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**RISK ASSESSMENT AND BEHAVIORAL HEALTH SCREENING (RABS)  
PROJECT**

**Technical Report Submitted to  
The Office of Juvenile Justice and Delinquency Prevention**

**GRANT NUMBER: 2014-JF-FX-0001**

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## ABSTRACT

The Risk Assessment and Behavioral Health Screening (RABS) project was a pre-post, quasi-experimental study of the impact of implementation of a valid risk-needs assessment, behavioral health screening, and risk-need-responsivity (RNR) approach to case management intended to reduce risk while also addressing behavioral health needs. Juvenile justice agencies in Arkansas and Rhode Island were selected to participate following a competitive application process. Four juvenile probation departments in Arkansas and all of juvenile probation in Rhode Island implemented a comprehensive screening/ assessment and case management protocol using the *Structured Assessment of Violence Risk in Youth* (SAVRY; Borum, Bartel, & Forth, 2006), the Massachusetts Youth Screening Instrument-Second Version (MAYSI-2; Grisso & Barnum, 2000, 2006), and the CRAFFT. Results indicated that the ostensible impact of implementing the protocol varied by site and depended on the point in the process at which the SAVRY was conducted. In Rhode Island, risk was strongly related to the number of services and rates of placements youth received, which at first glance may indicate case planning approaches followed the risk principle. However, these positive correlations appeared to be due to youth having problems in the community, resulting in referrals to more treatment-related placements, rather than strategic case management decisions at the front end. In Arkansas, there were significant limitations with the administration of the instruments, in three sites. The one site that followed its assessment policy significantly cut recidivism in half and increased the rates of youth being informally rather than formally processed. The presence of potential mental health concerns and receipt of mental health treatment had no association with reduced recidivism in either state even though mental health treatments were the most commonly used services across the board. Policy implications are discussed with a particular emphasis on the need for risk assessments to be conducted pre-disposition for all youth and with strong supervisory oversight in order to improve outcomes.

## INTRODUCTION

Over the last 20 years, the juvenile justice system in the United States has been involved in what has been referred to as the fourth wave of reform (Grisso, 2017). This wave acknowledges adolescents are different from adults and strongly pursues the integration of research, including research on adolescent development and immaturity, into juvenile justice practice (National Research Council of the National Academy of Sciences [NAS], 2013). This is a significant shift from the prior wave of reform, which emphasized punishment and treated youth much like adults. This shift came partially as a result of evidence indicating punishment-oriented approaches and sanctions did not deter juvenile re-offending as intended (e.g., Loughran et al., 2009; MacKenzie, Wilson, & Kider, 2001), and that over-involvement may in fact produce iatrogenic effects (see Gatti, Tremblay, & Vitaro, 2009). For example, a meta-analysis of 548 juvenile intervention studies reported that discipline increased recidivism rates by an average of 8 percent (Lipsey, 2009). Another meta-analysis demonstrated that recidivism rates were higher among juveniles processed into the juvenile justice system compared to juveniles who were diverted (except for first time offenders; Petrosino, Turpin-Petrosino, & Guckenburg, 2010).

Although the concepts are not new (see the Juvenile Justice and Delinquency Prevention Act, 2002), one emphasis of the reform effort over the last decade has been the implementation of risk assessment instruments to improve case processing decisions and outcomes. The NAS (2013) and others (Seigle, Walsh, & Weber, 2014; Vincent, Guy, & Grisso, 2012) strongly recommended structured risk and need assessment tools (also referred to as reduction-oriented instruments, Monahan & Skeem, 2014), be used to identify low-risk youth who could be handled less formally, to match youth to appropriate treatment, and to target high-risk youth for more intensive interventions.

These recommendations are based largely on the tenets of the *risk-needs-responsivity (RNR)* model for case management, which has considerable evidence as a method for reducing recidivism among adult offenders (Andrews, Bonta, & Hoge, 1990; Andrews & Bonta, 2010; Andrews & Bonta,



2017). The RNR framework suggests the highest risk offenders should receive the most intensive programming to reduce risk of reoffending (*risk principle*), and the programming should specifically target the individual's criminogenic needs (the variable risk factors that appear to be driving their offending; *need principle*) while taking into account specific characteristics that may affect treatment response (*responsivity principle*). Factors that affect treatment response include both general (the treatment strategy used) and specific (individual characteristics like strengths, motivation, etc.) responsivity factors.

