficulty acquiring medications or mental healthcare (78 percent of *pre* and 79 percent of *post* respondents).



**Table 6. Perceptions of Self-Harm and Health Care**

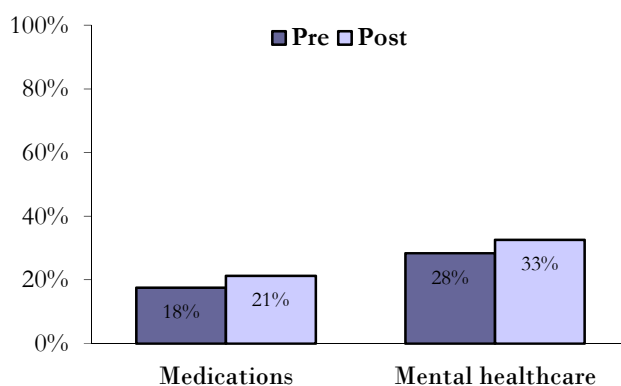
Variable	Pre Mean	Post Mean	Pre %	Post %
Ease of getting meds <sup>1</sup>	-1.40	-1.38	17.5%	21.2%
Ease of getting mental healthcare <sup>1</sup>	-0.88	-0.82	28.4%	32.6%
Likelihood of inmate hurting self	-0.66	-0.58	64.4%	68.5%
Likelihood staff find out	1.14	0.98	76.8%	75.3%

\*  $p < .05$ , \*\*  $p < .01$ , †  $p < .1$

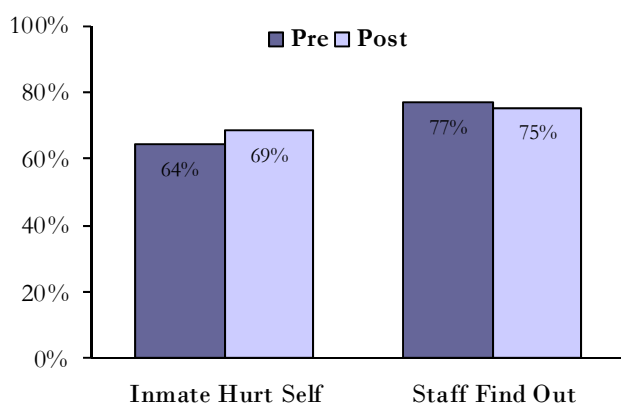
<sup>1</sup>The items *Ease of Getting Meds* and *Ease of Getting Mental Health Care* have a scale of “Very Hard” to “Very Easy.” Percentages shown are for respondents endorsing “Easy” or “Very Easy.”

The majority of inmates (64–69 percent) thought it was likely for an inmate to hurt him or herself. However, respondents did think that correctional staff were likely to find out about an inmate’s attempt at self-harm or suicide (see Figure 9). There was no change in perceptions from before and after the intervention was implemented.

**Figure 8. Ease of Obtaining Medications and Mental Health Care**



**Figure 9. Likelihood of Inmate Hurting Self and Staff Finding**





### *Facilitators of Violence and Self-Harm*

Weapons, drugs, and access to private locations can facilitate violence and self-harm. A sizable number of inmates (39–49 percent) believed that “Some” or “Most” inmates in the jail had weapons, and an even larger percentage (56–70 percent) thought that it was “Easy” or “Very Easy” to acquire a weapon (see Table 7). After the intervention, fewer, although still more than half of, respondents thought it was easy to get a weapon. A t-test also showed a significant decrease in perceptions of how many inmates had weapons.

**Table 7. Perceptions of Contraband and Privacy**

Variable	Pre Mean	Post Mean	Pre %	Post %
Number of inmates w/ weapons <sup>2*</sup>	0.13	0.63	49.4%	39.1%
Ease of getting weapon <sup>1**</sup>	-0.76	-0.03	69.5%	55.6%
Number of inmates using drugs <sup>2†</sup>	-0.05	0.63	54.4%	38.5%
Ease of getting drugs <sup>1†</sup>	0.45	1.11	40.0%	31.5%
Ease of getting privacy <sup>1</sup>	1.45	1.58	21.1%	15.6%

\*  $p < .05$ , \*\*  $p < .01$ , †  $p < .1$

<sup>1</sup>The items *Ease of Getting Weapon* and *Ease of Getting Drugs* have a scale of “Very Hard” to “Very Easy.” Percentages shown are for respondents endorsing “Easy” or “Very Easy.”

<sup>2</sup>The items, *Number of Inmates with Weapons* and *Number of Inmates Using Drugs*, have a scale of “None” to “Most Inmates.” Percentages shown are for respondents endorsing “Some Inmates” or “Most Inmates.”

Access to and use of alcohol (usually homemade “hooch”) or drugs may also lead to violence, retribution for theft of such contraband, or drug-selling disputes. Respondents’ perceptions of the availability and ease of getting drugs marginally decreased after the intervention (see Figure 10). Although the magnitude of these changes is greater than those for weapons, significant findings are more difficult to detect, as only a portion of all respondents were asked the items about drugs.<sup>21</sup>

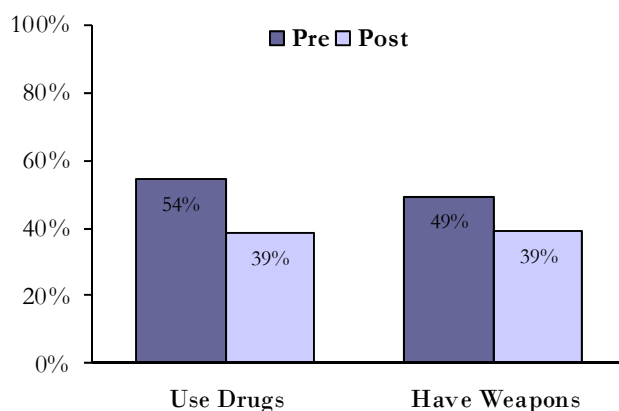
Finally, privacy allows for the perpetration of nonpermissible and violent activities. Most inmates (79–84 percent) thought it was difficult to find privacy, but the intervention did not appear to impact levels of perceived privacy among inmates.

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<sup>21</sup> Three drug items were included in 43 percent of the surveys (N=157) as dummy questions as part of an attempt to create multiple versions of the survey instrument to dissuade inmates from trying to view other inmates’ surveys.



**Figure 10. Number of Inmates Who Use Drugs or Have Weapons in Jail**



### ***Personal Experiences***

The following section describes findings on the personal experiences of respondents. Respondents were asked if they had experienced any of the following in the past 30 days: (a) hurt self, (b) threatened by an inmate, (c) hurt by an inmate, or (d) participated in a fight. Details about these experiences are reported qualitatively for the sample of respondents that experienced each of these, due to low sample sizes (pre N=37 and post N=35 for hurt respondents, and pre N=25 and post N=26 for respondents involved in a fight). Since these items are based on actual experiences and are not Likert-scale items of likelihood, no scale averages are provided.

**Table 8. Respondent Experiences in Past 30 Days**

Variable	Pre %	Post %
Tried to hurt self in past 30 days	2.9%	1.7%
Threatened by inmate in past 30 days	32.7%	34.7%
Hurt by other inmate in past 30 days	21.3%	20.3%
Fought in past 30 days	15.6%	14.7%

\*  $p < .05$ , \*\*  $p < .01$ , †  $p < .1$

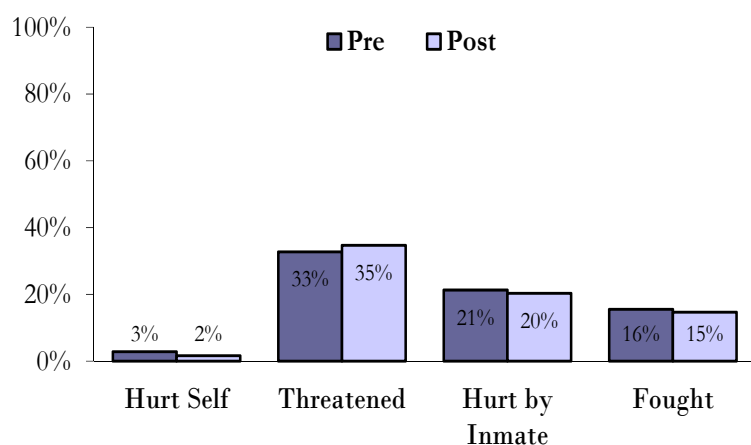
Numbers may add up to more than 100 percent for location, time, and cause variables, since inmates may have had multiple experiences being hurt or fighting in the past 30 days.

While very few inmates (2–3 percent) reported hurting themselves in the past 30 days, a small but sizable number of respondents reported participating in a fight (15–16 percent), being hurt by another inmate (20–21 percent), and being threatened by another inmate (33–35 percent). Those who reported hurting themselves did so by refusing to eat or cutting themselves. Respondents who reported being hurt or getting in a fight were hurt 5.8 times (5.0 times for *pre* and 6.6 times for *post*) and fought 3.0



times (2.0 times for *pre* and 4.0 times for *post*) on average in the last 30 days. The dayroom and cells were the most common locations for physical altercations, and the dayshift (7:00 a.m.—3:00 p.m.) was the most common time of day for these incidents to occur. A significant number of respondents (24–33 percent) reported the use of weapons when an inmate hurt them. Disrespect and commissary (presumably the theft of commissary) were the prime causes of fights, with additional causes listed as boredom, food, stealing, gambling, gangs, street issues, borrowing of possessions, stress, racial tensions, and threats. Overall, personal involvement in physical violence did not appear to change for respondents across the intervention period.

**Figure 11. Respondent Experiences in Past 30 Days**



### ***Perceptions of Intervention***

The pre-intervention survey instrument was designed before Site A’s intervention was selected. Therefore, there were no questions on the *pre* survey that specifically asked about issues regarding officer rounds. However, the researchers included a few items on the *post* survey to learn about inmate perceptions of the officer tour system, security rounds, and officer presence in general. The findings from this inquiry are listed below in Table 9 and follow a similar four-point Likert scale with response options ranging from “Strongly Agree” to “Strongly Disagree.”

Overall, the majority of inmates had positive impressions of officer presence, wanting officers to conduct more rounds (62 percent), feeling safer when officers are in the housing units (66 percent), believing inmates have better relationships with officers when they are around more often (62 percent), and stating violence was less likely to occur when officers are in the housing units (93 percent). Older inmates,



white inmates, inmates who had been victimized in the past 30 days, inmates with more extensive criminal histories, and those who had been at the jail previously had more positive perceptions about officer presence. Those jailed for a violent offense were less likely to agree that the officers should conduct more rounds. In addition, inmates who thought fights and attacks were unlikely did not agree that officers needed to conduct more rounds or that inmates were safer when officers were in the housing units.

**Table 9. Perceptions of Intervention**

Variable	Post Mean	Post %
Officers should make more rounds	.60	61.8%
Inmates are safer when officers in units	.66	66.3%
Inmates get along better when officers are around more often	.40	61.8%
Violence is less or much less likely to occur when officer in unit <sup>1</sup>	1.77	93.2%
System makes jail more safe	-.33	46.1%
System makes officers do more rounds	.14	56.6%

\*  $p < .05$ , \*\*  $p < .01$ , †  $p < .1$

<sup>1</sup>The item *Violence Is Less or Much Less Likely to Occur when Officer is in Unit* has a scale of “Much More Likely to Occur” to “Much Less Likely to Occur.” Percentages shown are for respondents endorsing “Much Less Likely” to “Less Likely.” The remaining items have a scale of “Strongly Disagree” to “Strongly Agree.” Percentages shown are for respondents endorsing “Strongly Agree” or “Agree.”

However, inmates were less sure about the officer tour system’s impacts. Slightly more than half (57 percent) thought the system ensured officers made more rounds, but fewer respondents (46 percent) felt the system made the jail safer. Respondents who reported being hurt in the past 30 days were less likely to agree that the tour system made the jail safe. Those who had been at the jail for longer periods of time were more likely to believe that the buttons made officers do more rounds, but disagree that officers *should* make more rounds. Inmates varied in their perceptions of how often officers conducted rounds, with 2 percent saying every 15 minutes, 23 percent saying every 30 minutes, 61 percent saying every hour, and 14 percent saying every two hours. This may reflect different round requirements in different parts of the jail, although selected respondents were housed in general population housing units where hourly rounds are required.

When asked an open-ended question about the most important way to make the jail safer, most inmate responses fell into eight categories (see Table 10). The most



popular suggestions were improvements to staff and quality of life. Other common responses were increased supervision (including more frequent officer rounds), better health services, ways to communicate efficiently with staff (many respondents requested to have call buttons in the cells and for staff to respond quicker to attempts to speak with staff through the housing unit speakers), institution of a better classification system, improvements to the jail's condition and environment, and reduced crowding.

**Table 10. Inmate Views on How to Make Jail More Safe**

Response	Pre %	Post %
Improve Staff ( <i>e.g., more caring/ respectful staff, more staff, more conscientious staff</i> )	24.3%	26.6%
Quality of Life ( <i>e.g., TV, better food, more activities</i> )	23.2%	19.1%
Increase Supervision ( <i>e.g., more rounds, cameras</i> )	11.9%	11.7%
Improve Health Services ( <i>e.g., better healthcare, more screening</i> )	10.2%	3.7%
Increase Communication with Staff ( <i>e.g., buttons in cells, more responsive to unit speakers</i> )	9.0%	6.9%
Improve Classification ( <i>e.g., separate by age, by race</i> )	7.3%	5.3%
Improve Jail Condition ( <i>e.g., sanitation</i> )	6.8%	5.3%
Decrease Crowding ( <i>e.g., two inmates to cell</i> )	3.4%	2.1%
Other ( <i>e.g., prevent stealing of commissary; no jail for minor crimes; more searches</i> )	20.6%	30.3%

\*Percentages may add up to more than 100 percent because respondents could report multiple recommendations.

## Conclusions

In general, respondents perceived there to be a low risk for sexual assault and sex with an officer, with moderate likelihood of consensual sex, including sex in exchange for something. Women were more likely than men to think that all types of sexual incidents were possible, with the exception of sexual assault, which had low reported probability by both genders. Cells were by far viewed as the most probable location for sexual activity, and the intervention did not appear to have any effect on the likelihood of these types of sexual behaviors.

In contrast to perceptions about sexual violence, inmates believed they were at high risk for physical violence. Exceptionally high numbers (88–91 percent) of



surveyed inmates thought that fights and assaults were likely to occur, most commonly in cells, the dayroom, behind the stairs in the dayroom, and recreation area. However, a much smaller proportion reported having been hurt (15–16 percent) or in a fight (20–21 percent) in the past 30 days. Similar to perceptions, the most frequent locations for these types of incidents were the dayroom and cells. Fights were most often over disrespect or commissary. Theft of commissary was a problem identified during interviews early on in the project and appears to continue to be an issue. Although there was only slight change in the perceived likelihood of physical violence overall, there was a significant reduction in the likelihood of fights and attacks in the recreation area. There was also some evidence of decreased perceptions of the likelihood of physical altercations in the dayroom. Self-reported, experienced victimization and fights, however, did not substantially change across the intervention period.

Respondents felt inmates were likely to hurt themselves (although self-reported self-harming behavior was exceedingly low), and they did not view the jail's health system positively. The majority of inmates thought it was difficult to access medications and mental healthcare, with a substantial number of respondents saying they personally had experienced difficulty obtaining these. Unsurprisingly, with the nature of the chosen intervention, there was no substantial change for these areas.

Respondents thought that staff were likely to find out about physical violence and self-harm, but less likely to learn of sexual violence or consensual sex. Inmates did not appear especially comfortable reporting sexual assault, most often because of distrust of officers or fear of retaliation. Regarding facilitators, around half of respondents believed some or most inmates had weapons or used drugs in the jail at the first survey administration. However, after the intervention was launched, perceptions of the prevalence and ease of acquiring such contraband decreased (although this was only a marginally significant trend for drugs, likely due to a smaller sample size). It is encouraging that contraband access appeared to decline, as drugs and weapons can prompt violence or worsen the severity of injuries. These gains appeared to come with no substantial impacts on inmates' perceptions of privacy. Another potential facilitator of violence, gang membership, may have risen, as respondents from the second survey administration believed that more inmates were gang members than the initial survey respondents. This increase in gang presence may have served as an intervening factor contributing to violence in the facility, thus diminishing any violence-prevention impact caused by the intervention.





Changed perceptions occurred in the areas of contraband and physical violence, particularly in the recreation area. Increased rounds by officers would be expected to reduce access to contraband, because it would be more difficult to conduct transactions for or create weapons when officers could enter the vicinity at any moment. Similarly, concern about unexpected officer presence would likely reduce drug use. One would also anticipate more frequent rounds to decrease violence through increased perceptions of risk of apprehension or reduced rewards of injury if the altercation is broken up faster due to officer presence. The trends toward lower violence in general and in the dayroom specifically are consistent with the nature of the intervention. One might expect the intervention to have a stronger effect, though, in the perception of safety in cells. The dayroom and showers are plainly visible to officers in the control pod (provided they are paying attention to those areas), but cells would be more closely monitored with more frequent rounds in the housing units. However, there was no change in perceptions of safety in this location. In addition, the recreation area, a location revealing significantly reduced perceptions of violence, is not part of the intervention system and does not have installed buttons. This change would seem to be unrelated to the intervention unless increases in officer rounds due to the system somehow led to increases in officer rounds in other p not covered by the system. Three months after the *pre* surveys were administered to inmates, the jail facility replaced existing recreation cameras with digital recording cameras, which may explain these changes. Furthermore, there was no change in how inmates viewed the probability of officers learning of dangerous and prohibited incidents, another finding that would be expected from the intervention.

Inmates seemed to appreciate officer presence, reporting that they felt safer when officers were in the housing units, wanted officers to conduct more rounds, and thought that reduced violence and improved relationships with staff would result from increased officer presence. However, inmates were divided in their opinions of the effectiveness of the officer tour system, with around half believing the tour system led to more officer rounds (57 percent) and greater safety in the jail (46 percent). Inmates believed other factors could increase safety in the jail, particularly improvements with staff and quality of life.

While there appeared to be improvements in inmate perceptions of safety for some particular areas, the changes were not widespread and cannot definitively be linked to the intervention. Overall, at the end of the one-year implementation period, inmates' perceptions were similar to those with which they started: sexual incidents



are not a large risk, although consensual sex would be the most likely to occur; physical violence is highly likely in many areas; and healthcare is not easy to access. However, encouraging results include reductions in perceived availability and use of contraband, reductions in perceived violence in localized areas, and positive inmate views toward increased officer presence. To understand how these perceptions may or may not be tied to reality, it is important to explore a more direct measure of inmate safety: the rate of actual incidents across time.

### **Incident Data Analysis**

UI researchers collected information from electronic incident reports covering the time period of January 1, 2005, to September 30, 2010. These data were used to identify changes in the prevalence of physically violent, sexual, and self-harming incidents. The incident data were analyzed in both an ARIMA time series analysis and structural break analysis. These analyses were used to identify whether any changes in incidents were due to the implemented officer tour system, after controlling for other events and policy changes in the facility.

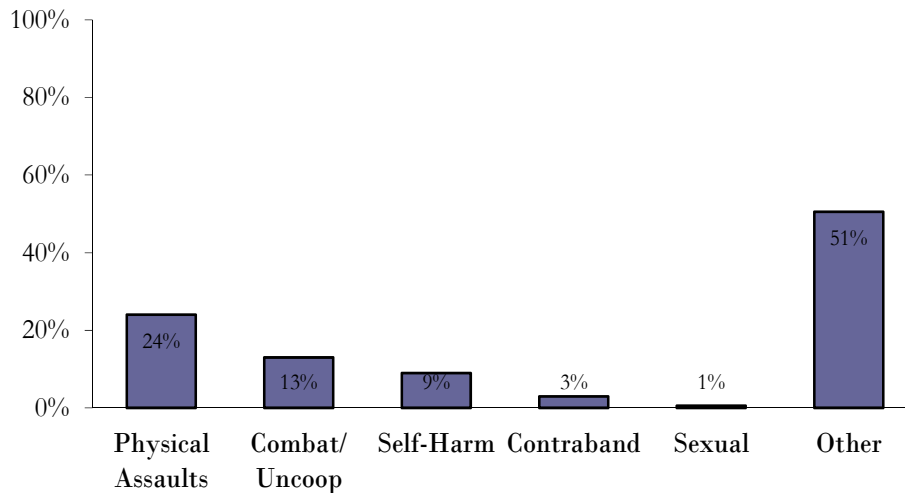
Across the nearly six-year period, there were 13,319 incidents reported at Site A, with the following distribution for the primary incident associated with each event:<sup>22</sup> 24 percent physical assaults, 13 percent combative/uncooperative inmates, 9 percent self-harm, 3 percent contraband, and 0.5 percent sexual incidents (see Figure 12). Staff force was used in 19 percent of all incidents. Incidents most often occurred in housing units (69 percent), followed by inmate common areas (16 percent) and the administrative area (11 percent). Percentages of incidents occurring in individual housing units ranged from 1–7 percent, revealing no strong “hot spot” housing units.

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<sup>22</sup> Incidents were coded by the most serious type of incident occurring for each event. For instance, if there was an event where an inmate attacked another inmate, then attacked a staff member, a knife was recovered, pepper spray was used, and the inmate threatened the nurse who was treating his injuries, this would be coded as an assault on staff. (For coding purposes, assaults on staff were considered more severe than assaults on inmates, as there was an extra security risk involved with staff victimization.)



**Figure 12. Types of Incidents**



### ***ARIMA Time Series Analysis***

ARIMA time series analysis offers a more sophisticated way to examine changes over time and control for certain threats to validity present in a traditional pre/post comparison. Changes in incidents over time are modeled, and included event variables can be assessed for their impact on the time series, in this case number of incidents per week. Other significant changes occurring within the jail were tracked in order to determine their influence on violence in the facility and control for this influence when evaluating the officer tour system. Major events controlled for in the analyses are listed below, with brief descriptions and indications of which models included them (see Table 11). Intervention variables are shown in red. In addition to these events, the inmate-to-staff ratio was included in the model to control for fluctuating inmate population levels and staff ability to manage inmates. This ratio varied considerably across the time period, as seen in Figure 13, with an average of 2,652 inmates and 703 staff.

**Table 11. Timeline of Major Events at Site A**

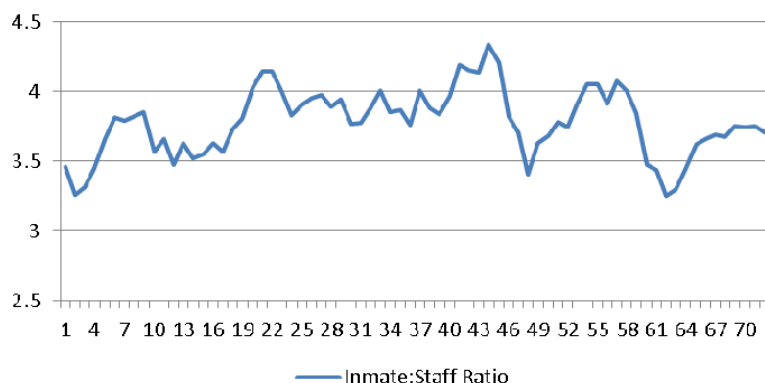
Intervention	Description	Time Series	Estimated Date
Expanded Crisis Intervention Training	Expanded Crisis Intervention Training (CIT) to all incoming officers, as opposed to only staff working with mental health populations. The training focused on responding to inmates in crisis, particularly those with mental health issues, and using verbal conflict-resolution strategies rather than force whenever possible.	All	9/1/2006+



New mental health provider	In 2006, Site A switched from having its mental health services provided by a private company to having them provided by the local Department of Health (DOH), who approach mental healthcare in the jail from a public health perspective. Under the new system, a psychiatrist was assigned to the facility on a full-time basis, a mental health counselor was assigned to each floor, and specific DOH staff were assigned to review healthcare grievances and ensure that they were addressed. Having DOH as the new provider also enabled a greater continuity of care once inmates were released, since many of them receive services from the DOH in the community.	Self-harm only	10/1/2006+
Began use of Tasers	Tasers were introduced in the facility in November of 2006. About 10 percent of correctional staff received Tasers at this time, and all correctional staff had Tasers by September 2010. Each officer is required to take 16 hours of training. During the staff interviews, several staff suggested the Tasers had been beneficial in reducing violence.	All	11/1/2006+
Began triple-bunking	Site A transitioned to triple-bunking in October, 2007. Inmates were previously double-bunked.	All	10/1/2007+
Security cameras	The camera system was expanded in July and August of 2008. Forty new digital-recording cameras were installed in the recreation, outdoor, and processing areas. Many of these cameras replaced existing older models with identical viewing angles but no recording capability.	All	8/1/2008+
Mattress shortage	In the winter of 2009, overcrowding and manufacturing delays lead to a mattress shortage credited with outbreaks of violent incidents.	All	1/1/2009 -- 3/15/2009
Officer tour system	Official launch of officer tour system.	All	9/9/2009+
Change in razor blade policy	Change in razor policy to remove razors from all inmates in segregation.	Self-harm only	1/1/2010+
Officer tour system	Sergeants are required to view system data daily; "Exception data reports" produced which indicate missed rounds.	All	2/1/2010+



**Figure 13. Staff-to-Inmate Ratio Across Study Period**



The first step in producing ARIMA models for each outcome (i.e., incident types) is to ensure that the series are stationary, which is necessary for most time series methods. Augmented Dickey-Fuller tests indicated that all outcome series were stationary; furthermore, the series had no evidence of seasonality. Next, we identified the appropriate lag structure for each series (i.e., define the “p,” “d,” and “q” parameters for ARIMA [p,d,q]) initially by using the Autocorrelation Function (ACF) and then testing various plausible models and choosing the optimal fit (based on the AIC). Model parameters are shown in the tables below. Two models were run for each outcome: one with effects for immediate shifts in incidents during the week of the event, and a second model that included both immediate shifts and changing effects of the intervention over time (time-variant effects).<sup>23</sup> The model which best fit the data (determined by which had the lowest AIC) for each outcome is presented below in Tables 12–14. Graphs can be found in Appendix L. For all outcomes except staff assaults,<sup>24</sup> the second model was a better fit. This would make sense, as most interventions would be expected to have an initial impact that may change in various ways over time (e.g., deterioration, accumulation, initial negative/positive impact with opposite effect over time).

<sup>23</sup> For a more formal presentation of these models, see Appendix I.

<sup>24</sup> The low number of observations for staff assaults (due to monthly counts as opposed to weekly accounts) did not allow for as many variables to be included in the model; therefore, staff assaults were only examined with the first model, with no time-variant effects, which uses half as many parameters.



**Table 12. ARIMA Time Series Findings: All, Main, Self-Harm**

	Outcome: Model Fit:	All Incidents (n=13,319)		Main Incidents (n=4,442)		Self-Harm (n=1,197)	
		ARMA (7,6) AIC=2042.4		ARMA (6,5) AIC=1681.4		ARMA (4,5) AIC=1296.1	
		Shift (b)	Time var. (b)	Shift (b)	Time var. (b)	Shift (b)	Time var. (b)
Intercept		15.03*	0.13**	-3.44	0.03**	-1.95	0.01
CIT	9/1/2006	18.64**	-4.07**	2.04	-0.99†	-3.39	0.52
MH services	10/1/2006	---	---	---	---	-1.95	-0.24
Tasers	11/1/2006	12.87**	4.00**	3.50	0.95†	0.17	-0.31
Triple-bunk	10/1/2007	-11.11**	0.09**	1.22	-0.02	0.84	0.00
Cameras	8/1/2008	-9.60**	0.04	-0.24	0.09**	-0.78	0.06*
Mattress shortage	12/1/08– 2/30/09	-1.03	0.11	-2.63	0.54†	-0.43	0.05
Off. tour sys.	9/9/2009	0.84	-0.14	5.79**	-0.40**	2.19*	-0.27**
Razor policy	1/1/2010	---	---	---	---	-1.94	0.59
Tour sys data	2/1/2010	-6.57†	-0.19	0.56	0.28†	-0.75	-0.34
Inmate:Staff ratio		6.68**	---	4.67**	---	1.48†	---

\* p < 0.05, \*\* p < 0.01, † p < 0.10. N=299 weeks. Main Incidents=Physical Assaults, Sexual Assaults, and Self-Harm.

**Table 13. ARIMA Time Series Findings: Assaults**

	Outcome: Model Fit:	Physical Assaults (n=3,173)		Inmate Assaults (n=2,984)		Staff Assaults (n=189)	
		ARMA (5,4) AIC=1581.4		ARMA (2,2) AIC=1566.9		ARMA (1,1) AIC=274.8	
		Shift (b)	Time var. (b)	Shift (b)	Time var. (b)	Shift (b)	Time var. (b)
Intercept		1.17	0.02**	1.70	0.02**	-0.87	---
CIT	9/1/2006	5.26*	-1.11*	6.85	-1.31†	-2.80**	---
MH services	10/1/2006	---	---	---	---	---	---
Tasers	11/1/2006	3.50†	1.07*	3.79	1.27	1.85†	---
Triple-bunk	10/1/2007	1.12	-0.02	1.31**	-0.02	-1.06**	---
Cameras	8/1/2008	1.17	0.04	0.79	0.05**	0.32	---
Mattress shortage	12/1/08– 2/30/09	-3.57†	0.59*	-3.65	0.60†	1.96*	---
Off. tour sys.	9/9/2009	2.89*	-0.09	2.60	-0.06	-0.93	---
Razor policy	1/1/2010	---	---	---	---	---	---
Tour sys data	2/1/2010	0.05	-0.01	-0.98	-0.04	2.76**	---
Inmate:Staff ratio		2.37*	---	2.03*	---	1.21	---

\* p < 0.05, \*\* p < 0.01, † p < 0.10. N=299 weeks for all, except N=70 months for Staff Assaults.



**Table 14. ARIMA Time Series Findings: Combative Inmates, Contraband, and Force**

	Outcome: Model Fit:	Combat/Uncoop (N=1,789)		Contraband (N=392)		Use of Force (N=2,474)	
		ARMA (3,5)	AIC=1406.6	ARMA (2,2)	AIC=347.5	ARMA (5,4)	AIC=1534.2
		Shift (b)	Time var. (b)	Shift (b)	Time var. (b)	Shift (b)	Time var. (b)
Intercept		2.31	0.03**	7.92	---	6.21	0.04**
CIT	9/1/2006	1.30	-0.44	4.64*	---	2.06	-0.82†
MH services	10/1/2006	---	---	---	---	---	---
Tasers	11/1/2006	2.87†	0.38	-5.47**	---	4.69*	0.75†
Triple-bunk	10/1/2007	-1.86**	0.10**	0.31	---	-2.94**	0.12**
Cameras	8/1/2008	-0.31	-0.07**	-0.65	---	-1.54	-0.08**
Mattress shortage	12/1/08– 2/30/09	-2.47	0.19	0.70	---	-1.34	0.08
Off. tour sys.	9/9/2009	-1.70	0.06	0.68	---	0.94	0.01
Razor policy	1/1/2010	---	---	---	---	---	---
Tour sys data	2/1/2010	-3.19†	-0.12	0.41	---	-3.40*	-0.30*
Inmate:Staff ratio		0.63	---	-0.50	---	---	---

\*  $p < 0.05$ , \*\*  $p < 0.01$ , †  $p < 0.10$ . N=299 weeks for all, except N=70 months for Contraband.

Although we include “All Incidents” in the tables above, we will focus primarily on the other incident types, as the “All Incidents” category includes many other types of events not of interest to the researchers (e.g., administrative issues, movement of inmates to housing units, facility maintenance issues, etc.). The officer tour system may have had a significant impact on the main incidents of importance for this study (sexual incidents, physical assaults, and self-harm). Specifically, when focusing on these critical types of incidents (the “Main Incidents” category), there was an increase of 5–6 incidents per week immediately following the tour system’s initial launch, but incidents began decreasing at a rate of .40 incidents each following week until the next event.<sup>25</sup> The launch of the tour system was associated with a similar pattern for self-harm incidents (increase of 2.19 incidents at launch and decrease of .27 incidents per week after) and physical assaults (increase of 2.89 incidents at launch and decrease of .09 incidents per week after). Monitoring of the tour system data (which should lead to greater enforcement of the rounds schedules) only had marginally significant relationships with main incidents, with no instantaneous effect

<sup>25</sup> All “shift” effects are seen immediately in the week following the intervention/event, while “time-variant” effects are estimated based on the week-to-week change from beginning of the event until the next event.



and incidents increasing by 0.28 each week. However, monitoring the tour system data was associated with an immediate increase (2.76 weekly incidents) in staff assaults, decrease (-3.4 weekly incidents) in uses of force, and decrease (-3.19 weekly incidents) in combative/uncooperative inmate incidents (only marginally significant). There was also a time-variant effect for staff uses of force, with incidents further declining by .3 weekly incidents each week after the initial shift.

Other events and changes in the jail were also important (see Tables 12–14). Initially, following both the expansion of crisis intervention training (CIT) and introduction of Tasers, physical assaults increased, while contraband increased after the former and decreased after the latter. The number of incidents involving force also increased after the implementation of Tasers. However, each subsequent week following the CIT expansion, physical assaults declined, while they increased each week following the adoption of Tasers. CIT was also associated with a decline in assaults on staff. The installation and replacement of cameras with digital, recording camera equipment was followed by modest rises in the number of “main incidents,” self-harm, and inmate assaults over time; this may be due to an increased ability to detect incidents that were already occurring. Assaults on staff and incidents with use of force declined slightly each week after the camera replacement. The mattress shortage also appeared to increase physical assaults over time, although there was a slight shift (marginally significant) toward decreased assaults at the beginning of the shortage. Inmate assaults initially increased after the facility began triple-bunking inmates (but there was a decrease in staff assaults), although there was no significant effect after that point. Incidents involving combative/uncooperative inmates and uses of force also decreased after the facility began triple-bunking. However, changes in the mental health services model and razor policy did not have any observed effects on self-harming incidents (mental health services and razor policy was only examined for self-harming incidents). The inmate-to-staff ratio was significant or approaching significance for most series.

ARIMA time series, while able to control for some threats to internal validity such as other changes occurring in the jail, still has limitations which affect our interpretation. When changes occur, it is still not possible to definitively say whether the change is due to that particular event at that time point (if there is one), or due to another cause. Furthermore, with the short time periods between events with which to measure impacts, the imprecise nature of some of the event time points, and unclear





knowledge of when an intervention's impacts would be felt, the findings of these analyses should be interpreted with significant caution.

### ***Structural Break Analysis***

In structural break analysis, precise dates for interventions and other control variables are not required. Unlike ARIMA time series, which tests particular dates for significant changes in the time series, structural break analysis uses the data to identify points in the series where significant changes occur to the pattern of data. Structural break analysis is well suited for this study because of several issues with the data: the imprecise dates obtained for events, the incremental implementation of the officer tour system (e.g., data reports for monitoring the completion of rounds did not become available for supervisors until five months after the initial launch, and it may take a certain amount of unknown time for the technology to alter officer work habits), the unknown timing of impacts related to events (e.g., Would the impacts of the new Taser policy be felt when only 10 percent of staff first received Tasers or when all staff had Tasers four years later?), and the overlapping of events during the time period.

**Table 15. Structural Break Findings**

Breaks in Incidents	Shift (b)	Time var. (b)	Pre-Shift Mean	Post-Shift Mean	% Change
All other incident types					
No breaks	---	---	---	---	---
Use of force					
Intercept	5.23	---	---	---	---
Early Feb., 2010**	-4.79	---	8.8	4.0	-54.8%
Inmates:Staff	0.93	---	---	---	---

\*  $p < 0.05$ , \*\*  $p < 0.01$ , †  $p < 0.10$ .

Structural break analyses were run for every incident type analyzed previously with the ARIMA time series models (see Table 15; graphs in Appendix L). Analyses showed only one break across the study period. Controlling for inmate-to-staff ratio, there were no significant breaks for any categorization of incidents with the exception of incidents involving staff force. Analyses revealed a 55 percent reduction (decrease of five incidents per week) in uses of force occurring in early February 2010. Sergeant monitoring of staff rounds began the first week of February; however, it is



unclear why this would cause a decrease in staff use of force. One hypothesis is that the officer tour system, by encouraging officers to interact more with inmates, led to improved officer-inmate relations, and thus less need for use of force (i.e., officers, by nature of knowing inmates, were able to employ other, nonforceful methods of curbing inmate behavior). This finding of reduced staff use of force aligns with ARIMA time series results, which also found monitoring of the tour system data to be related to decreasing uses of force. Alternative explanations are also possible. Minor reorganization of a selection of housing units occurred in February (switching of housing units for inmates, although overall populations remained the same); however, the jail leadership did not believe this would have any strong impact on any types of incidents. The previous month, January of 2010, also brought a change in razor policy for inmates under segregation. However, it is unlikely that this specific policy change would lead to the observed decline in use of force incidents, because the new razor blade policy only affected inmates in segregation and use of force would not be expected to be a typical response to self-harm (which often occurs in private).

The structural break analyses provide a somewhat different picture from the ARIMA time series models, which found significant relationships between the officer tour system and main incidents, self-harm, and physical assaults. This second method of analyzing the data found no effect of the tour system, with the possible exception of decreasing the number of staff use of force incidents. However, it is unclear whether these changes can be attributed to the tour system.

## **Cost-Effectiveness Analysis**

### ***Cost Analysis***

The UI research team conducted a cost-effectiveness analysis to assess the economic costs of implementing the officer tour system for Site A. Facility administrators completed three cost surveys to track expenses and added labor time in reference to the intervention from October 2006 through September 2010. Expenses related to the research study (e.g., meetings, conference calls, time spent completing interviews) were excluded from the analysis. Calculations for labor use the loaded rate (with benefits, etc.) derived from the midpoint of each position's salary scale and do not necessarily reflect the exact salaries of individuals involved with the intervention. Expenses are separated into initial costs (e.g., planning costs, installation and set-up,



data monitoring labor costs from the first 7.3 months) and ongoing costs (costs associated with the last 4.7 months of the implementation period) that should more accurately reflect typical costs once the officer tour system is in place and functioning in a routine way. The costs estimated here are economic costs and opportunity costs as opposed to limiting the analysis to only actual accrued accounting costs that would impact the budget. Following conventions in the cost-benefit literature, average costs were used to estimate marginal cost to the organization, using loaded wage rates to value the amount of labor used.

Overall, including additional labor hours spent, the officer tour system had a cumulative cost of \$217,364. Initial costs for the first seven months of the implementation, including planning costs (\$1,793), equipment, installation, and maintenance (\$25,400), development of the data system and customized reports (\$14,264), and data monitoring by staff (\$82,729), amounted to \$124,186. After this initial period of development and solidification of policy and practice, the officer tour system cost approximately \$20,706 each month. All of these monthly expenses were for estimated marginal labor costs, including staff time spent on data monitoring, formal investigations of staff noncompliance with rounds policy, continued data system management, and inspection/maintenance costs. As explained above, these estimations are based on economic costs as opposed to actual budgetary expenditures. No new staff members were hired for the purpose of this intervention, and existing staff were able to incorporate these new responsibilities without producing an overall increase in staffing expenditures. Therefore, the true financial cost to Site A, after removing in-house labor estimates, was the cost of the officer tour system equipment, infrastructure, and installation, totaling \$25,365.<sup>26</sup>

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<sup>26</sup> These estimates assume that a functional server and SQL license are already available, as they were at Site A. However, if a facility also needed to acquire this additional infrastructure, the cost would increase by an estimated \$20,000 (\$8,000 for a server and \$12,000 for a SQL license), based on estimations provided by the site for the cost to buy such a system through the jail's purchasing services.



**Table 16. Costs of Intervention**

Initial Costs			Ongoing Costs	
Supply and Material Costs				
Equipment and infrastructure	\$24,990	Pipes, sensor buttons, encasements, download interface, software, etc.	\$0	none
Installation	\$375	In-house maintenance labor/materials	\$0	none
Maintenance/Repairs	\$0	none	\$0	Covered by 1-year warranty
Labor Costs				
Administrative planning	\$1,793	36 Leadership hrs (plan/select vendor)	\$0	none
Data development/ Systems management	\$8,158	257 IT hrs (set up software/develop reports)	\$0	none
	\$2,201	69 IT hrs to refine reports	\$32	1 IT hr/mo
	\$3,906	73 Captain hrs	\$0	none
Data monitoring	\$4,882	91 Captain hrs	\$33	0.6 Captain hrs/mo
	\$22,601	496 Lt hrs	\$2,732	60 Lt hrs/mo
	\$55,245	1425 Sgt hrs	\$17,295	446.25 Sgt hrs/mo
Staff investigations	\$0	none	\$580	12.7 Lt hrs/mo
Inspection/Maintenance	\$35	1 Maintenance hr	\$35	1 Maintenance hr/mo
<b>Total Initial</b>	\$124,186		\$20,706	<b>Monthly ongoing costs</b>
<b>Total 1st year</b>	\$217,364			

\*Data monitoring responsibilities by sergeants in the initial period only include 2.6 months of data reviewing responsibilities, since they did not begin accessing data reports until February, 2010.

The captain (12.5 hours/month) and eight lieutenants (8.5 hours/month each) were heavily involved in data monitoring during the first half of the implementation period when the system was first being tested and data reports refined. However, once sergeants began routinely monitoring the data reports in February of 2010, the captain and lieutenants reduced their data responsibilities. After the initial time period, each of the 51 sergeants spent an estimated 17.5 hours per month (reduced from initial time of 21.5 hours/month) reviewing reports produced as a result of the new system. However, prior to launching the tour system, sergeants and lieutenants were already spending half this time reviewing reports in the original computer system where staff self-reported their rounds. Thus, the marginal cost of the new system is approximately 8.75 hours per month per sergeant and 7.5 hours per month per lieutenant. The estimate above is based on these marginal costs. For jurisdictions



where rounds are not already tracked and monitored in some manner, the full 17.5 (sergeant) and 15 (lieutenant) hours would likely be the marginal cost, and the total initial costs for the first seven months would rise to \$191,755 with the total ongoing costs rising to \$40,733 per month. There was also an additional cost for formal investigations of staff noncompliance with rounds policy; this was estimated to cause an additional 12–13 hours of work each month for an investigating lieutenant.

Because data collection occurred within one year of implementation, all repair costs were covered by warranty. Jail staff were unable to estimate how much these repairs would have cost in the absence of this warranty. As such, the research team is not able to accurately estimate ongoing maintenance costs. These maintenance activities included the replacement or repair of 40 buttons and 23 pipes. There were no known direct monetary benefits, nor indirect benefits from reduced costs, of the system by the end of the one-year implementation period; however, administrators mentioned that this could have significant future financial benefits through litigation prevention.

### ***Cost-Effectiveness Analysis***

Finally, the system's cost of \$217,364 (or \$25,365 not including labor) appears to be associated with a potential<sup>27</sup> decrease of 271 fewer incidents of interest (main incidents from analyses above) across the implementation period. For particular incident types, these costs may have led to 275 fewer self-harm events, 156 more overall physical assaults, 21 staff assaults (included in physical assaults), and 175 fewer uses of force, as reported in investigation reports. Based on the findings from the first year of implementation, a monthly investment of \$20,706 of *staff time* may be expected to decrease main incident types by approximately 21.5 incidents for each future month, a change most likely driven by decreases in self-harm incidents and use of force. Physical assaults, however, rose. Although it may seem odd to “invest” in increased incidents, these may represent detection gains where officers are aware of more events occurring in the jail.

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<sup>27</sup> Time series analysis examines changes in incident trajectories (as opposed to changes in actual incidents), which can create estimates of incident changes larger than what is actually observed in the data. For example, if the number of incidents was rising before the intervention occurred, the change in incidents would not be calculated by subtracting the previous baseline's average number of incidents from the new average number of incidents, but by subtracting what the expected average number of incidents would be for that same time period based on the baseline's regression equation (which was predicted to continue increasing).



**Table 17. Outcomes from Cost Investments**

<b>Incident Type</b>	<b>Total Cost</b>	<b>Overall Outcome</b>	<b>Monthly Cost</b>	<b>Monthly Outcome</b>
All incidents	\$217,364	ns	\$20,706	ns
Main incidents	\$217,364	-270.5	\$20,706	-21.5
Suicide/self-harm	\$217,364	-275.4	\$20,706	-21.9
Physical assaults	\$217,364	156.1	\$20,706	12.4
Inmate assaults	\$217,364	ns	\$20,706	ns
Staff assaults	\$217,364	21.2	\$20,706	2.8
Contraband	\$217,364	ns	\$20,706	ns
Combative/uncooperative inmates	\$217,364	ns	\$20,706	ns
Use of force	\$217,364	-174.6	\$20,706	-22.7

ns=not significant

Although cost-effectiveness analyses serve as a helpful exercise to understand what is gained in exchange for the expenses of a new intervention, there are important limitations to this approach. First of all, these estimates are based on a single facility. Other facilities with different numbers of staff, salary structures, facility size, and available vendors may have substantially different costs associated with implementing a similar system. Furthermore, cost-effectiveness analysis does not capture all possible organizational or societal benefits of the system, such as increased confidence in staff performance, potential protection from litigation as mentioned in staff interviews, or increased legitimacy of correctional staff and institutions. Finally, the outcomes against which costs are compared have the same limitations of the time series analysis, detailed above.

## **4.9 CONCLUSIONS**

Site A implemented an officer tour system to help ensure that officers were conducting rounds according to policy. The system consisted of sensor buttons mounted on walls that would record data on the location and timing of rounds when officers touched a “pipe” to the button. Sergeants reviewed data from the system daily to monitor the rounds of line officers.

Interviews with staff (including line officers, supervisors, and jail administrative leaders) indicated that the new system changed officer behavior and resulted in staff conducting more rounds. However, some staff felt that these rounds were of questionable quality and opinions were mixed on whether or not the system affected inmate behavior. Staff opinions of the system varied markedly by the rank of the



interviewee. Line officers were more likely to dislike the system, while supervisors and jail leadership had more positive opinions of the system's role in jail management. All levels of staff had complaints about the quality and durability of the equipment.

Inmate perceptions were obtained through surveys administered both before and one year after the implementation of the officer tour system. Most inmates felt that physical violence was likely; however, in comparison, fewer respondents believed sexual violence, consensual sex, or self-harm were likely to occur. Cells were seen as a prime location for both sexual and physical violence, while the dayroom and recreation area were also seen as likely locations for physical fights or assaults.

After the officer tour system was implemented, fewer inmates believed that physical violence was likely in the recreation area. In addition, perceptions of the prevalence and ease of acquiring contraband decreased. However, there was no change in perceptions of the likelihood of self-harm, sexual assaults, consensual/“exchange” sex, or sex with an officer, and inmate opinions of healthcare access remained stable (and poor). Interestingly, inmates did not appear to feel as though they had lost more privacy after the officer tour system was installed. While the safety gains made in the areas of physical violence and contraband are promising, it is unclear if these are due to the intervention for the reasons described earlier. Inmates also had conflicting opinions of whether the tour system improved safety, although the majority of inmates endorsed positive statements about officer presence. Inmates seemed more concerned with other improvements in the jail, recommending staff changes and improved quality of life as solutions to making the jail safer.

Analyses of actual incidents were also unclear as to the impacts of the system. Two types of statistical methods revealed conflicting results, with the exception of a finding that incidents involving force decreased in February 2010, after the jail began monitoring the officer tour system reports. The first analysis, ARIMA time series, indicated that the officer tour system might be related to an overall decrease in reported main incidents, suicide/self-harm, and use of force, and increase in physical assaults, including staff assaults. The second analysis, structural break analysis, only had one significant finding: a decrease in staff use of force. Both of these analyses have substantial limitations related to the available data and multitude of other changes occurring at the jail. The strengths and drawbacks of each methodology are described in detail above. Due to these limitations and conflicting results, it is



difficult to determine what the true impact of the officer tour system was on the number of incidents in the jail.

The intervention cost the jail \$25,365 for equipment, infrastructure, and installation. Economic labor costs associated with planning, development of the data system and customized reports, monitoring of the data produced by the system, inspections, and investigations of staff behavior amounted to approximately \$192,000. However, the jail was able to incorporate these new staff responsibilities into existing staff schedules, resulting in no added financial costs to the jail for this time spent by staff. Using the results of the ARIMA time series analysis, it appears that the overall investment of \$217,364 (or \$25,365 not counting labor time) may have been associated with a potential decrease of 271 main incidents (particularly self-harm and use of force) and increase of 150 physical assaults over the year-long implementation period. However, readers are again cautioned that this comparison is based on the findings of the ARIMA time series analysis, which has substantial limitations to consider.

Overall, it is uncertain whether the officer tour system had an impact on safety in the jail. Findings from staff interviews, inmate surveys, and analyses of the incident data did not reveal a clear or consistent picture of how safety changed after the system was implemented by Site A. There is an additional challenge, in that interventions such as the one studied here can have effects on both (a) inmate likelihood of committing acts through deterrence/fears of being caught; and (b) likelihood of staff to identify behavior that was occurring before but not being detected. Therefore, true impacts of the system may be masked by a combination of deterrence effects (decreasing *actual* incidents) and detection effects (increasing *reporting* of already existing incidents).





## **CHAPTER FIVE: Case Study for Site B**

### **5.1 SITE DESCRIPTION**

#### **Local Jurisdiction and Jail System**

Site B is located within a county jail system in a large Northeastern city with a population of around 1.5 million. About equal parts of African American and white residents make up about 90 percent of the city's population. The jail system consists of six facilities, including an intake center, one maximum/medium-security facility, two minimum/medium-security facilities, a facility for female inmates, and one minimum-security/community-custody facility (e.g., for work release or inmates serving weekend sentences). The system holds inmates who are awaiting trial or are sentenced to be incarcerated for two years or less. The county system handles approximately 3,700 admissions annually, and the average daily population for the entire county jail system across the study period was around 8,200 inmates, 18 percent below their stated maximum system capacity of 9,968 inmates.

#### **Facility Description**

The facility participating in the study holds most of the "close custody" inmates for the county's jail system (the site's term for maximum security), although medium-security inmates are also admitted. About 20 percent of Site B's inmates are sentenced. Site B began housing juveniles in 2007, and juveniles compose about 5–10 percent of the facility's population. About 72 percent of inmates are African American and 14 percent are white; 14 percent are Hispanic. All inmates arrive after undergoing intake and screening at another facility. Site B has an average daily population of about 1,100 inmates, 15 percent below their stated maximum capacity of 1,300 and 69 percent above their design capacity of 650 inmates.

The facility was opened in the mid-1980s and has five housing areas with a total of 13 individual housing units. In general, maximum-security inmates are housed on one side of the facility, while medium-security inmates are housed on the opposite side (there are some exceptions listed below). The jail has one story, except for the administrative area and one housing area, which have two stories. The facility was designed for unit management, an approach for dividing an institution into smaller,



more manageable groups where inmates participate in most activities (meals, recreation, medicine dispensing) within or near their own housing units. Every housing unit has its own yard (except for the two story housing area, where two units share a yard at different times), and each housing area shares a medical area, social work and counseling offices, and a laundry room. Each side of the jail has a programs area which has classrooms, an area for religious services, a barber shop, and offices for counseling/social work staff and clergy. A central area between the two sides of the jail holds the gym, medical/dental center, kitchen, intake center, and visitation area. Inmates move throughout the facility unescorted, unless they are under segregation.

Each housing unit has 50 cells located on linear tiers. The tiers form a Y-shape, and have two levels (one on top of the other). On the two “arms” of the “Y,” the cells face the hallway and out onto the unit. Rows of cells face each other on the “stem” of the “Y.” There may be one or two inmates per cell, depending on the facility’s daily population. Therefore, there may be up to 100 inmates in each housing unit. Each unit has an officer console at the front of the unit, two televisions, six to eight phones, four showers, a dayroom with metal tables, a kitchenette area, and an outside recreation yard. Convex mirrors are used in the shower area, hallways, social work offices, and entrances to housing units. Each cell has an outward-swinging door with a glass window and food tray slot, a toilet and a sink, two metal bunk beds, a metal wall-mounted shelf/desk, plastic storage bins, a ceiling-mounted light fixture, and a sprinkler system.

The medium security side of the facility has two juvenile housing units, one medium-security unit for inmates with mental health problems, one medium-security unit for inmates with chronic medical problems, and one medium security unit for new admissions and protective custody. The maximum-security side of the facility has two general close custody housing units, three special population close custody units, two segregation units, and one medium-security unit which houses inmates participating in an inmate carpentry work program.

The close custody special population units include one unit for inmates with mental health problems, one unit for inmates with special medications including methadone, and another for drug treatment. The two segregation units have somewhat different structures than the other housing units. While the layout is similar, the disciplinary segregation unit has the “stem” of the Y gated off. Inmates behind this gate are under disciplinary segregation. Inmates housed in the other part



of the tiers are transitioning from disciplinary segregation and spend time under additional restrictions until they are ready to be released to the general population. The administrative segregation unit has four video-recording cameras, and each area of the housing unit (television area, individual showers, individual phones) is caged to prevent interaction between inmates. Only four inmates are allowed into the general housing area at a time, each individually separated by the enclosures. Inmates in disciplinary and administrative segregation are locked within their cells for 22 hours each day. Both the administrative segregation unit and the unit for the carpentry work program have metal detectors at the entrance to the housing units.

The jail is administered by a warden and two deputy wardens. The other correctional positions in order of descending supervision responsibilities include about four captains (or shift commanders), 10 lieutenants (or unit managers), 15 sergeants, and 250 correctional officers. Correctional officers rotate posts every 90 days and often rotate into other facilities of the city's jail system in their correctional career. City staff members are required to reside within the city's limits, effectively constraining the potential hiring pool. Site B uses direct supervision, and two officers are posted in each housing unit (four officers remain in the administrative segregation unit). Additionally, officers supervise the units from auxiliary booths located between two or three housing units. These officers have direct line of vision into the housing units through glass windows. Officers in auxiliary booths and in Center Control (the auxiliary booth at the entrance to the secure part of the facility) grant access to various areas. Roving officers make rounds throughout various facility areas during each shift. These roving officers also escort food carts, run medical activities, control traffic, and supervise laundry services. The warden, captains, and officers within the auxiliary booths and center control also have access to camera monitors to view activity in the recreation yards, kitchen, loading docks, gym, elevators, some hallways, street, parking lot, stairwell to the visiting room, and the administrative segregation unit.

## **5.2 DATA COLLECTION**

While the basic procedures for data collection were outlined above, this section will cover the details of the data collection specifically for Site B. The following section discusses the process of collecting data from a variety of sources, including site observations, incident data, staff and inmate interviews, and inmate surveys. Before data collection began, a kickoff meeting was held on November 14, 2006, with jail



management to review the goals of the project, provide an overview of the project timeline and upcoming research activities, and build relationships between the research team and jail administrators. The main data collection activities were then carried out during site visits between February 5, 2007, and October 27, 2010.

### **Site Observations and Other Materials**

Three research team members conducted an extensive tour of Site B's facility on February 5, 2007, using a checklist to observe staff and facility operations and to identify physical design features and environmental factors that might contribute to violence, as well as engaging in informal interviews with staff on security practices and perceived security challenges. Throughout the project, 10 site visits were made to the facility overall. During these visits, research team members often met with facility staff, took additional tours of the facility, and collected data. Other materials, such as written policies and relevant media articles, were also collected to supplement the researchers' understanding of the jail operations.