Although the principles of the RNR model are conceptually very simple, the handful of studies to date, which primarily come from the adult system, have indicated that implementing RNR principles is much more difficult (Flores, Travis, & Latessa, 2004; Haas & DeTardo-Bora, 2009; Miller & Maloney, 2013; Viglione, Rudes, & Taxman, 2014). Surveys of practitioners in correctional settings (Flores et al., 2004) and adult probation officers (Miller & Maloney, 2013) report overall poor adherence to use of risk assessment to guide treatment goals. For example, in both interviews and observations of probation officers (POs), Viglione and colleagues (2014) found that although POs overwhelmingly administered the risk instrument, they rarely linked the scores to supervision and case management decisions. Most studies in juvenile settings have not reported better results. Surveys of juvenile POs and judges indicated they tended to undervalue and, consequently, underuse results of risk instruments in case management, and many did not sustain the practice of using the tools at all (Shook & Saari, 2007). One study reported average adherence to the policy for simply administering a risk assessment was only 55% (Young, Moline, Farrell, & Biere, 2006).

In addition to an emphasis on RNR to implement “what works” in juvenile justice, there has been a large emphasis on behavioral health in the past 15 years. Studies of the prevalence of mental health disorders among justice-involved youth range from 50 percent to 75 percent (Teplin, Abram, McClelland, Dulcan, & Mericle, 2002; Wasserman, McReynolds, Schwalbe, Keating, & Jones, 2010), with about 25 percent having significant impairment (Shufelt & Coccozza, 2006). Teplin and colleagues

(2012) put this into perspective by postulating that , assuming there was nothing unique about her sample from Cook County, this means 55,000 of the 92,854 youth in U.S. facilities in 2011 (Sickmund, Sladky, Kang, & Puzanchera, 2011) suffered from one or more psychiatric disorders. Similar estimates led to speculation that youth end up in the juvenile justice system not because they have committed a serious offense, but because their need for coordinated community mental health treatment has not been met (Skowrya & Coccozza, 2007). In 2004, the U.S. House of Representatives' Committee on Government Reform found that two-thirds of juvenile detention facilities held youth simply because they were waiting for community mental health treatment (*U.S. House of Representatives, 2004*). There is a general agreement that the juvenile justice system is not the appropriate vehicle for delivering mental health care to youth (Coccozza & Skowrya, 2000; Skowrya & Powell, 2006). Youth with mental health needs are less likely to successfully complete community supervision and have higher rates of out-of-home placement, longer stays in juvenile detention, and higher rates of involvement in the adult criminal justice system than youth without such conditions (Eno Loudon, Skeem, Camp, & Vidal, 2012; Espinosa, Sorensen, & Lopez, 2013; Manchak, Skeem, & Rock, 2013, Vaughn, Salas-Wright, DeLisi, Maynard, & Boutwell 2015). Thus, identification is important to increase the opportunity for treatment in the community, which generally is more effective than in juvenile justice facilities.

The *Risk Assessment and Behavioral Health Screening Study* (RABS) was a pre-post quasi-experimental study conducted in two states that followed a comprehensive risk-needs assessment and behavioral health screening protocol. The first goal of this study was to examine whether better integration of RNR principles into the case management of justice-involved youth could be achieved when juvenile jurisdictions underwent a comprehensive risk-needs assessment implementation process. The second goal of this study was to determine whether juvenile jurisdictions (a) could be trained to better integrate behavioral health needs into case management along with criminogenic

needs, and (b) whether attention to behavioral health needs would have any association with recidivism outcomes.

### **Importance of Risk and Risk-Need-Responsivity**

Studies have supported the application of RNR principles to juvenile justice populations as an effective method for reducing recidivism. Lipsey's (2009) seminal meta-analysis, for example, reported that the effect of JJ interventions on decreased recidivism was most strongly related to the risk level of the juveniles treated (*risk principle*), the quality of the implementation of the intervention, and the type of treatment received. Whether youth receive services and programming that match their needs has a strong association with later offending (Luong & Wormith, 2011; Peterson-Badali, Skilling, & Hoqanee 2015; Vieira, Skilling, & Peterson-Badali, 2009). Vieira et al. (2009), for example, reported youth probationers who received services aligned with their criminogenic needs as identified by the Youth Level of Service/Case Management Inventory (YLS/CMI; Hoge & Andrews, 2006), re-offended at a rate of 25% versus 75% for youth who received services that did not match their needs, irrespective of youths' risk levels. Of course, the ability to follow a valid and effective RNR-based strategy starts with use of a well-validated risk assessment instrument to identify youth who are high risk and then to identify their criminogenic needs in a valid manner.