### **Incident Data**

Across multiple site visits, administrative data were collected from the facility's incident reports. These administrative data include seizures of weapons or contraband, use of physical force by correctional staff, and all instances where an inmate or staff member suffers physical violence or injury, including all incidents of sexual assault, suicide, self-harm, and physical violence (physical fights, attacks, assaults, etc.) that come to the attention of staff. Since the reports were not stored electronically, UI researchers read the hard copy reports and entered information from these reports into a database on a laptop computer. Data on the content of the incident (e.g., incident type, weapon usage, resulting harm) and circumstances surrounding the incident (e.g., time, location, presence of witnesses) were recorded for each report. Collected incident data from January 1, 2005, through September 30, 2010, were later cleaned and analyzed off-site. UI researchers used incident data for two purposes: (1) to better understand the incidence and context of the three types of dangerous behavior (sexual assault, physical violence, and self-harming behavior) in the facility for the purpose of developing helpful safety interventions, and (2) to measure changes in these three types of violence across time and assess whether changes could be due to the implemented safety interventions.



## **Staff and Inmate Interviews**

The researchers conducted one-on-one, semi-structured interviews with both staff and inmates. The purpose of these interviews was to learn about the perceptions of violence and associated factors among those spending time in the facility. At Site B, UI researchers interviewed 15 inmates from eight housing units and 21 correctional staff, including jail administrators, correctional supervisors, line correctional officers, and medical and mental health staff. As explained earlier, the interviews covered topics such as the general safety in the facility; the prevalence and dynamics of sexual assault, fights and physical violence, and suicide and self-harm; gang issues and other causes of violence; procedures for responding to incidents of violence; inmate access to weapons and contraband; and general management and operational issues. Additional interviews with 14 staff occurred at the completion of the implementation period to obtain staff impressions of the implemented intervention.

## **Inmate Survey**

In order to learn about changes in inmate perceptions on safety within the facility, the UI researchers administered a survey on the presence and contextual factors surrounding physical violence, sexual misbehavior and assault, and self-harming behavior, both before and after the implementation of the new safety intervention. Prior to the implementation of the intervention, the research team surveyed 110 inmates in February and May of 2008. Thirteen months after the intervention was implemented (October 2010), the research team again surveyed 101 inmates. Surveys were administered in the jail's gym in groups of 3–33 inmates. The survey was anonymous, and the research team did not try to target the same individuals from the pre-intervention sample for participation in the post-intervention survey. In addition to the core items asked at the other sites, inmates were also asked about sexual contact with facility staff, as this was a concern identified through the staff and inmate interviews.

Within each housing unit, inmates were randomly selected from a list provided by jail management that included all inmates 18 and older who had resided in the facility at least 90 days and who had no known mental health conditions. Exceptions to randomized selection occurred in two units during the pre-intervention surveys. Inmates were only selected from half of all possible inmates in two units, because only half of the list was screened for eligibility by the jail. This resulted in inmates only being selected from the lower tier of cells within these particular units.



Furthermore, there were entire units that were unavailable for surveying due to being locked down for violent incidents. These restrictions prevented the researchers from surveying from all eligible housing units. There were additional challenges with passive refusals where substantial numbers of selected inmates refused to come to the gym to hear about the study (where all inmates were offered the option to refuse participation). Therefore Site B had a smaller sample size and may have some self-selection bias.

### **5.3 SELECTION AND IMPLEMENTATION OF INTERVENTION**

Based on data synthesized through a combination of sources, the research team developed a set of recommendations addressing the unique issues of Site B and presented these recommendations, along with the findings on violence in the facility, to jail administrators on February 11, 2008. Through continued communication with the research team and additional research on the feasibility and cost of various recommendations, the management at Site B chose to implement a recording camera system inside six housing units within their jail. The research team tracked implementation over a period of 12 months through regular phone calls and four site visits. Through these phone calls and visits, the research team was able to identify changes to the intervention and implementation challenges.

### **5.4 ANALYSES**

Urban Institute researchers used information collected from site observations, two years (January 2005–December 2006) of incident data, and staff and inmate interviews to identify important patterns of violence in the facility and relevant situational and environmental factors contributing to violence. These data were used to develop tailored intervention recommendations for Site B.

Incident data were also used to measure changes over time in incidents of interest, including sexual incidents,<sup>28</sup> physical assaults,<sup>29</sup> self-harming incidents,<sup>30</sup>

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<sup>28</sup> Includes allegations/assaults/attempts on inmates or staff and sexual misconduct (inmate or staff perpetrators).

<sup>29</sup> Includes allegations/assaults/attempts on inmates or staff (by inmate or staff perpetrators); fluid assaults and homicides are also included.

<sup>30</sup> Includes both suicide and self-harm completions/attempts/threats, hunger strikes, and injuries from suspected self-harm.



contraband,<sup>31</sup> insubordination/threats,<sup>32</sup> and use of force incidents. While the incident type was coded from the primary, or most serious, incident of the event, the use of force analysis was completed using the flags for every incident indicating whether force was used. All incident reports from January 2005 through September 2010 were used for this analysis. UI researchers used structural break analysis to examine whether the incidence of violence and self-harm was impacted by the implementation of the intervention and other changes in the jail. The research team wanted to examine staff misconduct as another incident category (because of the intervention's dual focus on inmate and staff behavior); however, there were not enough recorded staff misconduct incidents (N=39) to generate its own category.

UI researchers originally planned to use ARIMA time series analysis for Site B, as with Site A. However, data limitations led the researchers to conclude that structural break would be more appropriate. Site B was unable to confirm dates for important policy and practice changes (for example, policy changes to disallow suicidal inmates to be left alone, provide automatic mental health referrals for suicidal inmates, lock cell doors during the day, and program and population changes to one of the intervention units, among others). In addition, there was an incremental implementation of cameras, with 12 cameras being installed in September 2009, a policy enacted for shift commanders to review weekly video footage in November 2009, two more cameras added and angle adjustments made in January 2010, and eight additional cameras installed in March 2010, as well as a change in policy during this same month to have shift commanders conduct monthly video footage reviews (as opposed to weekly). Similar to Site A, there were also events which occurred in close proximity together and a multitude of changes leading to an unstable baseline. Due to these challenges, the researchers believed the ARIMA time series analysis would elicit little useful information.

In structural break analysis, precise dates for interventions and other control variables are not required. Structural break analysis uses the data to identify points in the series where significant changes occur to the pattern of data. The structural break analyses use the method described in section 3.4 *Analyses* and include the inmate-to-

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<sup>31</sup> Contraband was only coded if officers were able to seize it (i.e., an incident would not be coded as contraband if an assault occurred with a weapon, but the weapon was not recovered).

<sup>32</sup> Includes inmate threats (physical or sexual, but not self-harm), miscellaneous discipline or insubordination, and intentional flooding.



staff ratio in the model to control for this effect on incidents. Researchers conducted analyses for the incident types listed in Table 1 with the exception of incidents involving self-harm or insubordinate/threatening inmates, which did not have sufficient sample sizes. In addition, the following types had enough incidents to examine whether patterns in incidents differed for intervention areas compared to other areas: All Incidents, Main Incidents, and Physical Assaults. For these incident types, both the number of incidents in nonintervention housing areas and the number in nonhousing areas were included as covariates. Incident patterns similar to the time series data for the intervention areas would have significant coefficients, while differing patterns would be nonsignificant. It would be expected that nonhousing areas would have a different pattern of incidents since these include areas with very different functionalities; however, the nonintervention housing areas can serve as a quasi control area. The comparison is not a perfect one, as the intervention units were maximum-security units selected specifically for their identified violence. However, the relationship was examined nonetheless in case helpful information could be garnered. The comparison units included two mental health units, administrative segregation, protective custody, two juvenile units, and one regular medium-security unit. Monthly data were used for all incident types except for all incidents, inmate assaults, and use of force, which were counted weekly.

The research team also administered surveys to inmates both before the intervention and 13 months after the intervention was begun. Survey data were analyzed with independent sample t-tests and chi-square tests of independence to determine whether inmate perceptions of safety changed after the intervention was implemented. UI researchers also qualitatively analyzed staff interviews to learn about staff perceptions of the impacts of the intervention and lessons learned from the implementation. Finally, the research team conducted a cost-effectiveness analysis to examine the costs of the intervention and how this related to the changes in incidents found in the structural break analyses.

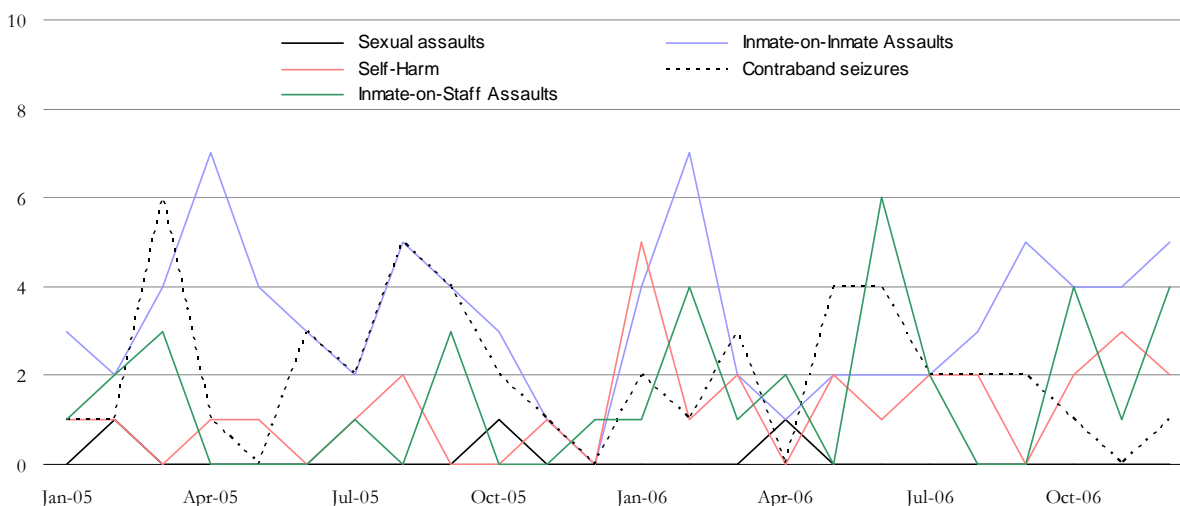




## 5.5 FINDINGS FROM PRELIMINARY RESEARCH

Information gathered from incident reports, site observations, and interviews with both staff and inmates were synthesized to learn about the prevalence and circumstances surrounding various types of violence in the facility, including sexual violence, physical violence, and self-harming behavior. This information was then used to recommend individualized interventions for Site B. The incident data analysis for this preliminary research effort included data from January 2005 through December 2006 (see Figure 14). Findings from these data sources are detailed below (findings from the evaluation of the selected intervention are further below in a separate section).

**Figure 14. Number of Monthly Incidents, 2005–2006**



Note: Categories include attempts.

### Sexual Violence

There were relatively few incidents of sexual violence documented in Site B's official reports. Over the two-year period, there were two alleged sexual assaults between inmates and one incident of an inmate inappropriately touching a facility nurse. Both of the inmate-on-inmate sexual assaults occurred inside cells in the mental health units of the facility. One incident occurred between inmates who were previously in a consensual relationship, but when one inmate rejected the other inmate's request for a sexual act, the latter inmate raped the former. The second



incident occurred when one inmate sexually assaulted his cellmate multiple times after their unit was locked down for the night. Both incidents occurred during the night shift.

Likewise, interviewed staff felt that sexual assault was infrequent within their facility, although some staff believed consensual sex was fairly prevalent. Nearly half of the staff reported rumors or knowledge of sex happening between inmates and staff members. Staff felt that if sex were to occur in the jail, it would most likely happen in cells. A few staff members also thought sex might be happening in closets (particularly with staff members), showers, or the bathrooms in the programs area. A couple of staff members also felt this was most likely to occur in the mental health units. Staff members thought sexual assault was most likely to occur during the night shift and that some characteristics made inmates more vulnerable to attack, including being gay, lower functioning, first timers, smaller, and younger. While most staff did not conjecture on possible causes of inmate-inmate sex, some said that exchange for possessions or services (e.g., protection) and consensual relationships “going bad” were the main causes for coercive sexual behavior among inmates.

Inmates concurred with staff and the incident reports that sexual assault was not a frequent problem at Site B. However, one-third of interviewed inmates believed staff-inmate sex was occurring, and a couple of more inmates said they had heard rumors of staff-inmate sex but were unsure whether the rumors were true. Cells and closets were mentioned as possible locations for sex, and inmates had no clear opinion on when sexual assault or consensual sex might occur.

### **Physical Violence**

Physical violence, on the other hand, was much more common than sexual assault. Across the two years of incident reports, 54 one-on-one assaults, 24 group assaults, and one homicide occurred. On average, three to four violent incidents were reported each month at Site B. While this site reported fewer physical violence incidents than the other two sites, it is possible this is due to a difference in reporting practices rather than fewer incidents. The incident data showed that individual assaults were more common than group assaults, but group assaults were more likely to involve weapons (80 percent versus 50 percent of one-on-one attacks). The most common areas for physical attacks were housing common areas (58 percent) and cells (42 percent). The majority of physical assaults occurred on the maximum security housing side, and most attacks (63 percent) occurred during the day shift.



In addition, 25 inmate-on-staff assaults and eight attempted inmate-on-staff assaults were reported. Completed inmate-on-staff assaults were most common on the administrative segregation unit, and these most often involved grabbing an officer's hand through the meal slot. Half of inmate-on-staff assaults occurred in housing common areas. No inmate-on-staff assaults or attempted assaults involved weapons. Four out of five times, staff responded with force, most often using pepper spray. Interestingly, one-quarter of inmate-on-staff physical assaults occurred during the month of June in 2006. The management at Site B did not know of any precipitating events or facility changes occurring at this time.

Staff members also believed violence was frequent at Site B. Over one-quarter of the interviewed staff said fights often involved weapons, particularly knives or shanks. Hot water was also mentioned as a weapon by a small number of staff members. Three staff members believed stabbings were more frequent than fistfights at Site B. Staff reported housing common areas (day room and the top tier) and cells were the most common locations for fights, and many staff said that inmates do not care whether officers are present. Some staff reported fights occurred in the rear of the top tier, which was a blind spot to officers stationed at the front of the unit. A smaller number of staff thought fights occurred on the yard sometimes as well. When asked about the most common times for fights, staff most often reported times related to other events, such as religious services, the day inmates receive commissary or the following day, and when the food cart arrives. The most frequently reported causes of fights were commissary, issues from the street, contraband, access to phones and television, and groups such as neighborhood groups, gangs, and religious groups. Staff mentioned that inmates often attempted to hide their injuries and refused to report attacks, which creates a challenge in responding to physical violence.

In accordance with the incident data and staff, inmates also felt physical violence was frequent at Site B. While inmates reported one-on-one fights were more common than group fights, inmates said it depended on the unit whether fistfights or stabbings were more frequent. Inmates reported shanks and a combination of hot water and baby oil were used as weapons at Site B. The recreation yard, cells, and dayroom were the most frequently reported locations for physical violence. Few inmates reported particular times for fights, but commissary day and religious services were mentioned twice. While many of the same causes of fights were reported by inmates and staff, those interviewed felt that the *most* common causes were access to phones and television, neighborhood groups, issues from the street, stress, and availability of



hot water in the showers. Similar to staff, some inmates also reported that inmates would hide the fact they were attacked.

### **Suicide and Self-Harm**

Suicides were infrequent at Site B, with only one completed suicide by hanging during the two-year period of collected incident reports. However, there were 22 reported suicide attempts across the two years, nearly one suicide attempt per month. Additionally, there were five self-harming incidents reported (this low number is likely due to hidden injuries or lack of reporting). Two-thirds of the suicide attempts were made on the administrative segregation unit and one of the mental health units. Nearly three-quarters occurred inside cells. The incidents were evenly split between day and evening shifts, with only two incidents happening during the night shift. The most common method of suicide attempts was trying to hang oneself with a bed sheet, while the most common self-harming method was cutting with a razor or other piece of metal.

For the most part, interviewed staff did not believe serious suicide attempts occur very frequently at Site B. However, they believed the most common locations for suicide attempts were cells and jumping off the top tier. The mental health units, administrative segregation unit, and chronic health unit were the units thought to have the highest rates of suicide attempts and other self-harming behavior. Staff felt this occurred most often at night, during the holidays, after receiving bad personal news, or when an inmate first arrived at the jail. Staff thought that mentally ill offenders, younger offenders, and people with personality disorders were most likely to try to hurt themselves. Staff correctly identified hanging and cutting as the most common forms of attempted suicide and other self-harm. Staff thought the second tier, top bunk, cell lighting fixtures, and cell sprinklers were possible hanging points. Staff reported razors and metal from armbands, light fixture screws, paper clips, and other sources were typically used for self-cutting purposes.

Interviewed inmates did not have much input on the topic of suicide and self-harm. Most of those interviewed were not aware of any incidents, although they conjectured that inmates who wanted to hurt themselves would most likely attempt to hang or cut themselves. A couple inmates said that staff did not treat verbal threats of self-harm seriously.



## **Facilitators of Violence**

Site B has significant problems with contraband entering the facility. Data from incident reports showed 111 contraband seizures across the two-year period (about four to five seizures each month on average); nearly half (44 percent) included weapons. Cells, housing common areas, and visiting areas were the most common locations for finding contraband. Weapon seizures most often occurred on two of the maximum security housing units, including the disciplinary segregation/transitional unit. Metal shanks were the most common type of weapon contraband, while marijuana and cell phones were the most common type of nonweapon contraband.

Staff reports aligned with the incident records for the most part. Staff reported weapons, cell phones, marijuana, and cigarettes as common forms of contraband. A small number of staff also stated that pills, cocaine, and heroin were infrequently found within the facility. Staff did not report any issues with alcohol being brought into the facility or being made by inmates. Staff most frequently reported weapons being crafted from metal inside the facility (particularly light fixture screws) or from stolen icepicks and dental tools. About half of those interviewed thought that contraband was entering the facility through other staff members. Other sources of contraband reported were visitors and items being thrown over fences into the recreation yards. Common hiding places were vents and grates, light fixtures, exit signs, and closets. In addition, some staff reported other hiding locations such as pantry areas, showers, and inside or under mattresses, among others.

Another common facilitator of violence, gangs, was not reported to be a major issue for Site B. However, neighborhood groups and religious groups were reported to be problematic. In addition, the overcrowding at Site B had caused problems as well. Double-bunking resulted in twice the number of inmates housed in units than what was originally designed. Crowding can increase stress levels and create a competition for shared resources, such as showers and phones. The density of the population obstructs clear lines of sight, making it difficult for officers to have a full view of the entire unit. Furthermore, direct supervision management requires that the officer has control over the housing unit, by virtue of his or her ability to circulate around the unit and proactively address potential stresses and situations. This is more difficult with a larger population.

Finally, many inmates and some staff reported that facility staff were not performing their duties routinely or adequately in Site B. Interviewees reported that



some corrections officers do not actively search for contraband when conducting shakedowns and searches. In addition, both staff and inmates pointed to staff as a main source of contraband entering the facility. Inmates said they could anticipate shakedowns, because they were announced on the jail's speaker system. Interviewed staff also reported that some officers failed to record important incidents in the daily logs and that there was a dangerous lack of response to emergency or "back-up" calls. Inadequate or compromised staff duties can be a large barrier to safety in correctional facilities.

## **5.6 SELECTED INTERVENTION**

While jail management had already made facility and policy changes to increase safety at Site B (including locking cells during the day, renovations to the administrative segregation unit, the use of metal detector wands at the jail entrance, the use of pepper spray by officers, and more frequent random pat searches and shakedowns), the research team identified a few areas for potential intervention. These recommendations were intended to better monitor inmates and reduce opportunities for inmates to acquire contraband, assault others, and hurt themselves. A complete list of the recommendations made to Site B (but not necessarily chosen) is shown in Appendices J–K. Below is a description of the selected intervention.

The primary recommendations were presented at a large meeting with Site B's administrators and representatives from the city's jail system upper management. The advantages and disadvantages of each potential strategy were discussed at this meeting along with the reasoning behind each one. The jail administrators were then advised to consider the possible interventions and provide feedback to the research team on which interventions they were interested in further researching.

One recommendation made was to increase surveillance of the back of the top tiers for those units experiencing above-average violence. The top tier was identified by both staff and inmates as a high risk area for physical violence and suicide attempts, because officers who remained at the front of the housing unit were unable to see into this area. Recording cameras were recommended to further increase inmates' perceptions of risk, provide evidence at disciplinary hearings for any altercations caught on video, and allow supervisors to monitor whether correctional officers were completing rounds. It was noted that the installation of cameras must be combined with increased staff vigilance, including prompt response to incidents that occur within view of the cameras.



Site B's administrators informed the research team that they were most interested in this intervention, because they felt it would provide the greatest benefit for the amount of financial support available through the NIJ subgrant. Site B planned to install one recording camera overlooking the rear of the top tier in six of the maximum security housing units, including the unit with disciplinary segregation and transition out of segregation.

## **5.7 IMPLEMENTATION**

A recording camera system was selected by Site B for the present study. The camera system was installed in September of 2009, and was expanded in January and March of 2010, resulting in two or six recording cameras in six maximum-security housing units known to have violence problems. The cameras experienced some minor functioning problems but were working throughout the majority of the implementation period.

### **Vendor Selection**

Site B already had a contracted vendor for all camera services for the entire jail system. The project was able to use this company since this vendor originally went through a competitive bid selection process and was hired for all camera work during the term of the contract. The vendor was able to provide a quote under \$25,000 for 14 recording cameras, a recording DVR, a power supply, hardware, conduit, cables, and the labor needed to install the system.

### **Installation and Launch**

The \$25,000 JSAP subgrant was used to purchase the equipment and pay for labor for the new camera system. In the process of preparing a quote for the work, Site B's administrators determined they could expand the original plan and purchase two cameras in five maximum-security units and four cameras in the maximum-security unit that includes both disciplinary segregation and inmates transitioning out of disciplinary segregation. In the five maximum-security housing units with two cameras, a single recording camera would view the rear of the top tier of cells and another recording camera would view the rear of the bottom tier of cells. These cameras were placed at the back of the tier viewing forward. The four cameras in the disciplinary segregation/transitional unit were placed to observe the rear of the top



tier of cells, the rear of the bottom tier of cells, the front of the top tier, and front of the bottom tier. Monitors for the camera system were placed in one location—the auxiliary booth in the center of the six housing units with cameras.

The installation process for the camera system was completed on September 18, 2009. Once installation was complete, the warden went on a tour with the vendor to view the cameras and monitor. Staff were informally instructed on the use of the cameras and video recording system by a vendor representative. In November 2009, officers were given a “cheat sheet” on how to extract recorded videos and conduct reviews. Jail leadership preferred to keep a direct supervision focus within the facility and, therefore, officers in the auxiliary booth were not expected to monitor the cameras continuously (officers in the auxiliary booth also have additional responsibilities such as granting access to units). Instead jail administrators emphasized the use of the recording capabilities for viewing incidents after the fact.

Policy mandated that video footage be reviewed for every incident occurring inside a housing unit, and a new item was introduced to the investigation report paperwork which asked about any evidence revealed through the video footage. Reviews of investigation reports confirmed this practice consistently in use starting in Winter 2009. In October, the jail administrators instituted a policy for officers in auxiliary booths to check the cameras during each shift to ensure they are functioning properly. In November, jail leadership began a policy for shift commanders to conduct weekly reviews of one hour of randomly chosen video footage. Shift commanders were required to report observations from the video footage, whether any policy was violated, and if disciplinary action was necessary. If policies were violated or disciplinary action planned, the shift commander needed to include a CD with the recorded video footage. This policy resulted in six hours of video review per week.

### **Maintenance and Alterations**

At various points in the study, the camera system and related policies changed. Site B received additional funding from internal sources for cameras. In January 2010, two additional cameras were added to the “step-down” housing unit to include views of the officer console area at the front of the housing unit and to view part of the dayroom. Jail leadership wanted to see the officer console area to monitor officer rounds, prevent fraternization between officers and inmates, and view entrance and exit to the housing unit. A camera was added to view the dayroom, because this was





another common location for fights. In addition, the cameras viewing the tiers were moved to the middle of the hallway looking backward (as opposed to the back of the tier viewing forward). The tier camera changes were made to try to avoid inmate vandalism of the cameras. The cameras could be installed higher in the middle (as opposed to the end) of the hallway. The cameras viewing the front of the tiers were also repositioned slightly to obtain better viewing angles and reduce overlapped camera views.

In March 2010, additional cameras were added to two of the housing units with two cameras, resulting in three units having six cameras with the following view angles:

1. rear of top tier
2. rear of bottom tier
3. front of top tier
4. front of bottom tier
5. officer console area and entrance to housing unit
6. dayroom

Even with six cameras, there were still a number of blind spots in the dayroom and other parts of the housing unit. The remaining three units still had the original two cameras overlooking the top and bottom tiers. Increases in the number of cameras caused a reduction in the amount of data which could be stored from 20 days to two weeks.

In addition to alterations in camera positioning, there were also a few maintenance issues. The camera viewing the rear of the top tier in the step-down unit was nonfunctional for a week-long period in December. Another unit experienced conduit troubles, resulting in intermittent functioning of some of the cameras; however, staff reported that this was resolved by the end of the implementation period.

Finally, some policy changes occurred in relation to the camera system. The jail leadership felt the shift commanders were not putting sufficient effort into the weekly reviews of randomly selected video footage. In order to relieve some of the burden by introducing more flexibility, the jail leadership changed the policy in March so that



shift commanders could review one hour of randomly selected video from a month-long period.

### **Future Plans**

At the end of the implementation period, jail management hoped to continue expanding the use of recording cameras throughout the facility. They wanted to install six cameras in every housing unit and invest in a DVR with more space or obtain multiple DVRs. They are currently seeking out potential funding sources for this plan.

## **5.8 EVALUATION**

In order to evaluate the impact of Site B's recording camera system, the UI research team analyzed data from three sources: (1) program observations and interviews, (2) inmate surveys, and (3) incident reports.

### **Program Observations and Interviews**

UI researchers had bimonthly phone conversations with members from Site B's leadership and made four site visits to the facility to document the implementation of the recording camera system, observe the operation, and interview various staff about the use and impacts of the system. Through these visits and conversations, the following information was obtained.

#### ***Interviews and Meetings with Jail Leadership***

Throughout the implementation period, the research team had regularly scheduled phone calls with jail administration to discuss the status of the system, any problems or concerns with the system, and initial impressions of its impact. Overall, the jail leadership felt the cameras were a positive addition to the facility and a useful tool for the investigation of incidents and training of staff.

In the first few months of the implementation, jail administrators were unsure whether or not there had been an impact of the camera system (they thought there was a decrease in violence but weren't sure if it was due to cameras or due to other



recent changes in the facility).<sup>33</sup> However, there was a lot of positive expectation for the cameras' success in impacting both inmate and officer behavior. Jail administrators saw three primary purposes of the camera system: (1) deter inmate misconduct, (2) provide evidence of inmate misbehavior, and (3) use video footage as a tool to improve staff conduct.

Jail administrators felt the cameras might deter planned (i.e., not spontaneous) inmate violence. However, the administrators believed the inmates were skilled at discovering blind spots and could initiate violence in these areas. In fact, within a month of implementation, multiple incidents had occurred in blind spots, while only one incident of disruption (an inmate breaking the glass of his cell door) had been recorded. Perhaps more importantly, the jail leadership felt the camera system would be useful for investigating incidents after the fact. Jail administrators also promoted to staff the ability of the camera system to prevent or address false accusations against staff by inmates.

The jail leadership put a particularly strong emphasis on the ability of the camera system to reveal staff inefficiencies and improper behavior, as well. The administrators planned to use video footage to detect issues with staff, bring it to their attention, and use it as a training opportunity to improve staff performance. The jail leaders hoped to focus more on training and teaching as opposed to disciplinary actions. By November, they had already identified a policy violation where staff allowed inmates placed on segregation to intersperse with other inmates in the unit that houses both segregation and inmates transitioning from segregation. Those officers were transferred to different units as a result. Another incident within the first two months resulted in disciplinary action for both an inmate caught attacking other inmates and an officer who allowed the inmate entrance into a cell where the attack occurred.

Jail administrators reported no clear reaction from inmates over the cameras. However, within the first month of implementation, jail administrators reported an inmate vandalized one of the cameras by applying Vaseline to the camera lens. The inmate was placed in administrative segregation as a consequence. There were no other known cases of inmate vandalism to cameras during the study period. On the

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<sup>33</sup> Around the same time of the launch of the cameras, other changes were occurring at the jail, including the reinstitution of the step-down program in the segregation unit, changes to the discipline policy, and an increased number of shakedowns.



other hand, administrators said that inmates were requesting that video footage be reviewed to corroborate their claims over an incident, illustrating that inmates may see an advantage to the cameras' presence.

At the end of the implementation period, jail administrators remained satisfied with the camera system and, in fact, hoped to expand the system to additional housing units. Namely, administrators found that the system was most helpful in incident investigation and improvement of staff behavior. Since tapes must be provided with all incident reports, administrators were able to use the tapes to assess incidents and identify the individuals involved and the appropriateness of staff response. Outside of incidents, routine reviews by shift commanders served as another opportunity to identify and address incorrect officer behavior. In this regard, the camera system has become an important tool for training officers.

While administrators embraced the camera system, they reported that officers have offered mixed reviews of the system. The jail leadership expressed that officers are not as sensitive to their presence as they had been during the initial phase of implementation, though. Administrators believed that officer behavior has been influenced by the cameras, although this has come at a cost to the trust between officers and the jail leadership. Administrators suggested that officers felt as though the cameras were installed to monitor their actions and not necessarily the inmates' actions.

The deterrent impact on inmates was seen as minor, although administrators felt the cameras were an indispensable tool for investigations of inmate incidents. Interestingly, administrators found that inmates invoked the cameras in their defense during accusations as evidence that they were either not involved in, or not the perpetrator of, an incident. While administrators reported that inmates seemed to be behaving better—marked by fewer incidents—they also noted that inmates have discovered camera blind spots to conduct illicit behavior. In this regard, administrators wish to install additional cameras to reduce the number of blind spots.

### ***Interviews with Correctional Officers and Supervisors***

In addition to interviews with the jail warden and deputy warden, 12 interviews were conducted with other staff, including both supervisors and line staff. Supervisors felt that the camera system was a good management tool for controlling officer behavior and increasing professionalism. However, supervisors also felt it was sometimes



difficult to find time and a suitable place (as the computers in their offices did not support the necessary software) to review the monthly video footage.

On the whole, most officers offered mixed reviews, acknowledging both the strengths and limitations of the camera system. Many officers reported that the system did not impact officer behavior, expressing that officers did their jobs to the best of their abilities before and after the implementation, or that officers would act as trained in an emergency situation and would not have time to think about cameras. However, many officers ultimately found the camera system to be helpful, particularly for the investigation of inmate incidents. Interviewed officers in the auxiliary booth did not feel the additional monitors substantially increased their daily work burden.

Several officers reported that the cameras contributed to a decrease in inmate misconduct and an overall improvement in safety, while others were of the opinion that inmates would find ways to commit impermissible acts if they were motivated. Officers believed inmates were adept at finding blind spots in the camera viewing angles. Toward this point, officers suggested not only installing more cameras, but also placing current cameras in different areas to reduce blind spots. Relatedly, a small group of officers felt that cameras were placed at disadvantageous angles, such as the console area where officers are stationed at the front of the unit. In this vein, a couple officers felt that the purpose of the cameras was more to monitor officers than inmates. Officers also recommended investing in cameras with greater visual clarity, as it could sometimes be difficult to identify individuals due to blurriness.

### ***Observations***

Observations of the officer tour system during site visits showed procedures to be similar to that described by the jail administrators. Observations were made on site visits occurring 2 months, 7 months, 12 months, and 13 months after installation. During each visit, the cameras were installed as explained by jail administrators by phone. However, on the first two visits there were changes to the camera systems and some noted functionality issues (detailed in section 5.7 *Implementation* above). Before the tier cameras were moved to the middle of the tier, members of the research team observed the tier cameras located within easy reaching distance.

UI researchers also observed the auxiliary booth with the camera monitors. Displays for all the cameras were laid out on one large monitor. Picture quality was



adequate, although the image for each camera was small (about 2" x 2"). Cameras had stationary views and did not move. Officers tended to be facing away from the monitors, looking out into the units and hallway where they had to provide electronic access to people entering and exiting the units. However, the officers spoken with during these visits were very familiar with the monitor, including camera angles and which cameras occasionally had functionality problems. Researchers also observed the deputy warden reviewing recorded footage from a disc on the computer for an incident of inmate disruption. The system pulls video from every camera automatically, and the viewer can select individual cameras to view.

### Inmate Surveys

Inmate surveys were administered at Site B 16–19 months<sup>34</sup> before and 13 months after the cameras were installed to assess for changes in inmate perceptions of jail safety. The survey asked about the presence and contextual factors surrounding physical violence, sexual misbehavior and assault, and self-harming behavior. Within each housing unit, inmates were randomly selected from all inmates who had resided in the facility at least 90 days, were 18 years of age or older, and who had no known mental health conditions. The results of these surveys are presented below, including basic descriptive statistics and comparison analyses between the *pre*- and *post-intervention* samples. Independent sample t-tests were used to detect differences between the *pre* and *post* samples for continuous variables (including four-point Likert scales), and chi-square tests of independence were used to detect differences for categorical variables. Comparisons for dichotomous variables used the continuity correction, and t-tests with a significant Levene score are based on the t statistic indicated for unequal variances. Significant differences are indicated with asterisks (\*=  $p < .05$ , \*\*=  $p < .01$ ), while marginally significant differences are indicated with a cross symbol (†=  $p < .10$ ); all are highlighted in yellow. With one exception,<sup>35</sup> differences in sample characteristics were minor and were not consistently related to content-related survey responses across survey groups; therefore no correction was made to the sample for these differences.

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<sup>34</sup> The camera procurement process was much lengthier than anticipated, causing significant delays in the implementation of the camera system. Due to these lengthy delays, the inmate surveys were administered far in advance of actual implementation.

<sup>35</sup> As described below, the exception is race/ethnicity, for which there were significant differences between pre- and post-intervention samples.



The survey for Site B was nearly identical to that of Site A, with a few exceptions. Response options for jail locations and potential causes of fights were tailored to the specific facility, as well as to information obtained from each site during the initial interviews with staff and inmates. Furthermore, two additional questions were asked at Site B. Respondents were asked about their security classification (inmates do not have security classifications at Site A) and about where sex with staff was likely to occur, as this particular behavior had been mentioned frequently in interviews at Site B. Items asking specifically about perceptions of the intervention, in this case cameras, were also tailored to each site.

Five different types of questions were employed (items asking about the likelihood of particular safety risks in general, likelihood of safety risks in particular locations, likelihood staff will learn of incidents, access to health and mental health services, and facilitators of violence), and the format of most questions follows a four-point Likert scale with differing response options depending on the question (see section 3.2 *Data Collection* for more detail). Likert responses are coded (-3), (-1), (1), (3), where more positive values indicate “safer” perceptions. For example, the research team scored *both* of the following items as 3: (1) an attack being “Very Unlikely” and (2) an inmate reporting “None” for the number of inmates in gangs.

### ***Sample Characteristics***

Both the *pre* (N=110) and *post* (N=101) samples were similar in terms of demographics and background (see Table 18). The sample included only male inmates, and respondents were primarily black and had a mean age of 30-31 years. The *post* sample had a significantly smaller number of black/African American respondents (58 percent) than those surveyed before the intervention (73 percent). Fewer respondents reported being Latino or Hispanic in the *post* (23 percent) sample compared to the *pre* (12 percent) sample, but this difference was only marginally significant. Nearly all respondents (99 percent) reported a heterosexual orientation.

The majority of respondents were violent offenders (49–55 percent), followed by drug offenders (21–22 percent). Drug offenders were about evenly split between possession (48 percent) and selling (52 percent) offenses. Respondents had prior experience with the criminal justice system, with an average of three convictions in



their past. The majority (76–81 percent) had been a different jail previously,<sup>36</sup> and around one-third (31–37 percent) had been confined at Site B before. At the time of the survey, inmates had spent about 10–12 months at the jail, and the majority was classified as maximum security (63–64 percent). While most respondents were awaiting trial (68–73 percent), 25–30 percent were already sentenced.

**Table 18. Sample Characteristics**

Variable		Pre	Post
Mean Age		30.9	30.0
% Female		0.0%	0.0%
% Black*		72.6%	58.1%
% Latino/Hispanic†		12.1%	23.0%
% White/non-Hispanic		13.9%	13.9%
% Heterosexual		99.0%	98.9%
% Violent offense		49.0%	54.6%
% Property offense		15.7%	11.3%
% Drug offense		20.6%	21.6%
% Other offense		14.7%	12.4%
Mean # convictions		3.4	3.3
Mean mos. served at jail‡		12.3	10.2
% Maximum security		63.8%	62.9%
% First time at Site B		63.3%	68.7%
% At another jail in past		76.1%	80.8%
Status	Sentenced	30.3%	25.3%
	Awaiting trial	68.2%	72.7%
	Other	.90%	2.0%

\*  $p < .05$ , \*\*  $p < .01$ , †  $p < .1$

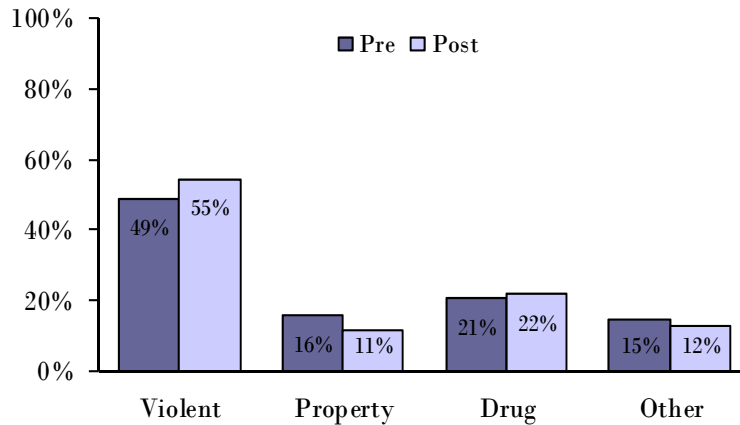
Although there was one significant difference between the two samples, being black did not appear to consistently influence survey responses across the two groups, with the exception of one item: having been in a fight in a cell in the past 30 days. Due to this difference, survey findings were analyzed separately for black and non-black respondents on this one particular item, with no differences found between the two groups. Furthermore, this item was only analyzed qualitatively due to the small size of this subquestion (see below, *Personal Experiences*).

<sup>36</sup> The larger number of respondents reporting time served time at another jail may be because Site B is part of a large complex of jails, one of which is a main intake facility, and inmates may count that as a stay in another jail.





**Figure 15. Current Offense of Respondents**



### ***Sexual Violence***

Table 19 displays findings from the survey on various sexual behaviors. The majority of items have a positive mean value on the four-point Likert scale (-3, -1, 1, 3) described earlier, indicating that inmates do not strongly perceive sexual incidents to be of high risk. However, there was evidence that inmates felt sexual behaviors could occur.

The mean values on the Likert scale for likelihood of sex with an officer (-.15) and likelihood of consensual sex occurring in cells (-.43) were negative in the *pre* sample, showing some perceptions of higher risk for these two particular items. The mean values were also negative for the likelihood of staff finding out about both forced (-.15, -.38) and consensual sex (-.49, -.44). Figure 16 shows the proportion of respondents who felt four different types of sexual behaviors were likely (“Likely” or “Very Likely”). In the *pre* sample, over half (56 percent) of respondents thought sex with an officer was likely, and around one-third thought consensual sex (33 percent) and sex in exchange for something (31 percent) was likely. A smaller number of inmates (20 percent) believed sexual assault to be likely at the jail.

However, perceptions changed significantly for the *post* sample. Far fewer respondents thought that sex with an officer (36 percent), sex in exchange for something (14 percent), and sexual assault (5 percent) were likely. Furthermore, *post* respondents thought that consensual sex would be less likely in cells and that sexual assault would be less likely in cells, on the tiers, in the recreation area, and in closets. Of note is the fact that for no items did post-intervention respondents report higher likelihood of these prohibited behaviors than their pre-intervention counterparts.



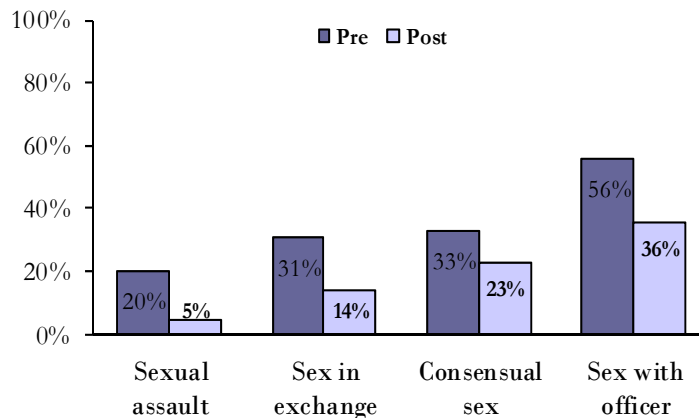
**Table 19. Perceptions of Consensual Sex and Sexual Violence**

Variable	Pre Mean	Post Mean	Pre %	Post %
Perceptions of Sexual Behaviors				
Likelihood of sexual assault**	1.31	2.17	20.4%	4.5%
Likelihood of exchange sex**	0.98	1.80	30.9%	13.8%
Likelihood of consensual sex	0.98	1.39	33.0%	23.0%
Likelihood of sex with officer**	-0.15	0.69	55.8%	35.7%
Perceptions of Sexual Assault				
Likelihood in cell**	0.02	0.86	50.0%	32.2%
Likelihood in dayroom	2.11	2.33	3.0%	3.4%
Likelihood on tiers*	1.97	2.36	8.1%	2.3%
Likelihood in showers	1.59	1.81	12.1%	11.6%
Likelihood in rec area*	2.03	2.43	5.2%	3.4%
Likelihood in closets**	0.86	1.58	33.7%	19.8%
Likelihood staff find out	-0.15	-0.38	43.8%	40.7%
Comfort of reporting assault <sup>1</sup>	N/A	0.41	N/A	40.8%
Perceptions of Consensual Sex				
Likelihood in cell*	-0.43	0.40	60.6%	42.9%
Likelihood in dayroom	1.88	2.17	12.2%	2.4%
Likelihood on tiers	1.96	2.08	10.2%	4.8%
Likelihood in showers	1.51	1.50	18.4%	17.9%
Likelihood in rec area	2.00	2.07	8.2%	4.8%
Likelihood in closets	0.76	1.21	39.8%	28.6%
Likelihood staff find out	-0.49	-0.44	34.0%	34.6%

\*  $p < .05$ , \*\*  $p < .01$ , †  $p < .1$

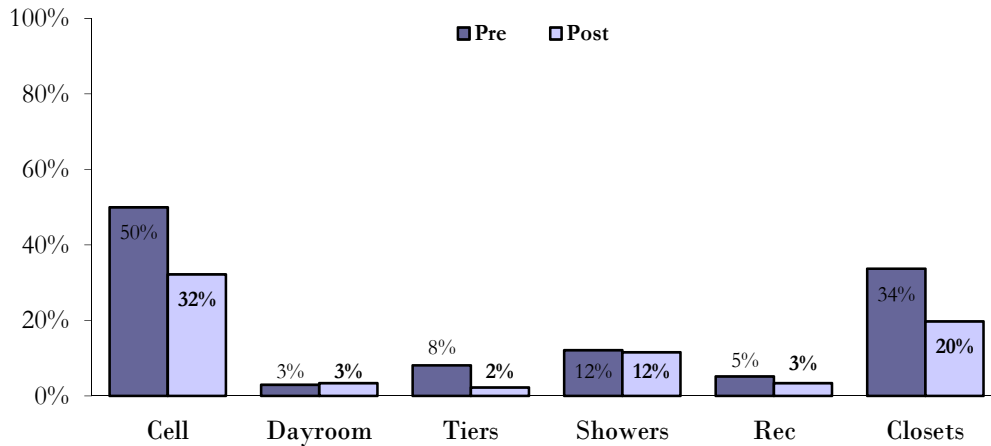
<sup>1</sup>The item *Comfort of Reporting Assault* was only administered for the post survey and has a scale of “Very Comfortable” to “Very Uncomfortable.”

**Figure 16. Likelihood of Sexual Behaviors**



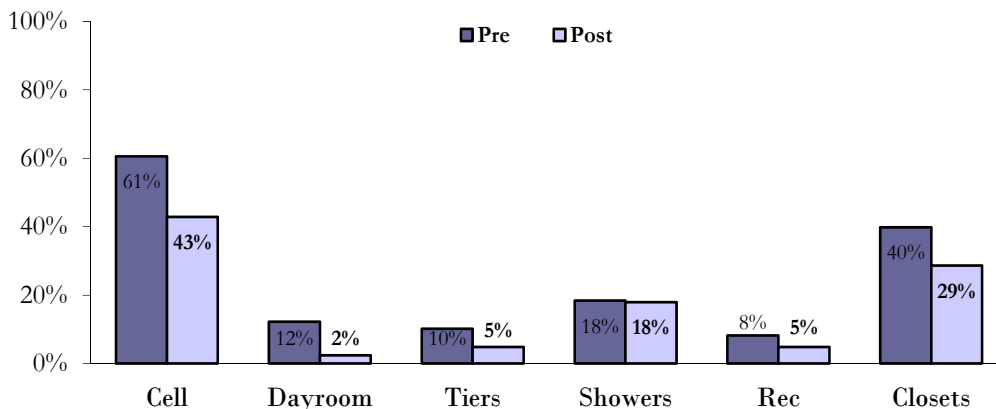


**Figure 17. Likelihood of Sexual Assault by Location**



For both the *pre* and *post* samples, cells and closets appeared to be the more likely locations for sexual behavior according to the survey items asking about specific locations (see Figures 17–18). In addition, when asked open-ended questions about where in the jail it is most likely for inmates to experience sexual assault and consensual sex, “cells” were overwhelmingly the most common response, with no other locations showing extensive endorsement, except closets in the case of sexual contact with officers.

**Figure 18. Likelihood of Consensual Sex by Location**



Less than half (41 percent) of respondents said they would be comfortable reporting a sexual assault to correctional staff. The most common reasons for this (N=31) were distrust of officers (officers would tell other inmates, were disrespectful/unprofessional, or would not care) (34 percent), sexual assault is a



personal matter or not other people's business (25 percent), shame (16 percent), or fear of retaliation (9 percent).

### ***Physical Violence***

Table 20 illustrates inmate perceptions about physical violence. In contrast to perceptions about sexual violence, the majority of items about physical violence are negative, indicating that inmates feel at high risk for physical violence. Overall, the majority of inmates (88 percent of *pre* and *post* inmates) reported fights or attacks were likely ("Likely" or "Very Likely").

**Table 20. Perceptions of Physical Violence**

Variable	Pre Mean	Post Mean	Pre %	Post %
Likelihood of fight/attack	-1.80	-1.63	87.9%	88.0%
Likelihood in cell**	-0.85	0.06	67.3%	47.2%
Likelihood in dayroom	-1.36	-1.15	83.0%	78.3%
Likelihood on tiers	-1.27	-0.91	79.0%	77.8%
Likelihood in showers	0.88	0.79	29.8%	29.9%
Likelihood in rec area	-1.60	-1.59	84.9%	85.7%
Likelihood in classroom/library	0.60	0.55	38.5%	37.5%
Likelihood staff find out	0.85	0.75	71.4%	71.6%
Number of inmates in gangs <sup>†</sup>	0.09	0.65	50.5%	41.9%

\*  $p < .05$ , \*\*  $p < .01$ , †  $p < .1$

The item *Number of Inmates in Gangs* has a scale of "Most Inmates" to "None." Percentages shown are for respondents endorsing "Some Inmates" or "Most Inmates."

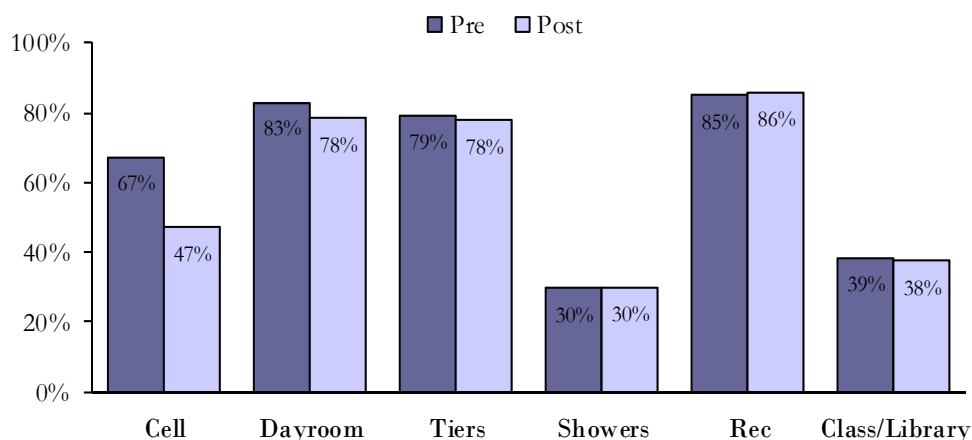
Figure 19 shows the proportion of respondents who believed physical violence was likely in various locations of the jail. Inmates felt that the recreation area, dayroom, tiers, and cells were the most likely locations for physical violence. Significantly fewer respondents thought physical violence was likely in cells in the *post* sample, although there was very little change in perceptions of physical violence for other areas. When asked to name other likely places for violence to occur, inmates reported the gym, hallways, court holding cells, and closets as other possible locations. However, inmates indicated that the most likely location for attacks or assaults was the dayroom (*pre*) and recreation area (*post*).<sup>37</sup> The second most

<sup>37</sup> The *pre* sample's most common responses were dayroom (21 respondents), anywhere (14), recreation area (12), block/unit (11), cell (5), hallways (4), and tiers (3). The *post* sample's most common responses were recreation area (23 respondents), anywhere (15), block/unit (13), dayroom (13), and tiers (5).



common response for this question in both samples was that violence could occur anywhere. Unlike the findings above, the majority of inmates (71–72 percent) thought correctional staff would find out about physical violence.

**Figure 19. Likelihood of Physical Assault by Location**



Inmates had inconsistent views regarding the presence of gangs in the jail. About half (51 percent) of inmates in the *pre* sample thought that “Some” or “Most” inmates were in gangs, while the other half felt that “Few” or “None” were involved in gang activity. Perceptions of the prevalence of gangs changed slightly, with only 42 percent of *post* respondents believing that some or most inmates were in gangs. Interestingly, although a substantial number of respondents reported inmates being in gangs, only a handful said they were in a gang themselves (10 percent of *pre* and 2 percent of *post* respondents).

### ***Self-Harming Behaviors and Healthcare Services***

Respondents had mixed perceptions of the jail’s healthcare and the likelihood of self-harm. Many respondents viewed acquiring medications (44–57 percent) or mental healthcare (64–67 percent) as easy (“Easy” or “Very Easy”), although a sizable number of respondents felt the opposite (see Figure 20). A large number of inmates reported they personally had experienced difficulty obtaining medications or mental healthcare in the jail (56 percent of *pre* and 42 percent of *post* respondents who reported needing healthcare). Respondents reporting personal challenges with the jail’s healthcare were more likely to think that obtaining medications and mental healthcare were difficult.



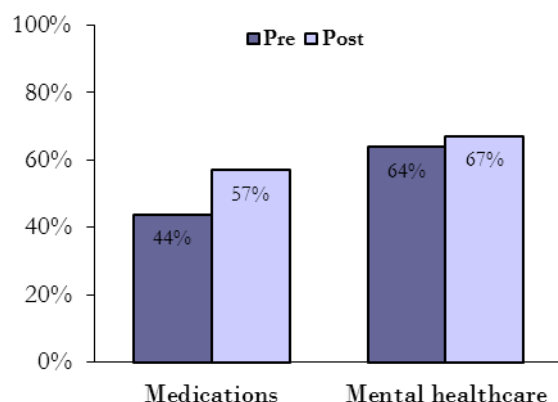
**Table 21. Perceptions of Self-Harm and Healthcare**

Variable	Pre Mean	Post Mean	Pre %	Post %
Ease of getting meds <sup>1*</sup>	-0.29	0.33	43.9%	57.0%
Ease of getting mental healthcare <sup>1</sup>	0.22	0.60	63.8%	67.0%
Likelihood of inmate hurting self	-0.46	-0.05	67.0%	62.5%
Likelihood staff find out	0.71	1.09	69.9%	77.9%

\*  $p < .05$ , \*\*  $p < .01$ , †  $p < .1$

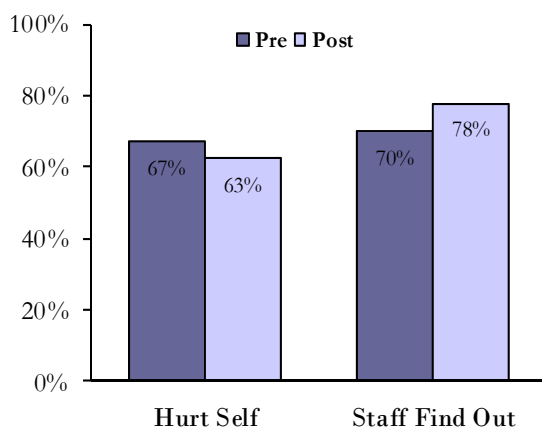
<sup>1</sup>The items, *Ease of Getting Meds* and *Ease of Getting Mental Healthcare*, have a scale of “Very Easy” to “Very Hard.” Percentages shown are for respondents endorsing “Easy” or “Very Easy.”

**Figure 20. Ease of Obtaining Medications and Mental Healthcare**



However, overall, there was a significant improvement in perceptions of the ease of accessing medication. This did not change the perceived likelihood of self-harm, though (see Figure 21). In both the *pre* and *post* samples, the majority of inmates thought it was likely for an inmate to hurt himself (63–67 percent), although many inmates also felt it was likely for staff to find out about such actions (70–78 percent).

**Figure 21. Likelihood of Inmate Hurting Self and Staff Finding Out**





### *Facilitators of Violence and Self-Harm*

Weapons, drugs, and access to private locations can facilitate violence and self-harm. The majority of inmates (68–76 percent) believed that “Some” or “Most” inmates had weapons, and similar numbers (61–70 percent) thought that it was “Easy” or “Very Easy” to acquire a weapon. A large share of respondents (73–76 percent) thought that substantial numbers of inmates were using drugs at the jail, and over half of *pre* respondents thought finding drugs was easy. There were shifts in perceptions of the accessibility of contraband and privacy, although only the change for privacy approached significance. There was a substantial decrease in the number of respondents who thought it was easy to get drugs in the *post* sample (38 percent); however, due to a smaller sample size, this change is not significant.<sup>38</sup>

**Table 22. Perceptions of Contraband and Privacy**

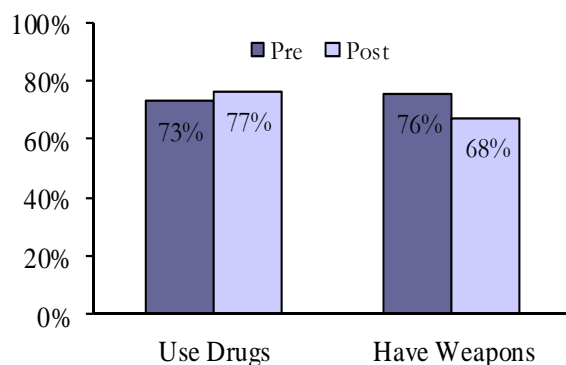
Variable	Pre Mean	Post Mean	Pre %	Post %
Number of inmates w/ weapons <sup>2</sup>	-1.02	-0.77	75.7%	67.5%
Ease of getting weapon <sup>1</sup>	-0.96	-0.48	70.2%	61.0%
Number of inmates using drugs <sup>2</sup>	-0.61	-0.71	73.2%	76.5%
Ease of getting drugs <sup>1</sup>	0.05	0.53	54.5%	38.2%
Ease of getting privacy <sup>1†</sup>	-0.28	0.25	51.5%	44.6%

\*  $p < .05$ , \*\*  $p < .01$ , †  $p < .1$

<sup>1</sup>The items *Ease of Getting Weapon* & *Ease of Getting Drugs* have a scale of “Very Easy” to “Very Hard.” Percentages shown are for respondents endorsing “Easy” or “Very Easy.”