### **Contribution of Behavioral Health Needs**

**Substance Abuse:** Research from the Pathways to Desistance Study indicated that substance abuse magnified the impact of other risk factors and increased the likelihood of long range offending among serious young offenders (Chassin, Knight, Vargas-Chanes, Losoya, & Naranjo, 2009). Similarly, other research has indicated youth with some form of substance use pathology have elevated criminogenic need profiles and have a higher propensity for reoffending than youth without this pathology (Guebert & Olver, 2014). Fortunately, the Pathways study found that quality substance use treatment strategies (i.e., involves family members and lasts more than three months) were an

effective method for reducing reoffending, more so than any other interventions tested in the sample of serious offenders (Mulvey et al., 2009).

A recent neuroimaging study indicated that higher risk youth (i.e., those with callous-unemotional traits and conduct disorder) addicted to substances have stronger self-reported drug craving and different neural responses than relatively lower risk youth (Vincent, Cope, Nyalakiami, Huang, & Kiehl, 2017). This suggests that although substance use treatment appears to reduce reoffending, on average, this may not be the case for the highest risk youth. This study included probation officer training on these issues, along with implementation of a substance use severity screening tool (i.e., CRAFFT) in addition to a valid risk-needs assessment instrument, to increase the likelihood of addressing substance use in case planning.

***Mental Health.*** To date, studies measuring both risk and mental health needs in juvenile justice populations have found that mental health disorders (not including disruptive behavioral disorders) did not elevate one's likelihood of reoffending, and mental health treatment did not moderate the relationship between risk of reoffending and recidivism (Guebert & Olver, 2014; McCormick, Peterson-Badali, & Skilling, 2017; Shubert, Mulvey, & Glasheen, 2011). The association between mental health problems or disorders and offending in adolescents is complicated, however. While many youth with mental disorders do not engage in violent behavior, it does appear that mental disorders can add to a youth's potential for violence (Borum & Verhaagen, 2006). Youth diagnosed with multiple disorders may be at even greater risk for general criminal behavior than youth who are not diagnosed with comorbid disorders (Copeland, Miller-Johnson, Keeler, Angold, & Costello, 2007). In a complex analysis of longitudinal data, Copeland et al. (2007) reported that 19.5% of adult crime among females and 28.7% of crime among males was attributable to childhood psychiatric disorders.

A related issue is that many risk-needs assessment instruments may be accounting for the symptoms of mental health disorders that are in fact related to offending. Some child and adolescent mental disorders may be causally connected to violence and antisocial behavior (see Vincent &

Grisso, 2005, for a review); mainly, disruptive behavior disorders and occasionally mood and psychotic disorders. The symptoms of many of these mental health in youth overlap with risk factors. For example, impulsivity is a risk factor as well as a common symptom of many youth behavioral disorders. Attention deficit problems are another risk factor associated with adolescent offending that also could be attributed to a mental disorder. Clearly the association between mental health concerns and reoffending requires further study to disentangle.

### **Importance of the Implementation Process**

A clear explanation for the limited use of risk-needs assessment in justice decision-making, and therefore, application of RNR, is that the extent of their use and impact on case processing are tied to the quality of the implementation process (Bonta, Bogue, Crowley, & Mottuk, 2001; Bonta, Bourgon, Rugge, Gress, & Gutierrez, 2013; Latessa & Lovins, 2010; Lipsey, 2009). Implementation has been defined as “active and planned efforts to mainstream an innovation within an organization” (Greenhalgh, Robert, MacFarlane, Bate, & Kyriakidou, 2004, p. 582). The success of implementation efforts is affected by factors operating at multiple systemic levels. Fixsen and colleagues (2005) reviewed the research on implementation and identified “implementation drivers,” which they defined as the core steps an agency should take to increase the likelihood of adoption of a new practice. The National Implementation Research Network (n.d.) describes these drivers as belonging to three categories: competency, organization, and leadership. Similar to other new processes being implemented, a risk assessment tool is unlikely to lead to any change (a) if staff are not trained how to use the tool in their decision-making (competency), (b) if the work environment does not reinforce use of the risk assessment through written policies and supervisory oversight, and (c) if there is not buy-in from all essential stakeholder groups as well as strong leadership (leadership).

Our recent study of implementation of a risk-needs assessment and RNR case management approach in juvenile probation departments found better results than prior studies in probation. The Risk/Needs Assessment in Juvenile Probation: Implementation Study (RNAJP; Vincent, Paiva-

Salisbury, Cook, Guy, & Perrault, 2012; Vincent, Guy, Perrault, & Gershenson, 2016) was a multisite, pre- (before use of any risk assessment) post- (after implementation of a valid risk assessment and RNR-related case planning policy) quasi-experimental study of six juvenile probation offices in two states. As described in previous publications (see Vincent, Paiva-Salisbury, et al., 2012; Vincent et al., 2016), each state followed a standardized, structured and comprehensive implementation process for both a valid risk-needs assessment instrument (the Structured Assessment of Violence Risk for Youth [SAVRY; Borum, Bartel, & Forth, 2006] or the Youth Level of Service/Case Management Inventory (YLS/CMI; Hoge & Andrews, 2006). The implementation process, which is now outlined in the *Risk Assessment in Juvenile Justice: A Guidebook for Effective Implementation* (Vincent, Guy et al., 2012), involved developing policies and new case plan forms so that risk assessment would be used to make service referrals based on youths' criminogenic needs and overall risk levels. The RNAJP study found most juvenile probation offices had good adherence to their risk assessment administration policy and experienced significant shifts in dispositions, rates of placement, and levels of supervision in a manner that was consistent with the risk principle (Vincent et al., 2016). Qualitative interviews with POs at 3-months and 10-months post-implementation indicated most POs were using the risk assessment in their decisions about services and their most common response to how they selected service referrals was 'the fit between services and needs' (Vincent, Paiva-Salisbury, et al., 2012). Thus it seems risk assessment paired with RNR and a quality implementation process can effectuate positive changes in case processing. The objective of the current study was to examine the influence of this implementation process in other states while adding research questions related to behavioral health.

## RESEARCH QUESTIONS AND OBJECTIVES

The current study, RABS, was designed to be a pre-post, quasi-experimental study of the association of implementation of a valid risk-needs assessment, behavioral health screening, and risk-need-responsivity approach to case management that was intended to reduce risk while also addressing behavioral health needs. Two state juvenile justice agencies were selected to participate in this study following a competitive application process. Our approach involved assisting sites to implement a valid risk needs assessment (the SAVRY) and behavioral health screening (the Massachusetts Youth Screening Instrument- Version 2 [MAYSI-2] and the CRAFFT) together with RNR related policies for case planning. Each state followed a standardized implementation procedure that included development of a comprehensive policy in line with RNR principles, completion of a customized service matrix that guided service selection according to youths' risk level, specific criminogenic needs, and presence of MH problems; adoption of a standardized case plan, and enhancements to their data management system. Consistent with state-of-the art practices for studying implementation (Fixsen, Naoom, Blasé, Friedman, & Wallace, 2005), this study examined the impact of using risk and needs assessment paired with behavioral health screening and RNR on two levels.

1. To examine whether the risk assessment, behavioral health screening tools, and RNR based case planning procedures were used with fidelity (implementation-level outcomes).

Before examining whether implementation of these tools and RNR-based case plan had an impact on youth case processing, it was first necessary to ensure the screening, assessment, and case planning process were being conducted with fidelity. This included (a) conducting interviews with probation officers over time to examine their adherence to the protocol, their use of behavioral health screening tools to make referrals, and use of the SAVRY in a RNR-based manner in their case planning decisions; and (b) examining the inter-rater reliability of their SAVRY ratings to gauge whether they were rating it reliably.

We also examined whether training and use of the instruments and RNR principles led to increases in probation officers' knowledge of risk factors and the SAVRY, and RNR practices in case management.

2. Whether implementation of the instruments and new procedures led to changes in the handling of youth cases (intervention-level outcomes). Using the pre-post design, we examined whether implementation of the instruments and protocol led to changes in the case processing and outcomes; namely, disposition decisions (formal vs informal, severity of formal dispositions), out-of-home placement rates, and probation violations. If sites fully incorporate risk assessment and the RNR principles, we should expect to see changes in each of these rates in the positive direction.