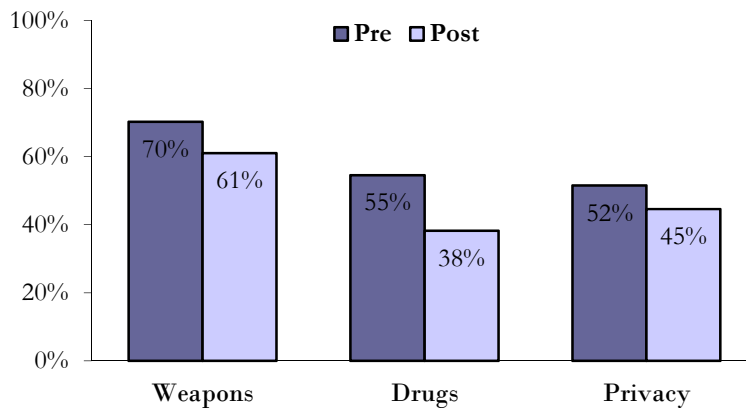
<sup>2</sup>The items *Number of Inmates with Weapons* & *Number of Inmates Using Drugs* have a scale of “Most Inmates” to “None.” Percentages shown are for respondents endorsing “Some Inmates” or “Most Inmates.”

**Figure 22. Number of Inmates Who Use Drugs or Have Weapons in Jail**





**Figure 23. Ease of Acquiring Weapons, Drugs, and Privacy**



### ***Personal Experiences***

Respondents were asked if they had any of the following experiences in the past 30 days: (a) hurt self, (b) threatened by an inmate, (c) hurt by an inmate, or (d) participated in a fight. Details about these experiences are reported qualitatively for the sample of respondents who experienced each of these due to low sample sizes (*pre* N=14 and *post* N=10 for respondents hurt by another inmate, and *pre* N=20 and *post* N=9 for respondents involved in a fight). Since these items are based on actual experiences and are not Likert-scale items of likelihood, no scale averages are provided.

**Table 23. Respondent Experiences in Past 30 Days**

Variable	Pre	Post
Tried to hurt self in past 30 days	0.9%	4.3%
Threatened by inmate in past 30 days†	24.3%	12.2%
Hurt by other inmate in past 30 days	13.3%	12.4%
Fought in past 30 days†	20.0%	9.8%

\*  $p < .05$ , \*\*  $p < .01$ , †  $p < .1$

Small percentages of respondents reported experiencing these four types of events (see Figure 24); hurting oneself was particularly rare. Methods of self-harm included fighting, punching oneself, cutting the wrist, and attempted hanging. The other three

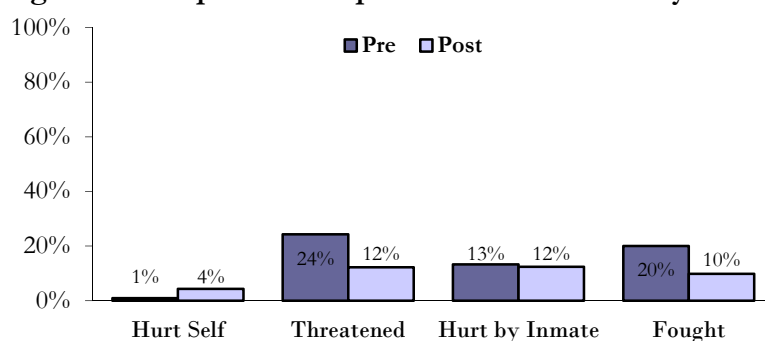
<sup>38</sup> Three drug items were included in 43% of the surveys (N=90 across both *pre* and *post* samples) in an attempt to create multiple versions of the survey instrument to dissuade inmates from trying to view other inmates' surveys.





types of incidents involved other inmates. The number of respondents who reported being threatened by another inmate and becoming involved in a fight decreased from the *pre* to *post* survey, although these differences were only marginally significant. Respondents across waves who reported being hurt or involved in fights were hurt an average of 7.7 times (5.6 times for *pre* and 10.6 times for *post*) and fought an average of 5.8 times (5.5 times for *pre* and 6.5 times for *post*) in the past 30 days.<sup>39</sup>

**Figure 24. Respondent Experiences in Past 30 Days**



The dayroom and cells were the most common locations for experienced violence, with incidents also occurring in the recreation area, tiers, library or classrooms, and closets. The dayshift (7:00 a.m.–3:00 p.m.) was the most common time of day for being hurt, while the evening shift (3:00 p.m.–11:00 p.m.) was the most common time for fights; however, victimization and fights occurred during every shift. Slightly more than half of hurt respondents (55–64 percent) reported the use of weapons when an inmate hurt them. Disrespect was the most common cause of fights, with telephones, street issues, stealing, gangs, television, gambling, sexual orientation, defense of other inmates, contraband, frustration, newspapers, owed money, racial/ethnic division, and sexual “favors” as other reported causes.

### ***Perceptions of Camera System***

The *pre* inmate survey instrument was designed before Site B’s intervention was selected. Therefore, there were no questions on the *pre* survey that specifically asked about issues regarding the camera system. However, the researchers included items

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<sup>39</sup> Outliers of “100” for number of times hurt and “99” for number of fights were removed with the belief that these were unlikely during a 30 day period (both outliers were from the same respondent).



on the *post* survey to learn about inmate perceptions of the cameras. The findings from this inquiry are listed below in Table 24 and follow a four-point Likert scale with response options ranging from “Strongly Agree” to “Strongly Disagree.”

**Table 24. Perceptions of Intervention**

Variable	Post Mean	Post %
Cameras make jail more safe <sup>1</sup>	-0.15	48.2%
Violence less or much less likely to occur with cameras <sup>2</sup>	0.85	74.4%
Cameras make investigations fair <sup>1</sup>	0.55	65.5%
Cameras help verify inmate concerns about staff	0.41	66.7%

\*  $p < .05$ , \*\*  $p < .01$ , †  $p < .1$

<sup>1</sup>The items *Cameras Make Jail More Safe* and *Cameras Make Investigations Fair* have a scale of “Strongly Disagree” to “Strongly Agree.” Percentages shown are for respondents endorsing “Strongly Agree” or “Agree.”

<sup>2</sup>The item *Violence Less or Much Less Likely to Occur with Cameras* has a scale of “Much More Likely to Occur” to “Much Less Likely to Occur.” Percentages shown are for respondents endorsing “Much Less Likely” to “Less Likely.”

Respondents did not all have clear understandings of the camera system. Over one-third (37 percent) of inmates reported an incorrect number of cameras in their housing unit (see Table 25).<sup>40</sup> Less than half (42 percent) knew the cameras recorded, with 6 percent believing the cameras did not record and a little over half (52 percent) reporting they did not know whether or not the cameras recorded.

**Table 25. Respondent Knowledge of Cameras**

# Cameras in Unit	Believed # of Cameras									
	0	1	2	3	4	5	6	7	8	10
0	5	1	1	0	0	0	0	0	0	0
2	0	1	32	3	4	1	0	0	1	1
6	0	0	0	1	0	5	4	4	1	0

Although less than half (48 percent) of inmates stated that cameras make the jail more safe, the majority of respondents endorsed other items indicating greater safety from cameras, including violence being less likely with cameras (74 percent),

<sup>40</sup> There was a high nonresponse rate for this particular item (N=65 of 101 total *post* respondents), likely also due to inmates’ unfamiliarity with the camera system.



cameras making investigations fair (66 percent), and cameras helping to verify inmate concerns about staff (67 percent). Those who had spent time in other jails were less likely to believe that the cameras improved safety, and black respondents were less likely to agree that cameras lead to fairness in investigations. When asked about the most important way to make the jail safer, most inmate responses fell into eight categories (see Table 26). The most popular responses were improvements to staff and quality of life issues, followed by such recommendations as increased supervision (including additional recording cameras) and improved classification. While issues with lockdown appeared to be a large issue of concern during the first survey administration, this was no longer a complaint for the second survey group. Replies about the institution of jails in general increased, however. Many of these responses were inmates saying jail cannot be made safe or that the best way to improve safety is to not enter jail in the first place.

**Table 26. Inmate Views on How to Make Jail More Safe**

Response	Pre %	Post %
Improve Staff ( <i>e.g., more caring/ respectful staff, more staff, more conscientious staff</i> )	44.3%	35.1%
Quality of Life ( <i>e.g., better food, more activities, conjugal visits</i> )	25.8%	18.9%
Lockdown Issues ( <i>e.g., more time out of cells, complaints about lockdown from low # of staff</i> )	21.6%	0.0%
Supervision ( <i>e.g., more cameras, rounds</i> )	8.2%	12.2%
Improve Classification ( <i>e.g., separate by age; by race</i> )	8.2%	8.1%
Institution ( <i>e.g., release inmates, don't go to jail, jail can't be made safe</i> )	7.2%	23.0%
Other ( <i>e.g., control contraband, jail condition, more access to law library</i> )	30.9%	23.0%

\*Percentages may add up to more than 100 percent because respondents could report multiple recommendations.

## **Conclusions**

The surveys administered by the research team reveal inmate perceptions about safety and risk at Site B. While not necessarily reflecting actual risk, inmate perceptions are important indicators of fears and concerns about safety and could be related to future violence if inmates feel the need to preemptively attack other inmates in order to prove their “toughness” or prevent feared assault by others. Inmates at Site B generally did not believe sexual assault to be a frequent occurrence, although a substantial number of respondents did think that sex with an officer could



occur. Cells were by far the most common location reported for sexual incidents, followed by closets.

Most inmates thought physical violence was likely to occur, particularly in the recreation area, in the dayroom, on the tiers, and in cells. However, only small numbers reported actual victimization or fights in the past 30 days. This discrepancy may illustrate how fears of correctional violence out-measure actual rates, or may also be due to dishonest reporting out of fear of punishment or retaliation. Similar to perceptions, actual self-reported incidents of victimization and fights most commonly occurred in cells, the dayroom, or the recreation area. Perceptions of easy access to weapons may mirror reality, as more than half of reported victimization experiences in the past 30 days involved weapons.

Responses also displayed a large gap between self-reported incidents of self-harming behavior in the past 30 days and perceptions of the likelihood that inmates would hurt themselves. Again, this may be due to inaccurate perceptions or an unwillingness to report such personal information on a survey. Inmates had mixed opinions about the accessibility of healthcare at Site B, with perceptions leaning in favor of adequate access. Respondents thought staff members were likely to find out about physical violence and self-harm, although fewer felt staff would learn of sexual assault or consensual sex.

There were substantial changes in inmate perceptions from before and after the cameras were implemented—changes that could not be linked to minor sample differences. *Post*-intervention respondents thought that sexual assault and certain types of consensual sex (specifically sex in exchange for something and sexual contact with an officer) were less likely to occur overall, and were less likely to occur in certain locations (cells for both consensual and forced sex; and the tiers, recreation area, and closets for sexual assault). Perceptions of the likelihood of physical violence in cells also decreased, and actual self-reported threats and fights appeared to have slight reductions as well. Furthermore, more respondents thought it was easy to acquire needed medications in the *post* survey. Cameras would be expected to reduce fears of sexual violence and influence potential staff sexual misconduct through perceived probability of detection. Inmates theoretically would also be deterred from actively threatening inmates and joining fights by the presence of cameras. Cameras could affect safety in cells for both types of violence by monitoring access to cells via the cameras viewing the tiers. Improved perceptions for accessing medications, while seeming to be unrelated to camera utilization, could



be due to officers being more conscientious about medication dispersal while under the supervision of cameras.

A sizable number of inmates, however, were not confident that cameras increased safety at the jail and seemed to be unfamiliar with the workings of the camera system, including how many cameras were present and whether they recorded. However, the majority did believe that the cameras had some benefits, including reducing the likelihood of violence, creating fair investigations, and verifying concerns about staff. Even if inmates do not feel that cameras make their environment more safe overall, they may appreciate their presence for these other, more procedural benefits.

It is unclear from the inmate surveys whether the observed shifts in perceptions are directly related to the cameras. While changes were in the expected direction, with safer perceptions increasing after the camera installation, the pattern of changes is not intuitive to anticipated impacts of cameras. The changes in perceptions were restricted primarily to sexual behavior and cell locations. However, the presence of these changes in the context of other nonchanges is puzzling. Cameras would be expected to have a more holistic impact on perceptions of safety, particularly in regard to physical violence, the ability of staff to detect incidents, and the presence of violence in the specific locations of the dayroom and tiers where these cameras directly overlook.<sup>41</sup>

Whether or not the cameras resulted in the observed changes in perceptions, something clearly did transform inmate beliefs on the likelihood of sexual behaviors.

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<sup>41</sup> In an attempt to further investigate the role of cameras in changed perceptions, two-way ANOVAs were run to examine the interaction between survey administration and whether the respondent's housing unit had cameras installed. However, due to sampling difficulties noted in the section 5.2 *Data Collection* there was only one comparison unit (N=47) without cameras across the two survey groups compared to five units (N=136) with cameras across the two survey groups. In addition to this limitation, the single comparison unit without cameras was substantially different from the five units with cameras. While all five of the units with cameras were maximum-security housing units with known violence problems, the comparison unit held medium-security inmates with few documented problems. Nonetheless, these comparisons were explored to determine if they offered any additional insight to the survey findings. No significant interaction effects were found, with two exceptions. Inmates in units with cameras felt it was more difficult to find privacy after the cameras were installed, while inmates in the comparison unit without cameras thought it was easier to find privacy at the second survey administration. There was also a significant interaction for the likelihood of consensual sex, with both types of units reporting reduced likelihood from the *pre* to *post* administrations, but the comparison unit without cameras displaying a larger change. While these findings may shed further light on whether the cameras played a strong role, they should be interpreted with extreme caution due to the substantial limitations of the available comparison group.



The findings are promising, particularly in regard to staff sexual misconduct, which had been identified as an issue by both staff and inmates at the outset of the study and showed a significant decline in perceived likelihood. There also appears to be a reduction in the perceived risk of incidents happening in cells. This robust finding across different types of sexual and physical dangers is of great importance since cells are the only source of personal space for inmates and should be a place of safety. However, even with these improvements in perceptions of safety in cells, they remained the most likely location for sexual assaults, and nearly half of inmates still thought physical violence was likely in cells according to *post*-intervention respondents. Overall, while perceptions of safety improved in some areas, there still appear to be widespread perceptions among inmates that violence, particularly physical violence, is likely to occur at the jail. These perceptions can be further understood in the context of actual incidents over the study period, examined below.

### Incident Data Analysis

UI researchers collected information from hard-copy incident reports covering the time period of January 1, 2005, to September 30, 2010. These data were used to identify changes in the prevalence of physically violent, sexual, and self-harming incidents. The incident reports were cleaned and coded by research staff into the analyzed incident categories listed in Table 1. The incident data were analyzed with structural break analysis to identify whether there were any significant changes in incidents, after controlling for the inmate-to-staff ratio.

Across the nearly six-year period, there were 1,254 incidents reported at Site B with the following distribution for the primary incident associated with each event:<sup>42</sup> 43 percent physical assaults, 18 percent contraband, 12 percent insubordination/threats, 8 percent self-harm, and 3 percent sexual incidents (see Figure 25). Staff force was used in 42 percent of incidents, and 19 percent of contraband incidents included weapons. The most common types of locations for main incidents (including sexual incidents, physical assaults, and self-harm) were cells (40 percent), the dayroom (25 percent), and tiers (11 percent). Most incidents

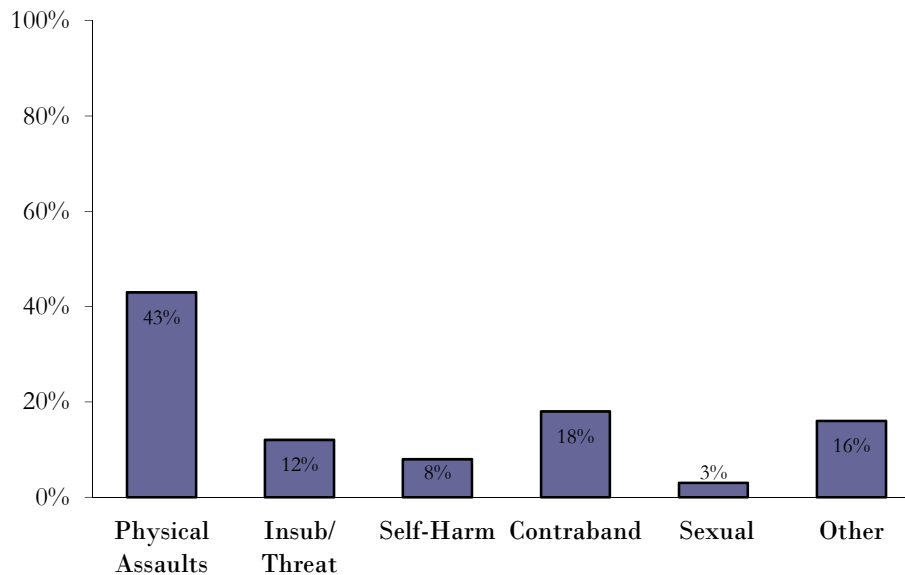
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<sup>42</sup> Incidents were coded by the most serious type of incident occurring for each event. For instance, if there was an event where an inmate attacked another inmate, then attacked a staff member, a knife was recovered, pepper spray was used, and the inmate threatened the nurse who was treating his injuries, this would be coded as an assault on staff. (For coding purposes, assaults on staff were considered more severe than assaults on inmates, as there was an extra security risk involved with staff victimization.)



occurred in housing units, particularly one of the maximum-security units and both the maximum- and medium-security mental health units. Incidents most often occurred during the evening shift, particularly during the hours of 4:00–6:00 p.m.

**Figure 25. Types of Incidents**



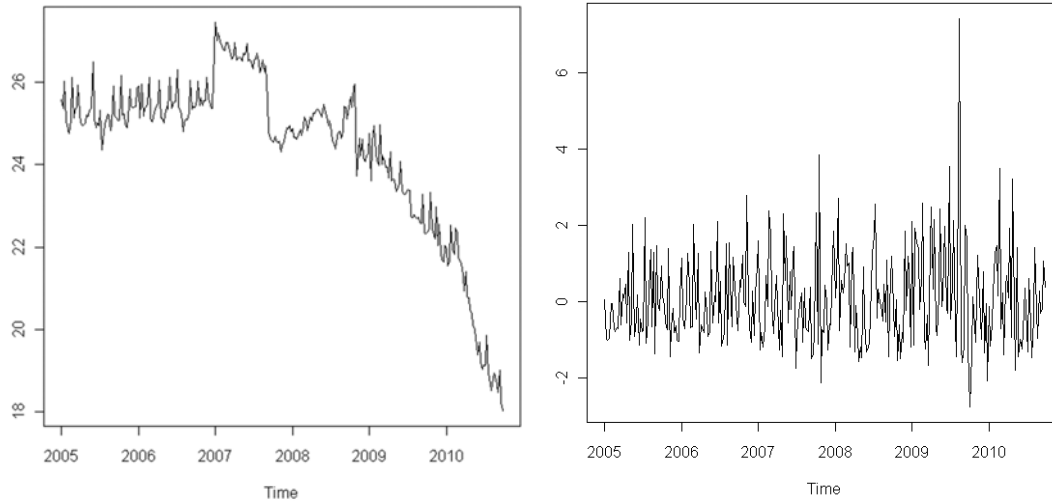
### ***Structural Break Analysis***

Due to limitations described in section 5.4 *Analyses*, the research team decided to use structural break analysis alone instead of in combination with ARIMA time series analysis. Researchers conducted structural break analyses for the incident types listed in Table 1 with the exception of incidents involving self-harm or insubordinate/threatening inmates, which had insufficient numbers for the analysis. In addition, the relationship between incidents in intervention housing areas and nonintervention housing areas was also examined to determine if identified breaks were unique to the intervention units; this analysis was conducted for the following outcomes that had sufficient sample sizes: All Incidents, Main Incidents, and Physical Assaults.

No significant breaks were found for any of the incident types (see Figure 26 and additional graphs in Appendix L). Inmate-to-staff ratio, surprisingly, also did not appear to have any significant impact on the number of incidents, even though there was a large decrease in the number of inmates toward the end of the study period. Overall, there was no evidence that the camera system had a direct impact on the number of incidents reported by staff, once controlling for the inmate-to-staff ratio.



**Figure 26. Inmate-to-Staff Ratio (graph 1) and Adjusted Residuals for All Incidents (graph 2)**



### **Cost-Effectiveness Analysis**

The UI research team conducted a cost-effectiveness analysis to assess the economic costs of implementing the camera intervention for Site B. Facility management completed two cost surveys to track expenses and labor time in regard to the intervention from October 2006 through September 2010.<sup>43</sup> Expenses related to the study (e.g., meetings, conference calls, time spent completing interviews) were excluded from the analysis. Calculations for labor use the loaded rate (with benefits, etc.) derived from the midpoint of each position's salary scale and do not necessarily reflect the exact salaries of individuals involved with the intervention. Expenses are separated into initial costs (e.g., planning, installation and set-up, data monitoring labor from the first seven months) and ongoing costs (costs associated with the last five months of the implementation period) that should more accurately reflect typical costs once the camera system is in place and functioning in a routine way. The costs estimated here are economic costs and opportunity costs as opposed to limiting the analysis to only actual accrued accounting costs which would impact the budget. Following conventions in the cost-benefit literature, averages were used to estimate marginal cost to the site, using loaded wage rates to value the amount of labor used.

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<sup>43</sup> The administrators at Site B were able to supply cost information initially but then were nonresponsive to requests to complete final missing answers on surveys. Therefore, some numbers for labor and costs are estimated and extrapolated from previous responses and from information obtained from the camera vendor.





Overall, including additional labor hours spent, the camera system had a cumulative cost of \$85,000. Initial costs for the first seven months of the implementation, including planning (\$1,999), purchase of equipment and installation (\$54,740), and review of video footage by staff (\$17,294), amounted to \$74,033. After this initial period of development and solidification of policy and practice, the camera system cost approximately \$2,193 each month. All of these monthly expenses were for estimated marginal labor costs for time spent on reviewing video footage for incidents and routine monthly reviews by shift commanders. As explained above, these estimations are based on economic costs as opposed to actual budgetary expenditures. No new staff were hired for the purpose of this intervention, and existing staff were able to incorporate these new responsibilities without producing an overall increase in staffing expenditures. Therefore, the true financial cost to Site B, after removing in-house labor estimates, was the cost of the equipment, infrastructure and installation, totaling \$54,740. Site B was able to obtain additional funding to pay for the expenses beyond the \$25,000 provided by the NIJ subgrant.

**Table 27. Costs of Intervention**

Initial costs			Ongoing costs	
Supply and material costs for 14 initial cameras				
Equipment and infrastructure	\$25,451	Cameras, LCD, power supply, DVRs, cable, conduit, hardware	\$0	none
Installation by vendor	\$7,000	Installation of cameras, DVR, etc.	\$0	none
Installation by maintenance	\$1,418	Installation of wiring	\$0	none
Supply and material costs for 10 additional cameras				
Equipment & infrastructure	\$15,871	Cameras, LCD, DVR	\$0	none
Installation by vendor	\$5,000	Installation of cameras, DVR, etc.	\$0	none
Vendor maintenance costs				
Maintenance/Repairs	\$0	Covered by 1-year warranty	\$0	Covered by 1-year warranty
Labor costs				
Administrative planning	\$1,999	Meetings on camera placement/training	\$0	none
Video review	\$13,996	315 Major hrs	\$1,999	45 Major hrs/mo
	\$3,299	120 Captain hrs	\$194	6 Captain hrs/mo
<b>Total</b>	\$74,033		\$2,193	<b>Monthly ongoing costs</b>
<b>Total 1st year</b>	\$85,000			

\*The captains' data-monitoring responsibilities initially only included five months of data reviewing (four months with 4 hr/mo and one with 1 hr/mo), since policy for routine footage checks was not enacted until November and then was reduced in March to one hour per month of data review.



The deputy warden (45 hours/month) and six shift commanders (1 hours/month each) are the primary staff involved in reviewing video footage. Shift commanders began to routinely review weekly video footage in November and then transitioned to monthly reviews in March. The deputy warden's video review was related to investigations of incidents. Because data collection occurred within one year of implementation, all repair costs were covered by warranty, and the facility was unable to estimate the cost of these repairs without a warranty. Therefore, ongoing maintenance costs are unknown. There were no known direct monetary benefits, nor indirect benefits from reduced costs, of the system reported by the jail staff by the end of the one-year implementation period.

Finally, the system's cost of \$85,000 (or \$54,740 not including labor) does not appear to be associated with any detected change in incidents as found through the structural break analyses. Although cost-effectiveness analyses serve as a helpful exercise to understand what is gained in exchange for the expenses of a new intervention, there are important limitations to the approach. First of all, these estimates are based on a single facility. Other facilities with different salary structures, facility size, and available vendors may have substantially different costs associated with implementing a similar system. Furthermore, cost-effectiveness analysis does not capture all possible organizational or societal benefits of the system, such as increased confidence in investigation outcomes (on the part of both management and inmates), ability to identify staff issues and target these for additional training, or improved perceptions of safety which can significantly impact inmate well-being and be related to future violence.

## **5.9 CONCLUSIONS**

Site B selected housing unit cameras as their intervention. Although originally intended to deter violence on the tiers (particularly in the rear of the top tier which was a blind spot to both housing unit and auxiliary booth officers), the jail leadership quickly began to view the cameras as a tool for incident investigations and staff improvement. The camera system began with two cameras in six housing units, but was eventually expanded to six cameras in three housing units and two cameras (with altered viewing angles) in the remaining three intervention housing units. While all intervention units had cameras on the tiers, three of the units also had cameras that viewed the officer's console area, entrance to the unit, and dayroom. All cameras recorded; video footage was reviewed for every incident occurring in the housing



unit, and monthly one-hour reviews of randomly selected footage were conducted by shift commanders.

Interviews with staff revealed a similar pattern to Site A where management and jail leadership found the intervention to be a useful tool for the jail, while line officers had more negative opinions, often centering around the use of cameras to monitor their own behavior instead of inmate behavior. Interviewees reported that while inmates might be behaving better because of the cameras, cameras would not deter inmates who were intent on fighting. Instead, staff at all levels pointed to the usefulness of the cameras for investigations of inmate incidents. According to an interviewee, inmates also appreciated this role of cameras and often requested that staff view the cameras to corroborate their story.

Surveys were administered to inmates prior to and one year after implementation of the camera system to assess changes in inmate perceptions of safety at the jail. The majority of respondents believed physical violence and self-harm were likely to occur but reported lower likelihood for sexual incidents, although a sizable number still thought these were likely (in particular, over half of *pre* respondents thought sex with an officer was likely). Cells and closets were thought to be the most likely locations for consensual and forced sexual activity. Inmates thought physical violence was likely to occur in the recreation area, dayroom, tiers, and cells.

After implementation of the cameras, fewer respondents believed consensual and forced sexual behaviors were likely to occur. Violence was also perceived as less likely to occur in cells, and a smaller percentage of respondents reported being threatened or involved in fights in the past month. *Post* respondent inmates also thought it was easier to access medications. These changes are encouraging; however, it is surprising that these changes would occur when other areas viewed by the cameras (such as the dayroom) did not experience any changes in perceptions of violence. Therefore, it is unclear whether these improvements are due to the camera intervention or other reasons. Inmates also were unsure of whether the cameras increased safety overall, although the majority of respondents believed the cameras had benefits, including reduction of violence, creating fair investigations, and verifying concerns about staff. Like the inmates at Site A, survey responses indicated that respondents were most concerned about staff and quality of life issues when it came to jail safety.



Due to large limitations in available data and lack of knowledge on when other important changes in the jail occurred, the analysis of incident data does not provide a clear answer to the question of whether cameras improved safety at Site B. Because the facility could not provide exact dates for many changes in the jail, ARIMA time series analysis had to be abandoned. Structural break analyses were conducted to determine whether there were any substantial changes in the number of incidents across time; however, no significant changes were found. It is difficult to detect any changes in the data taking place in less than seven months, so it is possible that short-term changes occurred but were not detected by the method of analysis.

The camera system, including equipment, infrastructure, and installation, cost the site \$54,740, as well as an additional \$30,260 of staff labor for time spent planning the system and reviewing video footage. However, no staff were hired, so there were no additional budget expenditures for staff. New responsibilities were incorporated into current staffing schedules. While changes in inmate perceptions occurred, there was little evidence of change in actual incidents. Due to data and analytical limitations, however, it is possible that effects were not detected with the available methods. Furthermore, as already explained in Site A's case study, detection intervention systems are particularly difficult to measure, since impacts of the system can be masked by a combination of deterrence (decreasing *actual* incidents) and detection effects (increasing *reporting* of already existing incidents).



## **CHAPTER SIX: Case Study for Site C**

### **6.1 SITE DESCRIPTION**

#### **Local Jurisdiction and Jail System**

Site C is located in a racially diverse major metropolitan area in the Midwest. The Department of Corrections (DOC), a division of the county sheriff's office, houses virtually all of its inmates at a single jail compound comprised of 10 correctional facilities and one administrative building. In 2008, the system was operating near its rated capacity with an average daily population of almost 10,000 inmates, 90 percent of whom were being detained pending trial. Altogether, the jail employs between 3,000 and 4,000 correctional and civilian staff. The executive director, who reports directly to the sheriff, and his staff of assistant directors and other managers oversee the jail system as a whole. Each of the 10 facilities is managed by a superintendent, who reports to the assistant directors and ultimately the executive director. It is the department's policy to rotate superintendents among the facilities frequently to improve performance.

#### **Facility Description**

Following the JSAP project model, one facility in the jail system was chosen as the focus of the project. The selected facility housed about 700 maximum security, primarily pretrial male inmates when the project began (changes to the inmate population over time are outlined later in this section). The facility opened in 1993, has four floors in addition to a basement, and is split into two wings which are joined on the first and second floor. Each wing has two housing units per floor, for a total of 16 housing units in the building.

On the first floor are the main lobby, administrative offices, the staff lounge, and, on the secure side of the building, a gym and outdoor yard for inmate recreation time. Programs are located primarily on the second floor, including the law library, chapel, barbershop, medical area, and school classrooms for inmates age 17 to 20. This centralized program and services model requires significant inmate movement from the housing units to the second floor. The basement houses storage rooms, a transport tunnel to court, and commissary, but no housing units. Staff and visitors move



between floors using secure elevators, while inmates use stairwells with hollow, grated metal stairs.

The facility has 16 housing units, each housing up to 48 inmates for a maximum capacity of 768 inmates. At the beginning of the study, eight housing units held general population inmates, two units were specialized for inmates over age 40, two were specialized for inmates over age 30, and one held primarily young inmates (ages 17 to 20) who attend school. One unit housed inmates with medical needs, and another housed those who participate in a special life skills program. Pretrial minimum and medium security inmates who perform work in the facility were housed in their own unit. Inmates under disciplinary segregation, protective custody, or other special management statuses were housed in a separate facility.

Each housing unit is a classic podular design, configured with cells arranged around three sides of a rectangular central day room. On the fourth side of the unit is an enclosed officer station with glass windows from which correctional officers supervise the unit. There are 24 cells in each housing unit, each with two bunks, a toilet and a sink, and a metal desk and stool. During the project period, there were typically two inmates per cell. Each cell has an external, barred window and a metal door with a small barred window and food slot. The dayroom contains a television, four telephones, and metal benches, tables, and stools bolted in the ground. Inmates take all their meals in the dayroom. Off to the side of the unit is a restroom area with toilets, sinks, and showers with a medium-height privacy wall. Each unit also has its own visiting area; visitors are separated from inmates by a glass wall and inmates do not leave the secure side of the housing unit during visits.

Site C is managed by a superintendent and has about 160 correctional staff, 20 support staff, and 15 civilian staff. There is typically one correctional officer on duty in the tier office of each housing unit. From the tier office, correctional staff have a fairly unobstructed view of the dayroom and shower area. Visibility into cells is limited by the solid cell door and small, barred window, which inmates sometimes block with cardboard. Site C has 160 nonrecording cameras throughout the facility to assist with monitoring. Cameras inside the housing units view the officer in the tier office rather than areas where inmates are located, such as the dayroom. One mobile recording camera system and two mobile metal detectors can be moved around the facility to be used as needed.



Site C has taken steps to make it easier for officers to supervise inmates in the housing units by reducing the number of inmates out in the dayroom at any given time. In March 2007, a “half-and-half” policy was implemented allowing only half of the inmates housed in each tier to be in the dayroom at a time, while the other half remain locked in their cells. The half that is out in the morning one day will be out in the afternoon the next day, meaning inmates can sometimes be locked in their cells for an extensive number of hours when this occurs. Site C has taken other steps to improve safety as well, including instituting a gang intelligence unit and using an external emergency response team to conduct periodic shakedowns (in addition to shakedowns performed by facility staff).

## **6.2 DATA COLLECTION**

While the basic procedures for data collection were outlined above, this section will cover the details of the data collection specifically for Site C. The following section discusses the process of collecting data from a variety of sources, including site observations, incident data, staff and inmate interviews, and inmate surveys. Before data collection began, a kickoff meeting was held in November 2006, which provided the opportunity for the UI research team to meet key jail administrators in person and present them with an overview of the project. Present at the meeting were the executive director of the DOC, four of his key deputies, and the superintendent in charge of the Site C facility, as well as four members of the UI project team and a representative from NIJ. The researchers and the jail management team discussed the project tasks and timeline, with a particular focus on the data collection activities to occur in the first phase of the project. The main data collection activities were then carried out during site visits between February 2007 and June 2009.

### **Site Observations and Other Materials**

In January 2007, four members of the UI research team conducted a detailed site observation visit to Site C. They toured the facility and spoke with the superintendent about physical design and facility operations. Throughout the project, five site visits were made to the facility overall. During these visits, research team members often met with facility staff, took additional tours of the facility, and collected data. Other materials, such as written policies and relevant media articles, were also collected to supplement the researchers’ understanding of the jail operations.



## **Incident Data**

Having gained an initial overview of the facility and its operations, the next step for the research team was to examine the prevalence of violent incidents in the facility and the situational factors surrounding these incidents. Incident data for Site C were only available in the form of paper records, so UI research staff manually entered the incident data into an electronic database by laptop. The data were coded and each incident was categorized as sexual assault, inmate-on-inmate physical violence, inmate-on-staff physical violence, suicide, self-harm, inmate request for protective custody, staff use of force, weapon/contraband seizure, or other (for example, an inmate health issue not related to violence).

Data collected from January 1, 2005, to December 31, 2006, were used for preliminary analyses to inform the creation of interventions for Site C, while additional data were collected to be used in an evaluation of the impact of the implemented JSAP intervention; however due to inmate population changes (from maximum security inmates to inmates with medical and mental health problems), this evaluation was no longer feasible.

## **Staff and Inmate Interviews**

To add qualitative context to the incident data, the UI researchers conducted interviews with staff and inmates in May 2007. The researchers interviewed 21 correctional and civilian staff at Site C about the prevalence and dynamics of sexual assault, fights and physical violence, and suicide and self-harm; gang issues and other causes of violence; procedures for responding to incidents of violence; inmate access to weapons and contraband; and general management and operational issues. Participants were selected by the research team to represent the diversity of the Site C staff in terms of experience, job responsibilities, and shift assignments. Jail administrators, correctional supervisors, line correctional officers, medical and mental health staff, and social workers were interviewed. A sexual assault investigator and a gang investigator who investigate cases throughout the jail compound were also interviewed about issues specific to the Site C facility.

Later in May 2007, the researchers interviewed 15 inmates from Site C, all adult men with a maximum-security classification. The inmates were asked about the general level of safety in the facility; the prevalence and dynamics of sexual assault, fights and physical violence, and suicide and self-harm; gang issues and other causes





of violence; access to weapons and contraband; staff supervision and response to incidents of violence; and the mental healthcare provided by the jail.

### **Inmate Survey**

In order to learn about changes in inmate perceptions on safety within the facility, the UI researchers administered a survey on the presence and contextual factors surrounding physical violence, sexual misbehavior and assault, and self-harming behavior both before and after the implementation of the new safety intervention. Prior to the implementation of the intervention, the research team surveyed 105 inmates in April of 2008. Surveys were administered in the jail's chapel. Within each housing unit, inmates were randomly selected from a list provided by jail management that included all inmates 18 and older who had resided in the facility at least 90 days, and who had no known mental health conditions. The research team planned to administer a second survey one year after the intervention was implemented to measure changes in inmate perceptions; however, significant changes in the facility's population necessitated a change in study design. No second survey was administered to inmates.

### **Officer Survey**

The UI researchers fielded a 20-minute written survey (see Appendix G) with officers who participated in the training. It focused on their attitudes and perspectives regarding violence, victimization, and mental health issues in correctional settings; their knowledge of effective staff behaviors for preventing and responding to violence; and their impressions of Crisis Intervention Training (CIT). The survey was conducted at three points in time: immediately prior to the training, immediately after the training, and 7 to 14 months after the training. All 45 officers who participated in the two training sessions were invited to take the survey; participation was entirely voluntary. Altogether, 45 officers completed the first survey wave, 42 in the second, and 37 in the third.

The survey was anonymous, no identifying information was collected, and individual responses were not linked across the three waves. The first two survey waves were fielded by the training staff at the very beginning and very end of each training session. The training staff received written instructions and in-person training from UI researchers in how to administer the surveys. After each training



session ended, they submitted the surveys to the UI staff via secure mail. The follow-up survey was mailed to participating officers with return envelopes. Due to low initial response rate with the follow-up surveys, the follow-up survey was mailed out on three different occasions to try to increase response rate. This resulted in a widely varied follow-up period of 7 to 14 months.

The survey was developed after a close review of the training curriculum, to ensure that, where relevant, survey items addressed concepts included in the training. Survey instruments from formal evaluations of CIT programs were consulted, though these trainings were almost exclusively for law enforcement and generally focused only on mental health topics. Instruments from research on sexual assault in correctional facilities and sexual assault trainings for criminal justice professionals were also examined, but few were found in the research literature. Questions evaluating the training were drawn from a National Institute of Corrections study designed to develop methodologies and instruments for evaluating correctional trainings (Wells et al. 2007).

The survey covered a number of topics: violence and inmate aggression, sexual assault, suicide and self-harm, mental health, and crisis response strategies. In each of these areas, participants were asked content-based questions to ascertain their knowledge of key concepts and determine whether participants retained specific information taught in the course, questions about their attitudes and perspectives, and items assessing their confidence and perceived ability to respond to difficult situations. The second wave of the survey explicitly asked participants to evaluate the training.

Knowledge questions were multiple choice, while attitude, confidence, and training evaluation questions followed a five-point Likert scale (response options were “Strongly Agree,” “Agree,” “Not Sure/Neutral,” “Disagree,” and “Strongly Disagree”). Responses were coded on a scale of 1 to 5, with 5 indicating the strongest level of agreement with the statement; statements that were negatively worded were reverse coded.

These survey items were combined into scales to measure participants’ overall competence in various areas. When necessary, items that did not correlate well with the other items in a section were excluded from the scale.<sup>44</sup> The Cronbach’s alpha

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<sup>44</sup> No more than three items were dropped in any given section.



values for the scales were greater than 0.60 in all cases, and greater than 0.70 in most cases. The following six scales were created: (a) four topical scales that combined attitude and confidence questions in each of the domains (12-item physical violence scale, 10-item mental health scale, 14-item sexual assault scale, and 8-item suicide/self-harm scale), (b) an overall confidence scale (19 items), and (c) a mental health, suicide and self-harm knowledge scale (10-items). These six scales were used as key measures of the impact of the training on participants' competence to respond appropriately and effectively to various types of violence, mental health, and crisis situations.

### **6.3 SELECTION AND IMPLEMENTATION OF INTERVENTION**

Based on data synthesized through a combination of sources, the research team developed a set of recommendations (see Appendices J and K for a complete list) to address the unique issues of Site C. The researchers presented these recommendations, along with the findings on violence in the facility, to jail administrators in April 2008. Through continued communication with the research team and additional research on the feasibility and cost of various recommendations, the management at Site C chose to implement crisis intervention training (CIT). The research team documented the implementation of this training through conversations with Site C and the training provider and a site visits to observe the training in progress.

### **6.4 ANALYSES AND CHANGE IN DESIGN**

UI researchers synthesized information from the site observation, incident data, and staff and inmate interviews to identify key themes regarding violence in the facility and situational and environmental factors which contributed to violence. Two years of incident data, from January 2005 through December 2006, were collected and analyzed for the purpose of developing intervention recommendations for Site C. For each incident type, annual and monthly prevalence rates were calculated and situational factors, such as when, where, and how an incident occurred, were analyzed.

The research team also administered surveys to inmates before the intervention in preparation for a *pre/post* survey design to assess changes in inmate perceptions of safety within the jail. However, changes to the jail's population required a change in



study design, and the second set of inmate surveys was abandoned in favor of a survey of officers participating in the crisis intervention training.

When the JSAP project began, Site C's inmate population consisted almost entirely of maximum-security, general population, male inmates. Beginning in January 2008, the population began to change. For a number of reasons, upper-level DOC management wanted to house all of the system's inmates who receive daily medication in a single facility, and Site C was selected for this purpose. By June 2008, only 2 of the 16 housing tiers in the Site C still contained general population inmates; the rest housed inmates of all security classifications who were on daily medication, including a significant number who had mental health issues. Four housing units were designated for inmates with psychiatric problems: two acute, one chronic, and one overflow. Some aspects of facility operations were changed in conjunction with the shift in inmate population. In the psychiatric units, one cell was converted into an office for a trained mental health counselor to work within the unit. In addition, some of the units shifted to direct supervision and to have an officer posted inside the unit during the day and evening. This dramatic shift had significant long-term implications for the JSAP project.

The change in inmate population occurred in the middle of the JSAP project, after the research team had collected baseline data and developed findings and recommendations, but before the site had selected or implemented an intervention. Because the JSAP project is based on the application of SCP theory, many of the researchers' recommendations targeted situational factors (such as staffing and physical environment) that did not change with the inmate population. However, the way these situational factors would interact with the inmate population to facilitate or inhibit violence may have changed. In addition, the original project plan to evaluate the selected intervention by comparing the level of violence in the facility (ascertained through the incident data) and inmate perspectives on violence (obtained through inmate surveys) before and after the intervention was no longer feasible. Changes in either of these factors could be due to the intervention or to the inmate population shift, and there would be no way to know which of these caused the changes.

The UI researchers, jail managers at Site C, and the project's grant monitors at NIJ worked together to develop an alternate project plan that would address these challenges. Site C chose a recommended intervention, crisis intervention training, which was likely to be helpful for the new population as well. This intervention also



offered a potential alternative approach for the evaluation: the researchers could conduct surveys with officers who participated in the training. As described in section 6.2 *Data Collection*, surveys were administered to officers immediately prior to the training, immediately after the training, and 7–14 months after the training.

Researchers used descriptive statistics to examine sample characteristics and officer opinions of the training. Six scales were used as key measures of the impact of the training on participants' competence to respond appropriately and effectively to various types of violence, mental health, and crisis situations. The researchers used between-subjects ANOVA and post-hoc Tukey tests to determine whether the mean of each of the six scales changed after participation in the training, and whether any of these changes were sustained 7–14 months after the training. Between-subjects ANOVA was used in place of repeated subjects ANOVA, because the officer surveys were not linked by ID across waves, prohibiting the researchers from conducting this type of analysis. While not optimal for the use of data with the same participants (thus violating the assumption of independence), there should be minimal negative impacts on the findings and interpretation; in fact, the findings may be more conservative due to the analysis not controlling for individual-level differences.

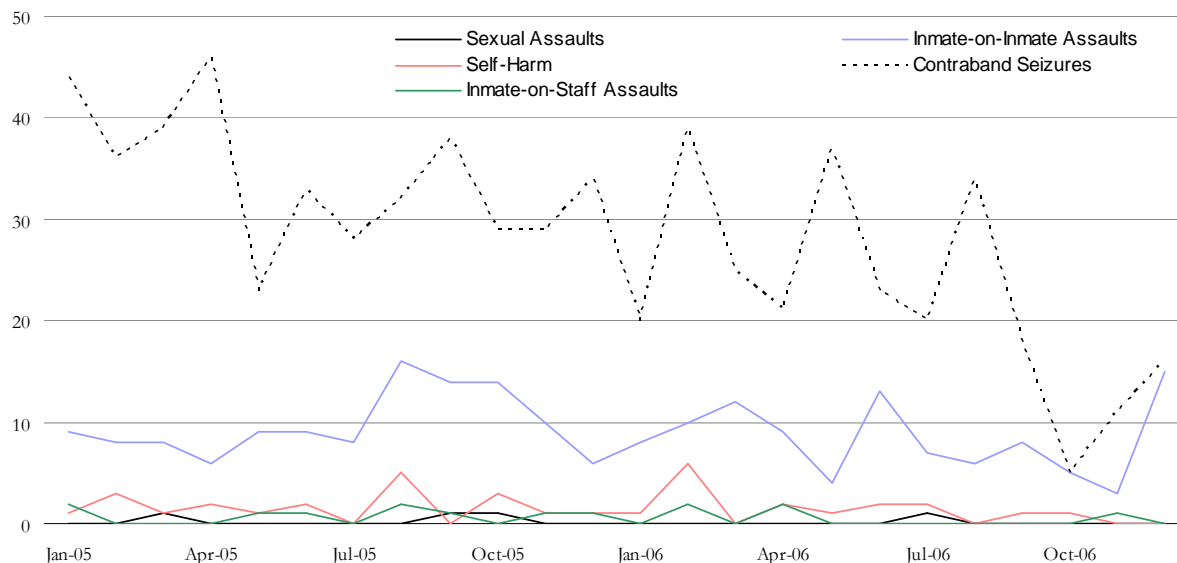
UI researchers also qualitatively analyzed staff interviews to learn about staff perceptions of the impacts of the training and lessons learned from the implementation. No cost-benefit analysis was conducted for Site C, because of the inability to measure the impact of the training on incidents.

## **6.5 FINDINGS FROM PRELIMINARY RESEARCH**

After collecting data over a period of several months in 2007, the UI research team analyzed the data and synthesized findings from across the data sources, primarily the incident data, staff and inmate interviews, and site observation. Findings were organized around the three main types of violence that are the focus of the JSAP project—sexual assault, physical violence, and suicide/self-harm—as well as the corollary issue of weapons and contraband (see Figure 27). A discussion of the findings regarding violence in Site C is provided below.



**Figure 27. Number of Monthly Incidents, 2005–2006**



Note: Categories include attempts.

## Sexual Assault

The incident data for Site C include few instances of sexual assault. Whatever the true prevalence of sexual violence among inmates, very few incidents come to the attention of jail management, and even fewer are prosecuted. Three incidents<sup>45</sup> of sexual assault were reported in 2005 and 2006, a rate of about 0.21 incidents annually for every 100 inmates (based on an estimated inmate population of 700). All three were one-on-one assaults that involved cellmates and occurred inside cells in general population housing units. Two occurred on the evening shift and one on the night shift, and only one of the three incidents involved a weapon. Two of the incidents reportedly involved inmates who had previously been in a consensual relationship. In addition, there was one sexual assault on a staff member.

Staff and inmates had conflicting opinions about the true prevalence of sexual assault at Site C. Some staff reported that sexual assault by force is relatively infrequent, and that a significant number of allegations that do arise are unfounded or fall in a “grey zone” of sex based on manipulation or consensual sexual relationships

<sup>45</sup> Nine sexual assaults were investigated, three appeared in the official incident data, and none were substantiated and consequently resulted in charges.



that become coercive over time. Other staff suggested that incidents of sexual assault happen much more than jail staff and administrators realize. Among inmates, a few reported that sexual assault does not occur in the facility, but most indicated that sexual assaults were happening at least occasionally and described one or two specific incidents of which they were aware.

According to staff and inmate interviews, a number of factors discourage sexual assault in the facility, including a fear of consequences (particularly additional criminal charges) and of contracting HIV. Inmates suggest that sexual assault is more common in prisons than in jail settings, because long prison terms increase the motivation to commit sexual acts and decrease people's fear of potential consequences.

The majority of staff members and some inmates believed that consensual sex among inmates is happening at Site C, though it rarely comes to the attention of staff and was found infrequently in the official incident data. Some staff believed that consensual sex would be written up if discovered; however, others indicated that it may be ignored unless it causes additional problems. Staff also mentioned the possible existence of inappropriate sexual relationships between staff members and inmates, although this was not identified as a significant concern.

In terms of the situational factors surrounding incidents of sexual assault, staff and inmates indicated that any type of sex, whether forced or consensual, would almost always happen inside cells. Sexual activity would most likely occur during the night shift between inmates who are cellmates. Inmates report that it is possible for individuals to be locked up for the night in a cell other than their assigned cell, particularly when relief officers are on duty or when regular officers are first assigned to a unit and are not yet familiar with the inmates in the unit.

Several inmates shared the perception that inmates who are young, homosexual or bisexual, or appear to be weak or effeminate may be more likely to be victimized. Staff and inmate opinions were mixed as to whether and how gangs play a role in sexual violence. Some respondents suggested that inmates who are not gang-affiliated are particularly vulnerable to sexual violence, because they lack protection from fellow gang members. Others suggested that sexual assault is most likely to occur between inmates affiliated with the same gang due to the power dynamics within these organizations. According to staff and inmates, many gangs have



“policies” that prohibit sexual violence and consensual sex, although it is not clear how strictly these rules are enforced.

### **Physical Violence**

Official incident data show 217 incidents of inmate-on-inmate physical assault occurred in Site C during 2005 and 2006, an average of 9 incidents per month. The vast majority (94 percent) occurred on the day and evening shifts. About one-third were one-on-one incidents, while the remaining two-thirds involved multiple inmates. Staff and inmates reported that physical assaults among inmates generally fit one of two profiles: (1) spontaneous, one-on-one fights that can pop up anytime, anywhere, and do not typically involve weapons, and (2) planned attacks involving multiple inmates, which frequently involve weapons and most often occur inside housing units. Staff and inmates indicated that many fights start out as one-on-one conflicts but escalate to larger incidents when fellow gang members of those who are fighting become involved.

Staff reported that gangs have a significant presence in the Site C facility and the majority of violence is gang-related or is exacerbated by inmates' gang affiliations. This includes conflicts between gangs as well as gangs' disciplinary actions against their own members (called “violations”). At the time of the researchers' interviews, staff were utilizing a variety of methods to prevent gang-related violence, including communicating known security threats to officers at the start of their shifts, investigating inmate tips regarding gang activity, and intercepting and interpreting correspondence between gang members (via notes known as “kites”). In addition, the jail has systemwide efforts, such as a gang intelligence unit, that are dedicated to preventing and investigating gang activity and violence in the jail.

Other than gangs, inmates cited a range of causes for violence, including gambling, disputes over control of the television and phones in the housing units, and personal conflicts. Several inmates mentioned that officers can contribute to violence because poor treatment of inmates by officers can cause inmates to treat each other badly. When asked what factor contributed most to violence in the facility, several inmates cited stress, driven by worry about pending legal cases and compounded by the harshness of confinement. They also indicated that overall levels of stress among inmates typically increase when the facility is crowded. Several staff members mentioned that intoxication had been a major precipitator of fights among inmates, but recent efforts to reduce illicit substances in the facility had been successful and





had contributed to reductions in violence. These efforts include banning fruit and juice (used to make homemade alcohol) from the commissary and introducing a drug detection machine used on all sworn and civilian staff who enter the building.

In March 2007, the jail implemented a new “half-and-half” policy, whereby only half of the inmates in a housing unit were allowed out into the dayroom at a time, while the rest remained locked in their cells. In interviews, staff were divided in their views of this policy. Some felt that it had improved officer control within the housing units and made the units calmer, while others feared that the policy had increased stress among inmates that would lead to future violence. Inmates generally disliked the policy and felt it increased their stress levels. They reported that the rotating schedule (the half that is out in the morning one day will be out in the afternoon the next day) caused them to be confined for extended periods of time and limited their access to phones and other amenities while in their cells.

According to incident data and interviews, common locations for physical violence include a blind spot behind the shower area, the dayroom, inmate cells, and the gymnasium. Some staff members felt that the procedure for moving inmates to recreation also provided an opportunity for violence, by requiring one officer to escort an entire unit of inmates (48 at maximum capacity) without back-up. Both staff and inmates stressed that the procedure for transport to court provided opportunities for violence with little supervision. They explained that the process for transport to court was to first hold inmates in holding cells within the Site C, then allow them to travel together unescorted through a tunnel connecting two facilities by basement before being placed in large holding cells in the second facility. Several staff and inmates mentioned that planned attacks on specific inmates could be arranged to coincide with their transport to court. Inmates noted that there was at least one camera posted in the holding area in the second facility; however, they questioned whether this camera was being monitored, voicing the perception that inmates who engaged in violence in this area were rarely disciplined. Although incidents occurring on the way to or within the second facility do not fall within the scope of this study, they do contribute to overall perceptions of institutional safety among Site C’s inmates.

In addition to violence among inmates, 48 inmate-on-staff assaults occurred during 2005 and 2006, an average of two assaults per month. Most incidents occurred in the dayroom or directly outside a cell, typically when inmates became combative after being directed to go into their cell or follow other routine orders. Most of these



incidents were hand-to-hand only, though 4 of the 48 incidents involved objects used as weapons.

Inmates indicated that weapons were prevalent in the facility and incident data showed that weapons were involved in roughly 40 percent of violent incidents involving multiple inmates. Metal shanks were most common, though other objects such as scrub brushes and food trays were also used as weapons. Officers were generally successful in recovering weapons used in physical assaults after the incidents had occurred.

Staff vigilance and proximity to inmates are particularly important for preventing violence and responding quickly when incidents do occur. Officers reported that they were able to tell when a fight is about to happen by observing body language and activity within the housing unit (for example, inmates congregating on opposite sides of the dayroom). However, officers have a number of demands on their time, and interviews with staff and inmates suggested that planned physical violence often happens when officers are distracted (on the phone, for example) or have to leave the housing unit control booth. Typically only one officer is assigned to each housing unit and officers must request relief in order to use the restroom or take a meal or request backup in order to enter a housing unit. Staff reported that they sometimes have to wait a long time for relief, and some officers choose to leave their post rather than wait. Tight staffing also made it difficult for officers to consistently conduct security rounds within the housing units. In interviews, staff explained that it was challenging for even the most serious and experienced officer to complete rounds every 30 minutes given the other demands of the job.

When violent incidents did occur, officers utilized a range of techniques and technology to respond. For major incidents, staff would bring in a mobile camera unit that videotapes the area to deter inmates from continuing to fight and to aid in investigation and prosecution of those involved. Several staff members mentioned that the presence of this camera unit was typically enough to diffuse fights in progress, given inmates' interest in avoiding additional criminal charges. In some cases, staff had to respond with force; the incident data showed that at least one-fourth of all physical assaults during 2005 and 2006 resulted in the application of force by staff.<sup>46</sup> Supervisory staff were also trained and equipped to use OC spray

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<sup>46</sup> This figure is based on information contained in paper incident reports and may be an underestimate if the use of force is not noted consistently.



(commonly known as pepper spray). During interviews, some staff members suggested that equipping supervisors with OC spray had a deterrent effect on inmates and recommended expanding the technology to line officers.

### **Suicide and Self-Harm**

While no completed suicides were recorded in the incident data from 2005 and 2006, there were 31 suicide attempts, an average of more than one attempt per month.<sup>47</sup> Nearly half (15) of these incidents occurred in the housing unit holding segregation until it was moved to another facility in July 2006. In addition to suicide attempts, there were also a few incidents of self-harm attempts and threats reported, as well as isolated incidents of inmates staging hunger strikes in protest of policies or conditions. In interviews, several staff members attributed the low incidence of self-harm to the population housed in the facility at that time: seasoned, maximum security inmates who typically had long histories of incarceration and were housed elsewhere during their first 24 to 72 hours in custody. Given population changes in Site C, suicide and self-harm prevention became a growing concern.

Both staff and inmates indicated that some attempts and threats of suicide and self-harm are serious, while others are manipulative (e.g., attempts to move to another housing unit). Several staff members reported that serious attempts at suicide and self-harm had decreased since the move of segregation into another facility in July 2006. Nonetheless, staff reported that any threat of suicide or self-harm, regardless of the circumstances, would be reported and responded to as a serious incident.

Interviews with inmates yielded differing views. Most inmates reported that threats of suicide and self-harm were taken seriously by staff and resulted in immediate mental health referrals. In fact, some noted that threatening self-harm was typically the quickest way to see someone from mental health services. Others, however, expressed that some officers made light of inmate mental health issues, responding to incidents they did not perceive to be serious with jokes rather than referrals. Whatever the actual response, interviews with staff indicated that some officers did not feel that the training they received in this area prepared them

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<sup>47</sup> Incident records do not distinguish “legitimate” attempts from others. In this memo, the phrase “suicide attempt” is used to indicate any action taken by an inmate that staff members responded to and reported as a serious incident.



adequately to address the full range of inmate mental health issues they encounter on the job.

Staff and inmates shared the view that staff experience and training are critical in preventing acts of self-harm. They explained that experienced staff who are trained well in this area are able to identify behavior changes in inmates that could signal an elevated risk for self-harm. In addition, they mentioned that providing outlets for inmates to talk about their concerns—such as informal conversation between staff and inmates—can be an effective means of reducing inmate stress and anxiety that can lead to self-harm.

According to staff and inmates, circumstances surrounding suicide and self-harm varied depending on whether the attempt is serious or manipulative. They believed that inmates engaging in manipulative attempts would typically tie one end of a sheet around their necks and wait for staff to observe their behavior, take or threaten to take large quantities of medication, or simply say that they are going to hurt themselves without acting on the threat. They reported that serious attempts could take many forms. According to incident data, the most common methods were (1) taking large doses of medication and (2) using sheets as a hanging device. Other methods included cutting with razor blades, attempted drowning by flooding cells with water, and asphyxiation with plastic bags.

According to interviews, serious attempts typically occurred at night when inmates were inside their cells and had privacy. During the site observations, the research team observed that inmates on some units block the views into their cells with sheets, checkerboards, or other objects. In addition, a significant number of the light fixtures in many units were not functioning properly—either burned out or broken—obscuring the view from the officer station into the cells and dayroom, particularly the cells in the back of the unit. These conditions, combined with the difficulty some officers experienced in making rounds as frequently as protocol required, could reduce the ability of officers to supervise inmate activity in cells and to intervene swiftly if an incident were to occur.

### **Facilitators of Violence**

Official incident data for Site C indicates that contraband was seized 598 times during 2005 and 2006, a rate of about 25 contraband seizures per month. Over two-thirds of these seizures involved weapons, with an average of about 17 weapons



seizures per month. The most common weapons were “shanks,” pieces of metal or other material that are sharpened to create knife-like weapons. Other commonly seized contraband items were cell phones, cigarettes, homemade alcohol,<sup>48</sup> and marijuana. These figures do not include weapons and contraband seized in conjunction with violent incidents (e.g., a weapon recovered after an inmate-on-inmate attack), because it is unclear from Site C’s administrative records whether a weapon is recovered or not for violent incident reports. While in some jail facilities officers are rarely able to recover weapons involved in violent incidents, officers at Site C officers had considerable success in weapon recovery.

According to inmate interviews, weapons were prevalent in the facility and were more common in some housing units than in others. Shanks were typically made from metal strips removed from the desks in cells, pieces of the outdoor recreation area fence, or other metal pieces found around the facility. Some officers noted that the facility had almost been “picked clean” of any metal that could be detached or removed. To reduce access to metal, in August 2006 the jail banned “street shoes,” some of which contain metal bars or other metal pieces in their soles, and began requiring that all inmates wear standard shoes issued by the jail. Some officers reported that this change had reduced the number of shanks at Site C; however, they also indicated that the policy was not always strictly enforced. Facility management also suggested that inmates were deterred by a new policy that can add seven years to an inmate’s sentence if he is caught possessing a weapon in the jail.

According to inmates, shanks were typically hidden inside books, inside mattresses, and taped on the underside of tables. During site observations, the research team noted conditions in the facility that might be contributing to the successful hiding of contraband by inmates. Some housing units were dirty, their dayrooms scattered with litter, trash bags, blankets, and paper bags holding inmate belongings. Though these conditions do not directly relate to violence, they can make it difficult for officers to search housing units thoroughly and can facilitate the hiding of contraband by inmates. In addition, some common areas showed signs of deterioration, such as small holes where the wall meets the floor, that create hiding places for contraband.

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<sup>48</sup> Inmates are no longer able to purchase fruit or juice, both of which are used to make alcohol, from the commissary. Jail management believe that this change has reduced the presence of homemade alcohol in the facility.



Early in the JSAP project, there were a number of mechanisms in place to address weapons and other forms of contraband at Site C. Officers regularly searched housing units and conducted pat-downs of individual inmates as they moved to and from common areas (medical area, barbershop, etc.) on the second floor. Officers also used a mobile metal detector to detect weapons carried during mass inmate movement to and from common areas, particularly the gymnasium. Several staff members mentioned that positive rewards for contraband seizures—such as allowing an officer to leave his or her shift an hour early—were at least moderately effective in motivating officers to search housing units and inmates thoroughly.

Searches of housing units, called “shakedowns,” were typically conducted during the time inmates leave the tier for recreation. Inmates reported that they were often aware of these searches before they occurred, allowing them time to hide contraband in the dayroom or dispose of it in the stairwell during movement to recreation. In addition, some inmates would take the risk of carrying weapons on their person in the hopes that they would not be searched when entering the gymnasium. Despite the fact that some inmates were able to predict when tiers would be searched, officers were successful in recovering a variety of forms of contraband during these searches, including “soft” contraband items such as excess food and linens.

Housing unit searches were also conducted by the jail’s emergency response team, a special group of sworn staff focused on reducing security threats across the jail compound. Inmates indicated that these shakedowns were particularly effective because the team enters the facility through the basement so inmates do not have advanced warning that a search is coming. In addition, inmates mentioned that the team’s members typically do not know or have friendly relationships with the inmates whose housing units they are searching, removing any biases that might prevent them from thoroughly searching cells and belongings. Despite frequent searches by both facility staff and the jail’s emergency response team, inmates indicated that many contraband items are not discovered and weapons continue to be common in the facility.

As in other jails, staff at Site C have played a role in the introduction of contraband into the facility. In the 2000s, a sting operation led to the arrest of a sizable number of correctional officers and civilian employees who were allegedly smuggling drugs, cell phones, and money to inmates in the facility. One of the jail’s responses was to install a drug detection machine in the facility lobby and require all staff—sworn, civilian, and management—to pass through the machine and a metal



detector prior to entering the facility. Though the arrests and subsequent policy changes likely led to a decrease in staff smuggling of contraband, some staff who were interviewed questioned the machine's effectiveness detecting drugs.

## **6.6 SELECTED INTERVENTION**

Site C had significant problems with physical violence, weapons, and gangs. Serious incidents of physical violence involving multiple inmates were common, and much of this violence was gang related. Sexual assault and suicide/self-harm, on the other hand, were less frequent concerns for the jail, although there were still some significant problems related to these two issues. In April 2008, the researchers presented their findings and recommendations to jail management via a memo and in-person presentation and meeting. As outlined in the previous section, the JSAP research activities produced a number of valuable findings useful for informing potential interventions (see Appendices J and K); however, the facility's population change altered the focus of the intervention.

Following the JSAP project's action-research model, the UI researchers worked with jail management at Site C to select an intervention that would be appropriate for the new population of inmates with physical and mental health problems. A number of sworn and civilian staff and managers interviewed by the UI researchers reported that officers could benefit from additional training in interpersonal skills and crisis intervention. They suggested that violence would be reduced if staff had the ability to detect changes in inmate attitudes and behaviors, to intervene calmly and nonviolently in potentially problematic situations, and to communicate in a positive manner with inmates and other staff. A prominent training model that focuses on these issues is crisis intervention training (CIT). CIT trains officers to respond effectively to crisis situations and incidents of violence using skills in conflict resolution, crisis de-escalation, interpersonal relations, and nonviolent communication. Though CIT was initially developed for law enforcement, it has gained popularity and expanded into other areas of criminal justice, although it is still somewhat new to the field of corrections. Expanding staff training in interpersonal skills and mental health issues could enable staff to better identify signs of inmate stress and crisis and could improve staff effectiveness in violence and self-harm prevention. Training would help to reduce provocations and control precipitators by teaching officers how to de-escalate emotionally intense situations and not provoke inmates. The educational component also removes excuses for officers failing to



address active symptoms of mental illness, suicidal ideation, or sexual victimization— and may improve sensitivity to inmate issues, possibly reducing inmate stress and frustration.

After considering a number of promising options, the jail management and UI research team selected CIT for correctional staff as the primary intervention to be implemented and evaluated for the JSAP project. These groups agreed that the CIT for officers was likely to have a significant positive impact even with the new inmate population. In fact, the CIT training model's focus on mental health issues could be particularly beneficial for staff given that the facility now housed a number of inmates with mental illness.

Site C already participated in 40 hours of in-service training each year, conducted by the local DOC's training academy under guidelines from the state's Law Enforcement Training and Standards Board. This in-service training included a one to two hour segment on sexual assault, and new staff received four hours of training on "verbal judo." However, jail management and the UI researchers felt that additional crisis intervention training could potentially reduce sexual assault, suicide and self-harm, and physical violence in the facility. Several staff also mentioned that the existing mental health training at the time did not adequately prepare officers for the real-life situations they faced on the job.

Created by the Memphis Police Department in 1988, crisis intervention training is designed to educate law enforcement and correctional officers to recognize mental health disorders in the individuals that they encounter, to respond more appropriately to those individuals using less force, and to make informed referrals to community-based services. More specifically, the program

- trains officers to understand and recognize psychiatric signs and symptoms, building on each officer's experience and comfort level in working with individuals with psychiatric disorders;
- trains officers to use de-escalation skills to calm and reassure people with psychiatric disorders, as opposed to using force to gain control of the situation; and
- networks officers with local mental health and community service providers, families, consumer organizations, and emergency room staff to forge future referral and consultative relationships.





CIT models in corrections differ from jurisdiction to jurisdiction and are typically tailored to suit the needs and characteristics of the particular correctional system and the surrounding community.

## **6.7 IMPLEMENTATION**

After complicating population changes were announced, it took a number of months for the UI researchers, NIJ, and the jail management to reach a joint decision on how to proceed with the project and which intervention to select. Once these decisions were made, additional time was required to lay the foundation for implementing the training. In summer 2009, two 40-hour CIT sessions were provided to a total of 45 officers. Below is a discussion of the implementation process.

### **Vendor Selection**

To provide the training, the jail system's training division recommended a local organization with whom they had an existing relationship. The organization (which will hereafter be referred to as "training provider" or TP) specializes in providing mental health and crisis response trainings for a variety of criminal justice professionals, particularly CIT trainings for local law enforcement. TP employs psychologists, medical doctors, former law enforcement officers, and other mental health and criminal justice experts, including some who have worked in the Site C jail.

The UI project staff researched vendors who provide CIT trainings for comparison purposes and found the TP to have competitive prices with other researched vendors. Site C had \$25,000 available to spend on the training, provided through a NIJ subgrant from the JSAP project to defray each site's costs for implementing the selected intervention. For the sake of expediency, UI contracted directly with the vendor, and the subgrant was executed in March of 2009. For \$25,000, TP agreed to provide two 40-hour, week-long customized CIT courses. For the training, they adapted their existing CIT curriculum (designed for law enforcement audiences) to the jail environment and incorporated a component on sexual assault in order to more directly address the JSAP project's focus on this issue.



## **Developing the Training**

The basis for the training was TP's existing CIT curriculum, which is primarily targeted for law enforcement, but was modified to suit the needs of the correctional officer audience and the JSAP project. The curriculum was adapted to apply to a jail environment and to incorporate components on sexual assault, suicide prevention, and women's issues. The training conforms to the requirements for CIT training promulgated by the training and standards board, which sets professional standards for law enforcement and correctional officers in the state.

UI staff were in close contact with TP during the development of the training, providing feedback on the curriculum and offering expertise and resources on sexual assault, which was a new training area for the organization. The UI team also developed a one-page sheet with resources on sexual assault targeted for correctional officers. All the resources were available online and the sheet was distributed to officers who participated in the training.

## **Implementing the Training**

Two week-long, 40-hour training sessions were provided, one in June and one in July 2009. They were held at a local community college where the jail has held previous training activities. The jail's training academy handled the logistics for the training, reserving the rooms and selecting and notifying participating officers. The majority of the participants were correctional line staff, although about a quarter were higher-ranking, supervising correctional staff. The training was presented by the TP's expert trainers, including a psychologist, a medical doctor, and a former police officer. Presenters used PowerPoint slides, role-playing activities, and multimedia resources such as news clips and audio segments to supplement the presentation.

The following topics were covered during the training (see also Appendix M):

- Jail policies and procedures regarding suicide, sexual abuse, and sexual harassment (presented by a lieutenant from Site C)
- Inmate culture
- Physical violence in correctional settings
- Reasons and motives for violence
- Sexual violence in correctional settings



- Definitional issues
  - Prison Rape Elimination Act (PREA) legislation and other state laws
  - Harassment, sexual assault, and staff sexual misconduct
  - Vulnerable groups and signs of sexual victimization
  - Impacts of sexual victimization
  - Other forms of sexual exploitation (e.g., human trafficking, exploitative pornography, prostitution)
- Mental health
  - The historical context of mental health and corrections
  - Risks for suicide
  - Suicide recognition and prevention
  - Symptoms of mental illness
  - Comorbid substance abuse
  - Mental health transition from jail to the community
  - Types of treatment
- Special populations: developmental disabilities, elderly, women
- Crisis de-escalation and response/intervention skills for physical violence, sexual victimization, and suicide

## 6.8 EVALUATION

As was discussed previously, the project evaluation plans for Site C had to be changed to address the dramatic shift in the facility's inmate population that occurred during the project. The use of incident data and inmate surveys to evaluate the intervention was no longer feasible; therefore, the researchers conducted surveys with the corrections officers who participated in the training instead. They also obtained qualitative information on the intervention by observing part of the training, speaking with the training providers about the development of the training, and interviewing jail supervisory and management staff to learn their perceptions of the impacts of the training on the facility.



## **Program Observation and Interviews**

UI researchers had many phone conversations with the provider of the crisis intervention training, discussing the goals of the training and how it would be administered. Two members of the research team also visited Site C to observe part of the first training session. The researchers observed presenters provide information on the CIT model, the history and context of mental health issues in the criminal justice system, PREA legislation, definitional issues and symptoms of sexual assault, impacts of sexual assault on the victim, and risks for and symptoms of suicidal behavior. In addition to PowerPoint slides and general discussion, the trainers also used multimedia video and audio clips to provide information, illustrate examples, and elicit discussion. The training organization provided all of their slides and materials to the researchers, since they were unable to observe the entire training session.

Only a small number of semi-structured, qualitative interviews (N=3) were conducted, because there were few staff at the time of interviews that had participated in the training, were at the same facility before the training was implemented (and therefore could compare current practices and attitudes to those prior to the training), and were still working in the same section of the facility. Interviews with facility staff 15–18 months after the training revealed that, on the whole, the training was a positive experience for interviewed participants.

Importantly, the facility administrator and officers described the training as a useful tool to respond to inmates with mental health conditions, noting a marked change in officer behavior toward inmates. Prior to the training, an interviewee reported that officers were more likely to exhibit aggressive behavior toward inmates due to a lack of knowledge about the inmate's condition. However, after the training, officers have responded to inmate misconduct in new ways. In many instances, officers were able to de-escalate incidents without resorting to use of force. Notably, the facility administrator expressed that the training imbued officers with new knowledge about mental health that has contributed to greater patience, understanding, and compassion.

Interviewees perceived a shift in inmate behavior since the officer training. Two believed that inmates were more compliant because of improved officer interactions and understanding. The facility administrator also reported that inmates had informed supervisors when they thought that an officer needed additional training.



Satisfaction was shown by the desire for additional training, particularly trainings related to specialized units. Interviewees also found the structure of the program favorable, underscoring the usefulness of the role playing.

## Officer Surveys

### *Sample Characteristics*

All 45 officers who participated in the training completed the *pre* survey, 42 completed the *post* survey, and 37 responded to the follow-up survey. Four of the original 45 participants were unable to participate in follow-up due to death or termination from the jail system; four declined participation. The sample characteristics were similar across all three survey waves (see Table 28).

**Table 28. Officer Sample Characteristics**

Variable	Pre	Post	Follow-up
Number of Respondents	45	42	37
Age (mean)	41 years	39 years	41 years
Gender	23% women 78% men	25% women 75% men	22% women 78% men
Rank	76% line officer 24% supervisor	73% line officer 27% supervisor	76% line officer 24% supervisor
Years spent as correctional officer	10.3 years (mean) 38% 1–5 years 38% 6–15 years 24% 16+ years	9.6 years (mean) 43% 1–5 years 33% 6–15 years 24% 16+ years	10.1 years (mean) 42% 1–5 years 28% 6–15 years 31% 16+ years
Years working in facility	4.6 years (mean) 40% 2 years or less	4.5 years (mean) 45% 2 years or less	(not a comparable measure since many moved posts—see below)
Still working at same facility	---	---	76% yes 24% no

A little over 20 percent of participants were women. Participants ranged in age from 23 to 60 years at the time of the training, with an average age of 41 years. In terms of experience in corrections, the training included everyone from those new to the field, with as little as one year as an officer under their belt, to veterans with up to 25 years of experience. Nearly 40 percent of participants during the training had been



in corrections 5 years or less, while one quarter had been in the field for more than 15 years. The average amount of time working as a correctional officer was 10 years.

Approximately three-quarters of participants were line correctional officers, while the remaining quarter were ranked, supervising officers (sergeant, lieutenant, captain, or chief). Officers' assignments varied widely, from supervising housing and program areas to overseeing inmate intake and building control.<sup>49</sup> The jail system at Site C consists of multiple facilities, and staff are rotated among these facilities with some frequency. At the time of training, respondents had been working in Site C's facility for an average of five years, and 40 percent had worked there for two years or less. By the final follow-up survey, one-quarter of the respondents had transferred to another facility within the jail.

Many participants came to the training with some degree of prior exposure to the topics covered. In the *pre* survey, respondents were asked whether they had received training on any of the following five topics in the past: mental health issues, suicide and self-harm, sexual assault, physical violence and aggression, and skills and strategies for de-escalating crisis situations. Sixteen percent of respondents had not received training in any of these domains, 29 percent had received training in one to four domains, and 56 percent reported exposure to training in all five domains. However, beyond the topic covered, there is no way to know the type of training or how much of it was received.

In the months between the CIT training and the follow-up survey, a little less than half of respondents received additional training on similar topics, which could have strengthened or reinforced what was learned in the CIT training. Fifty-seven percent had not received any additional training, 14 percent had received training in one to four of these domains, and 28 percent reported receiving training in all five domains. Again, it is unknown what type or extent of training was received.

### ***Participant Opinions of Training***

In the survey administered immediately after the training (*post*), participants were asked to respond to a series of statements evaluating the training. As seen in Table 29 below, respondents had strong, consistently positive feedback on the training. They

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<sup>49</sup> The question about respondents' current assignments was a write-in and responses were not consistent enough to allow for a detailed breakdown. Here we simply offer a sampling of some common responses.



reported that the training taught them new information, strategies and skills; that it would benefit their organization and help them perform their jobs more effectively; and that it increased their confidence in their ability to handle crisis situations. Ninety-eight percent said they would recommend the training for other correctional officers. There was a little disagreement about the applicability of the training to respondents' daily work: responses to statements on this topic seem to indicate that a handful of respondents questioned whether the training is relevant to their jobs (see items 6, 7, and 8 in Table 29).

**Table 29. Evaluation of Training<sup>50</sup>**

Statement	Not sure/ Agree Neutral Disagree		
	Agree	Neutral	Disagree
1. The objectives of the training were accomplished by the end of the week.	95%	2%	2%
2. The training did not meet my expectations for learning.	0%	2%	98%
3. I learned new information from the training that will help me in my job.	100%	0%	0%
4. I learned new strategies and skills from the training that will help me in my job.	100%	0%	0%
5. The training will help me perform my job more effectively.	100%	0%	0%
6. The training was not relevant to problems and issues at my facility.	2%	2%	95%
7. The training was not relevant to my job duties.	2%	2%	95%
8. I expect to apply much of what I learned from this training to my work.	93%	5%	2%
9. I would recommend this training for other correctional officers.	98%	0%	2%
10. My organization will benefit from my having completed this training.	100%	0%	0%
11. The training increased my confidence in my ability to handle crisis situations.	100%	0%	0%

Numbers may not add up to 100 percent due to rounding.

<sup>50</sup> In the survey a five-point Likert scale (Strongly Agree, Agree, Not Sure/Neutral, Disagree, Strongly Disagree) was used, but the response categories are condensed here for easier reading.



Respondents were also asked open-ended questions about the most and least valuable parts of the training, their suggestions for improving the training, and topics on which they would like to receive further training. The role-playing activities were a particular favorite of participants, with 40 percent identifying these as the most valuable component of the training. Other elements highlighted as valuable include learning about mental illness and the experiences of people dealing with mental health issues, learning to recognize signs and symptoms of mental illness and victimization, and developing skills and strategies for responding to various crisis situations. As for the least valuable part of the training, one respondent reported that the training was too condensed while another found it too repetitive. A few suggested that women's issues were not relevant for them since they do not work with female inmates. However, almost three-quarters of respondents either left this question blank or responded that there was nothing in the training they found to be unimportant.

When asked how the training could be improved, respondents suggested making the training longer, allowing more time for role playing, and covering additional topics. A significant number of respondents indicated that the training should be better adapted to a correctional/jail context. One suggestion was to have the instructors spend more time at the jail. They also proposed incorporating presentations from officers or supervisors from the jail who have special expertise and experience with mentally ill inmates or crisis situations. Several respondents expressed an interest in receiving further training, particularly more advanced CIT and mental health training. Other topics they would like to obtain further training on or would like to see incorporated into the CIT training include veterans' issues, juveniles and young adults, traumatic brain injuries, hostage training, and additional information on sexual assault and women's issues.

At the follow-up survey, respondents were asked two open-ended questions about their opinion of the training: whether they found the training to be helpful in their work and what challenges they encountered to applying what they learned in the training. The overwhelming majority of respondents reported that they found the training to be very helpful and informative. Several stated that it taught them to recognize signs and symptoms of mental illness and inmates in crisis and prepared them with tools to deal with these situations. One respondent praised the training for giving tools to use other than physical force, while others reported that it has led them to use verbal communication more frequently to resolve conflict. Respondents also reported that the training influenced their overall attitudes, helping them to better





understand people with mental illness; making them more aware of and attentive to what is going on with the inmates under their care; leading them to be more patient with inmates, especially those with mental health issues; and making them more likely to step back and carefully assess a situation before responding. A few respondents said they could recall specific situations where they had effectively handled a potential crisis situation using techniques learned in the training. Respondents suggested that the training was particularly helpful since the recent inmate population shift in the facility meant that a significant number of inmates they would interact with on a daily basis have some type of mental health issue. However, a small number of respondents felt the training, while potentially valuable for some, was not relevant to their job duties.

The biggest obstacle respondents identified to implementing what they had learned was the challenge of taking abstract information learned in a classroom setting and applying it to real-life situations. One respondent suggested that the training did not go far enough in presenting the most difficult, realistic situations. Some respondents reported that dealing with inmates is challenging and, even when one tries positive communication techniques, sometimes inmates simply will not listen and there is little an officer can do to stop a situation from escalating. A number of respondents reported that sometimes there is simply not enough time to talk things over with inmates, proactively address potentially problematic situations, or implement all of the communication techniques they learned in the training. One officer who works the night shift reported that there was not enough support from mental health staff during his or her shift.

Overall, respondents provided a highly favorable review of the CIT training, giving it high marks across the board and indicating an interest in receiving additional training on related issues. At the time of the follow-up survey, they continued to praise the training and offered examples of how it had improved their job performance. Respondents did, however, suggest some areas for improvement. They proposed that the training be better adapted to the correctional/jail context and that it cover additional topics. Numerous respondents found the role-playing activities valuable and suggested additional time for these in future trainings.

### ***Outcome Analysis***

Assessed outcomes include four topical attitude scales for (1) violence, detainee aggression, and crisis response (hereafter referred to as “physical violence”); (2)



mental health issues; (3) suicide and self-harm; and (4) sexual assault; a knowledge scale; and a confidence scale (see sections 6.2 and 6.4 for more details about the scales and methodology).

### *Topical Attitude Scales*

As seen in Table 30, ANOVA tests produced statistically significant differences for all topical attitude/confidence scales except for the Violence scale. Tukey's post-hoc tests revealed the same pattern for the three significant scales, with differences between the *pre* and *post*, as well as the *pre* and follow-up surveys, but not between the *post* and follow-up surveys,<sup>51</sup> suggesting that the training improved attitudes and confidence for correctional situations related to mental health, suicide/self-harm, and sexual assault issues (but not physical violence). Furthermore, the impacts appeared to sustain over time, evident by the nonsignificant differences between responses given immediately after training and 7–14 months later.

**Table 30. Officer Outcome Measures**

Scale	Mean			ANOVA (p-value)	Tukey's post-hoc test (p-values)		
	Pre	Post	Follow-up		Pre/Post	Pre/ Follow-up	Post/ Follow-up
Physical Violence	4.21 <sub>a</sub>	4.35 <sub>a</sub>	4.36 <sub>a</sub>	0.105	0.186	0.142	0.979
Mental Health**	3.66 <sub>a</sub>	4.09 <sub>b</sub>	3.99 <sub>b</sub>	0.000	0.000	0.001	0.485
Suicide and Self-harm**	3.93 <sub>a</sub>	4.26 <sub>b</sub>	4.20 <sub>b</sub>	0.001	0.002	0.017	0.825
Sexual Assault*	3.90 <sub>a</sub>	4.10 <sub>b</sub>	4.14 <sub>b</sub>	0.014	0.051	0.021	0.909
Confidence**	3.73 <sub>a</sub>	4.10 <sub>b</sub>	4.09 <sub>b</sub>	0.000	0.000	0.000	0.984
Knowledge**	7.31 <sub>a</sub>	8.71 <sub>b</sub>	8.05 <sub>c</sub>	0.000	0.000	0.016	0.041

\*  $p < .05$ , \*\*  $p < .01$ , †  $p < .1$

The subscripts (a, b, and c) indicate whether the means are significantly different from each other.

### *Confidence*

In addition to the topical scales discussed above, an overall Confidence scale was created that measured respondents' confidence in their abilities and preparation to handle crisis situations in all four topical domains. This scale contained 19 questions: three from the physical violence section, seven from the mental health section, three

<sup>51</sup> For the Sexual Assault scale, the Tukey test shows a p-value of 0.051 between the pre and post surveys, 0.021 between the pre and follow-up surveys, and no significant difference between the post and follow-up survey. While the first p-value slightly misses the level of statistical significance, the second and third p-values suggest that, in reality, the training did have a significant impact on this measure at both the post and follow-up waves.



on suicide and self-harm, and five on sexual assault. Most of these items were also included in the topical scales described previously.

Officers' confidence significantly changed across the survey waves (see Table 30). Again, post-hoc Tukey tests found statistically significant increases in confidence between the *pre* and *post* and *pre* and follow-up surveys, but not between the *post* and follow-up surveys. This suggests that the training had a statistically significant impact on respondents' confidence in their own abilities and preparation to respond effectively to violence and crisis situations, and this impact did not diminish over time.

### *Knowledge*

In the mental health and suicide/self-harm sections of the survey, questions were asked regarding specific content knowledge on these topics that was covered in the course of the training.<sup>52</sup> The questions were multiple choice and one choice was designated as the correct answer based on a review of the training curriculum. For example, one question asked, *When is one of the most high-risk times for detainee suicide? (a) the first 24 hours in jail (b) from 9am to 1pm (c) immediately before release (d) all of the above,*" with (a) being the correct answer according to the training.

Five questions from the mental health section and five questions from the suicide/self-harm section were summed to create a scale that represents the number of correct answers, from 0 to 10. Analyses showed significant changes between the means across the survey waves, with significant differences between all pairs of waves, indicating that the training improved knowledge on the topics of mental health and suicide/self-harm, but the increase was partially lost in the months that followed.

## **6.9 CONCLUSION**

This analysis suggests that the CIT training implemented by Site C holds significant promise for improving the ability of correctional officers to respond appropriately and effectively to various types of violence and crisis situations. The officers who

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<sup>52</sup> There were also knowledge questions in the sexual assault section, including who to report concerns to, and whether certain behaviors required reporting or addressing in some manner. However, there was not enough variation in participants' responses to analyze this item.



participated had uniformly high praise for the training, with 98 percent indicating that they would recommend it for other correctional officers and 100 percent saying the training helped the jail and provided them with new information, skills, and confidence. Analysis of the outcome measures in the survey indicates that the training had a positive impact on participants' attitudes and confidence related to appropriately and effectively responding to situations involving mental health, suicide/self-harm, and sexual assault. The training also increased participants' overall confidence in their abilities and preparation to respond effectively to violence and crisis situations, as well as their knowledge of mental health, suicide, and self-harm issues. There was no statistically significant impact on competence to respond to issues of physical violence, suggesting that this part of the curriculum could benefit from refinement.

While CIT is well established in law enforcement, it is fairly new to the area of corrections. Our research suggests that CIT has significant potential benefits for the corrections field. Given the strong positive response of the officers who participated in the training and the positive findings from our outcome analysis, practitioners should consider CIT training as a valuable mechanism for improving officers' abilities and preparedness. However, due to the small sample size of this training group, its location in a single facility, and reliance on self-reported measures, future research is needed to better understand the impact of CIT training on officers' behavior in their day-to-day work environment.



## **CHAPTER SEVEN: Findings across Sites and Implications for Policy and Practice**

### **7.1 PREVALENCE AND CONTEXT OF VIOLENCE AND SELF-HARM**

When synthesizing findings across sites A, B, and C, several common themes emerge regarding the prevalence and contextual factors surrounding sexual misconduct and assault, physical violence, and self-harming behavior. Findings from staff and inmate interviews, inmate *pre* surveys, and incident data uncovered some of these common issues, which are described below, along with their implications for policy and practice.

In terms of prevalence, all three sites had low rates of officially reported cases of sexual assault, and staff and inmate interviews confirmed that reported cases are indeed rare. Consensual sex between inmates also did not appear to be a frequent phenomenon, perhaps with the exception of Site A where some staff reported that “girlfriend relationships” were not uncommon for the female population. Within the incident data across the three sites, there were only 20 reported sexual incidents over a two-year period (and this also included sexual harassment of staff at one of the sites). However, the actual prevalence of sexual assault is unclear. Reports may be low due to fear of retaliation or shame. In addition, both inmates and staff may make a blurry distinction between consensual sex and forced sexual activity. The majority of inmates did not believe consensual or forced sex was likely to occur in their facility, although a small portion of inmates disagreed. Inmates perceived that forced sex was less likely than other types of sexual incidents, including consensual sex with inmates, sex in exchange for something, and sexual contact with staff. Incident data revealed that the sexual incidents were most likely to occur inside cells during the night shift and commonly involved cellmates. Surveyed inmates concurred that cells were the most likely location for both sexual assault and consensual sex. This is consistent with SCP principles in that the privacy of cells minimizes the risk of detection (see Wortley 2002).

Unlike sexual violence, the study sites all reported a substantial volume of physical violence in incident records, primarily in the form of altercations among inmates; indeed, the majority of surveyed inmates felt it was likely for a fight or assault to occur in their facility. While one-on-one violence was more common than



group violence, group assaults were more likely to involve weapons. Incidents involving physical violence most often occurred in the dayroom or cells during the day shift. In addition, surveyed inmates perceived the recreation yard as another common area for violence. Both staff and inmates reported that the most common causes of fights were group conflicts (i.e., gangs, neighborhood affiliations, religious groups), theft of personal property, conflicts over shared resources (e.g., fighting over phone or television use), and stress or frustration.

Two sites had considerable weapons-related problems. The most common weapons were stabbing objects constructed out of metal. Other common contraband included cell phones, marijuana, cigarettes, and alcohol. Some of these items may facilitate physical violence. For instance, cell phones can be used to coordinate attacks, and alcohol and drugs may disinhibit inmates; they are also likely sources of conflict due to stealing or fights over their use (see La Vigne 1994).

The three study sites also experienced a sizable number of self-harming incidents, although few resulted in completed suicides. These incidents most frequently occurred inside cells and, in particular, with segregated inmates. This is not surprising, and is consistent with SCP principles, in that acts of self-harm require a certain degree of privacy and cells are the one unique location in a jail facility where inmates are not under some form of constant supervision. While most interviewed inmates and staff believed that self-harming incidents were more likely to occur at night, official records did not reveal a clear temporal pattern. However, the exact time of self-harm incidents may be unknown to correctional staff and thus reported during the daytime hours when they are first discovered. Those interviewed also perceived self-harming incidents to be more likely to occur within the first few days of admittance, after receiving bad news, and during holidays. The most common methods were hanging and cutting with sharp objects. In relation to this topic, many inmates reported problems accessing mental health services.

Staff issues at the three sites also emerged as a common theme, although the particular types of staff problems varied by site. Examples of staff issues from the study facilities include corruption (e.g., giving or selling inmates contraband), neglect of officer duties (e.g., failing to conduct rounds, not responding to requests for back-up), and sexual misconduct. Both staff and inmates felt staff could do a better job of restricting contraband—either by not bringing it into the facility themselves or by conducting more thorough shakedowns and searches.



These issues can be tied directly back to SCP principles. Corruption undermines the authority of correctional staff, and corrupt staff may refrain from reporting infractions perpetrated by certain inmates—reducing the perceived risk of detection. Staff sexual misconduct sends a message to inmates that similar behavior on their part will be tolerated or overlooked, also reducing perceptions of risk. Infrequent or poorly conducted shakedowns and searches enable contraband to serve as instruments for or facilitators in inmate fights and self-harm, reducing the effort associated with committing these acts.

Neglect of officer duties minimizes formal surveillance of inmates, increasing perceptions that infractions and perpetration of violence and self-harm will go unnoticed. Some degree of this neglect may be attributed to the staff shortages reported during the evaluation study period. In jail facilities, correctional staff are the first line of safety and security, and adequate staff are required to properly supervise, monitor, and manage the inmate population. Labor issues can significantly impact operations and the ability to maintain order and ensure safety. For instance, some staff noted that rounds were inconsistent, CCTV monitoring was less frequent, and posts were temporarily abandoned when back-up staff were not readily available. Inmates shared that increased lockdown from staff shortages causes extreme stress, serving as a precipitator for inmate altercations; reduced staff also decreases the capacity for employee surveillance.

## **7.2 RECOMMENDATIONS FOR SAFETY INTERVENTIONS**

While this evaluation set out to assess the impact of three specific interventions selected and implemented by the study sites, the action-research model that was employed, which included a thorough analysis of potential causes of violence and self-harm, yielded many other recommendations applicable to other jail settings. Overall, when considering new safety interventions for jail settings, it is recommended that jail administrators use a four-step process: (1) identify precipitating factors around dangerous incidents by analyzing the dates, times, locations, and contexts surrounding past events; (2) use evidence-based strategies (such as situational crime prevention) to address the unique needs and vulnerabilities of the facility; (3) integrate those strategies within a comprehensive system of best practices in inmate classification, supervision, management and facility design; and (4) continually evaluate the success of the safety interventions, making changes as needed along the way.



More specifically, across the study sites many similar recommendations emerged that are consistent with SCP principles (see Appendix K for more detail on other recommendations made to each facility that were not implemented).

- Increase risk of detection
  - Increase supervision and surveillance in known risk areas and blind spots through increased officer presence, more frequent and random correctional officer rounds, video surveillance equipment, convex mirrors, etc.
  - Employ direct supervision principles through facility design, supervision, and management practices to increase employee surveillance .
  - Lock limited access areas (e.g., closets, pantry areas) with controlled access for designated staff only to increase the effort.
- Reduce precipitating factors
  - Increase access to shared resources (e.g., phones, television, showers). This is especially relevant in facilities that have retrofitted cells for double-bunking, which increases the number of occupants in the unit but not the required ancillary and support spaces, fixtures, or furnishings.
  - Reduce idle time by providing inmates with appropriate programs, services, and structured recreation activities.
  - Improve inmate access to mental healthcare and inmate counseling.
  - Provide inmates with a means of securing belongings and track or limit commissary purchases.
  - Limit overcrowding and strategically allocate cell assignments (e.g. place at-risk inmates in front where they can be observed better).
- Identify and consistently discipline violent behavior
  - Ensure rules are clearly communicated and consistently applied





- Employ random shakedowns, mobile metal detectors, and ION drug detection machines.
  - Work with the state attorney's office to facilitate the prosecution of sexual assaults and severe physical violence within the jail.
- Increase officer accountability
  - Develop a system to ensure that staff are conducting rounds according to standard operating procedure and that floor supervisors are doing their own rounds to ensure staff are complying; consistently enforce these procedures.
  - Hold staff accountable through staff supervision and monitoring; sanction staff who are not performing duties appropriately.
  - Implement or expand staff training in interpersonal communication skills, conflict resolution, and crisis intervention.
  - Communicate zero tolerance policy regarding staff-inmate sexual misconduct and inmate sexual harassment of staff (follow PREA guidelines regarding investigating and reporting).

### **7.3 EFFECTIVENESS OF SAFETY INTERVENTIONS**

In order to assess whether a new safety intervention has been successful in its goals, it is advisable to measure changes in key outcomes targeted by the interventions, using multiple methods of data collection and analysis. The current study evaluated the effectiveness of the specific interventions selected by sites (officer tour system, cameras, and CIT training) through three primary measures: (1) changes in the number of incidents tracked through official records, (2) staff opinions on the implementation and overall impacts of the intervention as assessed through interviews, and (3) changes in inmate perceptions of jail safety as assessed through surveys. Researchers employed a different evaluation strategy for Site C, relying on an officer survey to measure changes in officer attitudes, knowledge, and behaviors.

The three jails chose different avenues to improve safety in each of their facilities. Site A selected an officer tour system intended to increase accountability for officer rounds. Theoretically, this intervention should simultaneously (a) increase the perceived risk to officers of being caught neglecting their job duties, and (b) increase



the perceived risk to inmates of being caught misbehaving by an officer conducting more frequent rounds. It may also reduce the rewards of the misconduct, because inmates know they may have to stop shortly if an officer enters the housing unit (e.g., put out a cigarette shortly after starting, halt an attack before intended injuries are accomplished). Finally, the intervention should remove excuses for officers who might claim they were unaware rounds expectations were a strict requirement, and also holds them accountable for doing their rounds as instructed.

Site B chose a camera system to mitigate blind spots, provide recorded evidence for incident investigations, and improve staff conduct. Similar to the officer tour system, the intervention should theoretically increase perceived risk to both inmates and officers who know they are being recorded. However, these risks would not be increased for remaining blind spots that are not within the camera viewsheds. Camera systems, though not ultimately employed for this purpose by Site B, are primary prevention tools rather than merely an investigative tool.

Rather than focus on surveillance and accountability, Site C decided to implement a training curriculum to improve officer interactions with inmates. The training involved crisis intervention skills and also educated officers on issues related to mental illness and sexual assault. Site C's training theoretically falls into the *reducing provocations* or *controlling precipitators* category of SCP. Crisis intervention training teaches officers how to de-escalate emotionally intense situations and avoid unknowingly saying or acting in ways that could further provoke an inmate. The education component may provide officers with a greater sensitivity to mental health and sexual violence issues, which should allow inmates to feel better respected and understood, possibly reducing stress and frustration among inmates. The educational component also removes excuses for officers failing to address active symptoms of mental illness, suicidal ideation, or sexual victimization. Trained officers should have a clear understanding of how to properly respond to these signs.

Interestingly, all three interventions evaluated in this report identified a similar strategy: changing correctional staff behavior. While staff presence alone should deter some types of incidents, these measures were aimed at making staff accountable in doing their jobs—making rounds, administering medication, engaging in use of force only when necessary, and diffusing potential conflicts skillfully.

The study results are both promising and inconclusive. In Site A, inmate surveys yielded no changes related to sexual assault incidents due to the officer tour system,



but inmates did perceive reduced violence in the recreation area, less contraband, and greater overall safety due to officer presence. Incident analyses were less definitive but do point to reduced officer use of force incidents, suggesting that the pipe technology may have had a favorable impact on officer/inmate relations: by encouraging officers to walk around and interact with inmates, the pipe may have had a secondary impact on how officers chose to respond to inmate threats and altercations, choosing a verbal approach to diffusing tensions rather than a physical one.

In Site B, fewer inmates believed consensual and forced sexual behaviors were likely to occur following installation of recordable cameras. Violence was also perceived as less likely to occur in cells, and a smaller percentage of respondents reported being threatened or involved in fights in the past month. *Post*-respondent inmates also thought it was easier to access medications. Analyses of actual incidents, however, yielded no significant changes in incidents following the implementation of the camera system—a finding that could be due to displacement of violence to camera blind spots, a combination effect of greater deterrence *and* detection, or limitations in data access. Nonetheless, the overall evaluation findings were inconclusive.

Site C's intervention was focused on officer training. Surveys of correctional officers who participated in the CIT indicated that the training holds significant promise for improving their ability to respond appropriately and effectively to various types of violence and crisis situations. The officers who participated had uniformly high praise for the training, with 98 percent indicating that they would recommend it for other correctional officers and 100 percent saying the training helped the jail and provided them with new information, skills, and confidence. Analysis of the outcome measures in the survey indicates that the training had a positive impact on participants' attitudes and confidence related to appropriately and effectively responding to situations involving mental health, suicide/self-harm, and sexual assault. The training also increased participants' overall confidence in their abilities and preparation to respond effectively to violence and crisis situations, as well as their knowledge of mental health, suicide, and self-harm issues. However, in the absence of *pre*- and *post*-training inmate surveys and incident analyses, it is difficult to discern the degree to which CIT had a real impact on incidents of violence and self-harm in the facility.



As with many evaluations, this study raises more questions than it answers and falls short of producing definitive impact findings, largely due to data and study design limitations. That said, it appears that all three interventions yielded some positive impacts, at least with regard to perceptions of safety and staff effectiveness. The absence of stronger effects may be due to the lack of integrating these interventions with additional staff training or an accompanying inmate behavior management strategy. Overall, the findings suggest the situational crime prevention approach may hold promise as an effective framework for identifying and applying strategies in correctional settings and call for more implementation and evaluation of such measures.

#### **7.4 BENEFITS AND CHALLENGES OF ACTION RESEARCH**

In addition to the specific evaluation findings of the three sites' interventions, this study yielded useful information about the benefits and challenges of undertaking an action-research project in a correctional setting. The benefits are perhaps self-evident: by thoroughly documenting potential factors facilitating prohibited behaviors and complementing those factors with perceptions of both staff and inmates, interventions were selected that had a clear and persuasive theoretical basis for affecting desired reductions in violence and self-harm. This approach also provided the necessary validity that enabled corrections administrators to commit to implementing the interventions.

Unfortunately, the challenges of implementing this action research approach were rather extensive. Limitations in data accuracy and access featured prominently. They ranged from inconsistent data definitions to limitations in the detail provided in electronic records, as well as officer bias in documentation of why and how infractions transpired. In addition, data were typically limited regarding the results of investigations of sexual and other assaults and the degree to which they were substantiated or refuted. Because a key data source was self-administered surveys with a representative sample of all inmates, gaining access to these inmates presented problems from lockdowns due to violence, passive refusals, and inmates who were housed in administrative segregation. Similar data collection challenges were experienced with mailed surveys to corrections officers, which yielded relatively low response rates.

Perhaps the greatest challenge to conducting an evaluation of an intervention in a "real world" correctional setting is the dynamic nature of the environment. The



number and characteristics of inmates; staffing levels, assignments, and personalities; and overall management practices change constantly, and these variables cannot be held constant for the benefit of the study. The best researchers can hope for is that administrators clearly document the date and nature of those changes. Unfortunately, in Site C, changes in population led to the abandonment of the original research design and in Site B, researchers were unable to obtain specific dates for other changes that occurred in the facility during the evaluation period.

Correctional facilities thrive on operational consistency, expressed in policy, procedures, and post orders. Enlisting the partnership and support of corrections administrators to change status quo operations by implementing something new and untested for study purposes can pose an initial research challenge. Our study benefitted from administrators who saw value in the research endeavor, and authorized the activities and interventions required at all three sites.

Other evaluation challenges relate to the period of time it took for facilities to procure and implement their interventions. In particular, in both sites A and B, implementation occurred incrementally, both in terms of technology installation and implementation of the staff policies that were to accompany it. Significant staff turnover accompanied this lengthy implementation and evaluation period and created partnership challenges along the way. For example, the superintendent in charge of the Site C facility changed several times during the course of the project, making it difficult to maintain continuity. In all fairness, research understandably is not the top priority for correctional administrators. Researchers who aspire to conduct this type of action research in correctional settings should prepare themselves for the challenges and frustrations of working in this unique environment.

## **7.5 RECOMMENDATIONS AND IMPLICATIONS FOR POLICY AND PRACTICE**

Despite the somewhat tentative findings with regard to the effectiveness of the interventions evaluated in this report, this study suggests that the strategies employed by each site were theoretically sound, guided by a thorough analysis of facility vulnerabilities, and have the potential to be cost effective. This study also sheds light on specific areas of vulnerability within jail facilities and how targeted strategies may be the most effective response.



- Interventions should be developed with the understanding that different types of violence and acts of self-harm have different contextual factors and opportunity structures that require targeted interventions.
- Cells may be a particular area of vulnerability, as they were identified by inmates across sites as being at high risk for sexual violence, physical violence, self-harm, and contraband. This creates unique challenges: the cell is the only area in a jail facility that is not under constant supervision or surveillance, and privacy requirements restrict the placement of cameras directly in cells. Strategic placement of recording cameras, however, could help to identify those who enter and exit cells during day and evening hours when inmates are out and around in the dayrooms. In addition, a more constant, direct officer presence in the housing unit—either through the employment of direct supervision management, or with more frequent, extended rounds—can prevent incidents, or enable officers to intervene quickly before they escalate further.
- Women may experience jail dangers differently from men; these differences should be taken into consideration when developing safety interventions.
- While the focus of this study was on the reduction of sexual violence, assessing both physical and sexual violence acknowledges the ways in which these two types of incidents are interconnected. Furthermore, physical violence is an important safety outcome in its own right, which inmates perceive (and incident data appear to confirm) is more likely than sexual assault.
- Contraband is a critical precipitator and facilitator of both sexual and physical violence and likely serves as a proxy for staff security breaches; focusing on contraband prevention could go a long way toward reducing both violence and staff misconduct.
- Corrections administrators should adopt a zero tolerance policy regarding staff sexual misconduct as well as inmate-on-inmate consensual sex; both serve as potential precipitators of violence and can mask more serious sexual coercion or force (e.g., a victimized inmate claims the behavior is “consensual” under threat by the perpetrator). As referenced in the National Standards to Prevent, Detect, and Respond to Prison Rape (28 CFR Part 115), correctional administrators should also promote the view that staff-inmate



sexual contact cannot be considered “consensual” under any circumstances, considering the power differential involved.

- When asked what improvements could lead to a safer jail environment, the number one recommendation offered by inmates was to improve the quality of correctional staff. Corrections administrators should seek ways to train, motivate, and incentivize officers to approach their jobs with the highest degree of professionalism and develop accountability and performance measures.
- Improve access and quality to correctional healthcare. Many inmates expressed dissatisfaction with medical care; limitations in the ability to provide mental healthcare and prescription medicine to inmates could serve as a precipitator for violence, victimization, and self-harm.

While many of these recommendations represent good operating practices in the field of corrections, others offer insights regarding the need both to identify the underlying causes of specific types of violence in correctional settings as well as to develop strategies that consider the larger context of the jail culture. The overarching theme of this study pertains to the importance of correctional staff. Regardless of the nature of the problems encountered in a particular facility, or the solutions posed, the success of any intervention rests in large part on ensuring that staff approach their jobs with consistency, accountability, and professionalism. Whether this is supported with technology or training, staff serve as the linchpin for any successful violence reduction strategy.

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## APPENDIX B: SITE OBSERVATION CHECKLIST

[illegible]



GENERAL INFORMATION	CORRECTIONAL OFFICER BOOTH/CONSOLE	CELLS	
UNIT CONFIGURATION	DESCRIPTION OF BOOTH	DESIGN CAPACITY PER CELL	
SINGLE-STORY?	VIEW FROM BOOTH-- OUTSIDE CORRIDOR	CURRENT CAPACITY PER CELL	
SECURITY LEVEL OF UNIT	PROXIMITY TO BOOTH-- OUTSIDE CORRIDOR	WET OR DRY CELLS?	
DESIGN CAPACITY OF UNIT	VIEW FROM BOOTH-- ENTER/EXIT	OBSTRUCTIONS OF VISIBILITY INTO CELLS?	
CURRENT CAPACITY	PROXIMITY TO BOOTH-- ENTER/EXIT	AUDIO COMMUNICATION FROM CELL TO OFCR?	
UNIT DIMENSIONS	VIEW FROM BOOTH-- VISITING AREA	CELL-TO-CELL VISIBILITY	
NUMBER OF CELLS	PROXIMITY TO BOOTH-- VISITING AREA	OVERALL CLEANLINESS	
NUMBER OF DETAINEE ENTER/EXITS	VIEW FROM BOOTH-- SHOWERS	OVERALL NOISE	
SECURITY PROCEDURE AT ENTRANCES	PROXIMITY TO BOOTH-- SHOWERS	OVERALL SMELL	
NUMBER OF OFFICERS ON DUTY	VIEW FROM BOOTH-- DAYROOM	OVERALL LIGHTING	
NUMBER OF OTHER STAFF ON DUTY IN UNIT	PROXIMITY TO BOOTH-- DAYROOM	NATURAL OR ARTIFICIAL LIGHT?	
METHOD OF SUPERVISION	VIEW FROM BOOTH-- CELLS	LOWEST LIGHT MEASUREMENT	
PHYSICAL ENVIRONMENT - ENTIRE UNIT	PROXIMITY TO BOOTH-- CELLS	WHO CONTROLS LIGHTING?	
LITTER	VIEW INTO BOOTH-- FROM UNIT	FIXED FURNITURE	
GRAFFITI	OFFICER BOOTH NOTES	MOVEABLE FURNITURE	
EVIDENCE OF DETERIORATION	DAYROOM	AMENITIES	
ANY CONSTRUCTION/ MAINTENANCE ON UNIT?	PROCEDURES FOR DAYROOM USE	SUICIDE-RESISTANT FURNISHINGS?	
PHYSICAL ENVIRONMENT NOTES	DAYROOM USED FOR EATING?	BREAK-AWAY HOOKS?	
SECURITY FEATURES	WALL COLORS	MESH GRATING ON SPRINKLERS?	
CCTV	CEILING HEIGHT	CELL NOTES	
NUMBER AND LOCATION OF CAMERAS	OVERALL CLEANLINESS	VISITING AREA	
NUMBER AND LOCATION OF VISIBLE CAMERAS	OVERALL NOISE	CONTACT OR NONCONTACT	
PANIC BUTTONS, INTERCOMS, OR PHONES?	OVERALL SMELL	METHOD OF ACCESS	
MIRRORS?	OVERALL LIGHTING	SIZE OF SPEAKING GRATE	
OTHER?	NATURAL OR ARTIFICIAL LIGHT?	PAPER PASS?	
SECURITY NOTES	LOWEST LIGHT MEASUREMENT	VISITORS SEARCHED BEFORE/AFTER?	
UNIT SURROUNDINGS	ANY DARK CORNERS OR BLIND SPOTS?	DETAINEES SEARCHED BEFORE/AFTER?	
OTHER UNITS ON FLOOR?	AMENITIES	ROOM SWEEP AFTER CONTACT VISITS?	
COMMON AREAS ON FLOOR?	FURNITURE FIXED OR MOVEABLE?	OVERALL LIGHTING	
PROXIMITY OF UNIT TO ELEVATOR(S)/STAIRS	OTHER OBJECTS/ CLUTTER IN DAYROOM?	ANY DARK CORNERS OR BLIND SPOTS?	
VIEW OF UNIT FROM OUTSIDE CORRIDOR	DAYROOM NOTES	VISITING AREA NOTES	
VIEW OF UNIT FROM OTHER OUTSIDE AREAS	SHOWER AREA		
WIDTH OF OUTSIDE CORRIDOR	SHOWERING PROCEDURE		
	NUMBER OF SHOWERS (ratio showers:inmates)		
CREATE DIAGRAM OF UNIT	HEIGHT OF MODESTY WALL		
	OVERALL CLEANLINESS		
	OVERALL LIGHTING (dark corners/blind spots?)		
	SHOWER NOTES		

AREA (common area, unit, cell, hall, elevator, etc.):						
AREA DETAILS				SURVEILLANCE		ACCESS CONTROL
OBSERVER INITIALS				METHOD OF SUPERVISION		WHEN ARE DOORS LOCKED?
DATE				VIEW FROM AREA TO ENTRANCE/EXIT		DOOR- DESCRIPTION
TIME				VIEW FROM AREA TO EXTERNAL AREAS		DOOR- SIZE
GENERAL INFORMATION				VIEW INTO AREA FROM OTHER AREAS		DOOR-- SIZE OF WINDOW
PURPOSE				VIEW INTO AREA FROM OFFICER BOOTH		DOOR-- BARS ON WINDOW?
SECURITY LEVEL				NUMBER AND LOCATION OF CAMERAS		DOOR- PLEXIGLASS COVERING WINDOW?
NUMBER OF LEVELS				NUMBER AND LOCATION OF VISIBLE CAMERAS		WINDOW TO OUTSIDE- DESCRIPTION
MAX CAPACITY				PANIC BUTTONS, INTERCOMS, OR PHONES?		WINDOW TO OUTSIDE- SIZE
CURRENT UTILIZATION				MIRRORS OR OTHER?		WINDOW TO OUTSIDE- BARS?
DIMENSIONS				ANY OBSTRUCTIONS TO SURVEILLANCE??		WINDOW TO OUTSIDE- GLASS/PLEXIGLASS?
CEILING HEIGHT				SURVEILLANCE NOTES		ACCESS CONTROL NOTES
METHOD OF MOVEMENT TO/FROM AREA				<b>FIXTURES</b>		<b>CORRIDORS/STAIRWELLS/ELEVATORS</b>
NUMBER OF OFFICERS/STAFF ON DUTY				MOVABLE FIXTURES/FURNITURE		STAIRS PERMIT SURVEILLANCE FROM OUTSIDE
SECURITY PROCEDURE AT ENTRANCE				TOILET		STAIRS PERMIT SURVEILLANCE FROM WITHIN
SEARCH/SWEEP PROCEDURES OF AREA				SINK		STAIRWELL LIGHTING
GENERAL NOTES				VENTS		STAIRWELL MOVEMENT PROCEDURES
PHYSICAL ENVIRONMENT				LIGHT FIXTURES		HALLS PERMIT SURVEILLANCE FROM OUTSIDE
WALL COLORS				SHELVES/ STORAGE		HALLS PERMIT SURVEILLANCE FROM WITHIN
OVERALL CLEANLINESS				BEDS/ BUNKS		CORRIDOR LIGHTING
OVERALL NOISE				SMALL MATERIALS/SUPPLIES		CORRIDOR MOVEMENT PROCEDURES
OVERALL SMELL				OTHER?		ELEVATORS PERMIT SURVEILLANCE FROM OUTSIDE
OVERALL LIGHTING				AMENITIES		ELEVATORS PERMIT SURVEILLANCE FROM WITHIN
NATURAL OR ARTIFICIAL LIGHT				FIXTURE NOTES		ELEVATOR LIGHTING
LOWEST LIGHT MEASUREMENT				<b>FACILITATORS</b>		ELEVATOR MOVEMENT PROCEDURES
ANY DARK CORNERS?				OBJECTS THAT COULD BE CONTRABAND/ WEAPONS		
LITTER				NUMBER OF POSSIBLE HANGING POINTS		
GRAFFITI				LOCATIONS FOR HIDING WEAPONS/ CONTRABAND		<b>INCLUDE DIAGRAM</b>
EVIDENCE OF DETERIORATION				ELECTRICAL OUTLETS		
CONSTRUCTION/MAINTENANCE				NOTES ON FACILITATORS		
PHYSICAL ENVIRONMENT NOTES						
ROOM SURROUNDINGS						
ANY HOUSING UNITS ON FLOOR?						
OTHER COMMON AREAS ON FLOOR?						
PROXIMITY OF ROOM TO ELEVATOR(S)						
PROXIMITY OF ROOM TO STAIR(S)						
VIEW OF ROOM FROM OUTSIDE CORRIDOR						
VIEW OF ROOM FROM OTHER OUTSIDE LOCATION						

## APPENDIX C: INITIAL STAFF INTERVIEW PROTOCOL

## **Jail Safety Study Management Staff Interview Protocol**

### **INTRODUCTION**

I've already provided an overview of the topics we'll be discussing today, but before we start, let me just walk you through the structure of the interview.