In addition to the before and after implementation comparisons, for the post-implementation samples only, we examined whether case processing was consistent with the risk-need-responsivity approach by determining whether dispositions, out-of-home placements, and number of service referrals were commensurate with risk levels (risk principle), and whether service referrals matched youths' criminogenic need areas.

3. A third objective of this study was to examine whether the presence of a mental health concern and/or substance use severity interacts with risk for reoffending in the prediction of recidivism, and whether the interaction is moderated by behavioral health treatment. These analyses could only be conducted in the post-implementation samples for which there were data on the SAVRY, CRAFFT, and MAYSI-2. Analyses were conducted to examine the prevalence of individuals with potential mental health concerns (as measured by the MAYSI-2), the prevalence of individuals with potential substance use concerns (as measured by the CRAFFT), and the percentages of each who received substance use or mental health treatment. Next, we examined whether there was an interaction between those identified as having a potential behavioral health concern and risk in the prediction of



recidivism, and whether this differed for those who did and did not have their behavioral health issues addressed by treatment.

## **STUDY METHODS AND ANALYTICAL TECHNIQUES**

### **Selection of States and Sites**

The researchers developed and widely disseminated a competitive application process for participation in this study. The application explained that successful applicants would receive the MAYSI-2 and software, CRAFFT, and a validated risk-needs assessment tool (of their choosing), in addition to free technical assistance for eventual full statewide implementation. Criteria for selection of states included: a) existence of a centralized juvenile probation system or a county-level probation system with a central organized body that had successfully managed statewide changes in the past; b) a dedication from judges to implementation of the assessment pre-disposition; c) no uniform, validated risk-needs assessment already in place; d) capacity to collect and report juvenile justice data and an existing data base allowing for identification of outcomes for youths during the year prior to implementation; e) willingness to allow this study to occur in pilot sites prior to implementation in the rest of the state.

The states selected for this study were Arkansas and Rhode Island, following a site visit by the Principal Investigator and approval from program officers at OJJDP and the MacArthur Foundation. In Rhode Island, because the state is small, all juvenile probation offices were included. In Arkansas, the lead agency and the researchers selected four counties to be the study sites and first wave pilot for later statewide implementation of the SAVRY and behavioral health screening tools. Sites were selected based on those with clear judge buy-in, relatively high numbers of juvenile referrals, and the fact the counties were all either using the new electronic case management system (Contexte) or soon would be. Nuances of the state implementation processes and the lead agencies are described in more detail in the Findings sections of this report. The researchers obtained the essential ethical approval for this study from the University of Massachusetts Medical School's (UMMS) institutional

review board. Each state signed a data-sharing agreement and memorandum of understanding agreeing.

### **Standardized Implementation Process**

The researchers worked with the lead agencies in both states to follow a standardized, empirically-guided implementation process as outlined in our *Risk Assessment in Juvenile Justice: A Guidebook for Effective Implementation* (Vincent et al., 2012), with some enhancements designed to better integrate behavioral health issues. The standard steps that were followed with the states are listed below indicating the enhancements made for this project to incorporate behavioral health.

- Establishment of a stakeholder committee with representation from every relevant group (e.g., judges, attorneys, probation managers, behavioral health agencies) of leaders in positions of authority, an implementation committee with appropriate membership to carry out the work, and a project coordinator. Enhancement: Stakeholder committees included JJ service providers and/or a designee from the state behavioral health agency.
- A presentation to the stakeholder committee regarding the research in juvenile justice, adolescent development, the utility of risk assessment and RNR principles, the importance of behavioral health, and a review of the research on and characteristics of three valid risk assessment instruments. Enhancement: Incorporation of details regarding the contributions of behavioral health.
- Selection of the risk-needs assessment instrument to be used, based on input from stakeholders and many POs. Both states selected the SAVRY, and the researchers worked with the implementation committee to generate semi-structured interview scripts for use with the assessment.
- An orientation training to all juvenile probation and intake officers at the study sites covering the same material as the stakeholder committee presentation. Enhancement: Incorporation of details regarding the contributions of behavioral health.