I'm going to start with some questions about your background and the work you do here at the jail. Then I'll ask a few questions about inmate suicide and self-harm, followed by some questions about physical violence in the facility – fights, assaults and so forth. Then I'd like to ask some questions about sexual assault in the facility. And to wrap up, I'll be asking about how staff respond to all of these kinds of incidents, and what suggestions you have for making the facility safer. So, the interview should probably last about 30 to 45 minutes.

### **BACKGROUND**

Let's start by talking about your background in corrections and the work you do here in the jail.

**1. How long have you worked in corrections?**

in this jail system?  
in this facility?

**2. Tell me about the work you do now. / Describe a typical day for me.**

What shift do you usually work?  
Where in the facility do you spend most of your day?

**3. What types of inmate populations do you house here?**

(women, younger inmates, mental health, administrative confinement, protective custody, sentenced vs. pre-trial etc.)

What portion of the overall population are these special populations?

## **SUICIDE AND SELF-HARM**

I want to start with some questions about suicide, suicide attempts and self-harm. Self-harm means anytime an inmate purposefully hurts or tries to hurt himself or herself. Examples of this might be an inmate cutting himself or swallowing a sharp object.

**4. I know that suicide attempts and self-harm incidents occur more frequently here than completed suicides. Have there been any completed suicides in the past 2-3 years that you know of?**

**5. How do these incidents (suicides or attempts or self-harm) typically occur? What are the circumstances?**

Methods, how do they do it

Where

When

Privacy

**6. How does an inmate get the [object, tools] to harm himself?**

Hanging points

**7. Are there certain kinds of inmates that are more likely to try to hurt themselves?**

**8. Are there certain times during an inmate's stay when they are more likely to try to hurt themselves?**

Are there situations that set off these incidents? (personal or legal crisis, new admission, etc.)

**9. How do staff respond when an inmate attempts to kill or hurt himself, or threatens to do so?**

Does the inmate receive mental health care?

Is the inmate moved (to p.c. for example)?

**10. There haven't been many successful suicide attempts here in the last couple of years. Why do you think that is?**

Do you think there are things you all are doing here that are helping prevent or intervene in these situations?

## **PHYSICAL VIOLENCE**

Now I want to ask you about incidents of physical violence in this facility. This could include things like fights, stabbings, beatings, and other assaults that happen among inmates.

**11. What kind of incidents of physical violence do you see here? And how often do they happen?**

**Can you describe a typical fight?**

**How many inmates do incidents usually involve** – one-on-one, several inmates attacking one inmate, etc.?

**More common with certain groups or certain kinds of inmates?**  
(security levels, age, gang, administrative confinement, gender)

**12. I'd like to get a sense of the situations where violence between inmates is likely to occur. In your experience, where and when are fights and assaults likely to occur in this facility?**

certain times of day or activities

places – where in the building and where within the dorms?

occur in view of officer, or out of sight?

**14. What about more serious incidents, such as stabbings or other attacks where an inmate is seriously injured?**

**15. How often do incidents involve weapons?**

What kinds of weapons?

**16. What are the most common causes of fights and assaults among inmates?**

Television or telephones? commissary? contraband (drugs, cigarettes)?

Gang-related?

Are fights between inmates who know each other?

**17. Would you say that you have a gang problem in this facility? If so, how do you handle the gang presence?**

I'd like to ask you some questions about the role for staff in preventing and responding to physical violence.

**18. How do staff usually find out about physical violence? (see it, hear it, hear about it after the fact?)**

Within the dorms, are there blind spots in the common areas where officers can't see what's happening?

**19. What types of incidents require a formal response?**

What signals or warning signs require a response? (injury, hear about something secondhand, etc.)

**20. And what would that response typically be?**

How often is force used to respond?

After an incident, how do you sort through which inmates were involved?

**21. Now I'd like you to tell me about contraband and weapons here.**

**What types of contraband to you all find?**

**How do inmates obtain weapons and contraband? Is it easy to get?**

**Where do they hide it?**

**How often do shakedowns occur?**

## **SEXUAL ASSAULT**

We've talked about physical violence, now I want to shift gears and talk about sexual assault and sexual violence.

The next series of questions are going to be about sexual assault, meaning any kind of unwanted sexual contact between inmates. Sexual assault can include unwanted touching, sex acts that are coerced, and sex that is forced by violence or by threats.

There might also be a lot of grey areas. There is consensual sex, but there are also things like inmates trading sex for protection or for contraband.

So we want to focus on sexual assault but we understand potentially there's a wide range of things that could be happening and also that people's definitions of sexual assault may vary.

I want to start with some questions about incidents of sexual assault that have happened during your time here, especially the last few years. Let's talk first about the circumstances surrounding these incidents.

**22. When and where are they happening?**

In private? In isolated areas?

Blind spots

Certain times of day or activities

**23. Are these incidents forced or are they coerced?**

[If forced] Are they forced through violence? By threats?

Are weapons involved?

**24. For those kinds of incidents you just described:**  
Is it one inmate attacking another, or multiple inmates attacking one?  
Do the inmates know each other?  
Is it a one-time thing or an ongoing pattern of assaults?

**26. What type of inmate is likely to be a victim?**  
Are there warning signs you look for?

**27. Now, what about other kinds of incidents that might be in that grey area or might be consensual, for example, if someone is pressured or manipulated. What can you tell me about those?**  
Do the circumstances differ from the sexual assaults you described?

**28. Are there incidents of staff sexually assaulting inmates or having inappropriate relationships with inmates?**  
What can you tell me about those?  
What staff members – officers, civilian?

Now I want to talk about how staff here respond to sexual assault.

**29. How do staff find out when a sexual assault occurs?**  
Is it reported by victim? by other inmates?  
In cases where it's not reported, are there signs that alert staff that an inmate was victimized? What are they?

**30. What types of incidents (sexual assault or consensual/grey areas) typically get a formal response?**  
What signals or warning signs would cause staff to take some kind of action?

**31. And what would that response be?**



## **REPORTING, RESPONSE AND PREVENTION**

We've talked about incidents of suicide and self-harm, physical violence, and sexual assault and other types of sexual activity. I want to close by asking you about how staff respond to these kinds of incidents and what changes you'd recommend to reduce violence here.

**32. We discussed how incidents might come to the attention of staff and what the immediate staff response would be. Can you provide more detail on what would happen for different types of incidents after a report is filed?**

What follow-up occurs?

How does it move through the chain of command?

Medical response, legal response, disciplinary response

**For physical violence**

**For self-harm or suicide attempts**

**For sexual assault**

**33. Tell me about the camera system.**

Where are the cameras located? Are inmates aware of them?

What can they capture? Who monitors them?

**Do you think the cameras reduce violence here?**

**34. In the past few years, have you or other administrators made any changes designed to reduce violence here (in this facility or system-wide)?**

What and when?

What was the effect?

**35. What changes would you like to see that could reduce violence here?**

Policy and procedures

Physical environment

Technology

**36. Are there things that staff could be doing differently to reduce violence?**

Officers or civilian staff

Are there any situations where staff might intentionally or inadvertently contribute to violence or create opportunities for violence? (e.g., by being antagonistic, aggressive, or not maintaining control)

**Thank you.**

## APPENDIX D: IMPLEMENTATION STAFF INTERVIEW PROTOCOL

## **STAFF IMPLEMENTATION INTERVIEWS**

I'd like to begin by telling you a little bit about our study. We have been working with this jail since 2006 to study violence and safety at the jail. We started out the project by collecting information through jail observations, incident reports, and interviews with staff and inmates. We used this information to identify some of the main safety concerns at this jail and then made a number of recommendations to the leadership here about how safety might be improved. They then selected one intervention from these recommendations to implement in the jail and we are now studying whether or not the intervention they chose has had any effect on safety here. The intervention they chose was the officer rounds system or pipes or guard system- people call it different things. How do you like to refer to it? **[use this language in the interview]**

As part of this study, we are talking with some of the staff here to learn about their impressions of the system and whether or not they like it. You have been randomly chosen to be interviewed for this. There are a couple of things I want to let you know before we get started. The interview should only take about 15-20 minutes. The interview is voluntary and your responses will be kept confidential. No one else will see the notes from this meeting, and we will talk about staff opinions as a whole. We will NOT report names or say what specific people said in the report. If we decided at some point that we wanted to use a particular quote from you, we would contact you to get your permission to do so. However, we don't expect to be including any specific quotes in the report. The only exception to our confidentiality rule is that we are required to report if you tell us that you are planning to hurt someone or that a child is being abused. We are required by law to report that. However, we don't ask any questions about those things, so it shouldn't come up. Do you have any questions about this? Are you willing to talk with us about the [officer tour system/guard system/pipes]?

- 1. How long have you worked at this facility?**
- 2. Is there a particular area you work in/supervise?**
- 3. How did officers respond to the officer tour system? What were their opinions on it?**
- 4. In general, how often was data reviewed from the officer tour system? How did this compare from what was set out at the start or what was stated in policies?**
- 5. Was any training given on the use of the officer tour system?**
- 6. What impacts has the officer tour system had on the correctional officers within the facility?**
  - a. How has it changed their attitudes?**
  - b. How has it changed their behavior?**

7. What impact has the officer tour system had on inmates? (relationships with officers, safety, etc.)
8. What impact has the officer tour system had on management? (new procedures, ability to relationships with officers, etc.) [ask management only]
9. What impact has the officer tour system had on the facility as a whole? (management, safety, etc.)
10. Do you feel the officer tour system was helpful?
11. Are there any concrete examples of how the officer tour system has had a positive effect?
12. Have you been able to successfully use the officer tour system in the investigation of any (a) violent incidents, (b) sexual incidents, or (c) self-harming incidents?
13. How is feedback provided to staff regarding their rounds?
14. Have the officer tour system been used successfully in investigations of staff behavior or for disciplinary or training purposes? How so? What were the outcomes of these investigations?
15. Have there been any negative effects of the officer tour system? (on officers, inmates, facility)
16. Was there anything about the officer tour system you did not like?
17. What challenges were there in implementing this intervention?
  - a. Installation and set-up
  - b. Vandalism
  - c. Maintenance
  - d. Following review or other procedures; Staff using system correctly
18. If you were to do it all over again, is there anything you would do differently?
19. What are your plans moving forward with the officer tour system? (keeping system? Altering system? Expanding?) [ask management only]

## APPENDIX E: INMATE INTERVIEW PROTOCOL

## **INMATE INTERVIEW PROTOCOL (VERSION 2 – SUBSTANCE ABUSE)**

I've already provided an overview of the topics we'll be discussing today, but before we start, let me just walk you through the structure of the interview.

I'm going to start with some questions about your background. Then I'll ask a few questions about conditions here at the jail, including things like the condition of the facility and how safe it is here. Then I'll ask specific questions about ways that the jail may be unsafe. These will include questions about physical violence, and about sexual assault. In addition to discussing situations where someone may be hurt by another inmate, we'll also discuss situations where an inmate may try to hurt themselves. Then I'd like to ask some questions about services provided here at this jail like medical and mental health, and programs and classes here. I'd like your opinion about all of these things, and would like to hear your ideas for making the facility safer, for providing better services, and for improving living conditions here.

Before we begin, I want to remind you that in this interview we want to focus on your impressions of the conditions here in general. We don't want to discuss any of your personal experiences. For example, we'll get into some issues of violence here at the jail. Please keep in mind that I do not want you to discuss details of any specific event, especially one that you may have been involved in.

### **I. Background/Icebreaker**

**Now I'll start with some questions about your background.**

1. How old are you?
2. What race do you identify yourself as?
3. Do you identify yourself as Hispanic?
4. How long have you been in this jail?
5. What dorm are you in now?
6. Have you lived in other dorms?
7. How many times had you served time in prison or jail before you came here? (include both state and county terms, do not include juvenile detention)
8. How many times have you served time in a [insert city name] City or County Facility before?
9. How many times have you been incarcerated before at this jail?
10. What is the main offense you are currently serving time for or awaiting trial for?

## II. General Conditions

**Now I'm going to ask you some questions about conditions here at this jail. [interviewer note: get a brief, yes/no answer and move on]**

11. Would you say that the jail is in good physical condition? *(if necessary: the facility is well-maintained, things seem to be in good working order, not run-down)*
12. Is overcrowding a problem here? Has triple-bunking had an effect on life in the jail?
13. What about violence? ...on a scale of 1 to 5, 1 being very safe and 5 being very unsafe...how safe do you think most inmates feel here?
14. What about you personally... on a scale of 1 to 5, 1 being very safe and 5 being very unsafe...how safe do you feel here?
15. Are there certain times or places when you feel less safe, or when you watch your back more carefully?
16. Would you say that this jail is more or less safe than other jails or prisons you've been in?

## III. Physical / Sexual Violence

**Now I'm going to ask you some specific questions about safety here. I want to talk about specific types of violence, how the staff at this jail respond to violence, and what they could do to prevent it. I want to remind you that this is a general discussion about violence here at this jail. Please do not discuss any specific incidents or things that may have happened to you personally.**

**Let's talk about a couple of different types of violence that might happen in a jail....**

17. First I want to know about physical assault. This could mean a fight that breaks out, or if someone is attacked or beaten. What are the most common causes of fights and assaults here?
  - Television or telephones?
  - Commisary?
  - Contraband?
  - Gambling?
  - Gang-related?
  - [for women]* Relationship problems?

18. When fights or assaults do happen here, when and where are they likely to happen?

Are there places where it is most likely to happen?

Is there a particular time of day, or activity?

Do the inmates usually know each other?

Is it one-on-one, or does it involve a group?

Are there inmates who are more likely to be attacked or beaten up?

19. How much violence here is gang-related?

*[If any, ask the following probes...]*

What percent of violence here is gang-related?

What percent of inmates is gang affiliated?

What about those who are non-affiliated? Are they more or less vulnerable?

20. What about weapons? Are there a lot of weapons on the tiers?

What types of weapons?

How often are there shakedowns on your tier?

Do you know when there's going to be a shakedown?

Does it have an effect on the number of weapons inmates keep?

How much of the weapons do staff find in a typical shakedown? Does it vary?

**The second type of violence I want to know about is sexual assault. Again, I don't want you to discuss any specific incidents. I'd like to get a general sense of the things that happen here, and the circumstances.**

**When I say sexual assault, I am talking about someone being forced to have any kind of sexual contact against his or her will. It could also include sexual activity that is coerced—where someone is threatened or pressured into having sex when he really doesn't want to, or has sex in exchange for protection.**

21. Do you think that sexual assault happens here?

Are there places where it is most likely to happen?

Is there a particular time of day, or activity?

Do the inmates usually know each other?

Is it a one-time occurrence, or is it ongoing?

Are there inmates who are more likely to be victims of sexual assault?



22. I want to understand better how things are happening inside cells. If someone is assaulted inside a cell, is it usually the cellmate or someone else?  
If you're afraid of your cellmate, is there anything you can do?  
How do inmates lock-up with someone who isn't their cellmate?  
How do the staff know if inmates are in the right cell?  
Can inmates ask to switch cells? How do they do that?  
Are there other ways that an inmate can arrange to be alone with another inmate?
23. What about sexual relations between staff and inmates. Do you think that happens here?  
Do they fit the definition of sexual assault that I described before?  
How do staff arrange to be alone with an inmate?  
Is it usually a one-time occurrence, or is it ongoing?  
Are there inmates who are more likely to be victimized by staff?
24. Now, I want to ask you about reporting. Let's say that someone is hurt by another inmate.  
How does the staff here usually find out?  
Is the inmate who was hurt likely to report it?  
How likely is another inmate to report it?
25. After it's reported, what usually happens then?
26. Of all the things we just talked about, what is the thing that contributes the most to violence here in this jail?  
Gangs?  
Gambling?  
Contraband?  
Staff supervision?  
Opportunities?

#### IV. Health Services / Suicide and Self-Harm

**Now I want to talk about some of the services that are provided here at this jail.**

27. I'd like to start with health care. If inmates are sick, is it easy for them to see a nurse or doctor?  
What is the process for getting seen by medical staff?
28. Is the jail good at getting inmates the medications they need?
29. What about mental health? If an inmate is depressed or is having mental health problems, is it easy for them to get counseling?  
What is the process for getting seen by mental health? (i.e., getting a "Psych eval")
30. What about inmates trying to hurt themselves or commit suicide? Does that ever happen here?
31. If someone was going to try to hurt [himself/herself] or commit suicide, how easy is it do that here?  
Where would [he/she] be likely to do it?  
Is there a time of day that [he/she] might try to do it?  
Does [he/she] need to be alone?  
What kind of thing could someone use to hurt [himself/herself]?  
How would [he/she] get these things?
32. What about [his/her] cellmate? Would [he/she] need to make it so [his/her] cellmate wouldn't stop [him/her]?  
When someone tries to hurt [himself/herself] or commit suicide, where is the cellmate?  
Do cellmates know what is going on?  
What about other inmates on the tier? What do they do?
33. How does the staff here respond when someone tries to hurt [himself/herself] or commit suicide?  
What if someone just *threatens* to hurt [himself/herself] or commit suicide?
34. Is there anything that could be changed about the way the jail is run, or about the environment, that would make inmates less likely to attempt suicide here?

## **V. Substance Abuse**

**For the last set of questions, I want to ask about drug and alcohol use here at the jail, and about substance abuse programs provided here at this jail.**

35. Are there a lot of inmates here who were addicted to drugs or alcohol when they were arrested and brought to this jail?

36. Are there inmates who are still using drugs while they are in this jail?  
What kinds of drugs are common here?  
Do people abuse prescription drugs?

37. Are inmates in this jail ever tested for drugs while they are here?

38. Does the jail provide any kind of treatment for people who have had trouble with substance abuse in the past?

39. What could the jail do to help inmates who have substance abuse problems?

**Thank you very much. Now there's one more thing I want to discuss before I let you go.**

[refer to Request For Assistance form]

**This is a Request for Assistance Form. Because some of the things we talked about today are sensitive and may be upsetting, we want to give you an opportunity to talk to someone if you need to. I'll ask you to fill in your ID number and housing unit. If you would like to talk to a counselor in Mental Health Services, check the box that says "YES, I want to talk to someone from Mental Health Services." If you don't, check the box that says "NO, I do not want to talk to someone from Mental Health Services."**

**If you check YES, we will deliver the form directly to the Director of Mental Health Services, and they will make an appointment for you. If you check NO, I will keep the form and we'll destroy it once the study is finished.**

[Read form and have respondent sign]

## APPENDIX F: INMATE SURVEY

## URBAN INSTITUTE JAIL SAFETY SURVEY

Thank you for taking the time to complete this survey. Your participation is voluntary. You can take as much time as you need to answer the questions.

Your survey answers will be kept private. The survey will not ask for any information that can identify you. Please do not write your name or inmate number or anyone else's name on the survey.

Let's start with some basic questions about you.

1. How old are you?

\_\_\_\_\_ years old

---

2. Are you...

- ☐ Male  
☐ Female
- 

3. Are you Hispanic or Latino/Latina?

- ☐ Yes  
☐ No
- 

4. What is your race?

- ☐ Asian  
☐ African American or Black  
☐ American Indian or Alaska Native  
☐ White  
☐ Other race: \_\_\_\_\_  
☐ Biracial or Multiracial: \_\_\_\_\_
-

5. Are you...

- ☐ Straight/Heterosexual
  - ☐ Gay/Homosexual
  - ☐ Bisexual
  - ☐ Transsexual/Transgender
  - ☐ I choose not to answer
- 

The next questions ask about your criminal history and your current jail stay.

6. How many times have you been convicted in a court of law as an adult?

\_\_\_\_\_ times

---

7. Is this your first time in PICC ?

- ☐ Yes
  - ☐ No
- 

8. Have you ever served time in any **other** jails besides PICC?

- ☐ Yes
  - ☐ No
- 

9. How long have you been in jail for **this term**?

\_\_\_\_\_ years    \_\_\_\_\_ months

---

10. Have you been sentenced or are you waiting for your trial?

- ☐ Sentenced
  - ☐ Awaiting trial
  - ☐ Other: \_\_\_\_\_
-

11. What is your main offense for this jail term? Please read all of the options before choosing. Mark only one box.

- ☐ Homicide
  - ☐ Rape
  - ☐ Robbery
  - ☐ Assault
  - ☐ Burglary
  - ☐ Theft
  - ☐ Car theft
  - ☐ Fraud or forgery
  - ☐ Weapons offense
  - ☐ Other sex offense (not Rape)
  - ☐ Drug dealing
  - ☐ Drug possession
  - ☐ DWI or DUI
  - ☐ Other: \_\_\_\_\_
- 

12. What is your current security level?

- ☐ Medium
  - ☐ Close Custody
  - ☐ Don't know
- 

13. What unit do you live in?

- ☐ A
  - ☐ B
  - ☐ C
  - ☐ D
  - ☐ E
  - ☐ F1
  - ☐ G1
  - ☐ H1
  - ☐ F2
  - ☐ G2
  - ☐ H2
  - ☐ J
  - ☐ K
-

The next questions ask about drug use in this jail.

14. How many inmates in this jail used drugs before they were arrested?

- ☐ Most inmates
  - ☐ Some inmates
  - ☐ Just a few inmates
  - ☐ None
- 

15. How many inmates in this jail use drugs now?

- ☐ Most inmates
  - ☐ Some inmates
  - ☐ Just a few inmates
  - ☐ None
- 

16. In this jail, how easy is it to get drugs?

- ☐ Very easy
  - ☐ Easy
  - ☐ Hard
  - ☐ Very hard
-



The next questions ask about safety in this jail.

17. In this jail, how likely is it that a fight will break out or an inmate will be attacked?

- ☐ Very likely
  - ☐ Likely
  - ☐ Unlikely
  - ☐ Very unlikely
- 

For each place listed, please mark how likely it would be for a fight to break out or an inmate to be attacked in that place.

How likely is it that a fight would break out or an inmate would be attacked in...	Very Likely	Likely	Unlikely	Very Unlikely
18. a cell	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. the day room	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. the shower	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21. the rec yard	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22. the tiers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23. a classroom or library	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24. Is there another place an inmate is likely to get hurt? Where? _____				
In this place, how likely is it that a fight would break out or an inmate would be attacked?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

25. Where in the jail is it **most** likely that a fight will break out or an inmate will be attacked?

---

---

26. If an inmate was attacked or was in a fight, how likely is it that staff would find out?

- ☐ Very likely
- ☐ Likely
- ☐ Unlikely
- ☐ Very unlikely

---

The next questions ask about sexual contact in PICC. Remember, your answers will be kept private.

27. In this jail, how likely is it that an inmate would force another inmate to have sex?

- ☐ Very likely
  - ☐ Likely
  - ☐ Unlikely
  - ☐ Very unlikely
- 

28. In this jail, how likely is it that an inmate would have sex with another inmate in exchange for something (food, money, protection, etc.)?

- ☐ Very likely
  - ☐ Likely
  - ☐ Unlikely
  - ☐ Very unlikely
- 

29. In this jail, how likely is it that an inmate would **choose** to have sex with another inmate?

- ☐ Very likely
  - ☐ Likely
  - ☐ Unlikely
  - ☐ Very unlikely
-

For each place listed, please mark how likely it would be for an inmate to **force** another inmate to have unwanted sex in that place.

How likely is it that an inmate would force another inmate to have sex in...	Very Likely	Likely	Unlikely	Very Unlikely
30. a cell	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
31. the day room	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
32. the shower	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
33. the rec yard	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
34. the tiers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
35. closets	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
36. Is there another place an inmate is likely to force another inmate to have unwanted sex? Where?  _____				
In this place, how likely is it that an inmate would be forced to have sex?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

37. Where in the jail is it **most** likely that an inmate will force another inmate to have sex?

---



---

38. If an inmate forced another inmate to have sex, how likely is it that staff would find out?

- ☐ Very likely
- ☐ Likely
- ☐ Unlikely
- ☐ Very unlikely

---

For each place listed, please mark how likely it would be for an inmate to **choose** to have sex with another inmate in that place.

How likely is it that an inmate would choose to have sex with another inmate in...	Very Likely	Likely	Unlikely	Very Unlikely
39. a cell	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
40. the day room	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
41. the shower	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
42. the rec yard	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
43. the tiers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
44. closets	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
45. Is there another place an inmate is likely to choose to have sex with another inmate? Where?  _____				
In this place, how likely is it that an inmate would choose to have sex with another inmate?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

46. Where in the jail is it **most** likely that two inmates will choose to have sex?

---



---

47. If two inmates were choosing to have sex, how likely is it that staff would find out?

- ☐ Very likely
- ☐ Likely
- ☐ Unlikely
- ☐ Very unlikely

---

48. How likely is it that an inmate would have sexual contact with a correctional officer or staff person?

- ☐ Very likely
  - ☐ Likely
  - ☐ Unlikely
  - ☐ Very unlikely
- 

49. Where in the jail is it **most** likely that an inmate and officer or staff person would have sexual contact?

---

---

50. In this jail, how many inmates have weapons?

- ☐ Most inmates
  - ☐ Some inmates
  - ☐ Just a few inmates
  - ☐ None
- 

51. In this jail, how easy is it to get a weapon?

- ☐ Very easy
  - ☐ Easy
  - ☐ Hard
  - ☐ Very hard
- 

52. In this jail, how easy is it for an inmate to get privacy to do things he doesn't want others to find out about?

- ☐ Very easy
  - ☐ Easy
  - ☐ Hard
  - ☐ Very hard
-

The next questions ask about times you may have been hurt by another inmate in this jail.

53. In the last **30 days**, how many times has an inmate hurt you or tried to hurt you?

\_\_\_\_\_ times

---

Thinking about the **most recent** time you were hurt by another inmate in this jail in the last 30 days...

54. Where were you?

- ☐ Cell
  - ☐ Day room
  - ☐ Showers
  - ☐ Recreation yard
  - ☐ Library or classroom
  - ☐ Stairwell
  - ☐ Corridor
  - ☐ On the tier
  - ☐ In a closet
  - ☐ Other: \_\_\_\_\_
  - ☐ No one has tried to hurt me in the last 30 days
- 

55. What time of day was it?

- ☐ 7 AM - 3 PM
  - ☐ 3 PM - 11 PM
  - ☐ 11 PM - 7 AM
  - ☐ No one has tried to hurt me in the last 30 days
- 

56. Were weapons involved?

- ☐ Yes
  - ☐ No
  - ☐ No one has tried to hurt me in the last 30 days
- 

57. In the last **30 days**, were you **threatened** by another inmate, whether or not they actually hurt you?

- ☐ Yes
  - ☐ No
-

The next questions ask about times you may have been in a fight in this jail.

58. In the last **30 days**, how many times have you been in a fight?

\_\_\_\_\_ times

---

Thinking about the **most recent** time you were in a fight in this jail in the last 30 days...

59. Where were you?

- ☐ Cell
- ☐ Day room
- ☐ Showers
- ☐ Recreation yard
- ☐ Library or classroom
- ☐ Stairwell
- ☐ Corridor
- ☐ On the tier
- ☐ In a closet
- ☐ Other: \_\_\_\_\_

☐ I have not been in a fight in the last 30 days

---

60. What time of day was it?

- ☐ 7 AM - 3 PM
  - ☐ 3 PM - 11 PM
  - ☐ 11 PM - 7 AM
  - ☐ I have not been in a fight in the last 30 days
- 

61. What was the main cause of the fight? Check only one.

- ☐ Gambling
- ☐ Stealing belongings
- ☐ Gangs
- ☐ Street issues
- ☐ Telephone
- ☐ T.V.
- ☐ Disrespect
- ☐ Other: \_\_\_\_\_

☐ I have not been in a fight in the last 30 days

---



62. How many inmates in this jail are in gangs?

- ☐ Most inmates
  - ☐ Some inmates
  - ☐ Just a few inmates
  - ☐ None
- 

63. Do you belong to a gang?

- ☐ Yes
  - ☐ No
-

The next questions ask about inmate health in the jail.

64. How easy is it for inmates to get the medications they need in this jail?

- ☐ Very easy
  - ☐ Easy
  - ☐ Hard
  - ☐ Very hard
- 

65. How easy is it for an inmate to get counseling or mental healthcare in this jail?

- ☐ Very easy
  - ☐ Easy
  - ☐ Hard
  - ☐ Very hard
- 

66. Have YOU ever had problems getting the medications or mental healthcare you needed in this jail?

- ☐ Yes
  - ☐ No
  - ☐ I have not needed medications or mental healthcare
- 

67. In this jail, how likely is it for an inmate to hurt himself or try to commit suicide?

- ☐ Very likely
  - ☐ Likely
  - ☐ Unlikely
  - ☐ Very unlikely
- 

68. In the last **30 days**, have you tried to hurt yourself or commit suicide?

- ☐ Yes
  - ☐ No
- 

69. If yes, how did you try to hurt yourself?

---

---

70. If an inmate hurt himself or tried to commit suicide, how likely is it that staff would find out?

- ☐ Very likely
  - ☐ Likely
  - ☐ Unlikely
  - ☐ Very unlikely
- 

The next questions ask about other safety issues in PICC.

71. How many cameras are in your housing unit? \_\_\_\_\_

---

72. Do these cameras record?

- ☐ Yes
  - ☐ No
  - ☐ I don't know
- 

73. The cameras in the housing units make the jail more safe.

- ☐ Strongly agree
  - ☐ Agree
  - ☐ Disagree
  - ☐ Strongly disagree
- 

74. When there are cameras, violence is:

- ☐ Much more likely to occur
  - ☐ More likely to occur
  - ☐ Less likely to occur
  - ☐ Much less likely to occur
- 

75. Cameras make investigations fair.

- ☐ Strongly agree
  - ☐ Agree
  - ☐ Disagree
  - ☐ Strongly disagree
-

76. Cameras can help verify inmates' concerns about staff.

- ☐ Strongly agree
  - ☐ Agree
  - ☐ Disagree
  - ☐ Strongly disagree
- 

77. How comfortable would you be reporting a sexual assault to an officer?

- ☐ Very comfortable
  - ☐ Comfortable
  - ☐ Uncomfortable
  - ☐ Very uncomfortable
- 

78. If you said you would not feel comfortable reporting a sexual assault, why not?

---

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Now we are interested in knowing how YOU think the jail could be made safer.

79. What do you think is the most important thing that could make the jail safer?

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**This is the end of the survey. Thank you for your time.**

**B**

## APPENDIX G: OFFICER SURVEY

## Urban Institute Training Evaluation

The purpose of this survey is to gain information about the training you just completed. Researchers from the Urban Institute, a non-profit research organization, will be analyzing the survey results to understand the impact of the training on the work of you and your fellow officers. In addition to this survey, you may be asked to complete a similar survey again in four months.

Participation in the survey is completely voluntary and will only take about 15 minutes. The survey does not ask for your name or any other identifying information, so your responses will be anonymous. Individual surveys will never be shared with Cook County DOC staff or management and all findings will be reported in the aggregate.

Any questions about the survey can be directed to:  
Nancy La Vigne, The Urban Institute, 2100 M Street NW, Washington, DC 20010.

Thank you for your participation. Please answer all questions to the best of your ability.

### Your Background

Age:

Gender:

How long have you been a correctional officer?

How long have you been working in Division X?

Current rank (Officer, Sergeant, etc.):

Current assignment (housing unit, program areas, etc.):

## Violence, Detainee Aggression, and Crisis Response

Please indicate whether you agree or disagree with the following statements.

	Strongly Agree	Agree	Not sure/ Neutral	Disagree	Strongly Disagree
When a person is in a state of anxiety or anger, he is less able to understand what people are saying to him than in his normal state.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If an officer responds poorly to a crisis situation, it can make the situation worse.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Being injured occasionally is just part of life as a detainee.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It is better to let gang members handle their disputes following their own rules and system of punishments than to intervene.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
All detainee requests for protective custody should be taken seriously.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If a detainee is being physically aggressive, officers need to respond with physical force.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
When handling a crisis situation, my personal safety should always be secured before taking other action.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Body language can be as important as the words I say when responding to a detainee in crisis.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
In a crisis situation, I need to speak and act as quickly as possible.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Setting clear boundaries and providing specific directives is an effective strategy for responding to aggressive or agitated individuals.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If possible, I prefer to use verbal skills rather than physical force to de-escalate crisis situations.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am confident in my ability to recognize aggression at an early stage.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It is difficult for me to anticipate when verbal arguments are escalating and likely to result in physical violence.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am confident in my ability to defuse aggression and de-escalate crisis situations.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Mental Health Issues

The correctional system is one of the largest providers of mental health services.

- (a) true
- (b) false

The *root* cause of mental illnesses like schizophrenia, depression, bipolar disorder, and borderline personality disorder is:

- (a) poor parenting
- (b) biochemical changes in the brain
- (c) lack of emotional strength or willpower
- (d) substance abuse
- (e) stressful situations

A person with “co-occurring disorders” has which of the following?

- (a) two or more mental illnesses
- (b) mental illness and a physical disability
- (c) mental illness and a substance abuse problem
- (d) none of the above

Cook County has a Mental Health Court that sentences eligible mentally ill offenders to treatment instead of incarceration.

- (a) true
- (b) false

People with mental illness:

- (a) are usually poor or homeless
- (b) are less intelligent than people without mental illness
- (c) can end up in the criminal justice system if their illness is not treated
- (d) act abnormal almost all the time
- (e) all of the above

Please indicate whether you agree or disagree with the following statements.

	Strongly Agree	Agree	Not sure/ Neutral	Disagree	Strongly Disagree
There are specific signs to look for that indicate if someone may be mentally ill.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A significant share of people with mental illness are not receiving proper treatment.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I feel uncomfortable being around people with mental illness.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Detainees who exhibit problem behaviors may be suffering from mental illness.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



	Strongly Agree	Agree	Not sure/ Neutral	Disagree	Strongly Disagree
Most mentally ill individuals can never lead a healthy and normal life.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I can always tell if someone is mentally ill based on their behavior.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I'm not sure what to do if a detainee is having a mental health crisis.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I feel well-prepared to interact with individuals with mental illness.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I'm not sure when it's appropriate to refer a detainee to the jail's mental health services.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I understand what the jail mental health staff do in their work with detainees.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am confident in my ability to recognize signs and symptoms of mental illness.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I know how to ensure that the needs of detainees with mental illness are met.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I do not feel confident handling a detainee who is having a mental health crisis.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Suicide and Self-Harm

Which has a higher suicide rate?

- (a) prisons
- (b) jails
- (c) the community
- (d) the rate is the same in all three

When is one of the most high-risk times for detainee suicide?

- (a) the first 24 hours in jail
- (b) from 9am to 1pm
- (c) immediately before release
- (d) all of the above

What is the most common method for committing suicide in correctional facilities?

- (a) cutting
- (b) swallowing sharp objects
- (c) hanging
- (d) suffocation

Which of the following may be a sign that someone is suicidal?

- (a) withdrawing from social interaction
- (b) saying they are going to commit suicide
- (c) drastic behavior or personality changes
- (d) acting depressed or sad
- (e) all of the above

People with a history of previous suicide attempts are more likely to commit suicide successfully.

- (a) true
- (b) false

Please indicate whether you agree or disagree with the following statements.

	Strongly Agree	Agree	Not sure/ Neutral	Disagree	Strongly Disagree
Every threat of suicide should be taken seriously.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Most detainees who threaten suicide are just trying to get attention.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Detainees who are truly suicidal are easy to distinguish from those who are being manipulative.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Appropriate action by correctional officers can prevent suicides.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If a detainee threatens to kill himself, he should always be referred to the jail's mental health staff.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I'm not sure what to do if a detainee is exhibiting suicidal or self-harming behavior.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am confident in my ability to recognize signs and symptoms of possible suicidal or self-harming behavior.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I feel well-prepared to respond if a detainee is threatening to commit suicide.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Sexual Assault

If you observe, have a suspicion, or receive an accusation of sexual assault or inappropriate sexual behavior, who should you report it to?

- (a) your supervisor
- (b) mental health staff
- (c) Internal Affairs
- (d) medical staff
- (e) any of the above
- (f) all of the above

Which of the following scenarios constitute sexual assault or abuse and should be reported?

	Report	Do not need to report
A detainee is pressured, coerced, or threatened into having sex but no physical force is used.	<input type="checkbox"/>	<input type="checkbox"/>
A gay or transgender detainee is forced to have sex against his or her will.	<input type="checkbox"/>	<input type="checkbox"/>
A detainee with serious mental illness or a developmental disability has sex with another detainee.	<input type="checkbox"/>	<input type="checkbox"/>
A detainee is forced to have sex against his or her will with someone he or she had a consensual sexual relationship with in the past.	<input type="checkbox"/>	<input type="checkbox"/>
A civilian staff member and a detainee have consensual sex.	<input type="checkbox"/>	<input type="checkbox"/>
A detainee has sex with another detainee in exchange for protection inside the facility.	<input type="checkbox"/>	<input type="checkbox"/>
A detainee who wants to join a gang is required to have sex as part of his or her gang initiation.	<input type="checkbox"/>	<input type="checkbox"/>
A detainee is persuaded to have sex in exchange for commissary.	<input type="checkbox"/>	<input type="checkbox"/>
A detainee known for sexually assaulting other inmates is forced to have sex by one of his or her previous victims.	<input type="checkbox"/>	<input type="checkbox"/>
A detainee is having sex with his or her cellmate at night.	<input type="checkbox"/>	<input type="checkbox"/>

Which of the following scenarios constitute inappropriate sexual behavior and should be addressed, either formally or informally?

	Address	Do not need to address
A detainee hugs another detainee.	<input type="checkbox"/>	<input type="checkbox"/>
An officer touches a detainee inappropriately during a strip search.	<input type="checkbox"/>	<input type="checkbox"/>
A correctional staff member has a conversation with a detainee about sports.	<input type="checkbox"/>	<input type="checkbox"/>
A correctional staff member regularly makes comments to a detainee about his or her appearance.	<input type="checkbox"/>	<input type="checkbox"/>
Two detainees of the same sex have a close friendship.	<input type="checkbox"/>	<input type="checkbox"/>
A detainee masturbates in his or her cell when no one is around.	<input type="checkbox"/>	<input type="checkbox"/>
A detainee catcalls when certain correctional staff members walk by.	<input type="checkbox"/>	<input type="checkbox"/>
An officer conducts a strip search because he or she believes a detainee has drugs hidden on their body.	<input type="checkbox"/>	<input type="checkbox"/>
A detainee grabs another detainee's genitals while both of them are wearing clothes.	<input type="checkbox"/>	<input type="checkbox"/>

Please indicate whether you agree or disagree with the following statements.

	Strongly Agree	Agree	Not sure/ Neutral	Disagree	Strongly Disagree
Sex among detainees, both consensual and non-consensual, is going to happen regardless of what officers do.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It is not my business if another correctional officer is having a romantic or sexual relationship with a detainee.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
As long as they are kept private and out of sight, consensual sexual relationships between detainees are okay.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It is my duty to report an inappropriate relationship between a detainee and a jail employee.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Most detainee allegations of sexual assault are made up to get someone in trouble.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
There should be zero tolerance for sex of any kind inside correctional facilities.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It is up to the responding officer to determine whether an accusation of sexual assault is legitimate.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Swift reporting of sexual assault is important so that physical evidence can be collected.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A sexual assault case cannot be brought if the victim refuses to discuss what happened.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
All accusations of sexual assault, whether from an alleged victim or a third party, should be taken seriously.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I know what to do if a detainee reports that they have been sexually assaulted by another detainee.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I'm not sure what to do if a detainee reports that they have been sexually assaulted by a jail employee.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am confident in my ability to recognize signs and symptoms of sexual victimization.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am confident in my ability to recognize signs and symptoms of sexually abusive relationships.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I do not feel well-prepared to respond to someone who has been sexually victimized.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Training Evaluation

Please indicate whether you agree or disagree with the following statements regarding the training you just participated in.

	Strongly Agree	Agree	Not sure/ Neutral	Disagree	Strongly Disagree
The objectives of the training were accomplished by the end of the week.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The training did not meet my expectations for learning.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I learned new information from the training that will help me in my job.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I learned new strategies and skills from the training that will help me in my job.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The training will help me perform my job more effectively.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The training was not relevant to problems and issues at my facility.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The training was not relevant to my job duties.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I expect to apply much of what I learned from this training to my work.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I would recommend this training for other correctional officers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My organization will benefit from my having completed this training.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The training increased my confidence in my ability to handle crisis situations.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

What was the most valuable part of the training?

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What was the least valuable part of the training?

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What would you add or change to improve the training?

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Are there any topics you would like to receive further training on? What are they?

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**Thank you for your participation!**

## APPENDIX H: COST SURVEY





**INSTRUCTIONS:** Please respond to each question as best you can. Throughout the survey we will ask about *the costs and benefits associated with your agency's implementation of the jail safety measures supported by NIJ funding through the Jail Sexual Assault Prevention (hereafter, JSAP) project*. When we refer to the newly implemented jail safety measures, we are interested specifically in the camera system funded by this study. Please include as much information as possible and indicate if your response is an estimate. We are only interested in the costs of implementing the jail safety measure. **We are NOT asking about costs associated with the JSAP research activities (e.g., meetings and phone calls with UI, coordinating inmate surveys, etc.)** However, if you independently performed testing or research in reference to the new safety measure, please DO include those activities.

### BACKGROUND INFORMATION

Your Name: \_\_\_\_\_

Your Position: \_\_\_\_\_

Agency Name: \_\_\_\_\_

Date: \_\_\_\_\_

Survey Period: \_\_\_\_\_

### FUNDING

- 1) Please list any other sources of funding for the JSAP safety measures beyond the financial support provided through the Urban Institute's NIJ subgrant, including the name of the funding source(s), dollar amount(s), contribution date(s), and the specific reason(s) for each contribution below.

Name/ Organization of Funding Source	Contribution Amount	Contribution Date	What specific items were these funds slated to pay for?
	\$		
	\$		
	\$		
	\$		

## JSAP-RELEVANT MEETINGS AND ACTIVITIES

*Please remember to NOT include JSAP research activities (e.g., monthly phone calls with UI).*

2) How often are meetings or conference calls held regarding the newly implemented safety measure? \_\_\_\_\_

3) Are these meetings typically held during regular business/working hours?

Yes.....☐<sup>01</sup> No.....☐<sup>00</sup>

4) What is the average length of time for a meeting? \_\_\_\_\_

5) What was the date of the most recent meeting or conference call regarding the newly implemented jail safety measures? \_\_\_\_\_

6) About how many meetings have you held to date? \_\_\_\_\_

7) What is the average number of attendees at these meetings? \_\_\_\_\_

8) Are there any costs that you incur as a result of holding these meetings (e.g., room rentals, food, etc.)?

Yes.....☐<sup>01</sup> No.....☐<sup>00</sup>



Skip to Question # 10

9) Please detail these additional costs:

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10) When did your JSAP-funded safety intervention first begin? \_\_\_\_ / \_\_\_\_ / \_\_\_\_

11) Did any planning or other preparation activities take place prior to the implementation of the JSAP safety intervention?

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12) How many people were involved in these activities? \_\_\_\_\_

13) How many hours were devoted to these activities per person? \_\_\_\_\_

---

14) What was the total cost of the planning or other preparation activities that took place prior to the implementation of the JSAP safety intervention, including the amount listed in #9? (Do NOT include staff time or JSAP research activities)

---

## JSAP INTERVENTION

The following set of questions asks about the jail safety measures you have implemented.

15) Have you implemented a CCTV camera system for the JSAP study?

No.....☐<sup>00</sup>



If no, when is it expected to be implemented? \_\_\_\_\_

Yes.....☐<sup>01</sup>



If yes, as of what date? \_\_\_\_\_

15a) How much did the CCTVs cost?

Cost of cameras & recording equipment \_\_\_\_\_

Other infrastructure costs \_\_\_\_\_

Installation Cost \_\_\_\_\_

Total Cost \_\_\_\_\_

15b) Did you already have CCTV cameras?

Yes.....☐<sup>01</sup>

No.....☐<sup>00</sup>

15c) Was existing infrastructure (e.g. wiring, servers, software, etc.) used in the installation of the JSAP intervention?

Yes.....☐<sup>01</sup>

No.....☐<sup>00</sup>



Skip to Question # 15e

15d) If yes, list the existing infrastructure used and estimated costs of this infrastructure:

\_\_\_\_\_

\_\_\_\_\_

15e) Are the CCTVs monitored?

Yes.....☐<sup>01</sup>

No.....☐<sup>00</sup>



Skip to Question # 15g

15f) How often and by how many staff? \_\_\_\_\_

\_\_\_\_\_

15g) Do the CCTVs record?

Yes.....☐<sup>01</sup>

No.....☐<sup>00</sup>

15h) Have they been used as investigative aids?

Yes.....☐<sup>01</sup>

No.....☐<sup>00</sup>

15i) Did you ever use CCTV to address crime and disorder prior to the JSAP safety intervention *in what is now the intervention area*?

Yes.....☐<sup>01</sup>

No.....☐<sup>00</sup>

<p><b>16) Did your jail safety intervention involve additional data monitoring/review responsibilities (e.g., review of video footage or report outputs)?</b></p> <p>No.....<input type="checkbox"/><sup>00</sup> ➡</p> <p>Yes.....<input type="checkbox"/><sup>01</sup> ➡</p>	<p><b>If no, skip to Question 17.</b></p> <p><b>16a) If yes, as of what date?</b> ____/____/____</p> <p><b>16b) How often are the data reviewed and by how many staff?</b> _____</p> <p><b>16c) Were there any costs in setting up the data monitoring/review system?</b></p> <p style="text-align: right;">Materials/Equipment Cost _____</p> <p style="text-align: right;">Labor Cost _____</p> <p style="text-align: right;">Total Cost _____</p> <p><b>16d) How much time is spent on data monitoring/review per month?</b> _____</p> <p><b>16e) Did you ever routinely use data monitoring/review to address crime and disorder prior to the JSAP safety intervention <i>in what is now the intervention area</i>?</b></p> <p style="text-align: center;">Yes.....<input type="checkbox"/><sup>01</sup>      No.....<input type="checkbox"/><sup>00</sup></p>
<p><b>17) Has your jail safety intervention required any system checks or maintenance (e.g., checking wiring, cleaning lenses, changing batteries, replacing equipment)? Include maintenance costs for supportive infrastructure and data review systems.</b></p> <p>No.....<input type="checkbox"/><sup>00</sup> ➡</p> <p>Yes.....<input type="checkbox"/><sup>01</sup> ➡</p>	<p><b>If no, skip to Question 18.</b></p> <p><b>17a) If yes, please describe the required system checks or maintenance:</b> _____</p> <p>_____</p> <p>_____</p> <p><b>17b) Who is responsible for these costs?</b> _____</p> <p><b>17c) What has the cost been for required system checks?</b></p> <p>_____</p> <p><b>17d) What has the cost been for required maintenance?</b></p> <p>_____</p>

**18) In order to implement the JSAP safety measures, did you alter the environment (e.g., structural changes, signage, entry/exit barriers) around your target area?**

No.....☐<sup>00</sup>



**If no, skip to Question 19.**

Yes.....☐<sup>01</sup>



**18a) If yes, please describe the alterations:** \_\_\_\_\_

**18b) How much did these alterations cost in total?**

**Materials/Equipment Cost** \_\_\_\_\_

**Labor Cost** \_\_\_\_\_

**Total Cost** \_\_\_\_\_

**18c) Are there any maintenance costs for the environmental changes that would not have occurred otherwise?**

Yes.....☐<sup>01</sup>

No.....☐<sup>00</sup>

**18d) If yes, what are they and who is responsible for these costs?** \_\_\_\_\_

**18e) Did you ever habitually alter the environment to address crime and disorder prior to the JSAP safety intervention *in what is now the intervention target area?***

Yes.....☐<sup>01</sup>

No.....☐<sup>00</sup>

**19) Did the implementation of the new jail safety measures require any additional changes?**

No.....☐<sup>00</sup>



**If no, skip to Question 20.**

Yes.....☐<sup>01</sup>



**19a) If yes, what were they?** \_\_\_\_\_

**19b) When were they implemented?** \_\_\_\_\_

**19c) *How much* did these changes cost to implement?**

**Materials/Equipment Cost** \_\_\_\_\_

**Labor Cost** \_\_\_\_\_

**Total Cost** \_\_\_\_\_

**19d) Are there any maintenance costs for these alterations?**

Yes.....☐<sup>01</sup>

No.....☐<sup>00</sup>

**19e) If yes, what are they and who is responsible for these costs?** \_\_\_\_\_

**19f) Did you ever implement other safety solutions to address crime and disorder prior to the JSAP safety intervention *in what is now the intervention area?***

Yes.....☐<sup>01</sup>

No.....☐<sup>00</sup>

**19g) Please describe:** \_\_\_\_\_

20) Have you held any activities relevant to the implementation of the new safety measures, other than those listed previously?

No.....☐<sup>00</sup>



If no, skip to Question 21.

Yes.....☐<sup>01</sup>



21a) If yes, what were they and when did they occur?

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21b) How much did these activities cost? \_\_\_\_\_

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## OTHER COSTS

21) Have you experienced any changes in utility usage due to the JSAP safety intervention?

Yes.....☐<sup>01</sup>

No.....☐<sup>00</sup>



Skip to Question # 23

22) If yes, what is the average change in utility costs each month (please indicate whether this is an increase/decrease)? \_\_\_\_\_

23) Have you experienced any change in costs for shipping, photocopying, faxing, or other similar tasks?

Yes.....☐<sup>01</sup>

No.....☐<sup>00</sup>



Skip to Question # 25

24) If yes, how much (please indicate whether this is an increase/decrease)?

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25) Have you experienced any change in costs for travel related to the JSAP safety intervention?

Yes.....☐<sup>01</sup>

No.....☐<sup>00</sup>



Skip to Question # 27

26) If yes, how much (please indicate whether this is an increase/decrease)? Please also describe reason for travel.

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27) Have you experienced any additional costs due to adverse events related to the JSAP safety intervention (e.g., lawsuits, staff injury, union issues, etc.)?

Yes.....☐<sup>01</sup>

No.....☐<sup>00</sup>



Skip to Question # 29

28) If yes, how much? Please also describe the adverse event and the related costs.

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29) Were there any other costs associated with the implementation of the JSAP safety intervention? Please describe below:

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## STAFFING

30) What is the number of internal staff working on the newly implemented jail safety measure? Please indicate whether they are dedicated solely to the JSAP safety intervention or whether they are not dedicated but still spend time on this project. Include all staff who spend labor hours on the safety intervention (e.g., supervisors who view video footage or system reports, IT who develop/trouble-shoot software, staff involved with planning/implementation, etc.)

	Dedicated to safety interv.	Not dedicated to safety interv
Full-time Staff:		
Part-time Staff:		
Volunteers:		

31) For each staff member listed above, complete the table for the amount of staff time *spent* on the JSAP safety intervention:

Staff Position (e.g., officer, lieutenant, upper mgmt, etc.)	# of Staff	Avg. # hours ( <i>per staff</i> ) spent each month at meetings dedicated to safety interv.	Avg. # hours ( <i>per staff</i> ) spent each month on data review (e.g., video review, system reports) & response	Avg. # hours ( <i>per staff</i> ) spent each month on other tasks (inspections, direct camera monitoring, etc.)	Salary (loaded)
A.					\$
B.					\$
C.					\$
D.					\$
E.					\$
F.					\$
G.					\$
H.					\$
I.					\$
J.					\$

- 32) Were any staff members hired specifically to work on the newly implemented jail safety measure?

Yes.....☐<sup>01</sup> No.....☐<sup>00</sup>



Skip to Question # 34

- 33) If yes, which ones?

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- 34) How many staff positions were reduced due to the JSAP safety measures? \_\_\_\_\_

- 35) Complete the table below for the amount of staff time *saved* by the JSAP safety intervention (e.g., time spent on investigations, time spent documenting rounds):

Staff Position (e.g., officer, lieutenant, upper mgmt, etc.)	# of Staff	Avg. # hours per month saved by the JSAP safety interv., <i>per staff</i>	Salary (loaded)
A.			\$
B.			\$
C.			\$
D.			\$
E.			\$
F.			\$
G.			\$
H.			\$
J.			\$
K.			\$

### Benefits

The following set of questions asks about benefits from the JSAP safety intervention.

- 36) Are there any direct monetary benefits of the JSAP safety intervention (e.g., increased revenue, tax benefits, reduced costs, reduced need for services, etc.)?

No.....☐<sup>00</sup>



If no, skip to Question 37.

Yes.....☐<sup>01</sup>



36a) If yes, what are these cash benefits?

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36b) What is the amount of these cash benefits?

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<p><b>37) Have any programs, policies, or procedures been <i>discontinued</i> as a result of implementing the new safety measures?</b></p> <p>No.....<input type="checkbox"/><sup>00</sup> ➡</p> <p>Yes.....<input type="checkbox"/><sup>01</sup> ➡</p>	<p><b>If no, skip to Question 38.</b></p> <p><b>37a) If yes, what are these programs, policies, or procedures?</b> _____          _____</p> <p><b>37b) How much did each <i>discontinued</i> program cost?</b>          _____          _____</p>
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### Next Steps

The following set of questions asks about plans for future activities.

<p><b>38) Do you have any activities related to the newly implemented safety measures planned for the future (e.g., training, meeting, etc.)?</b></p> <p>No.....<input type="checkbox"/><sup>00</sup> ➡</p> <p>Yes.....<input type="checkbox"/><sup>01</sup> ➡</p>	<p><b>If no, skip to Question 39.</b></p> <p><b>38a) If yes, what are these activities?</b> _____          _____          _____</p> <p><b>38b) <i>When</i> are they planned to begin?</b> _____</p>
<p><b>39) Is there a plan in place to maintain or expand the required infrastructure for continuing the jail safety measures at the completion of the JSAP project?</b></p> <p>No.....<input type="checkbox"/><sup>00</sup> ➡</p> <p>Yes.....<input type="checkbox"/><sup>01</sup> ➡</p>	<p><b>If no, skip to Question 40.</b></p> <p><b>39a) If so, please describe the plan:</b> _____          _____          _____          _____</p>
<p><b>40) Will the JSAP safety intervention have any other impacts on future costs (either a reduction or increase) for the facility (e.g., increased costs for future infrastructure, future maintenance, reduced demand for services, # of staff, etc.)?</b></p> <p>No.....<input type="checkbox"/><sup>00</sup> ➡</p> <p>Yes.....<input type="checkbox"/><sup>01</sup> ➡</p>	<p><b>If no, skip to Question 41.</b></p> <p><b>40a) If yes, what are these future impacts?</b>          _____          _____</p> <p><b>40b) What is the estimated decrease or increase in future costs?</b> _____          _____</p>

41) What are any challenges or lessons learned from the implementation of these new safety measures?

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**IF YOU HAVE A RECONCILED BUDGET, PLEASE SEND US A COPY ALONG WITH YOUR RESPONSES.**

***Thank you for your time!***

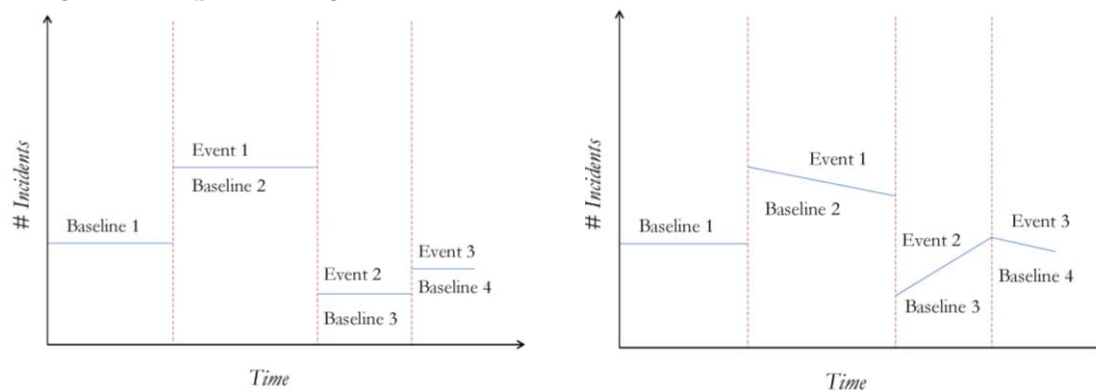
# APPENDIX I: OVERVIEW OF ARIMA TIME SERIES AND STRUCTURAL BREAK ANALYSES

## ARIMA Time Series and Structural Break Analysis Overview

### *ARIMA Time Series*

In order to control for other events and changes occurring at the jail, the researchers used ARIMA modeling to determine whether the implemented intervention, as well as other changes in the jail, had any impact on the number of incidents across time. ARIMA time series analysis examines outcomes observed at equally spaced intervals of time (e.g., the number of incidents per month) and measures whether changes occurred in the series of data at given points in time (e.g., installation of cameras). Data observations prior to each event are treated as baseline data, and observations after the event are compared to this baseline. With multiple events, there would be multiple baselines and intervention periods (see Figure 1). Unlike traditional linear regression models, this method controls for the auto-correlated nature of sequential time data (i.e., the number of fights one month may be related to the number of fights the prior month).

**Figure 1. Simplified Diagrams of Time Series Design**



ARIMA time series analysis also accounts for the impacts of other events included in the model, thus controlling for these events, and allowing for the estimation of the unique impact of the intervention of interest. All events, including the intervention of interest, are included in the model as dummy variables where the value equals “1” if the event/change/ intervention is in effect during that time interval and equals “0” if it is not in effect. In addition to controlling for other events occurring at each facility, the time series models in this analysis also take into account the inmate-to-staff ratio across time by including it as a covariate.

Two types of models were run for each incident category. The first model examines immediate shifts in incident rates starting the week after a particular intervention and continuing until the start of a new event (i.e., a new mean number of incidents during that time period) (see the first graph in Figure 1 and Model 1 below).

The second model tests for intervention effects that can change over time (i.e., a new slope during that time period) in addition to immediate shifts (e.g., a new camera system leads to an immediate reduction in incidents, but the impact quickly degrades over time as inmates learn that the camera system does not record) (see the second graph in Figure 1 and Model 2 below). The model which best fit the data, according to the Akaike Information Criteria (AIC), was chosen for each incident category.

**Model 1:** AMRA(P,Q) with no time variant effects (only shift effects)

$$Y_t = \alpha + \varphi ISR_t + \sum_{p=1}^P \gamma_p Y_{t-p} + \sum_{q=1}^Q \delta_q \epsilon_{t-q} + \sum_{k=1}^K \beta_k x_k + \epsilon_t$$

where  $Y_t$  is the number of incidents in week  $t$ ,  
 $ISR_t$  is the inmate:staff ratio in week  $t$  (and  $\varphi$  is impact of the ISR on incidents),  
 $\gamma_p$  are the AR coefficients (not reported here, available from the authors),  
 $\delta_q$  are the MA coefficients (not reported here, available from the authors),  
 $x_k$  for  $k = 1, \dots, K$  are dummy variables for the  $K$  interventions,  
and  $\epsilon_t \sim N(0, \sigma^2), iid$ .

Therefore, the various  $\beta_k$  coefficients represent the intervention effects, estimated as linear shifts in the mean number of incidents per week, after controlling for the series' autocorrelation and the inmate-to-staff ratio.

**Model 2:** ARMA(P,Q) with time variant effects (linear shifts and time trends)

$$Y_t = \alpha + \alpha' t + \varphi ISR_t + \sum_{p=1}^P \gamma_p Y_{t-p} + \sum_{q=1}^Q \delta_q \epsilon_{t-q} + \sum_{k=1}^K \beta_k x_k + \sum_{k=1}^K \beta'_k x_k t + \epsilon_t$$

where  $Y_t$  is the number of incidents in week  $t$ ,  
 $ISR_t$  is the inmate:staff ratio in week  $t$  (and  $\varphi$  is impact of the ISR on incidents),  
 $\gamma_p$  are the AR coefficients (not reported here, available from the authors),  
 $\delta_q$  are the MA coefficients (not reported here, available from the authors),  
 $x_k$  for  $k = 1, \dots, K$  are dummy variables for the  $K$  interventions,  
and  $\epsilon_t \sim N(0, \sigma^2), iid$ .

Therefore, the various  $\beta_k$  coefficients represent the immediate shift in the mean number of incidents per week following the beginning of the intervention, and the various  $\beta'_k$  coefficients represent the change in that mean during each week

following the implementation of the intervention. Like model 1, these are the estimated intervention effects (both immediate and as they change over time), estimated after controlling for the series' autocorrelation and the inmate-to-staff ratio.

### *Structural Break Analysis*

Structural break analysis was used to identify the optimal set of break points (i.e., changes in the mean level of a series of time data) for the time series of each incident type. Once significant breaks were identified, the dates of these breaks were interpreted within the context of the known timeline of events at each facility.<sup>1</sup> An impact value can be assigned to the break, showing the magnitude of change occurring at that point in time.

First, to account for autocorrelation, a regression according to the following model was estimated (with number of incidents regressed onto inmate-to-staff ratio):

ARMA(P,Q), where P and Q were borrowed from the results of Model 1:

$$Y_t = \alpha + \varphi ISR_t + \sum_{p=1}^P \gamma_p Y_{t-p} + \sum_{q=1}^Q \delta_q \epsilon_{t-q} + \epsilon_t$$

This model is identical to Model 1, but without any intervention dummy variables. According to the null hypothesis that none of the interventions had any effect ( $\beta_k = 0 \forall k$ ), then  $\epsilon_t \sim N(0, \sigma^2) \forall t$ . That is, if none of the interventions had any effect, then the estimated residuals should have a constant mean. Thus, the researchers conducted structural break analysis, looking for changes in the mean of the estimated residuals which formed the new adjusted series. If structural break analysis found that the mean of the estimated residuals was significantly higher prior to some point in time ( $t^*$ ), then dropped following  $t^*$ , this is equivalent to saying that the series itself ( $Y_t$ ) was higher prior to  $t^*$  and dropped afterward, after accounting for the series' autocorrelation and the inmate-to-staff ratio. Researchers tested for structural breaks following two alternative hypotheses:

**Alternative hypothesis 1:** No time trend in the series:

$$\begin{aligned} \epsilon_t &\sim N(\mu_1, \sigma^2) \forall t \leq t^* \\ \epsilon_t &\sim N(\mu_2, \sigma^2) \forall t > t^* \end{aligned}$$

where  $\frac{t^*}{T} \mu_1 + \frac{T-t^*}{T} \mu_2 = 0$  so that across the full series  $\epsilon_t$ , the average is zero.

---

<sup>1</sup> We tested for multiple break points using the method developed by Bai and Perron (1998), performing analyses with the R statistical language and using functions provided by the strucchange package (Zeileis, et al. 2001).

**Alternative hypothesis 2:** Linear time trend in the series:

$$\epsilon_t \sim N(\mu_1 + \beta_1 t, \sigma^2) \forall t \leq t^*$$

$$\epsilon_t \sim N(\mu_2 + \beta_2 t, \sigma^2) \forall t > t^*$$

where  $\frac{t^*}{T}(\mu_1 + \beta_1 \frac{t^*}{2}) + \frac{T-t^*}{T}(\mu_2 + \beta_2 \frac{T-t^*}{2}) = 0$  so that across the full series  $\epsilon_t$ , the average is zero.

Two separate tests were conducted for the structural break analyses, similar to the time series models (one test with shifts and a second test with shifts and time-variant effects). The model which best fit the data, judged by the AIC, was selected.

## APPENDIX J: OTHER RECOMMENDED INTERVENTIONS



## **RECOMMENDED INTERVENTIONS FOR SITE A**

After synthesizing findings from their research, the UI project team developed a number of recommendations for reducing violence at Site A based on these findings. Following the JSAP project's action-research model, the UI researchers worked with jail management at Site A to select an intervention from the wide array of recommendations. Outlined below are descriptions of the initial recommendations; other considered strategies are included in Appendix K.

### **Improve staff monitoring of inmates**

One issue that came up frequently in the findings was the role of staff supervision and monitoring in preventing violence. For example, inmates suggested that closer monitoring by officers could prevent incidents of self-harm, and both inmates and staff saw the self-harm housing units, which allow high-risk inmates to be monitored more closely, as effective in preventing suicide. The most common location for both sexual assault and suicide/self-harm was cells, and officers may not be fully aware of what is going on in the cells unless they are actively conducting security rounds within the housing units. Physical violence also typically occurs in areas of the housing units that officers cannot see from inside the control booth, such as the blind spot under the staircase and the cells at the edge of the unit. According to staff, inmates actively choose to perpetrate incidents in the places and times where they are less likely to be caught by officers.

In consideration of this, the UI researchers recommended increased staff monitoring of all areas and particularly those that are known to be hotspots for violent incidents (cells, blind spots within the units). It was suggested that staff monitoring of inmates could be increased by installing cameras or mirrors to enhance the ability of staff to monitor certain areas, especially blind spots; prohibiting inmates from blocking the view into their cells; and implementing a system to ensure officers are actively conducting security rounds within housing units. Increased staff monitoring would deter inmates from committing violence by increasing the perceived risk of detection, as well as creating opportunities for officers to intervene before incidents escalate into violence.

### **Improve inmate classification systems**

UI's research identified certain people who may be at greater risk for perpetrating or becoming victims of sexual assault and self-harm. These factors include both individual characteristics (age, sexual orientation, physical size, etc.) and histories of conflict (for example, two inmates involved in the same case or in rival

cliques/gangs). While inmate characteristics and histories are fixed, the jail can adjust how it identifies, houses, and monitors inmates with certain risk factors. At the time of the preliminary data collection, risk factors for violence were not formally considered in the placement process. The existing classification system at Site A was based on sex, age (juvenile or adult), sentenced or unsentenced status, whether an inmate's current charge is violent and whether it is a misdemeanor or felony. This system classified inmates based solely on their current criminal charge, even though the jail's data management system also included information on criminal history and prior jail stays. Officers reported that they would sometimes monitor an inmate they thought was at risk a bit more closely or house inmates they knew had a history of conflict at separate ends of the unit, but this was done informally on the initiative of individual officers.

The UI project team's research suggested that current policies resulted in inmates with widely different criminal backgrounds and histories of violence being housed together. The researchers recommended developing and implementing a revised system that would more accurately classify inmates and also identify inmates at high risk of being either a perpetrator or a victim of violence. This new classification system would be complemented with the development of formal policies for housing inmates based on their classification and risk rating. Suggestions for improving policy and practice include: matching cellmates of similar risk levels and ensuring that inmates at high risk of perpetration are not housed with inmates at high risk of victimization; housing the highest-risk inmates in single-bunked cells and/or in the line of sight of officers; separating inmates with a history of conflict or potential for conflict (i.e. rival gangs); more carefully monitoring high-risk inmates; and targeting resources like officers and cameras to the housing units with the inmates most at-risk for violence.

An improved classification system would enable the jail to house inmates more appropriately, reducing contact between vulnerable and predatory inmates. This is especially important in an overcrowded and triple-bunked facility with a diverse population like Site A. The new system would also facilitate the ability of staff to direct resources where they are most needed by identifying high-risk inmates who require more careful monitoring. Such changes could reduce the potential for sexual assault and other types of physical violence, and possibly prevent self-harm and suicide.

The jail management software in use at Site A includes a comprehensive inmate classification system that was not being used. The researchers recommended reviewing the capabilities of this system and, if it was deemed appropriate to the jail's needs, beginning to use it to classify inmates. The current computer system also

allows for jail-defined flags in each inmate's profile, which were being used to track security risks such as gang affiliation, prior conflicts with other inmates, and involvement in the same criminal case as another inmate. However, interviews with staff and inmates suggested that the use of this information to guide housing decisions was inconsistent and did not follow any formal standards. As part of a redevelopment of the inmate classification system, the researchers recommended reviewing the system for tracking inmate conflicts and security risks and formalizing policies for incorporating this information into housing decisions.

More careful monitoring of high-risk inmates would increase the risk of detection, while separating potential victims and perpetrators would increase the effort required for perpetrators to commit violence. Supervision resources such as officers and cameras could also be shifted to those areas with higher-risk inmates.

### **Reduce access to weapons and contraband**

Although weapons are not a major problem in the facility, the JSAP project identified the types of weapons that are most commonly involved in inmate-on-inmate violence and self-harm. Reducing access to the items used as weapons or used to make weapons (razors, mops and brooms, etc.) would increase the effort required to harm oneself or another person, potentially reducing violence in the facility. UI research also revealed that worker inmates are the primary conduit for contraband, which can facilitate inmate violence whether as weapons or as prized items (tobacco, for example) that fuel inmate disputes. More frequent, thorough shakedowns and searches of all inmates, and particularly worker inmates, could reduce weapons and contraband by increasing the likelihood of detection. To some extent, effective policies were already in place but were not being enforced. More careful regulation of worker inmates' access to areas where contraband might be obtained would serve as a form of "target hardening," increasing the effort worker inmates have to expend to obtain contraband.

### **Address causes of violence**

Inmates also identified typical triggers for inmate-on-inmate violence, the most common being the theft of commissary, food, and other personal belongings. Reducing those triggers within the control of the jail could remove situations that spark violence.

Providing inmates with a means of securely storing their personal belongings is an example of the SCP approach known as "target-hardening," in which increasing the effort required to steal items deters would-be perpetrators. Limiting the amount

of commissary each inmate can purchase could also help by reducing the items available to be stolen, thereby decreasing the rewards to be had through theft.

The researchers recommended providing inmates with some type of locker or bin in which to store their belongings, ideally with a lock so inmates could secure their items. The lock would need to be a combination lock incorporated into the container rather than a padlock, which could be used as a weapon, and would need to come with a master key for officers to access the locker during searches. Even a non-secure system for storing belongings could reduce violence by keeping inmate belongings organized and making theft easier for both officers and inmates to detect, with the added advantage of keeping cells free from clutter and facilitating officer searches. However, administrators need to take care to choose a storage item that would not increase danger due to its construction (e.g., ability to remove pieces of metal that could be used as a weapon).

Another solution to the problem of inmate theft would be to limit the amount of commissary inmates are allowed to purchase. The jail does track patterns of commissary purchase and verifies with inmates who spend large amounts of money that they are not being forced by others to buy the items.

### **Treat all incidents seriously and send a message of zero tolerance**

Another SCP approach is to increase the guilt and shame associated with committing a crime and/or remove excuses or environmental cues that seem to condone the crime. The view many staff expressed that some allegations or incidents of sexual assault and self-harm are legitimate while others are manipulative, deceptive, or unfounded can send the message to inmates that not all incidents will be taken seriously. While it may be true that a number of incidents are not of legitimate concern, staff should set the tone that all allegations will be treated seriously. In addition, UI's research found that consensual sex between inmates (some of which may be coercive) and sexual harassment of female staff, though frowned upon, were both commonplace and accepted by staff and inmates. Cracking down on these behaviors would be valuable in and of itself but could also reduce more serious forms of sexual assault by sending a message of zero tolerance for issues of sexual harassment and assault.

### **Improve access to mental health services**

The UI researchers recommended that the jail review and improve inmate mental health services, expand access to informal sources of counseling and support, and work to ensure consistent availability of psychiatric medication where appropriate. In particular, inmates mentioned difficulties accessing mental health services and

obtaining necessary psychiatric medications, and suggested that these problems could be contributing to suicide and self-harm. Research has shown that the interruption of psychiatric medication can lead to the development of suicidal thoughts and put an individual at greater risk of violence or self-harm than he would be in either his typical medicated or non-medicated state. While not environmentally-based approaches, these suggestions would help control precipitators by relieving inmate distress, which could help to reduce violence and self-harm in the facility.

### **Selected Intervention**

The Chief and other managers at Site A were interested in many of the recommendations made by UI. However, there were barriers to implementing some of the suggestions at that time. For instance, revising the inmate classification system was viewed as a very time-consuming task and, given the facility's overcrowding, jail management had limited flexibility to revise housing unit designations and house certain categories of inmates separately from others. While jail management agreed that theft of personal belongings was a significant trigger of inmate fights, they felt that the options available to secure inmate belongings were too expensive and they would probably not be able to identify funding for this intervention. Limiting commissary purchases was not considered a feasible option either, because commissary serves as a major source of revenue for the jail system. Site A also had made significant changes to its mental health services by the time of the meeting. They switched from having its mental health services provided by a private company to having them provided by the local Department of Health (DOH), which approached mental health care in the jail from a public health perspective. Jail management reported that this transition has addressed many of the concerns UI raised about inmates not having access to mental healthcare or psychiatric medications. In the end, Site A decided on an officer tour system to increase staff monitoring of inmates.

## **RECOMMENDED INTERVENTIONS FOR SITE B**

The following were the recommendations made to Site B along with the reasoning behind each recommendation; additional interventions considered are included in Appendix K.

### **Increase surveillance to prevent inmate violence and self-harm**

In order to increase surveillance of inmates, the research team recommended the use of additional cameras to view the back of the top tier in a portion of the units experiencing above-average violence. The top tier was identified by both staff and inmates as a prime location for physical violence and suicide attempts. Cameras were recommended to have recording capabilities to further increase inmates' perceptions of risk, provide evidence at disciplinary hearings for any altercations caught on video, and allow supervisors to monitor whether correctional officers are completing rounds. It was noted that the installation of cameras must be combined with increased staff vigilance, including prompt response to incidents that occur within view of the cameras.

In addition to cameras, it was recommended that correctional officers in housing units make an effort to place inmates in need of extra monitoring (e.g. at-risk for self-harm, victimization, or perpetrating violence) in front area cells. This would allow for better surveillance and should deter potential perpetrators. These additional surveillance methods would increase inmates' perceptions of risk for being caught.

### **Reduce access to contraband and hiding areas**

In order to decrease access to certain objects and areas that promote violence, the following recommendations were made. UI researchers advised that closets, medical/dental rooms, and pantries remain locked when not in use and that keys be given only to supervising officers (and medical staff in the case of the medical area). The research team recommended increased vigilance and repercussions for those who do not follow procedures if the locking of closets already represented current policy at the facility. The vigilant locking of closets and cabinets would be expected to reduce access to contraband hiding places as well as to locations for consensual or coerced sexual activity. Specialized screws were also suggested for use in the lighting fixtures within cells. Certain screws, such as torx or hex screw drive types, are less vulnerable to tampering and would prevent the lighting fixtures from being used to charge cell phones, hide contraband, and craft weapons out of the screws. These strategies would increase the effort needed to obtain access to these particular locations and potentially dangerous screws.

It was advised that Site B's management speak with the canine unit it used to discuss the possibility of having its dogs trained to detect cell phones. Cellular phone-detecting dogs would increase the risk and reduce the rewards, as contraband would be quickly identified and removed. Finally, in order to prevent assaults with hot water and baby oil, it was suggested that the water heater temperature be reduced or that baby oil be removed from the commissary. Removing particular items from commissary or reducing the water heater temperature would make it more difficult to attempt a hot water and baby oil attack.

### **Improve communication in dangerous situations**

In order to improve communication between correctional staff, UI researchers proposed that correctional officers carry two-way radios or portable panic buttons. This would ensure rapid communication in emergency situations, providing greater safety to correctional officers and more perceived risk to perpetrating inmates. These improvements could facilitate a speedier back-up response. In addition to increasing the perceived risk, this would also reduce rewards, as inmates would know their attack would be short-lived before responding officers arrived.

### **Expand staff responsibility and improve accountability**

Due to the reports of alleged staff negligence and misconduct, the research team recommended that staff be trained (or retrained) in proper policy and procedure, supervised to ensure compliance, and held accountable when they were not. Checklists to document searches, shakedowns, and routine area/cell inspections were advised in addition to regular review of these checklists by floor supervisors during each shift.

The increased screening of staff upon entrance to the facility was advised. The strengthening of sanctions for staff who deal in contraband and a corruption awareness campaign (e.g., posting articles in public work areas about corrupt officers being convicted for smuggling contraband) were also recommended. It was also recommended that management periodically review computer logs to ensure that staff are recording important situations in the computer system for the next shiftworker in order to promote better officer compliance and help all officers increase awareness of potentially dangerous situations. Importantly, those officers and supervisors who are not following these procedures should be held accountable. Finally, the research team also suggested that management discuss shakedowns at roll call rather than announcing them over the speakers so that inmates were not aware of impending shakedowns.

These various officer-oriented approaches would increase the perceived risk to officers of being caught, remove excuses by having specific training and checklists for how to conduct job responsibilities, and reduce rewards with a greater understanding of the possible consequences of corrupt behavior. In addition, a capable and responsible correctional staff would likewise increase the perceived risk to inmates, as inmates know correctional officers would not participate in corrupt or negligent behavior.

### **Selected Intervention**

The primary recommendations were presented at a large meeting with Site B's administrators and representatives from the city's jail system upper management. The advantages and disadvantages of each potential strategy were discussed at this meeting along with the reasoning behind each one. The jail administrators were then advised to consider the possible interventions and provide feedback to the research team on which interventions they were interested in further researching. Site B's administrators decided in the end that they were most interested in pursuing the installation of recording cameras to overlook the rear of the top tier in the housing units.



## **RECOMMENDED INTERVENTIONS FOR SITE C**

Site C had significant problems with physical violence, weapons, and gangs. Serious incidents of physical violence involving multiple inmates were common, and much of this violence was gang-related. Sexual assault and suicide/self-harm, on the other hand, were less frequent concerns for the jail, although there were still some significant problems related to these two issues. As outlined in the previous section, the JSAP research activities produced a number of valuable findings regarding the factors driving violence and the dynamics surrounding violent incidents in Site C. While not all of these factors are within the control of the jail, several of them suggested potential intervention points where the jail could initiate changes that might reduce violence.

Following the JSAP project's action-research model, the UI researchers worked with jail management at Site C to select an intervention from the wide array of recommendations. In April 2008, the researchers presented their findings and recommendations to jail management via a memo and in-person presentation and meeting. The executive director of the DOC, five of his key deputies, and the superintendent in charge of the Site C facility attended the meeting to discuss the findings and recommendations, as well as some significant changes the jail had already implemented during the course of the JSAP project. While population changes at Site C altered the course of the intervention, below are the initial recommendations given to the management.

### **Improve staff monitoring of inmates through technology and policy**

Correctional staff have a critical role to play in reducing violence in the jail, and staff and inmates suggested that improved monitoring could prevent violence and allow for quick and effective responses to incidents that do occur. Increased staff monitoring deters inmates from committing violence by increasing the perceived risk of detection. UI's research identified specific circumstances surrounding violence at Site C that could guide attempts to improve staff monitoring of inmates. Many inmate fights and physical assaults happen in the dayroom and in the area behind the showers. Installing cameras in housing units that record activity in the dayroom could reduce physical violence and aid investigation of any incidents that do occur. Staff reported that the mobile camera unit that is brought in during major incidents is highly effective at halting inmate violence, suggesting that the installation of permanent cameras could yield a more general deterrent effect. In addition, broken and burned out light fixtures should be repaired to maximize visibility from the officer booth into the housing units.

Since staff and inmates agreed that any sexual violence occurring in the facility would occur in cells, visibility into cells—especially at night—should be a top priority. Inmates sometimes use sheets, checkerboards, or other objects to block the view into their cells, and the research team recommended that the policy that bars inmates from doing this should be enforced consistently. Staff need to be diligent about ensuring that inmates are not able to lock up for the night in any cell other than the one to which they are assigned. Interviews with staff and inmates also identified two daytime activities involving inmate movement that may create opportunities for physical violence. First, the research team recommended revisiting the procedure requiring officers to line up inmates and escort them to recreation without back-up. Second, it was suggested to address the potential for violence on the way to and from court, even though this extended beyond the scope of this project.

### **Improve staff monitoring of inmates by expanding staff capacity**

As mentioned, correctional officers play a critical role in reducing violence in the jail, as effective monitoring deters inmates from committing violence by increasing the risk of detection. Staffing at Site C is currently tight, and the facility has limited human resources with which to monitor all of the housing units, common areas, and public areas in the facility. Both staff and inmates indicated that violence is particularly likely to occur when officers are distracted or must leave their post unattended. The UI researchers recommended reevaluating post responsibilities and assignments throughout the facility to maximize officer supervision of inmates and to minimize the wait time that officers experience when requesting relief or back-up. This would also require that adequate extra staff be available on each shift to provide prompt, reliable back-up, which would enable officers to complete security rounds consistently and ensure that housing units are not left unattended.

Once given the proper support, officers should be held accountable for adhering to policy and carefully monitoring inmate behavior. This could be achieved through more careful monitoring of officers by their supervisors, but interviews with staff suggested that positive reinforcement could also be effective. Staff reported that rewarding officers who perform well, for example by allowing officers who excel at contraband detection to leave an hour early, has been at least moderately successful in improving officer performance.

Another method to make officers accountable would be to implement a system to monitor rounds. Tier officers are required to conduct rounds every 30 minutes; however, our interviews with staff and inmates suggested that rounds were not happening as frequently as required. While officers maintain written logs of their

security rounds, there is no system in place to ensure that this documentation is accurate and that staff are completing rounds consistently.

We recommended implementing an electronic system to track data on officer rounds by having officers swipe a card or reader in front of sensors placed around the housing units. The system would create an electronic log detailing when the officer was in the housing unit conducting rounds, allowing management to track staff compliance with the rounds schedule and increasing the amount of time officers are out in the housing units. Since a trial of this type of system had already been conducted in another part of the jail previously, it was recommended that the subgrant could be used to expedite the installation of this system on a permanent basis. If the cost was too high, the research team recommended focusing the system in housing units with the highest rates of violence and self-harm.

Increasing the presence of officers within the housing units can serve as a major deterrent to violence and other forms of inmate misbehavior, and may help officers respond more quickly when incidents do occur. It can also help officers get to know the inmates better, improving their ability to anticipate problems and to gather intelligence from inmates. Research has shown that direct supervision is associated with reductions in violence and other serious incidents, and while the proposed change would not convert the facility to a direct supervision design, it would increase the amount of time officers were directly supervising inmates.

### **Expand staff training in interpersonal skills and mental health issues**

A number of sworn and civilian staff and managers interviewed by the UI researchers reported that officers could benefit from additional training in interpersonal skills and crisis intervention. They suggested that violence is reduced when staff have the ability to detect changes in inmate attitudes and behaviors, to intervene calmly and nonviolently in potentially problematic situations, and to communicate in a positive manner with inmates and other staff. A prominent training model that focuses on these issues is Crisis Intervention Training (CIT). CIT trains officers to respond effectively to crisis situations and incidents of violence using skills in conflict resolution, crisis de-escalation, interpersonal relations, and non-violent communication. Though CIT was initially developed for law enforcement, it has gained popularity and expanded into other areas of criminal justice, although it is still somewhat new to the field of corrections. Several staff also mentioned that the mental health training at the time did not adequately prepare officers for the real-life situations they faced on the job. Expanding staff training in interpersonal skills and mental health issues could enable staff to better identify signs of inmate stress and crisis and could improve staff effectiveness in violence and self-harm prevention.

Training would help to reduce provocations and control precipitators by teaching officers how to de-escalate emotionally intense situations and not provoke inmates. The educational component also removes excuses for officers failing to address active symptoms of mental illness, suicidal ideation, or sexual victimization- and may improve sensitivity to inmate issues, possibly reducing inmate stress and frustration.

### **Increase detection of weapons and contraband**

Weapons (especially metal shanks) and contraband (particularly drugs and alcohol) are common at Site C, and are involved in a significant share of violent incidents. Increasing the risk of detection for inmates possessing weapons could reduce the presence of weapons in the facility. Fewer weapons would result in an increase in the effort required for inmates to harm themselves or others, potentially reducing violence or reducing the severity of incidents that do occur. Reducing drugs and alcohol in the facility would curtail a known trigger for violence.

The research team recommended expanding and improving the staff's already extensive search practices in the following ways: routinely search stairwells, where inmates sometimes discard or transfer contraband; expand the use of mobile metal detectors used for searches in common areas and during mass movement; continue rewarding officers who find contraband; and vary search times or strategies so that inmates are not able to anticipate and prepare for searches. It was also suggested that opportunities for inmates to store their contraband and pass it to other inmates could be reduced by enforcing basic policies for cleanliness in the housing units and repairing holes and cracks in interior walls. In addition, because staff were a known conduit for contraband in the past, the researchers recommended evaluating the drug detection machine now used to search staff, as its effectiveness was questioned by some staff members.

### **Eliminate causes of violence**

Though many of the causes of inmate physical violence are not within the jail's control, some can be effectively addressed with changes in facility operations. Intoxication is a trigger that was already been addressed to some degree with the banning of fruit and juice, which are used to make homemade alcohol, from the commissary. Inmate violence can arise from something as commonplace as a dispute over gambling, control of television programming in the unit, or access to the unit's telephones. The UI researchers recommended that policies covering gambling, television, and telephones be reviewed, revised if necessary, and consistently enforced. If gambling is eliminated and television and telephone use are tightly

regulated, there is less motivation and less reward to be had from violence around these issues.

Inmates also reported that stress is a major cause of violence in the facility, suggesting that the jail could benefit from interventions that can reduce inmate stress before it escalates to the point of violence. The development or expansion of anger management programming and formal and informal counseling options for inmates could help reduce stress. Expanded programming could reduce boredom and provide outlets for frustration. It was suggested that the \$25K subgrant could help pilot a new anger management or counseling program for inmates and/or establish volunteer-led programming that would be sustainable over a twelve-month period. Although this is not an SCP approach since it addresses inmates' internal states rather than their external environment, it could be effective in reducing violence. Furthermore, alternatives to traditional counseling, such as volunteer-led or externally-funded programming could be considered if political or financial constraints were an issue. Finally, since inmates reported distress at the "half-in/half-out" policy, the research team recommended that the administration examine records of facility incidents both before and after instituting this policy to determine whether safety gains outweighed the stress to inmates.

### **Selected Intervention**

After considering a number of promising options and the project challenges created by the shift in inmate population at Site C, the jail management and UI research team selected a Crisis Intervention Training (CIT) for correctional staff, believing this to be an intervention that could be particularly useful for the new inmate population.

## APPENDIX K: INTERVENTION RECOMMENDATIONS AND SCP FRAMEWORK

In addition to the intervention chosen, the team identified a number of promising recommendations for improving safety within the context of preliminary findings for each site and relative to SCP theory. Recommendations for each site are listed below, along with the relevant theoretical SCP category and whether it was intended to influence physical, sexual, or self-harming violence risks.

#### Site A Recommendations in SCP Framework

Recommendation	Main SCP Type	Physical	Sexual	Self-Harm
Improve staff supervision of inmates				
Increase staff supervision of all areas with stronger focus on violent hotspots	Increasing perceived risk	X	X	X
Use cameras or mirrors to eliminate blind spots under the stairs in the dayroom and at the edges of the dorms	Increasing perceived risk	X		
Disallow inmates from blocking view into their cells	Increasing perceived risk	X	X	X
Implement system to ensure staff do rounds	Increasing perceived risk, Removing excuses, Reducing rewards	X	X	X
Improve inmate classification systems				
Improve inmate classification system to better determine an inmate's security classification and risk status	Increasing effort	X	X	X
Review and formalize policies for identifying, housing and monitoring inmates at risk for conflict, victimization, or suicide/self-harm	Increasing effort	X	X	X

Recommendation	Main SCP Type	Physical	Sexual	Self-Harm
Reduce access to weapons and contraband				
Implement more frequent, thorough searches of inmate workers; Reconsider where inmate workers are allowed to go and what supervision is required in these areas	Increasing perceived risk, Increasing effort	X		X
Address causes of violence				
Provide a way for inmates to secure belongings	Increasing effort	X		
Put a cap on the amount of commissary inmates can have at one time	Reducing rewards	X		
Treat all incidents seriously and send a message of zero tolerance				
Enforce zero tolerance policy for consensual sex and sexual harassment of female staff	Increasing punishment		X	
Improve access to mental health services				
Review and improve inmate mental health services	Controlling precipitators	X	X	X
Other recommendations				
Provide a direct line for inmates to communicate problems to sergeants, bypassing line staff	Controlling precipitators, Increasing perceived risk, Removing excuses	X	X	X



Recommendation	Main SCP Type	Physical	Sexual	Self-Harm
Provide inmates more to do with their time—television, work assignments, classes/programs	Controlling precipitators	X		X
Expand CIT, interpersonal skills, and conflict-resolution training for correctional officers	Removing excuses, Increasing perceived risk, Controlling precipitators	X	X	X
Work with State Attorney’s Office to increase prosecution of incidents that occur in the jail	Increasing punishment	X	X	
Reduce overcrowding	Controlling precipitators	X		X
Add more sworn and civilian (medical, mental health) staff, to keep pace with the growth in the inmate population	Controlling precipitators, Increasing perceived risk	X	X	X
Expand Tasers to all officers	Increasing perceived risk, Increasing punishment	X	X	X
Improve the sharing of information between officers across shifts	Increasing effort, Controlling precipitators	X	X	X

**Site B Recommendations within SCP Framework**

Recommendation	Main SCP Type	Physical	Sexual	Self-Harm
<b>Increase surveillance</b>				
Install recording cameras in housing units to view back of top tier, a location identified as high-risk for violence and suicide attempts (jumping off tier)	Increasing perceived risk	X		X
Place inmates in need of extra supervision in front area cells (e.g., those at risk for self-harm, victimization, or perpetrating violence)	Increasing perceived risk	X	X	X
<b>Reduce access to contraband and hiding areas</b>				
Lock closet, medical/dental, and pantry areas when not in use and give keys only to supervising officers to prevent stolen objects, hidden contraband, and sexual misconduct	Increasing effort	X	X	X
Use tamper-resistant screws in lighting fixtures to reduce crafting of weapons and contraband hiding places	Increasing effort	X		X
Train canine unit to detect cell phones, which can be used to coordinate attacks and contraband rings	Increasing perceived risk, Reducing rewards	X	X	
Reduce water heater temperature and/or remove baby oil from commissary to prevent hot water attacks	Increasing effort	X		
<b>Improve communication in dangerous situations</b>				
Give correctional officers two-way radios or portable panic buttons to prevent communication delays	Increasing perceived risk, Reducing rewards	X	X	X

Recommendation	Main SCP Type	Physical	Sexual	Self-Harm
Expand staff responsibility and improve accountability				
Retrain staff on proper policy, procedure, and appropriate interactions with inmates	Increasing perceived risk, Reducing rewards, Removing excuses	X	X	X
Implement checklists for rounds and shakedowns to encourage comprehensive searches	Increasing perceived risk, Reducing rewards, Removing excuses	X	X	X
Begin corruption awareness campaign to highlight the negative consequences of corrupt behavior and strengthen sanctions against staff bringing in contraband	Increasing perceived risk, Removing excuses	X	X	X
Increase screening of staff upon entrance to facility	Increasing perceived risk	X		X
Have management review computer logs to ensure staff are recording situations for next shift worker	Increasing perceived risk	X	X	X
Discuss shakedowns at roll call rather than over loud speaker in order to prevent inmate awareness of impending searches	Increasing perceived risk	X		X
Other Interventions				
Place emergency buttons on consoles for quicker communication	Increasing perceived risk, Reducing rewards	X	X	X
Adjust location of emergency buttons in social work offices for easier access	Increasing perceived risk; Reducing rewards	X	X	X

Recommendation	Main SCP Type	Physical	Sexual	Self-Harm
Install hidden cameras in closets to detect suspected staff-inmate sexual activity	Increasing punishments		X	
Install security mirrors in programming area to reduce blind spots	Increasing perceived risk	X	X	X
Establish automatic disconnection on inmate phones to facilitate sharing of phone time and address a case of fights	Controlling precipitators	X		
Install locked grievance boxes and only allow upper management to have keys to address inmate concerns that grievance notices are being thrown away by correctional officers	Controlling precipitators, Increasing perceived risk, Removing excuses	X	X	X
Have management randomly rotate in front desk shifts to monitor and check entering staff for illegal contraband	Increasing perceived risk	X		X
Randomly review recorded video footage to ensure correctional officers are conducting rounds	Increasing perceived risk	X	X	X
Increase staff engagement by honoring or awarding staff who respond to difficult situations or find contraband	Increasing perceived risk, Reducing rewards	X	X	X
Institute emergency call drills and punish staff who do not respond to the emergency call	Increasing perceived risk	X	X	X

Recommendation	Main SCP Type	Physical	Sexual	Self-Harm
Increase staff engagement by scheduling an employee workshop on career development and ethics training	Increasing perceived risk	X	X	X
Use a cell phone scrambler or detector to locate cell phones within the facility	Increasing perceived risk, Reducing rewards	X	X	

**Site C Recommendations within SCP Framework**

Recommendation	Main SCP Type	Physical	Sexual	Self-Harm
Improve supervision of inmates through technology and policy				
Install recording cameras in housing units	Increasing perceived risk	X		
Repair broken and burned out light fixtures to maximize visibility from the officer booths into housing units	Increasing perceived risk	X		
Consistently enforce policy prohibiting blocking cell windows	Increasing perceived risk	X	X	X
Conduct nightly checks to ensure inmates are not locking themselves into unassigned cells	Increasing perceived risk	X	X	
Revisit movement policies, particularly movement to recreation without back-up and movement to court	Increasing effort	X		
Improve supervision and response to inmates by expanding staff capacity				
Reevaluate staffing to maximize officer supervision of inmates and facilitate prompt, reliable back-up	Increasing perceived risk	X	X	X
Hold officers accountable for adherence to policy and reward officers who perform well	Increasing perceived risk	X	X	X
Implement system to track officer rounds	Increasing perceived risk	X	X	X
Expand staff training for interpersonal skills and mental health issues	Controlling precipitators, Removing excuses	X	X	X

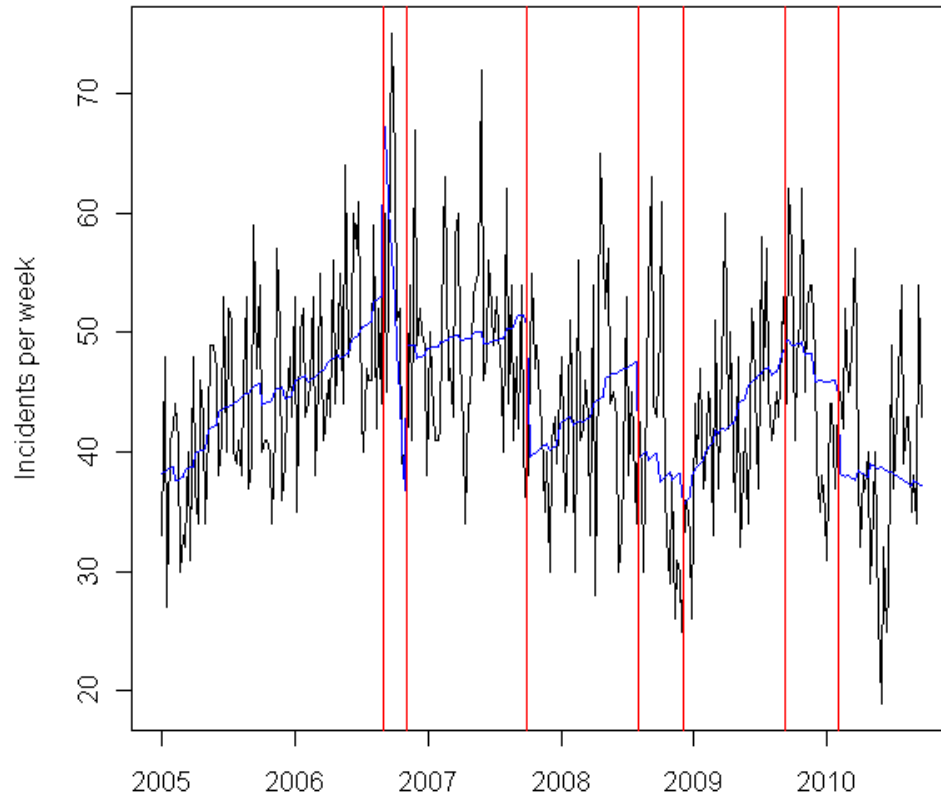
Recommendation	Main SCP Type	Physical	Sexual	Self-Harm
Increase detection of weapons and contraband				
Expand the use of mobile metal detectors	Increasing perceived risk	X		X
Routinely search known contraband hiding spots and vary search strategies to prevent inmates anticipating searches	Increasing perceived risk	X		X
Enforce basic policies for cleanliness and repair holes/cracks in walls to reduce contraband hiding spots	Increasing effort	X		X
Evaluate drug detection machine to ensure effective use for searching staff	Increasing perceived risk	X	X	X
Eliminate causes of violence				
Revise and consistently enforce policies covering gambling, television, and telephones	Controlling precipitators	X		
Expand anger management classes, counseling, and general programs to help reduce stress and boredom	Controlling precipitators	X		X
Evaluate effectiveness of “half-in/half out” policy to ensure policy has sufficient safety gains to justify stress to inmates	Controlling precipitators	X		X

## APPENDIX L: ARIMA TIME SERIES AND STRUCTURAL BREAK GRAPHS

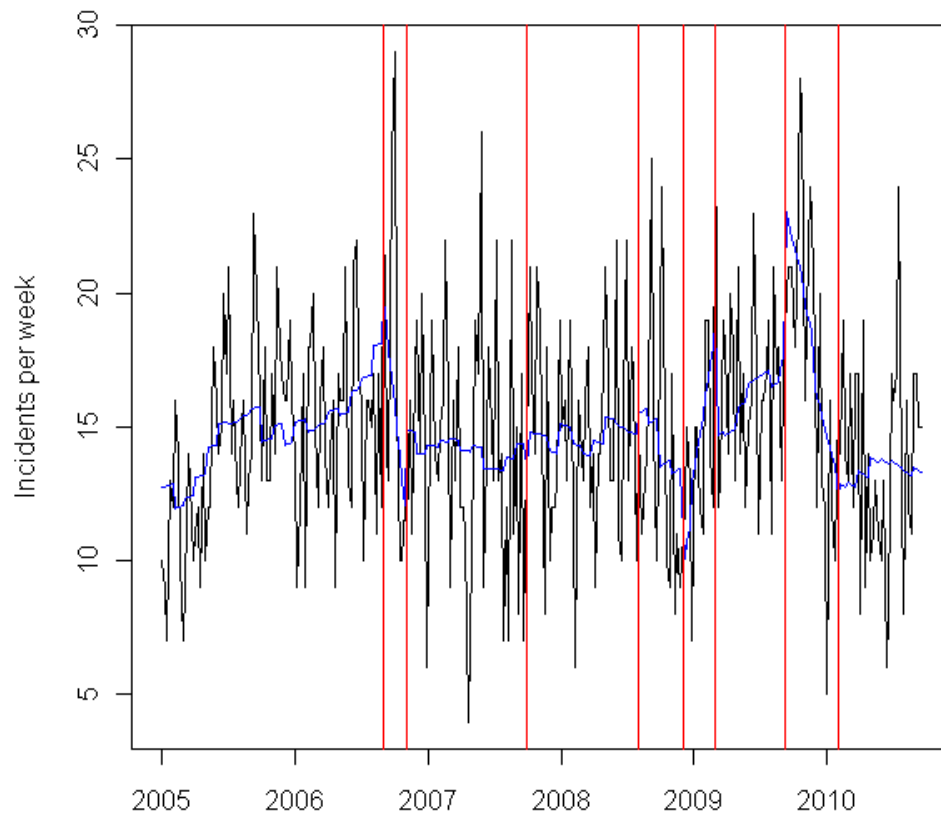


## SITE A TIME SERIES RESULTS

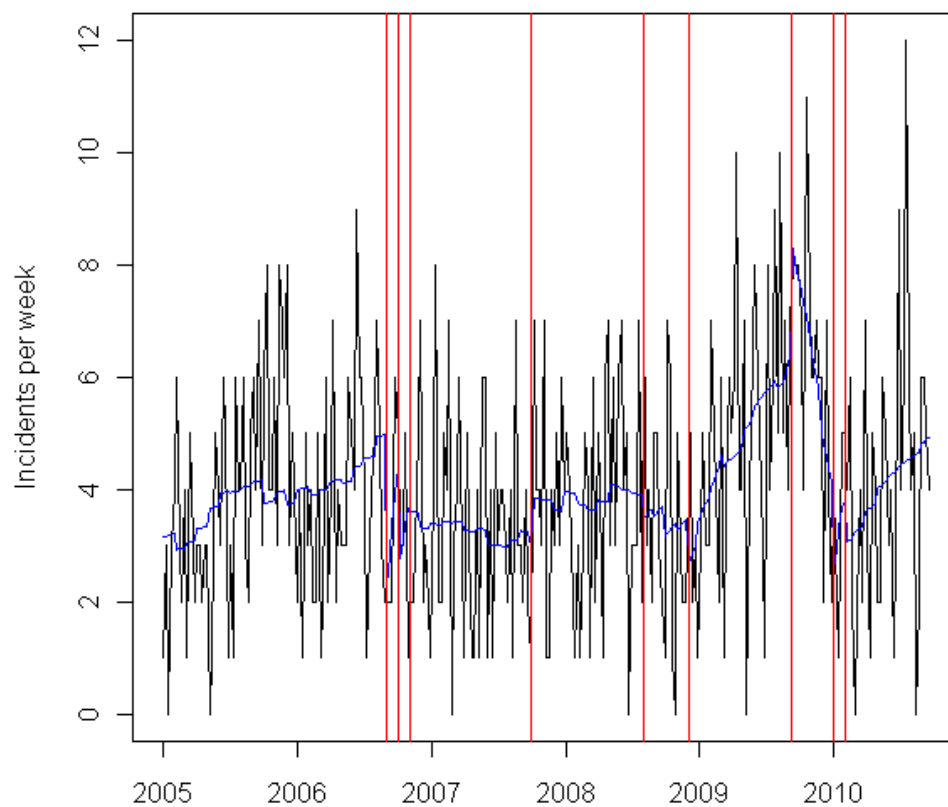
**Figure 1. All Incidents in Facility**



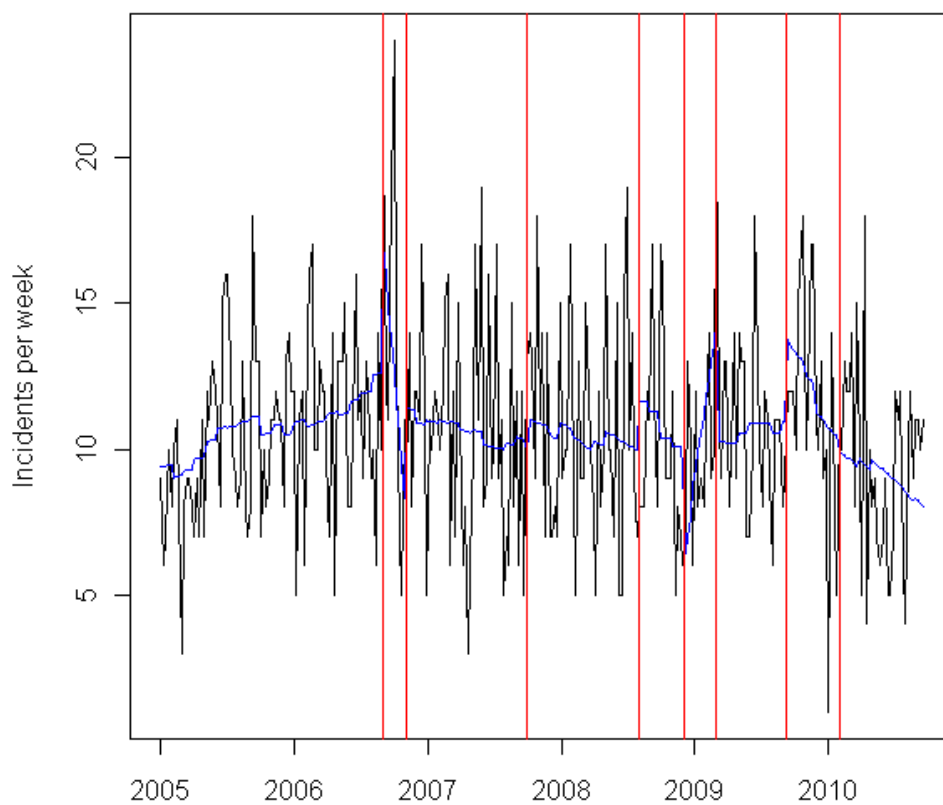
**Figure 2. Main Incidents in Facility**



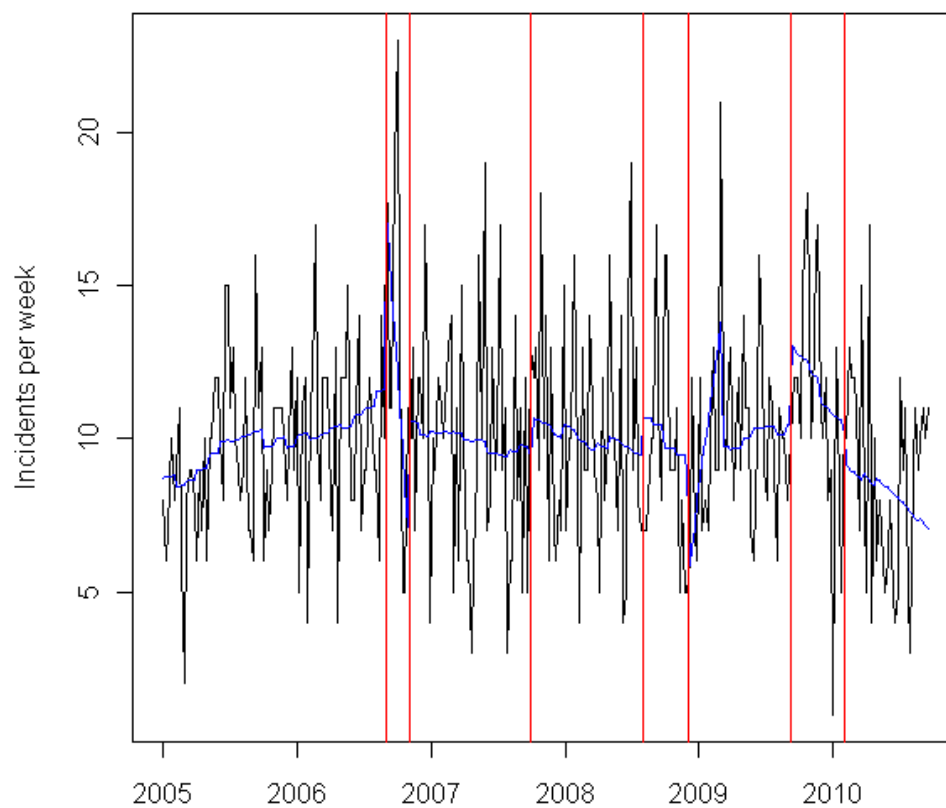
**Figure 3. Suicide and Self-Harm Incidents in Facility**



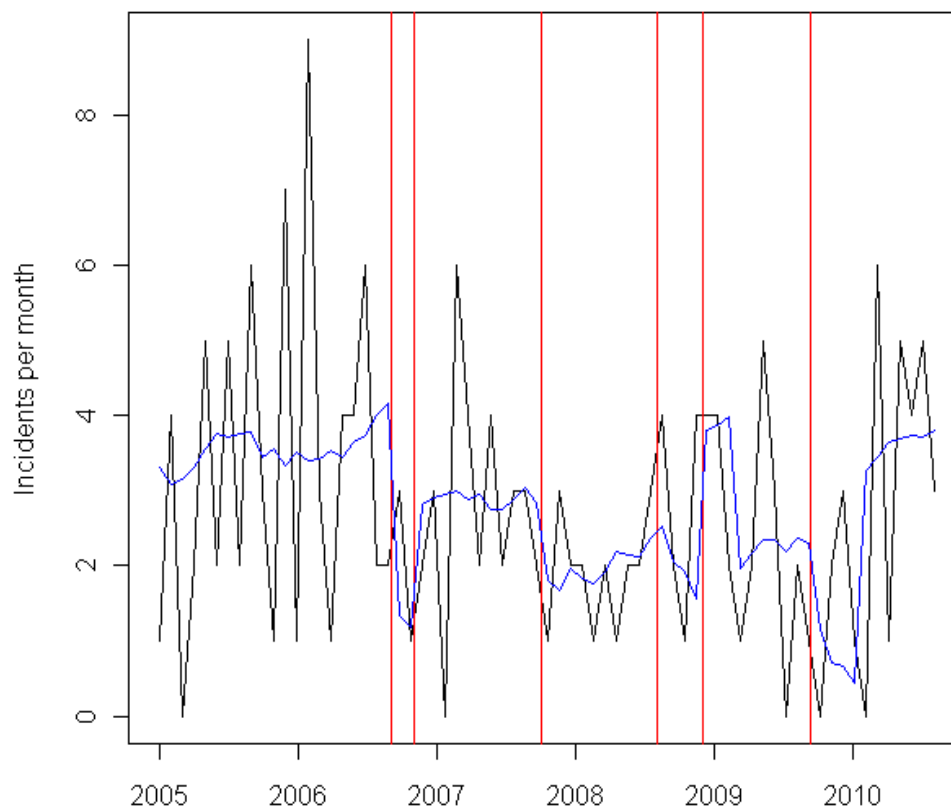
**Figure 4. Physical Assaults in Facility**



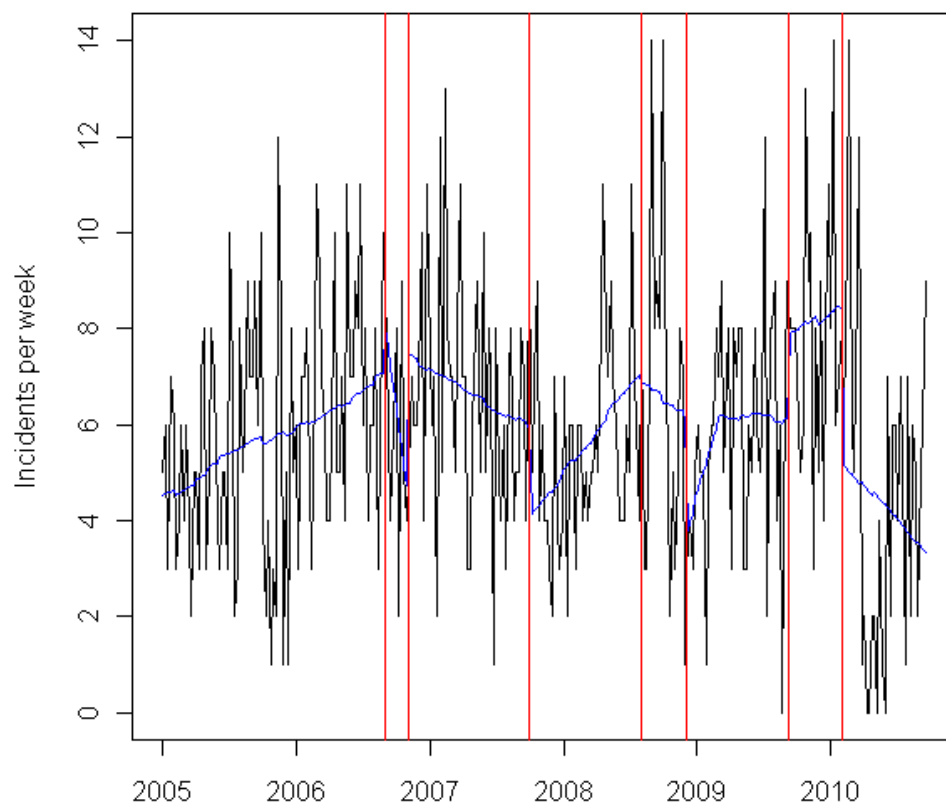
**Figure 5. Inmate-on-Inmate Assaults in Facility**



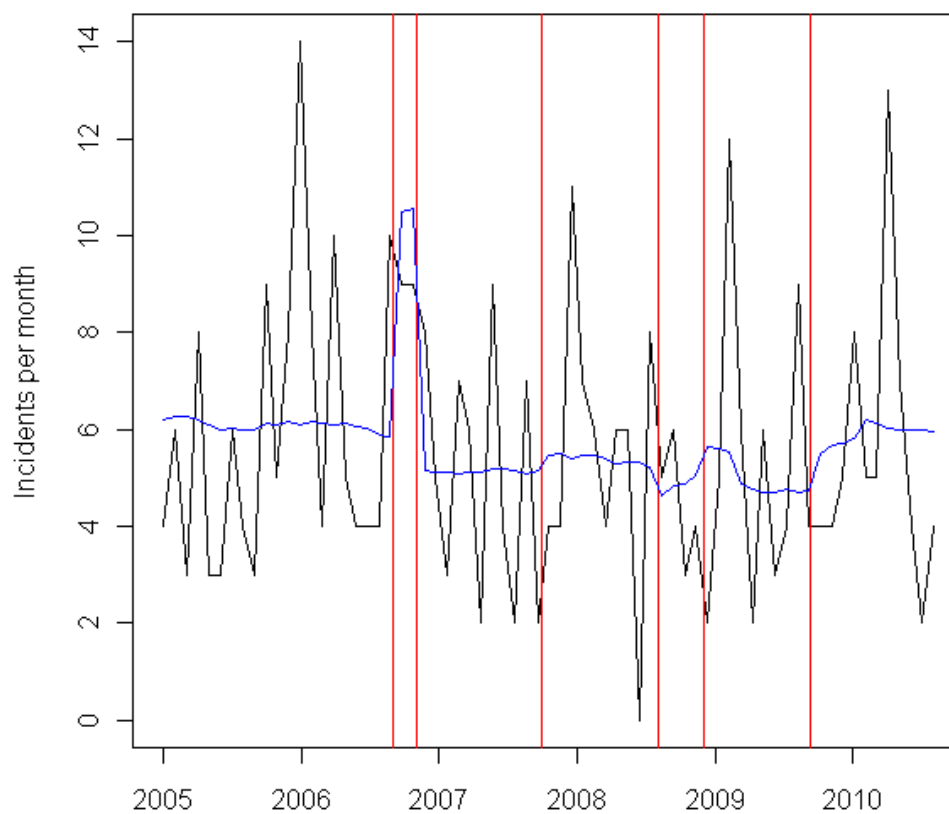
**Figure 6. Inmate-on-Staff Assaults in Facility**



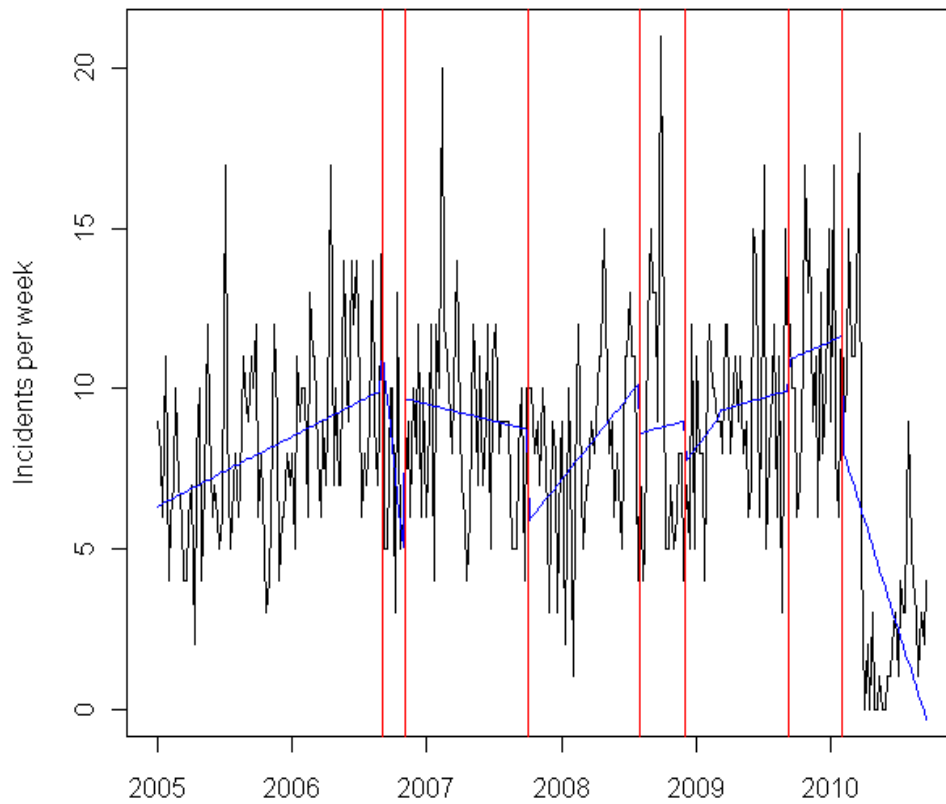
**Figure 7. Combative/Uncooperative Inmate Incidents in Facility**



**Figure 8. Contraband Seizures in Facility**



**Figure 9. Use of Force in Facility**

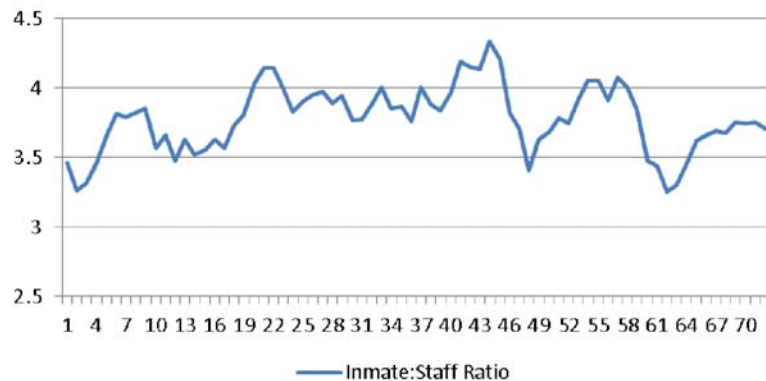


## **SITE A STRUCTURAL BREAK RESULTS**

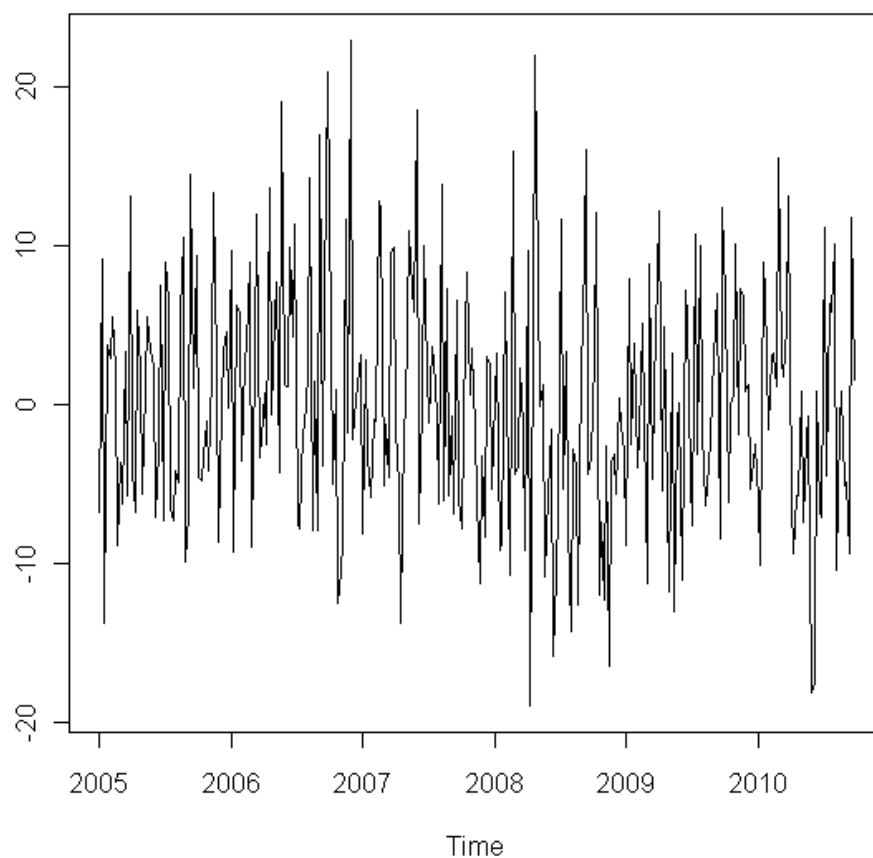
**Table 1. Structural Break Results for Site A**

<i>Series</i>	<i>Freq.</i>	<i>Model</i>	<i>Breaks</i>	<i>Intercept</i>	<i>Inmates:Staff</i>
All incidents	Weekly	ARMA(7,6)	None	-0.76	11.96**
Main incidents	Weekly	ARMA(6,5)	None	-0.48	4.03**
Self Harm	Weekly	ARMA(4,5)	None	-1.39	1.42†
Physical Assaults	Weekly	ARMA(5,4)	None	1.58	2.38*
Inmate Assaults	Weekly	ARMA(2,2)	None	0.11	2.61**
Staff Assaults	Monthly	ARMA(1,1)	None	5.4†	-0.70
Combat/Uncoop	Weekly	ARMA(3,5)	None	-0.39	1.68†
Contraband	Monthly	ARMA(2,2)	None	7.53	-0.51
Use of Force	Weekly	ARMA(5,4)	Feb 2010 (-4.79**)	5.23	0.93

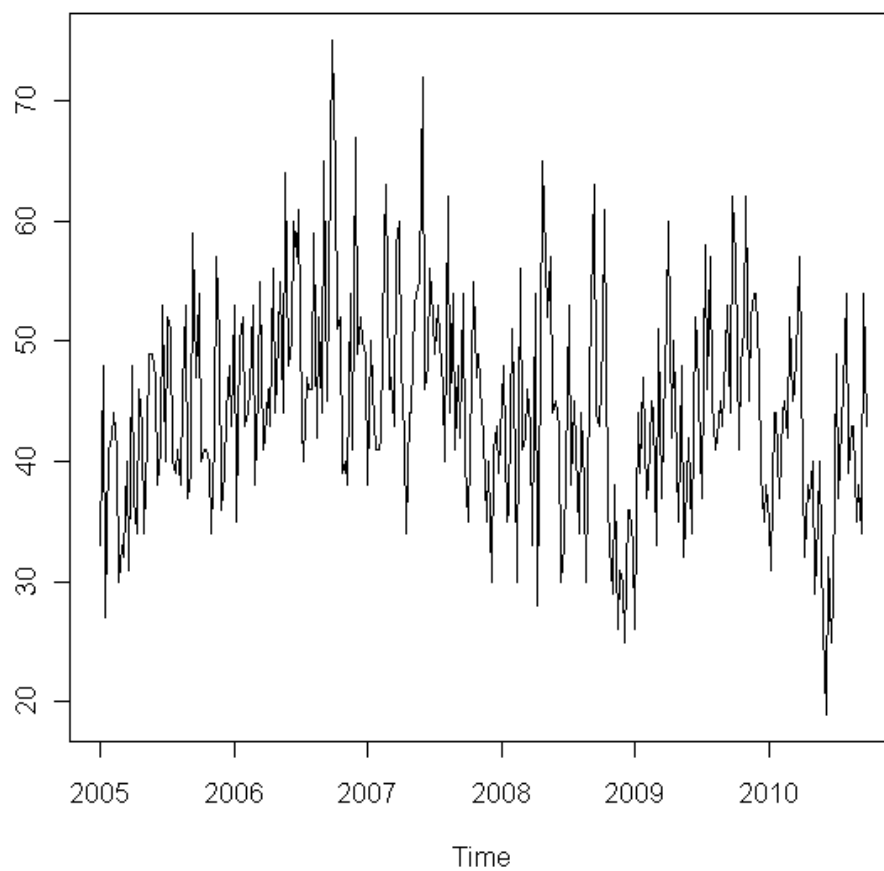
**Figure 10. Inmate-to-Staff Ratio at Site A**



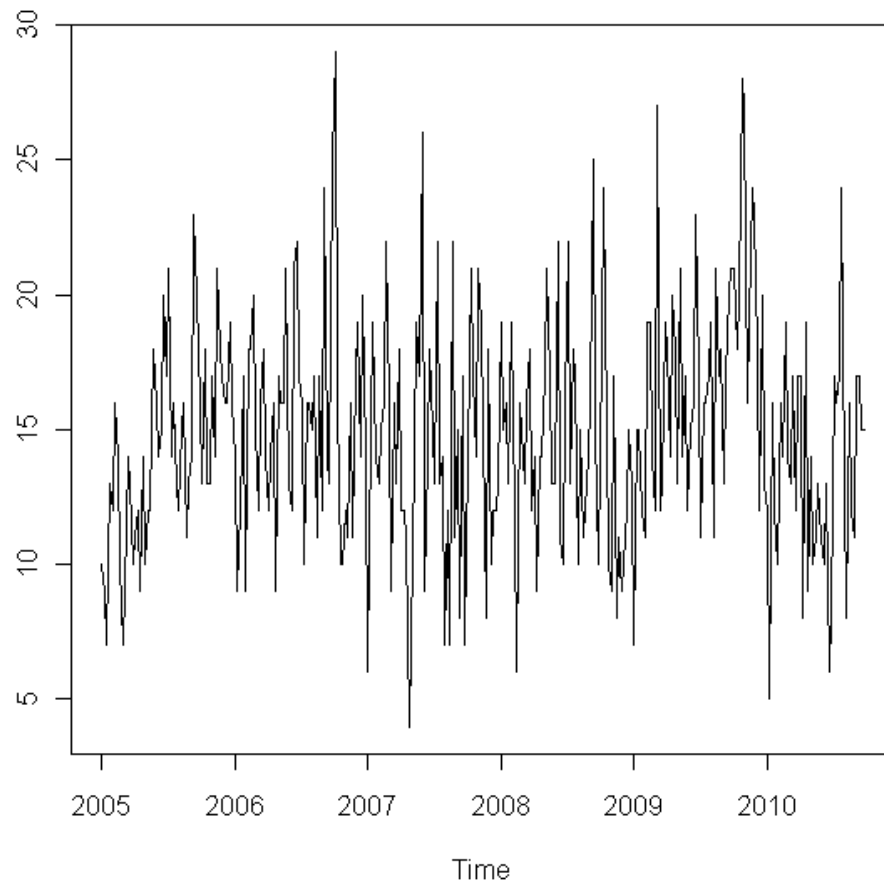
**Figure 11. All Incidents in Facility**



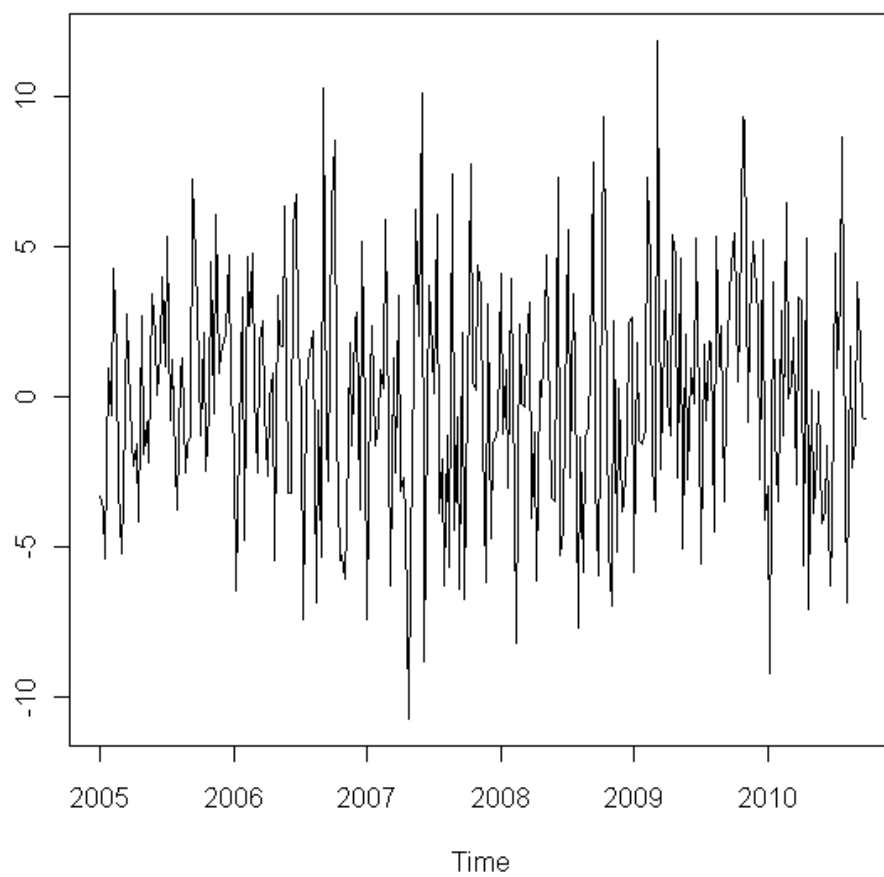
**Figure 12. Series Residuals for All Incidents in Facility**



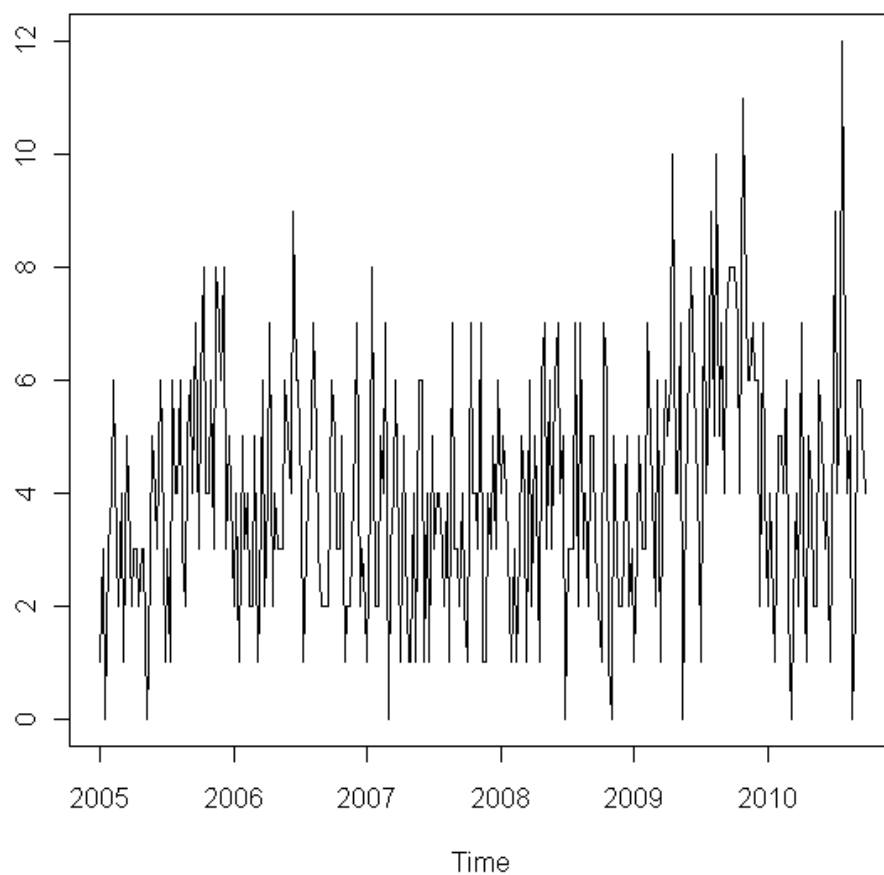
**Figure 13. Main Incidents in Facility**



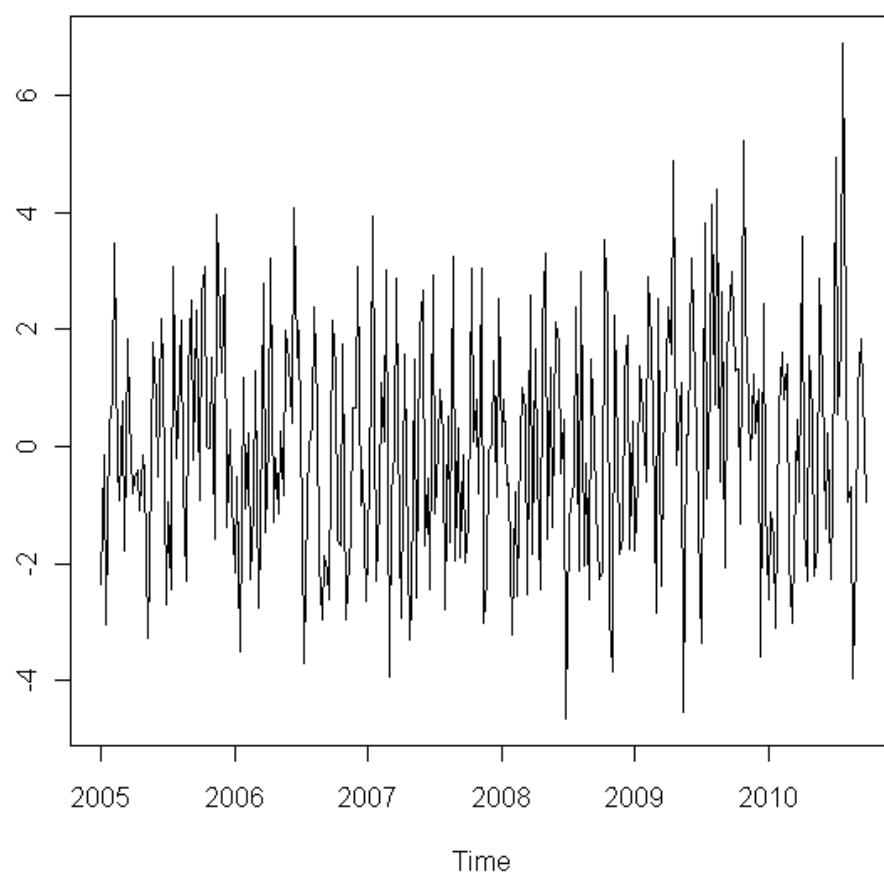
**Figure 14. Series Residuals for Main Incidents in Facility**



**Figure 15. Suicide and Self-Harm Incidents in Facility**

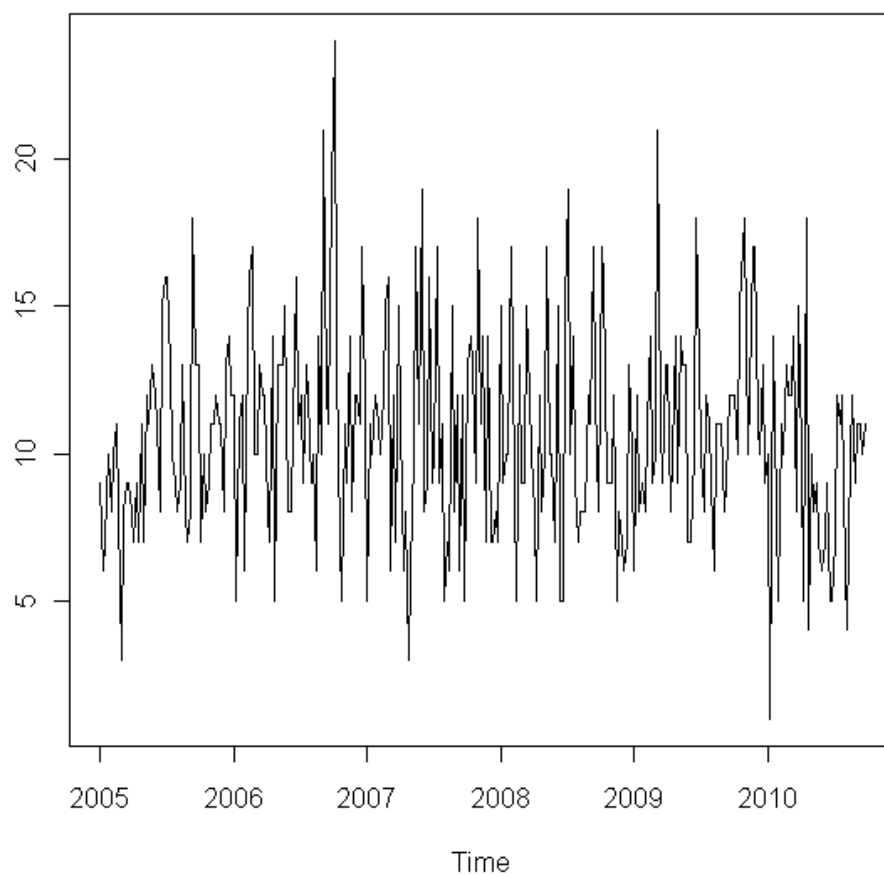


**Figure 16. Series Residuals for Suicide and Self-Harm Incidents in Facility**

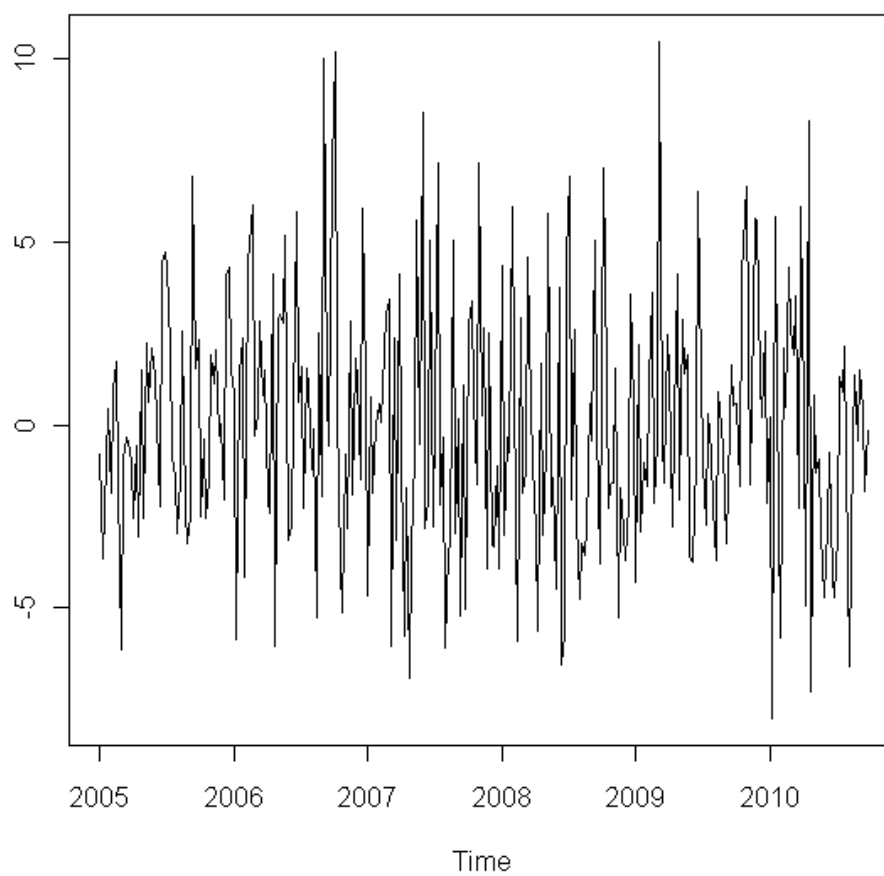




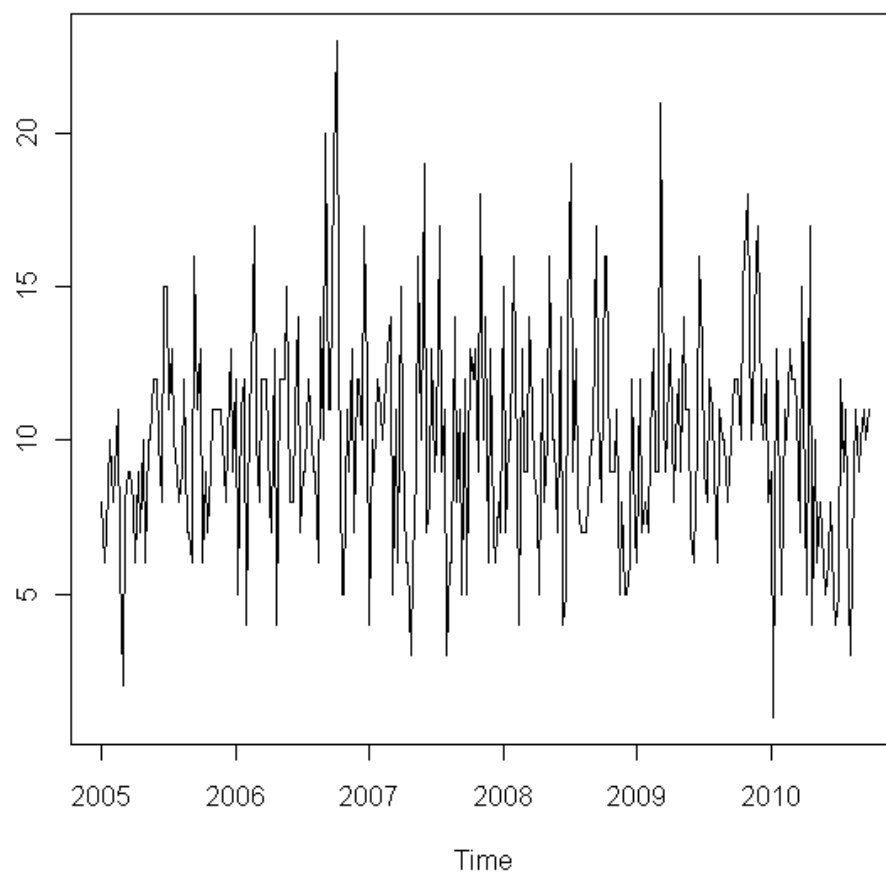
**Figure 17. Physical Assaults in Facility**



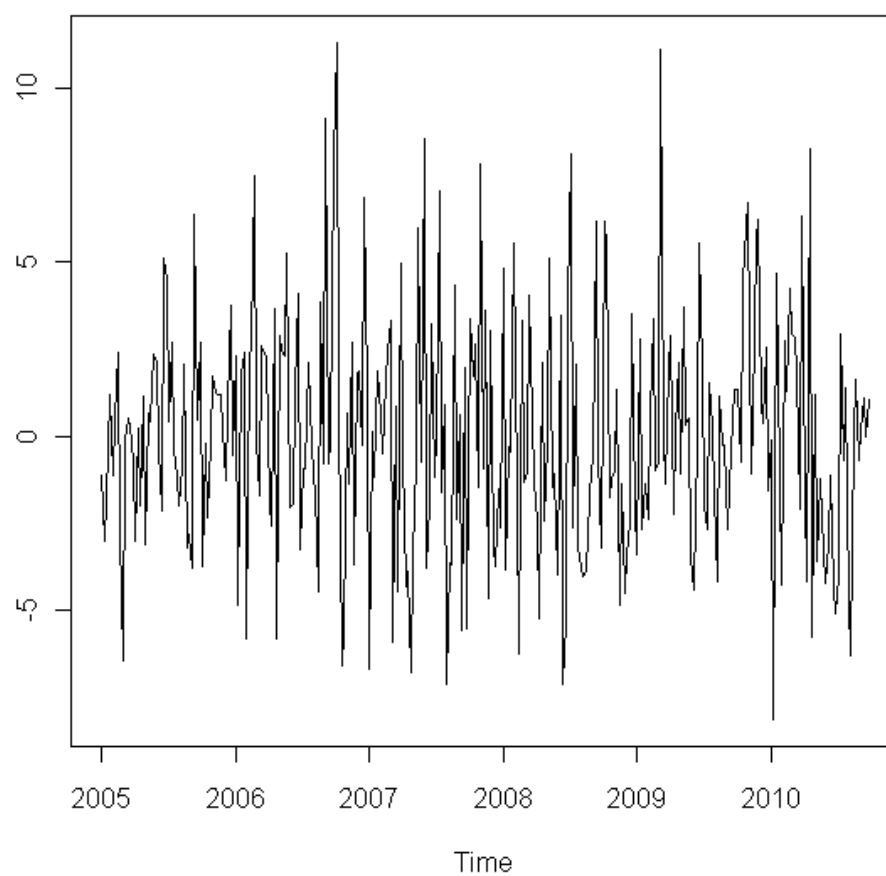
**Figure 18. Series Residuals for Physical Assaults in Facility**



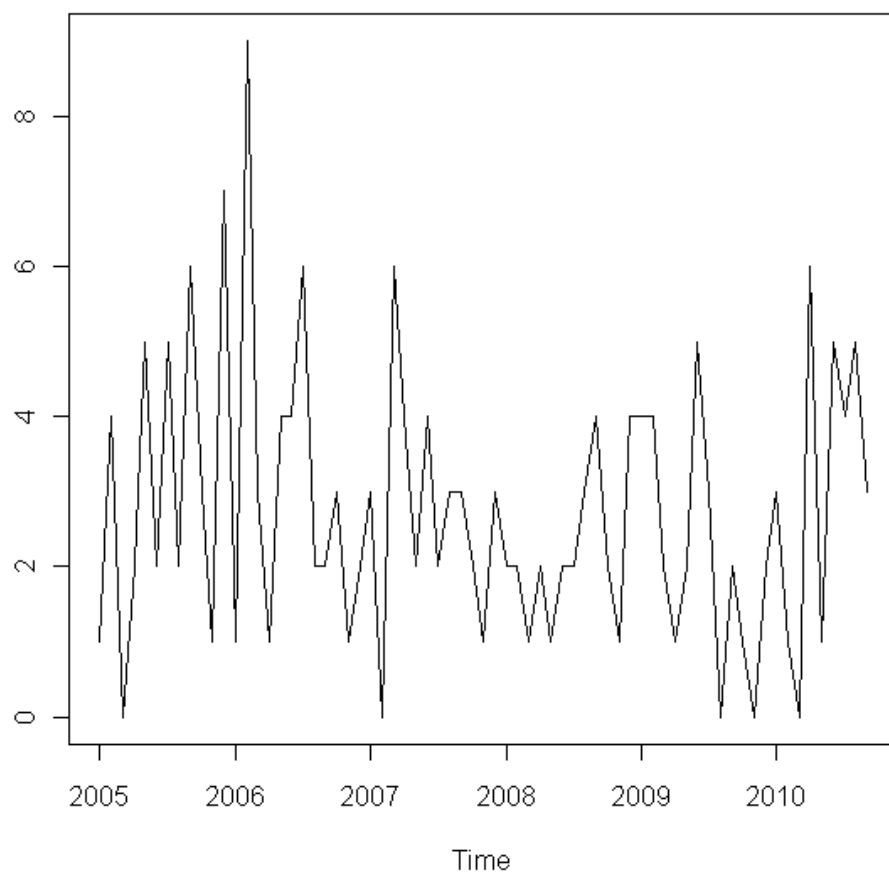
**Figure 19. Inmate-on-Inmate Assaults in Facility**



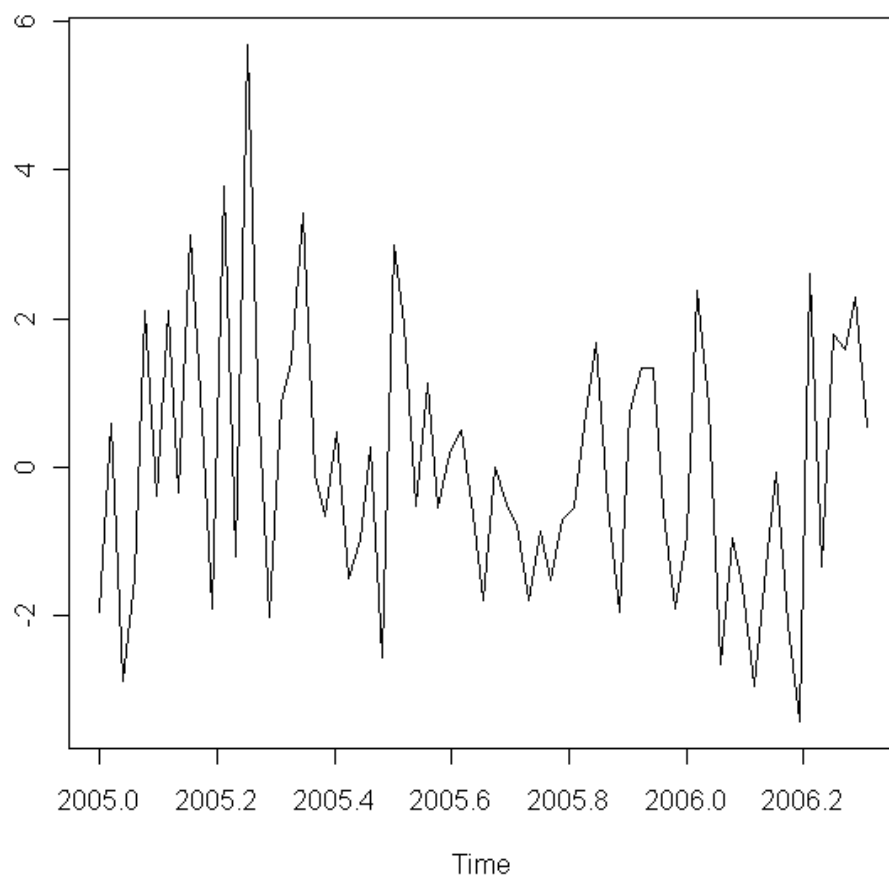
**Figure 20. Series Residuals for Inmate-on-Inmate Assaults in Facility**



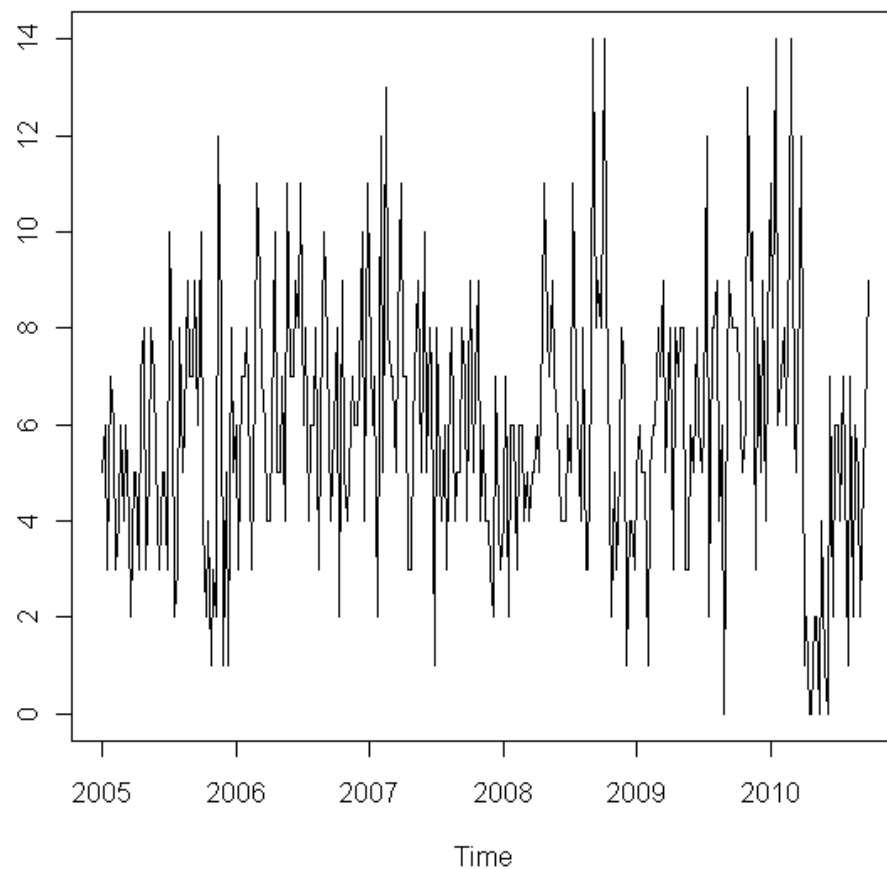
**Figure 21. Inmate-on-Staff Assaults in Facility**



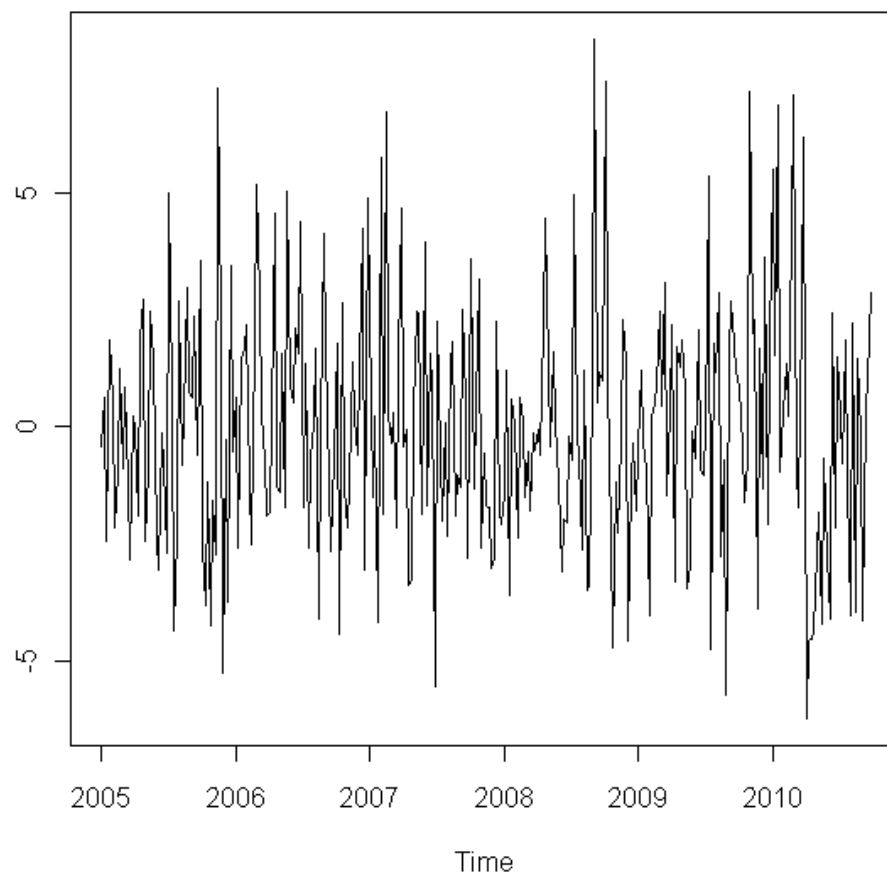
**Figure 22. Series Residuals for Inmate-on-Staff Assaults in Facility**



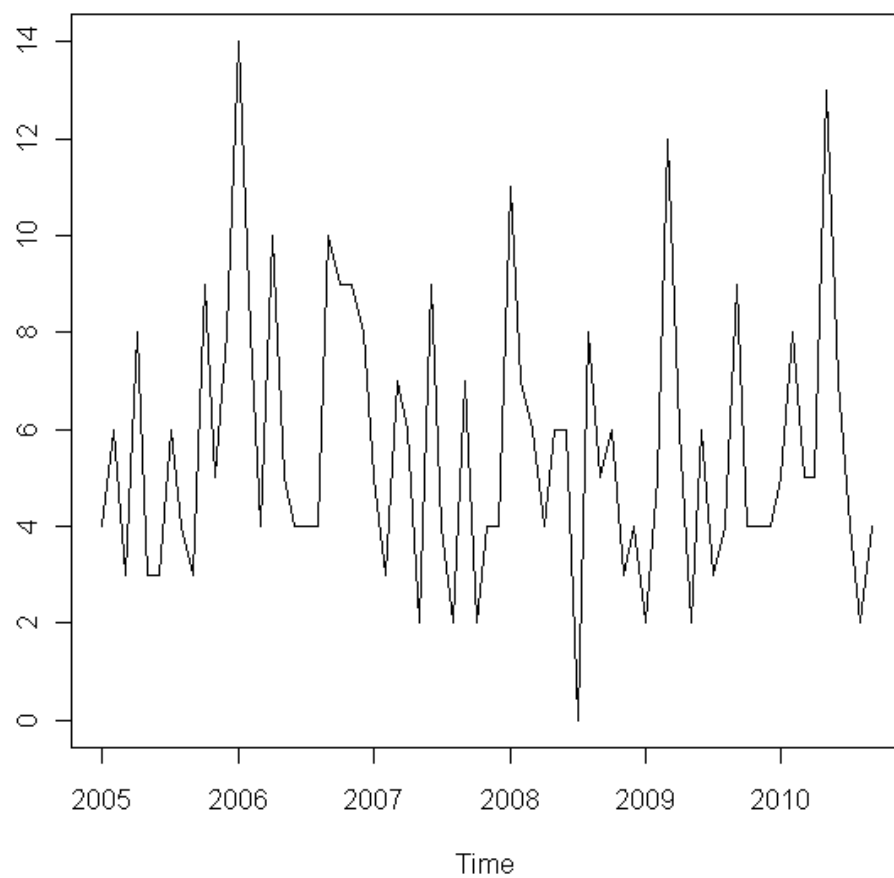
**Figure 23. Combative/Uncooperative Inmate Incidents in Facility**



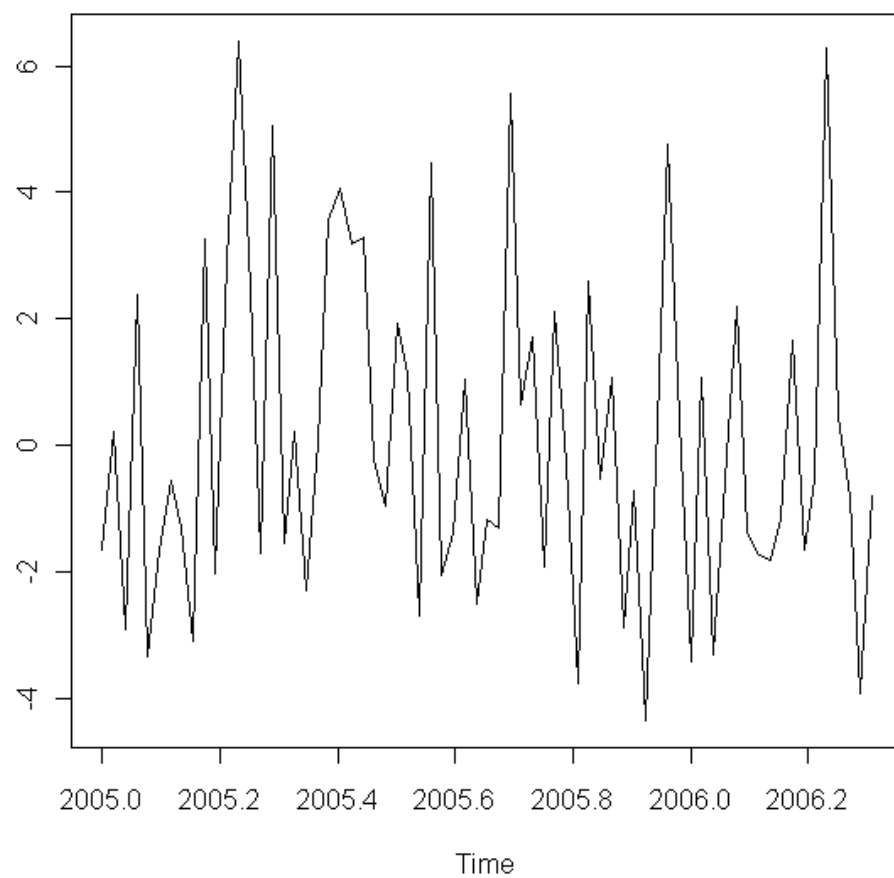
**Figure 24. Series Residuals for Combative/Uncooperative Inmate Incidents in Facility**



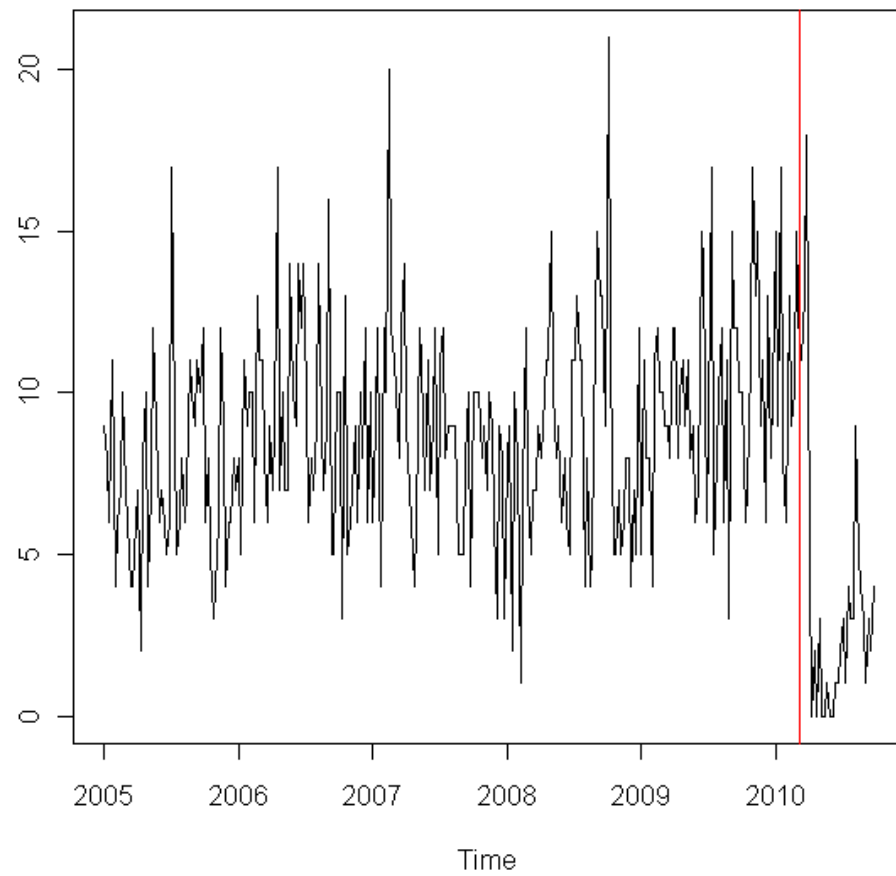
**Figure 25. Contraband Seizures in Facility**



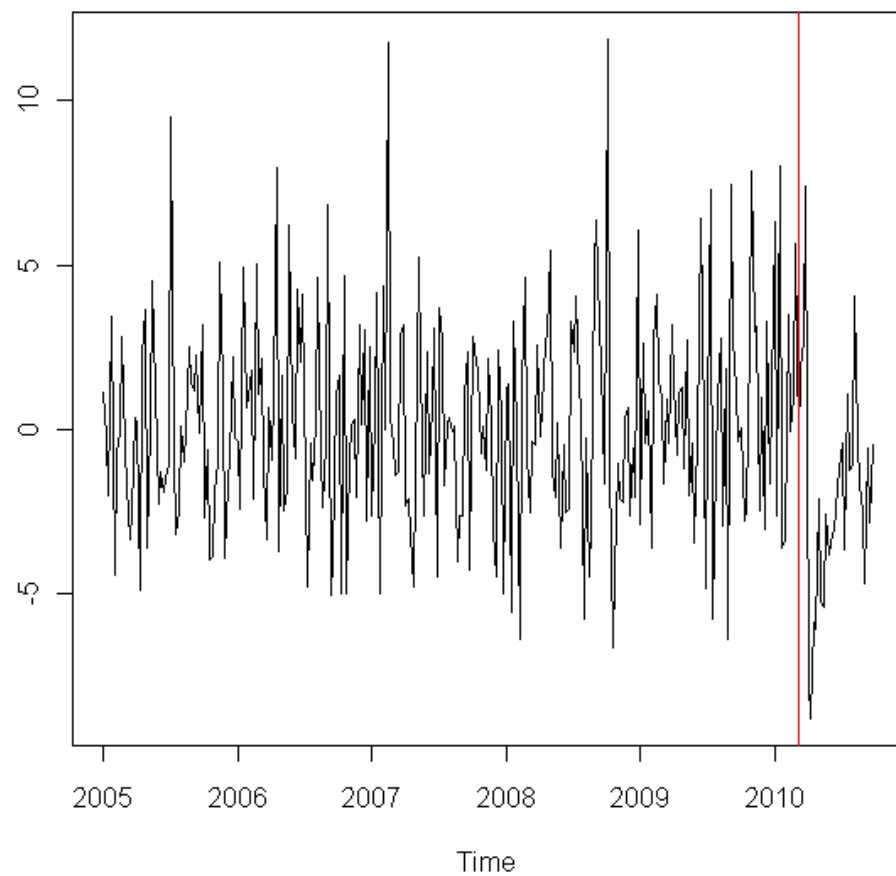
**Figure 26. Series Residuals for Contraband Seizures in Facility**



**Figure 27. Use of Force in Facility**



**Figure 28. Series Residuals for Use of Force in Facility**

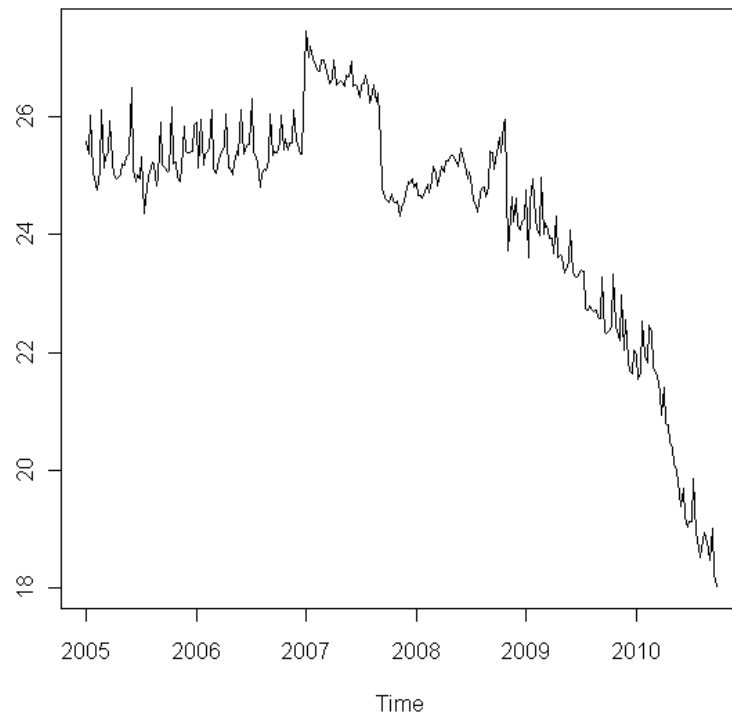


## SITE B STRUCTURAL BREAK RESULTS

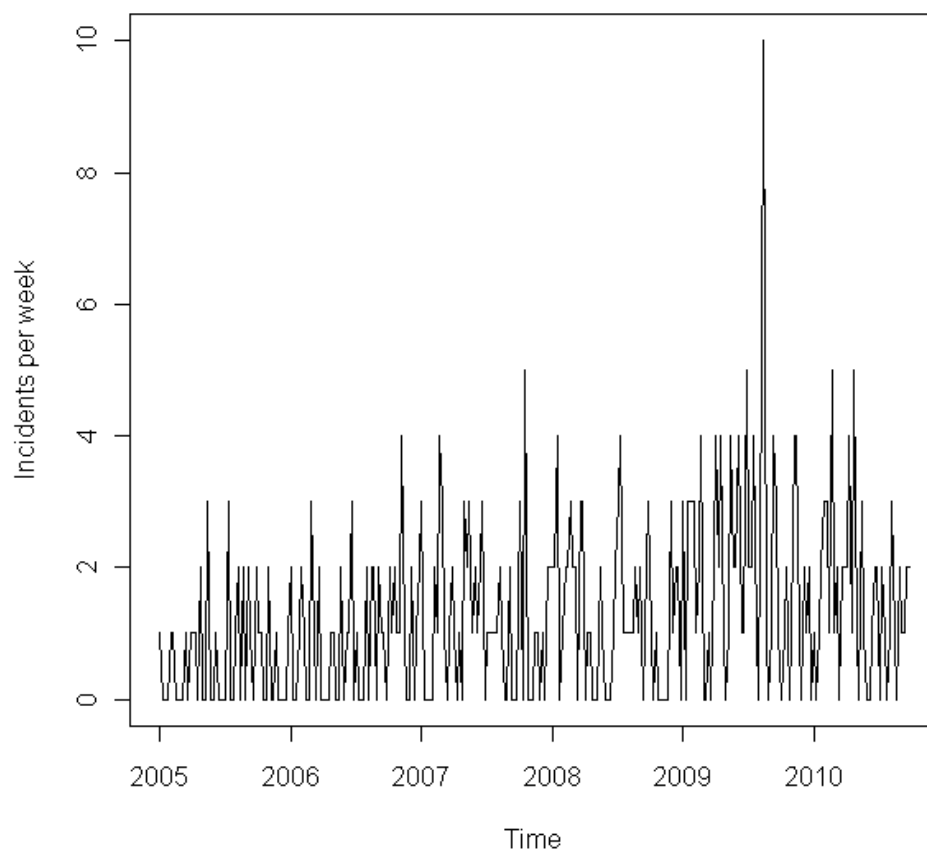
**Table 2. Structural Break Results for Site B**

<i>Series</i>	<i>Freq.</i>	<i>Model</i>	<i>Breaks</i>	<i>Intercept</i>	<i>Inmates:Staff</i>	<i>Non-Int Housing</i>	<i>Other Areas</i>
All incidents	Weekly	ARMA(5,7)	None	0.69	0.03	-0.10*	< 0.01
Main incidents	Monthly	ARMA(4,3)	None	18.36*	-0.63	0.13**	< 0.01
Physical Assaults	Monthly	ARMA(3,3)	None	5.9**	-0.14	0.19	-0.02
Inmate Assaults	Weekly	ARMA(1,1)	None	3.13*	-0.08	--	--
Staff Assaults	Monthly	ARMA(1,1)	None	-6.01	0.45	--	--
Contraband	Monthly	ARMA(1,1)	None	13.43	-0.40	--	--
Use of Force	Weekly	ARMA(1,1)	None	1.86	0.15	--	--

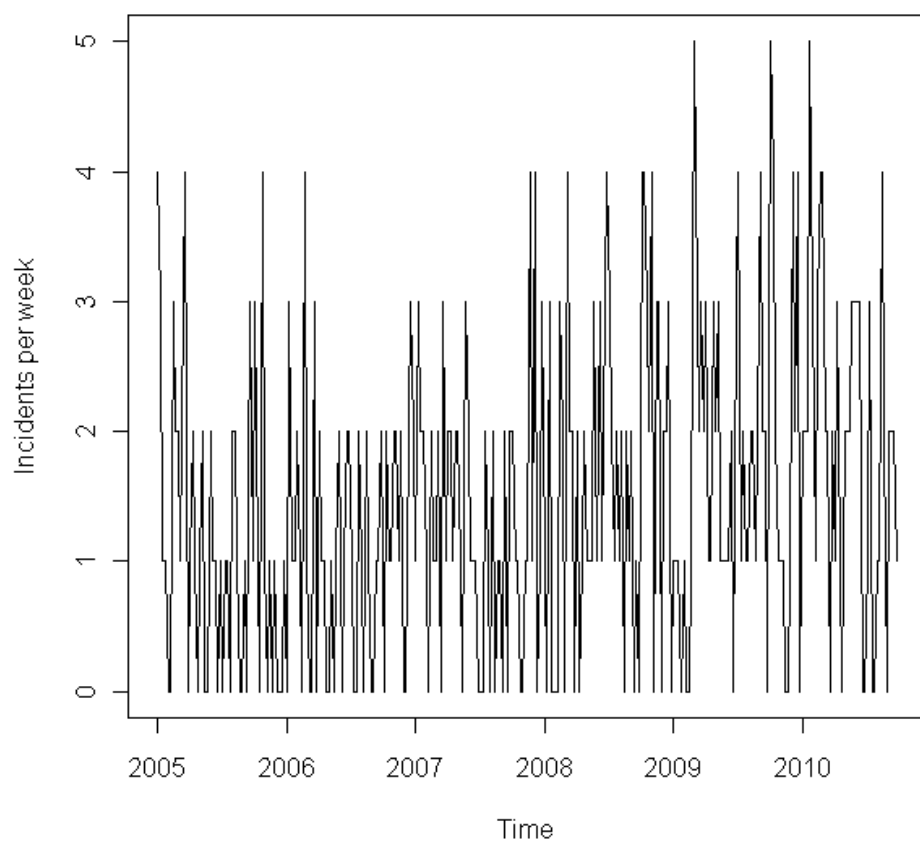
**Figure 29. Inmate:Staff Ratio at Site B**



**Figure 30. All Incidents in Intervention Units**

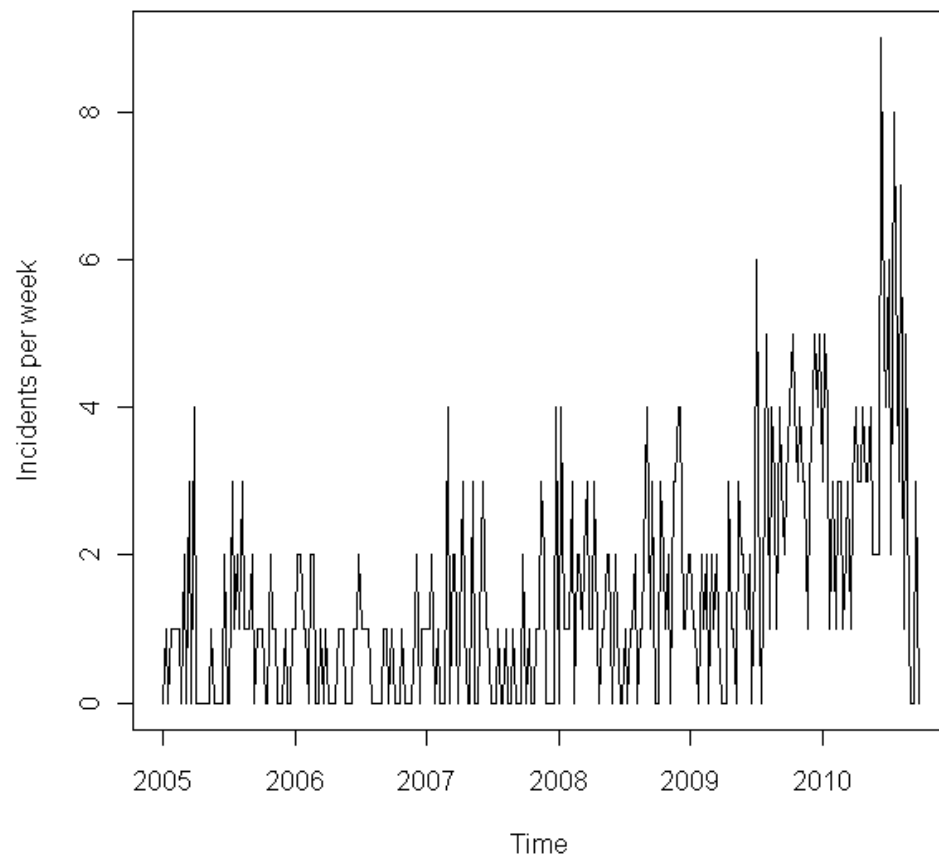


**Figure 31. All Incidents in Non-Intervention Housing Units**

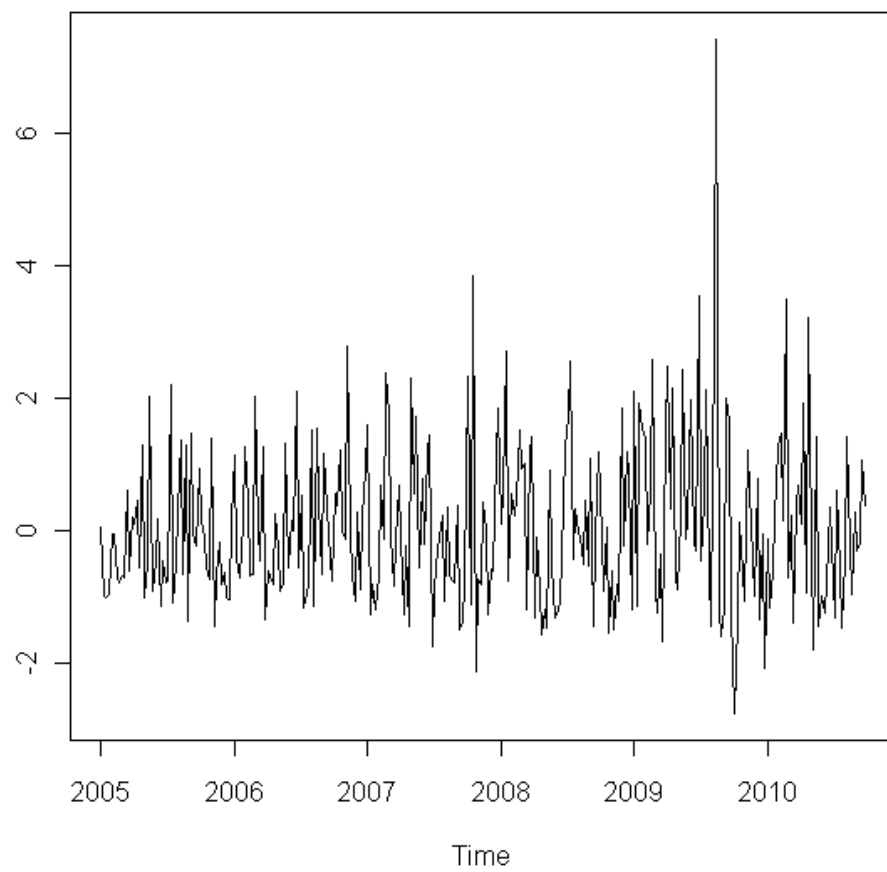




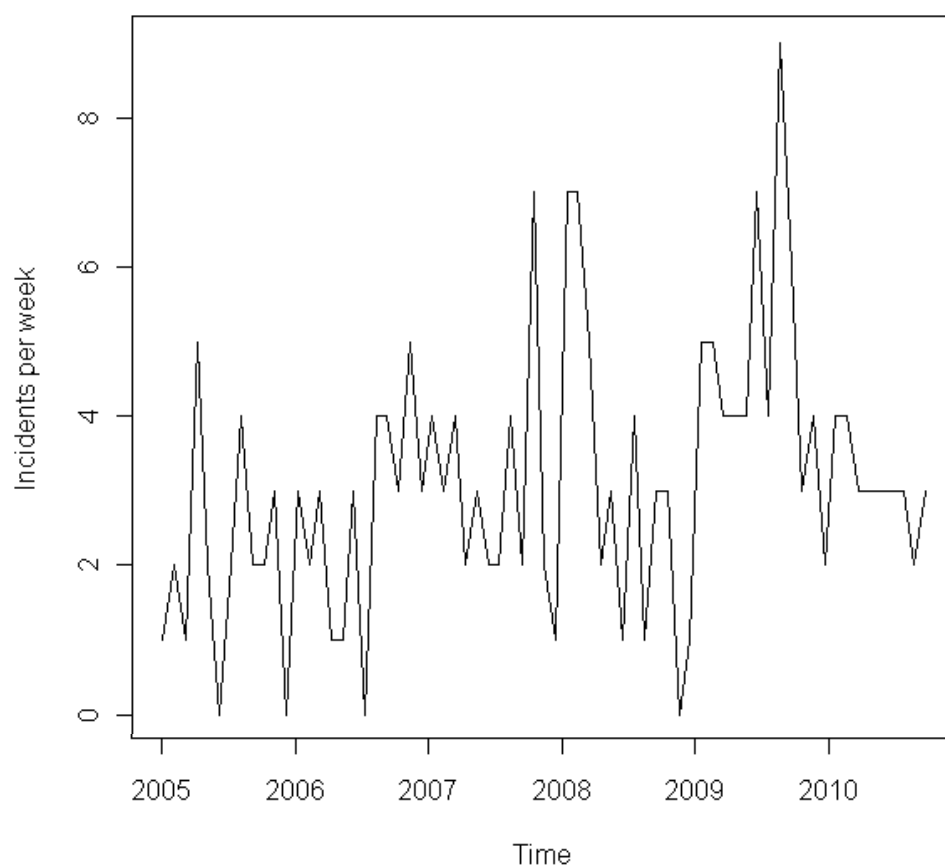
**Figure 32. All Incidents in Other Areas**



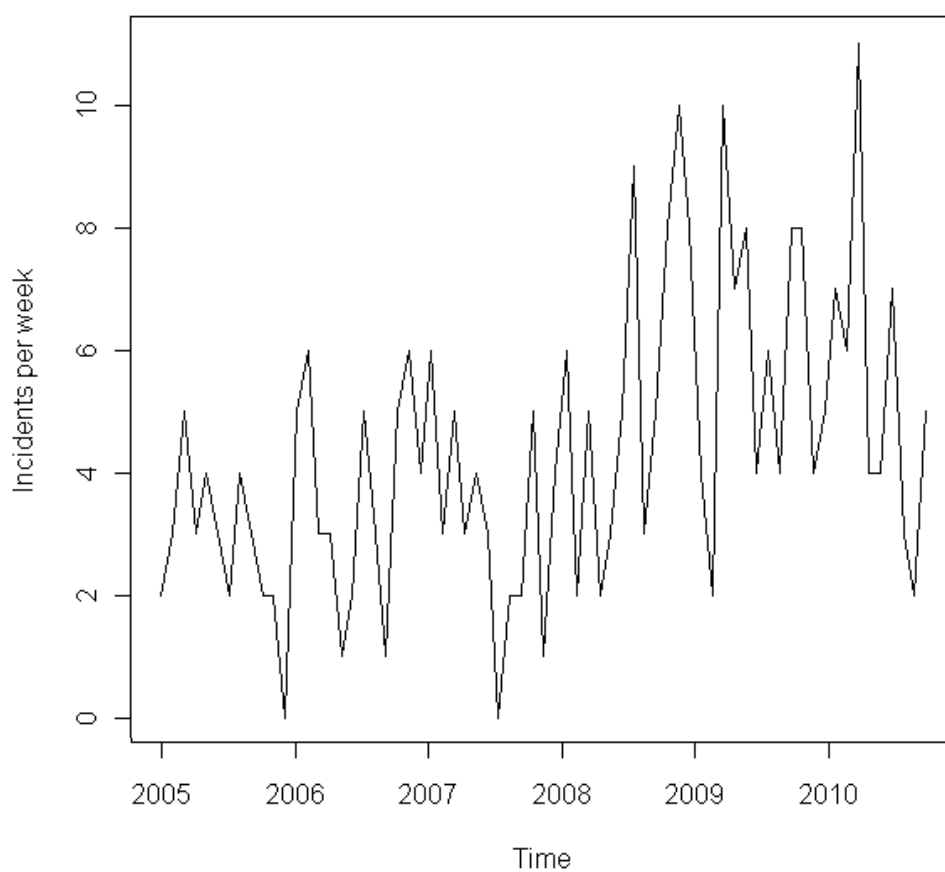
**Figure 33. Series Residuals for All Incidents**



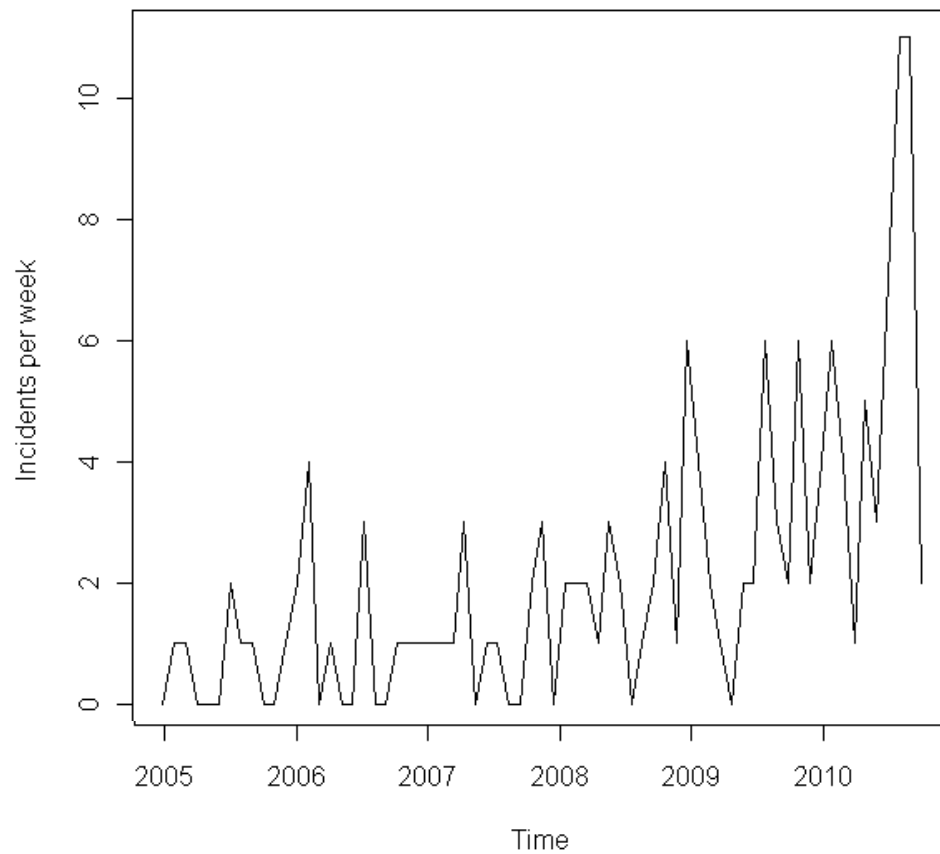
**Figure 34. Main Incidents in Intervention Units**



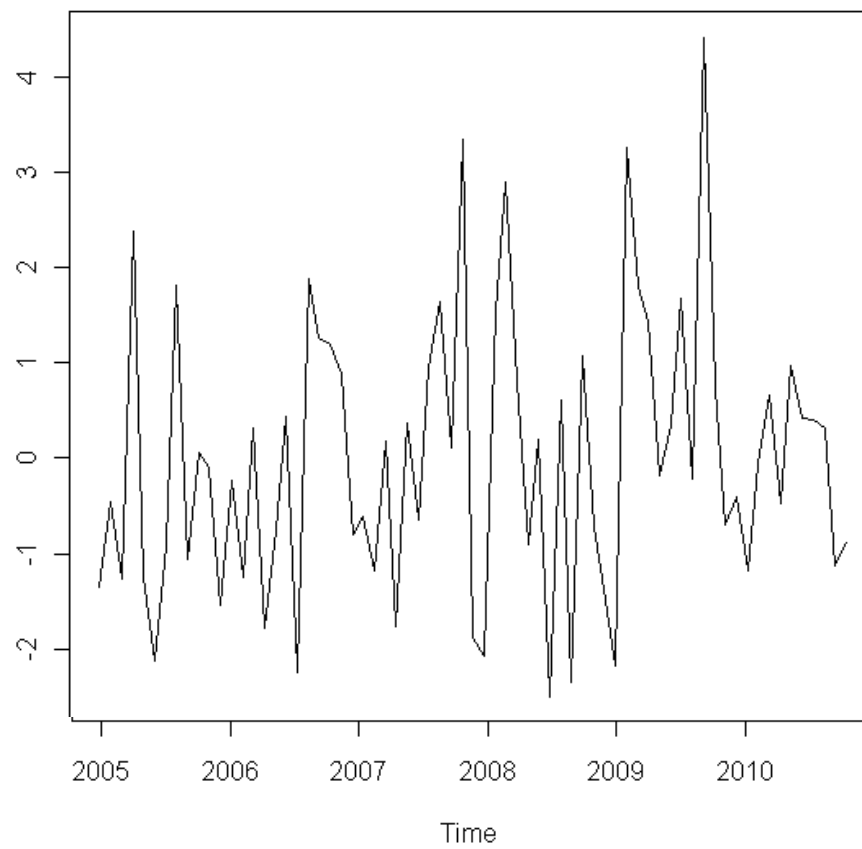
**Figure 35. Main Incidents in Non-Intervention Housing Units**



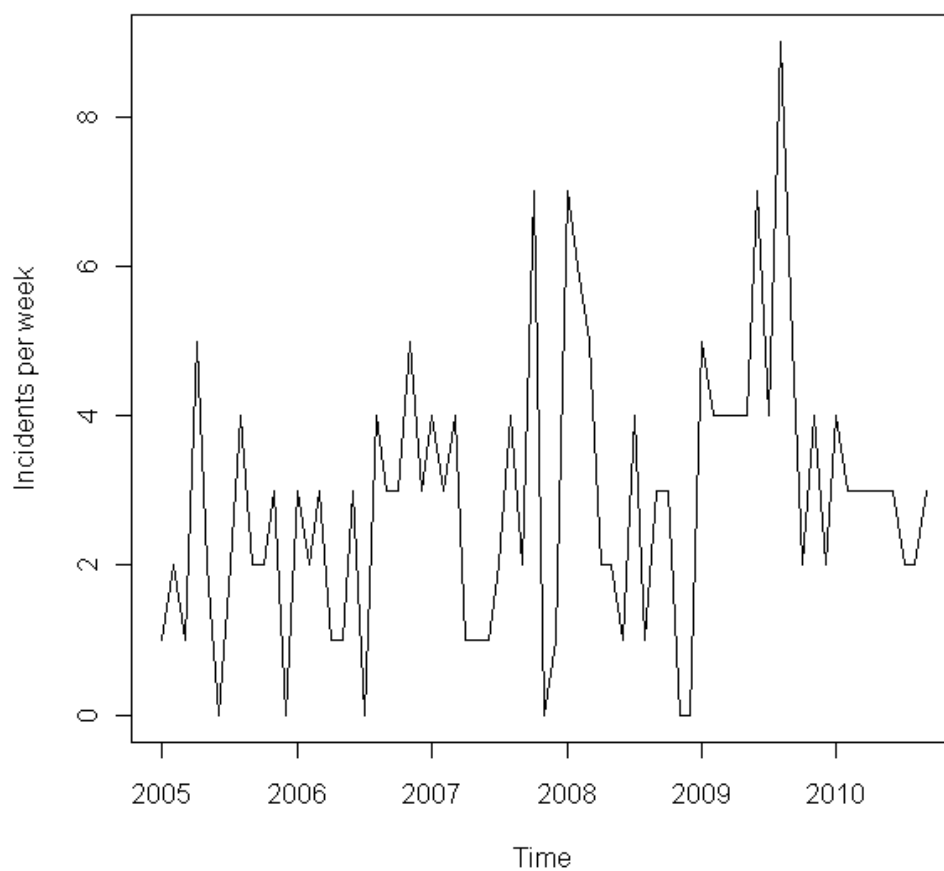
**Figure 36. Main Incidents in Other Areas**



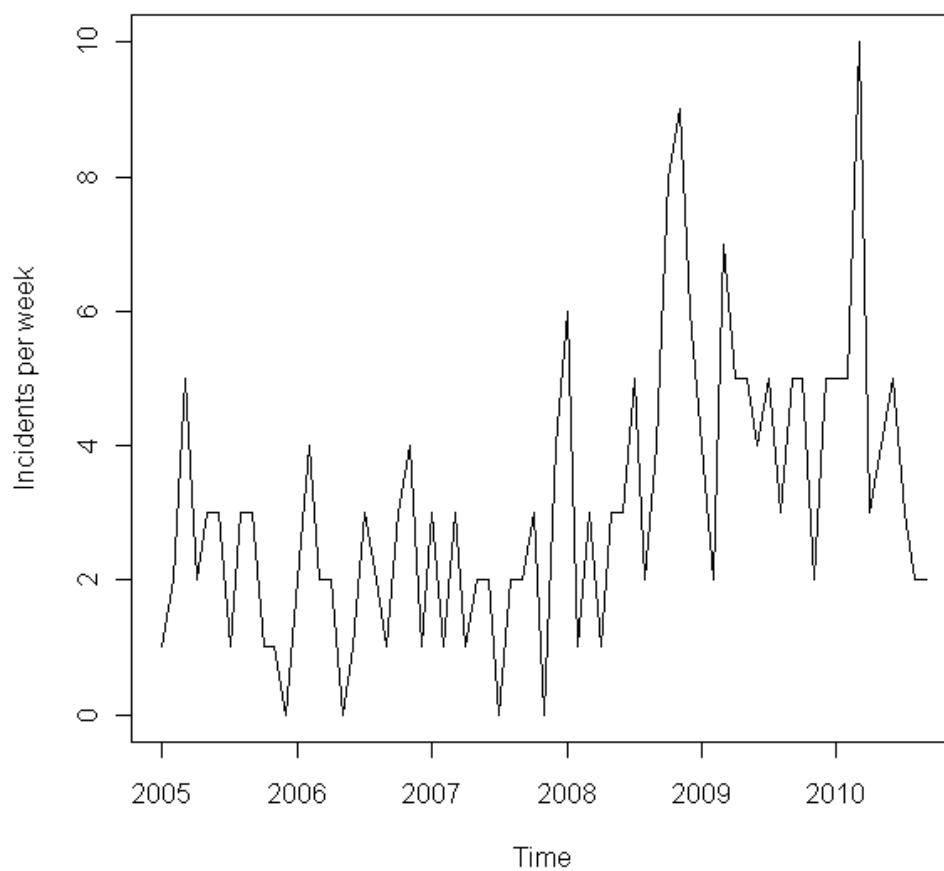
**Figure 37. Series Residuals for Main Incidents**



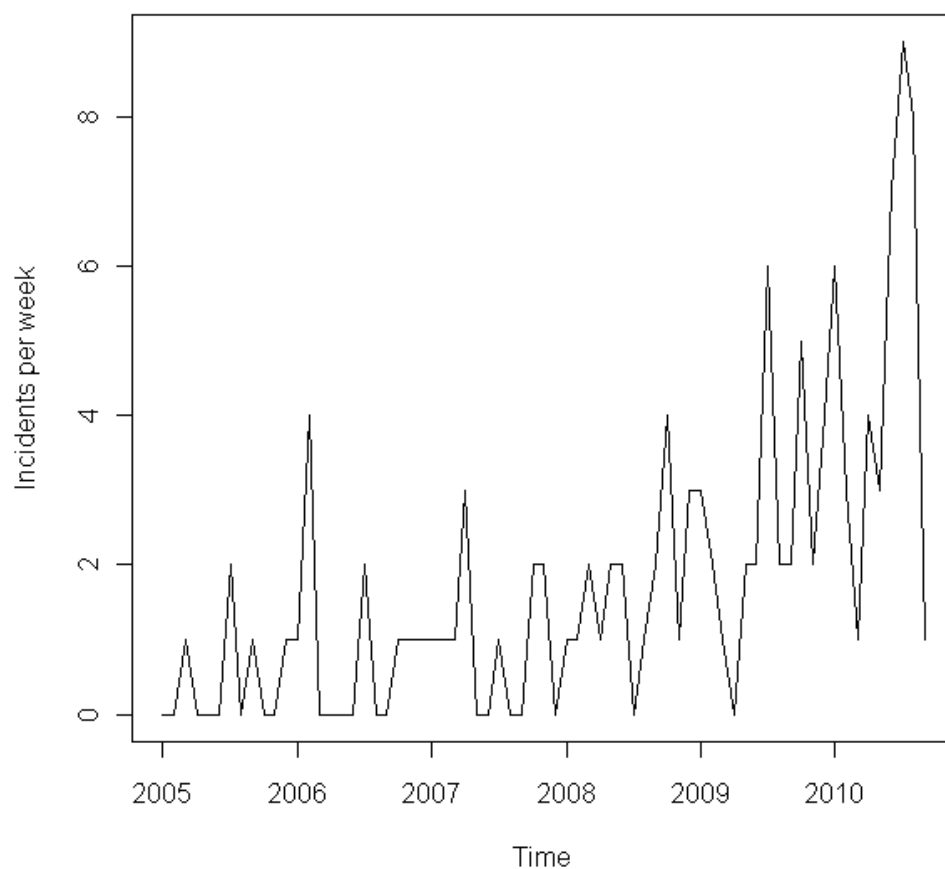
**Figure 38. Physical Assaults in Intervention Units**



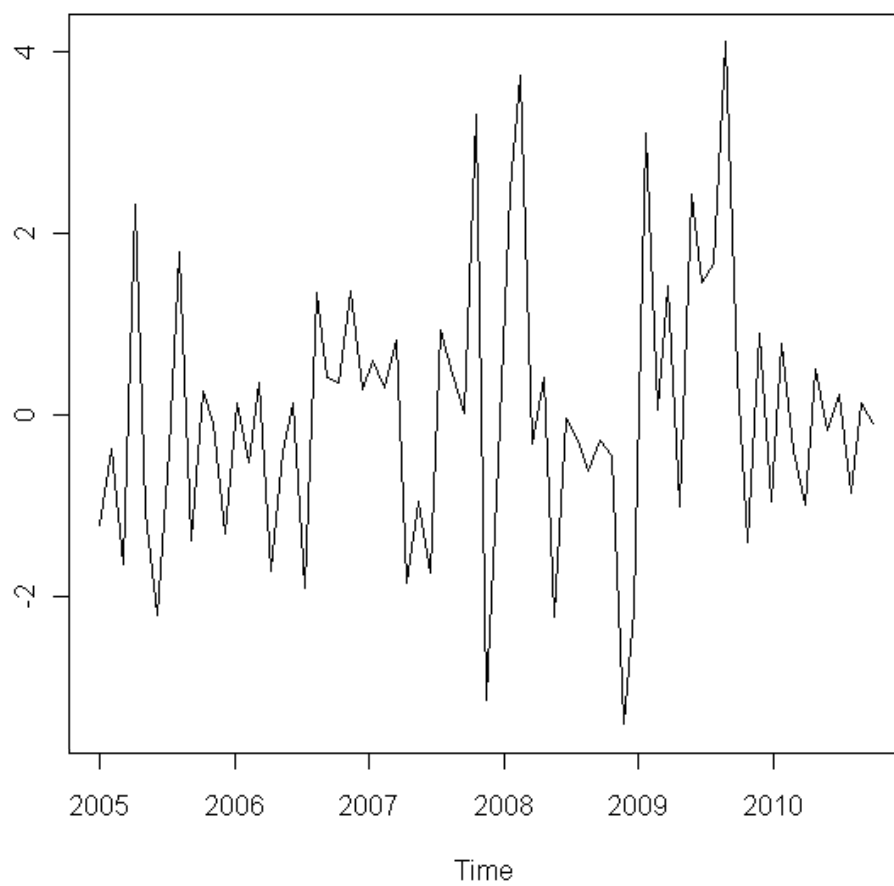
**Figure 39. Physical Assaults in Non-Intervention Housing Units**



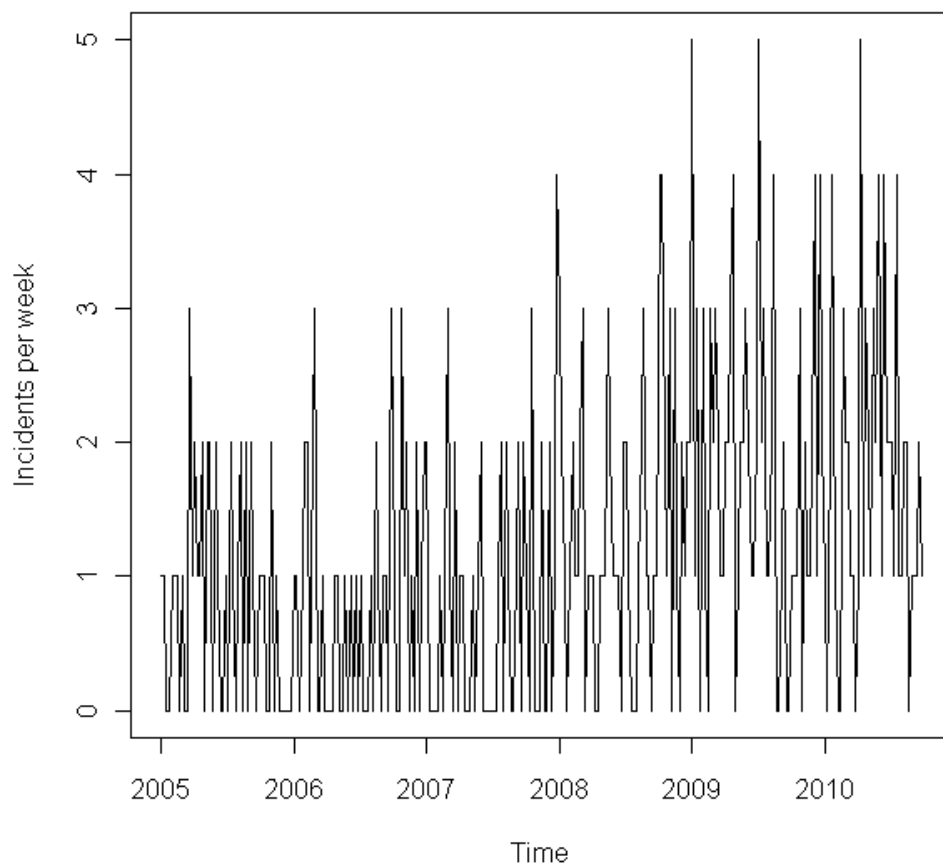
**Figure 40. Physical Assaults in Other Areas**



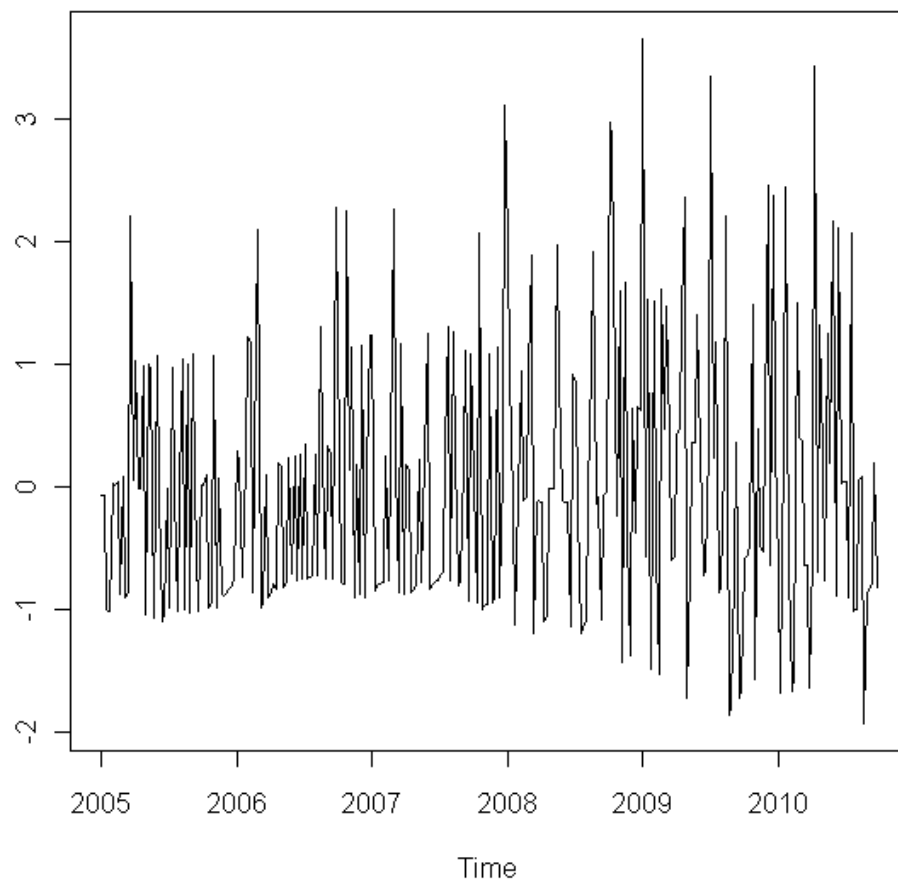
**Figure 41. Series Residuals for Physical Assaults**



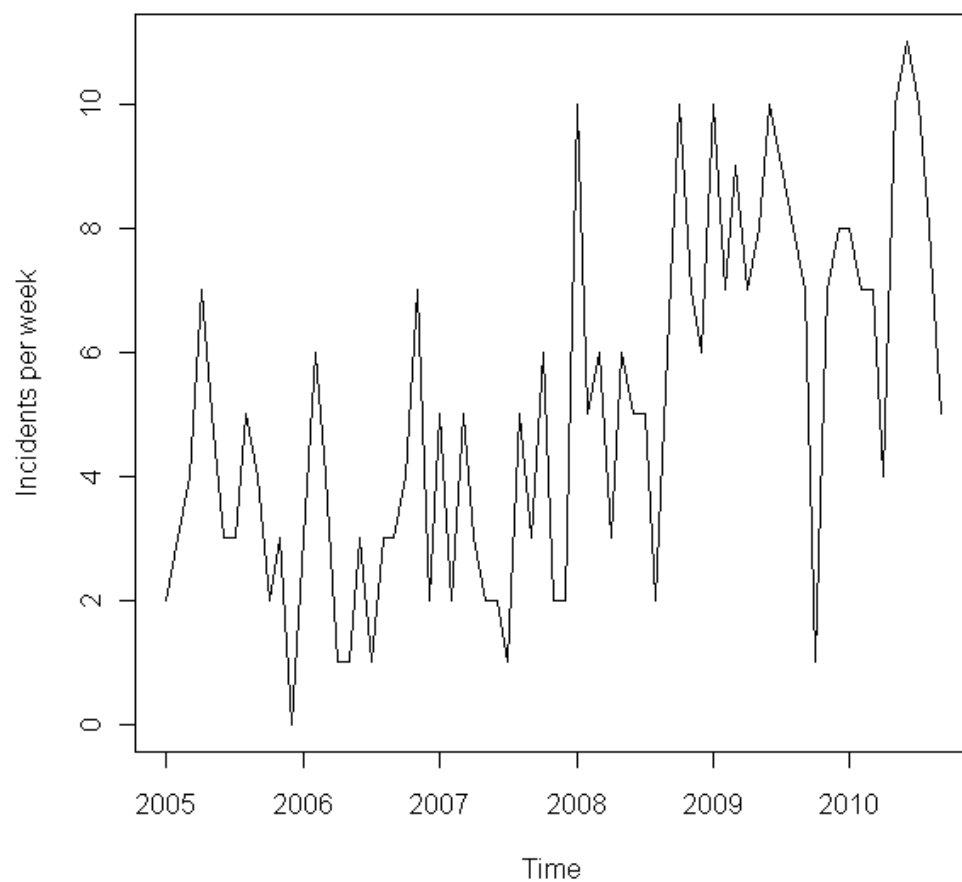
**Figure 42. Inmate-on-Inmate Assaults in Facility**



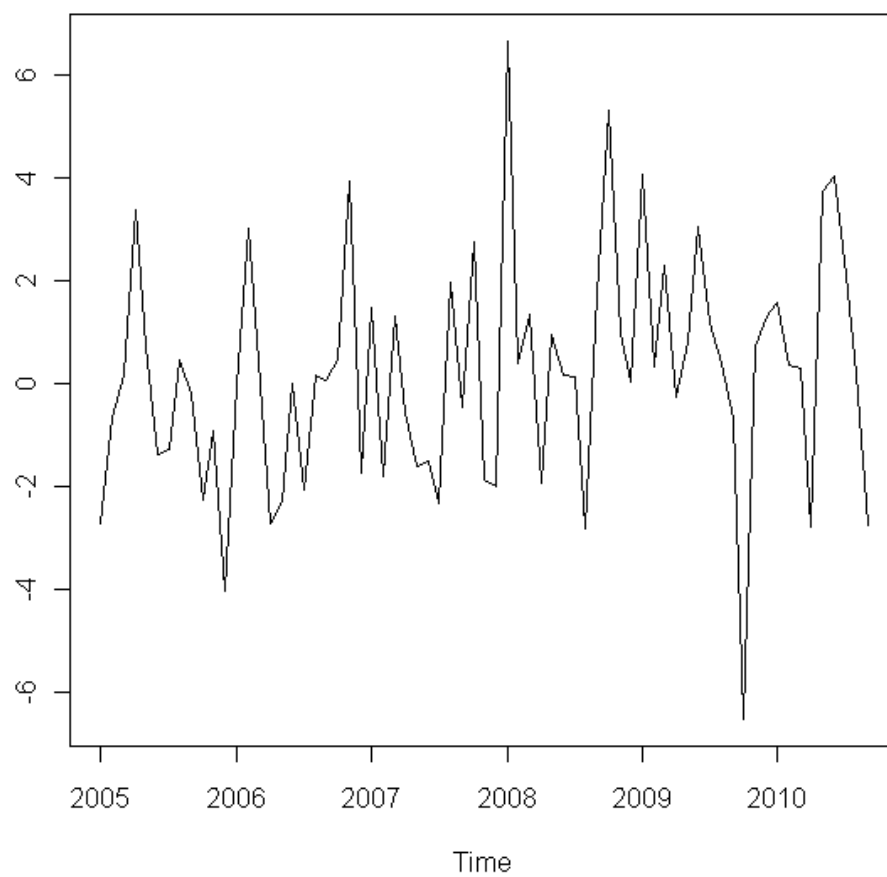
**Figure 43. Series Residuals for Inmate-on-Inmate Assaults**



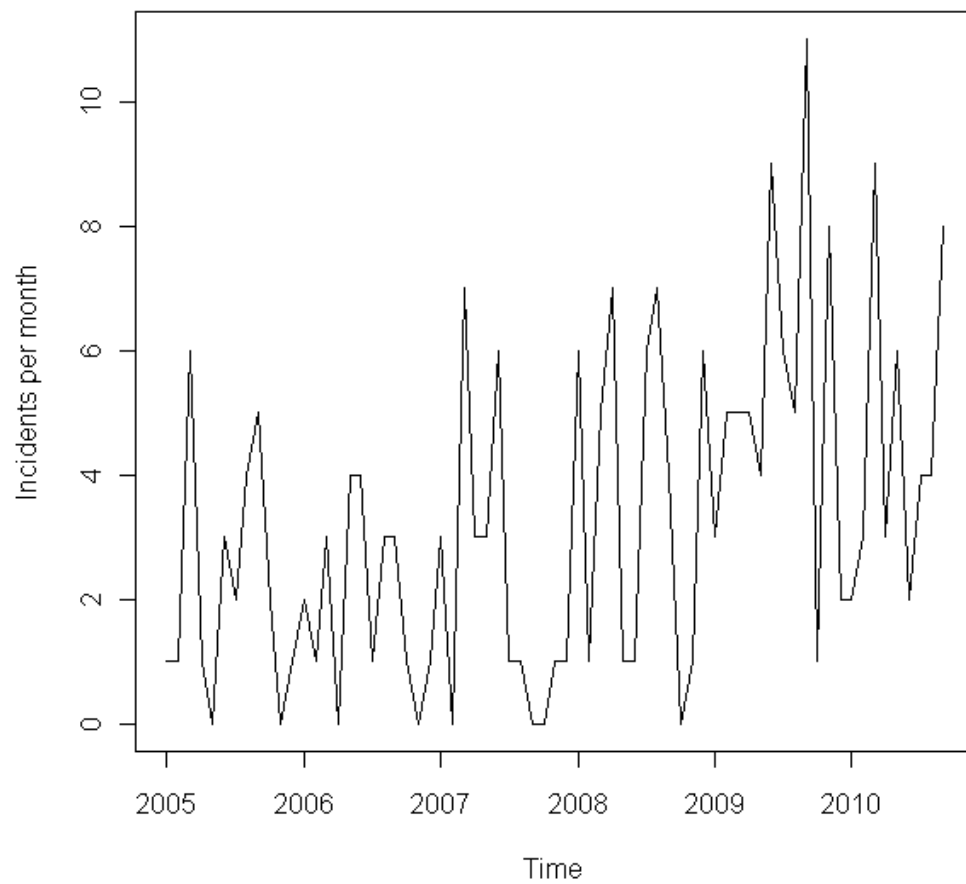
**Figure 44. Inmate-on-Staff Assaults in Facility**



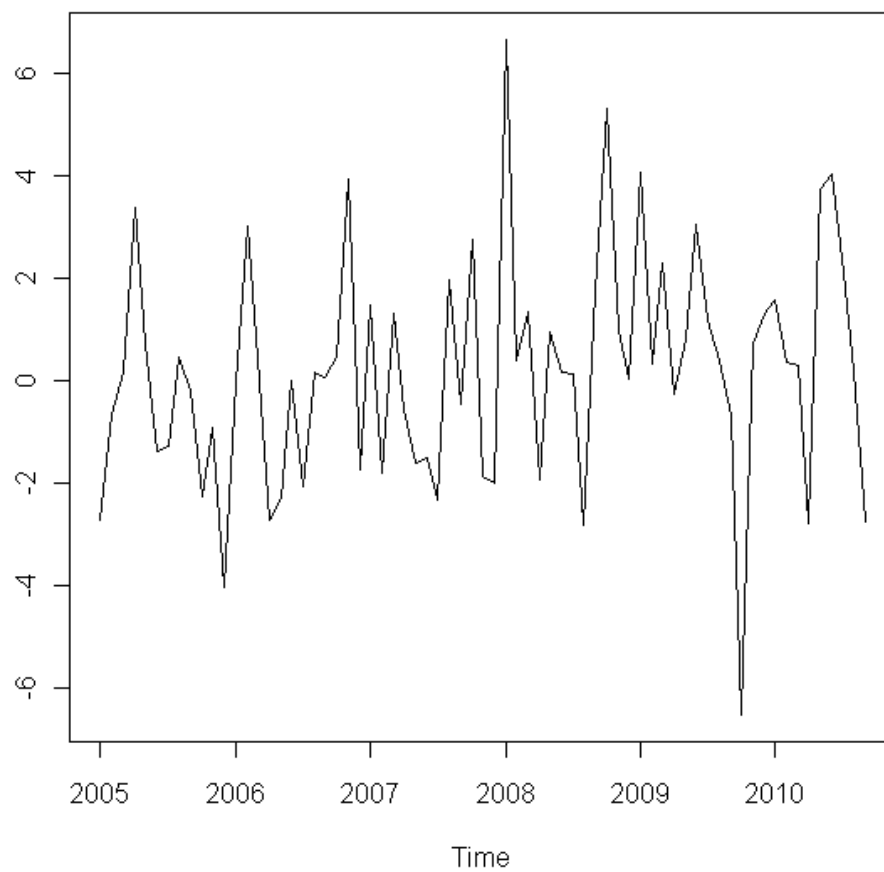
**Figure 45. Series Residuals for Inmate-on-Staff Assaults in Facility**



**Figure 46. Contraband Seizures in Facility**

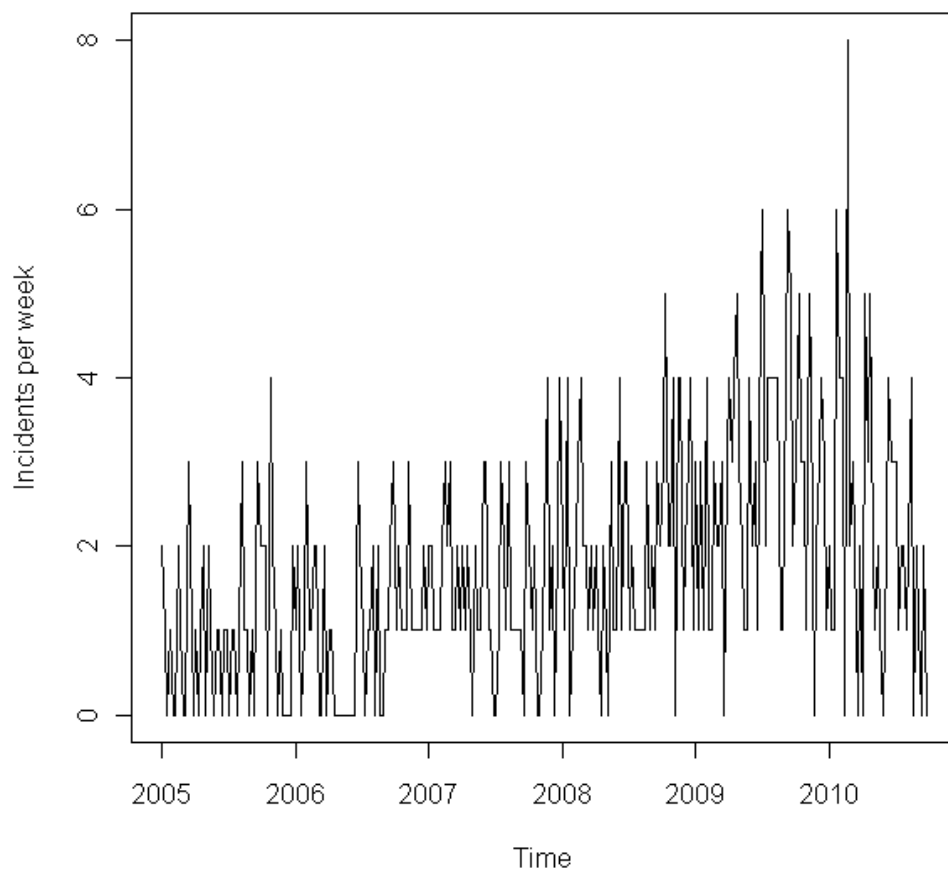


**Figure 47. Series Residuals for Contraband Seizures in Facility**

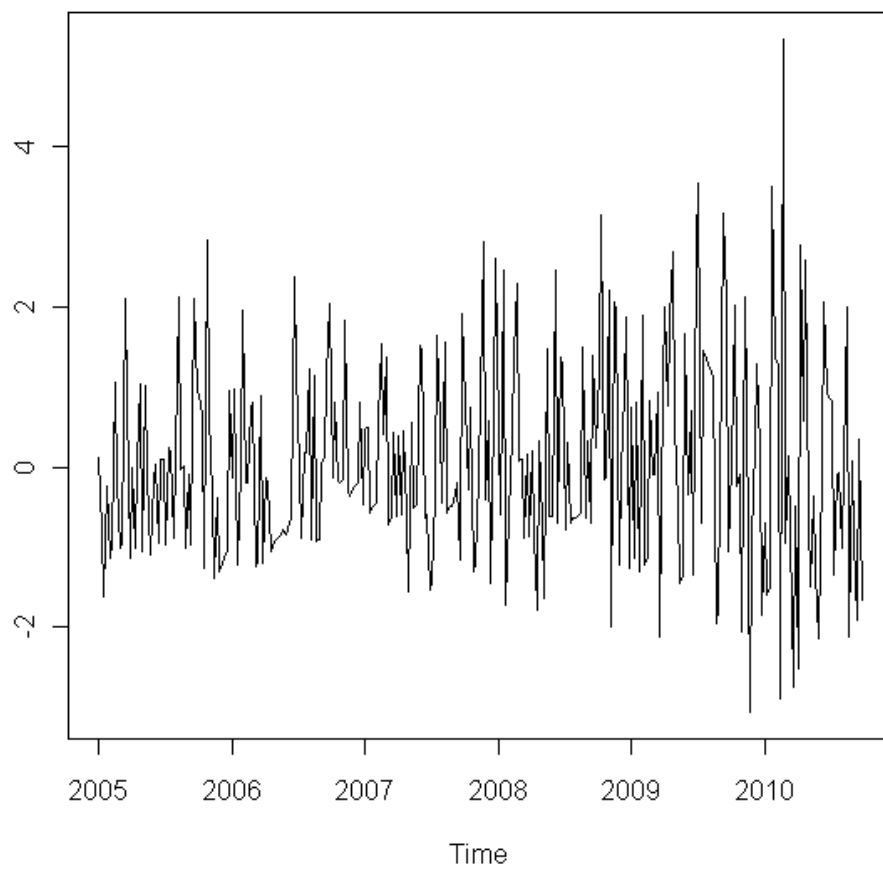




**Figure 48. Use of Force in Facility**



**Figure 49. Series Residuals for Use of Force in Facility**



## APPENDIX M: CIT TRAINING SCHEDULE

	Monday, June 22, 2009	Tuesday, June 23, 2009	Wednesday, June 24, 2009	Thursday, June 25, 2009	Friday, June 26, 2009
0745-0800	Roll Call	Roll Call	Roll Call	Roll Call	Roll Call
0800-0850	Introduction, History and Overview	Suicide Recognition and Prevention	Mental Illness	Crisis Intervention Role Play and Hearing Voices Simulation-Thresholds	Transition from Jail: Community Resource Panel/Mental Health Court
0900-0950					
1000-1050					
1100-1150	Male Violence: Harassment, Assault and Sexual Assault	Risk Assessment	Mental Illness Treatment	Lunch	Lunch
1200-1300			Lunch		
1300-1350	Female Violence: Harassment, Assault and Sexual Assault	Risk Assessment and De-escalation (cont.)	Substance Abuse	Crisis Intervention Role Play and Hearing Voices Simulation Review and Critique-Thresholds/Class/Faculty	Procedures
1400-1450			Elderly Jail Issues: Depression, Delirium and Medical		
1500-1550			Video: "The New Asylum"		