- An orientation training to judges including the content presented to the stakeholder committee, with an added emphasis on the importance of using risk-needs assessments to inform disposition and case planning. Enhancement: Incorporation of details regarding the contributions of behavioral health.
- Working with the implementation committee to develop a written risk-needs assessment policy and procedures that described when assessments would take place and by whom, when re-assessments would be conducted, how the assessment would be used in all levels of decision-making (including supervision levels), and quality assurance. Policies were all explicit that a) the SAVRY and behavioral health screens had to be completed pre-disposition, and b) the maximum number of services to be expected of any youth was three at a time, which should be reserved for high risk.
- Working with the implementation committee to develop a written screening policy and procedures that contains similar components to the risk-needs assessment policy.
- Development of a *disposition recommendations form* that contains the risk level and primary criminogenic need areas, whether screening resulted in the need for a referral for an evaluation, and recommended services (see Appendix B). The form was designed with input from POs, attorneys and judges. Enhancement: Added recommendations for referrals for evaluations based on screening tools.
- Development of a customized service matrix for each region that categorized available services in their community according to the intensity and criminogenic need area addressed. Enhancement: Service matrices also listed the available behavioral health providers in the area, and were designed with input from the primary providers of JJ services to the agency.
- Development of a case plan template used to document criminogenic needs, the services or strategies put in place to address them, level of supervision, and any responsivity/mental health factors addressed (see Appendix C).

- Modifications to the electronic case management systems to incorporate the SAVRY and CRAFFT, as well as any essential case management data that were missing (e.g., service utilization). Implementation of MAYSWARE as a standalone software on laptops so youth could complete the screen on their own.
- Two-day training workshop on the SAVRY and the assessment policy followed by completion of a SAVRY knowledge test and three standardized post-training practice case vignettes. The researchers provided feedback on each vignette prior to the next vignette's completion. POs who did not reach an acceptable level of performance (no more than two major item disagreements), were administered a fourth vignette. Performance was used to identify potential master trainers.
- 1.5-day training on the behavioral health screening tools, RNR principles, application of RNR to case planning and the new related policies, and when to integrate behavioral health into case planning. POs completed a RNR knowledge test.
- Implementation of the SAVRY, MAYS-2, and CRAFFT accompanied by on-going meetings with the implementation committee for troubleshooting.
- Completion of interviews with every PO four to five months post-implementation and again after 10 months. Researchers provided results to the supervisors at each site.
- A 6-month SAVRY and RNR booster training that addressed issues identified in the PO interviews.
- A second booster training approximately 18 months following implementation, completed partially by master trainers.

Each state had some departures from the standard implementation process, which are described in the Findings sections of this report.

## Risk Assessment and Screening Tools

### Structured Assessment of Violence Risk for Youth (SAVRY)

The SAVRY (Borum et al., 2006) was designed to assess violence risk in adolescents aged 12–18 years; however, it also is a valid assessment of non-violent offending (Olver, Stockdale, & Wormith, 2009). It comprises six items defining Protective Factors (which may lower the likelihood of risk) and 24 items defining Risk Factors (which increase the likelihood of risk). Risk Factors are rated as low, moderate, or high. Items are rated as “critical” if the evaluator sees it as strongly related to the youth’s offending and in need of immediate intervention. Ten risk factor items are static and 14 items are dynamic.

**Risk Level.** The SAVRY uses a structured professional judgment (SPJ) approach (as opposed to a formulaic actuarial approach), meaning the final determination of an examinee’s overall level of risk for violence or reoffending is the examiner’s (in this case, PO’s) Summary Risk Rating (SRR; low, moderate, high risk) based on his or her professional judgment as informed by a systematic appraisal of the most relevant risk factors, including idiosyncratic factors noted by the evaluator. This assures that examiners assess risk factors that are empirically associated with violence or reoffending, consider the applicability of these factors to the specific examinee’s risk for reoffending (criminogenic needs), and classify the severity to make their final SRR. Thus, a prime advantage of the SAVRY is that it not only structures the process by which a valid decision is made about the likelihood that one will recidivate, but it also includes dynamic risk factors related to need areas that may be effective targets for treatment.

Meta-analyses have shown the SAVRY to have good predictive validity in a variety of young offender populations (average AUCs of 0.71; Guy, 2008; Singh, Grann, & Fazel, 2011) that is comparable for both violent and non-violent reoffending (Olver et al., 2009). Inter-rater reliability of the SAVRY SRR among POs in the field has been good ( $ICC_1 = .71$ ) (Vincent, Guy, Fusco, & Gershenson, 2012).

**Criminogenic needs.** Unlike most risk assessments, the SAVRY is not constructed according to scales that define homogenous need areas. Thus, the researchers developed seven criminogenic need areas to be as consistent as possible with those described in the RNR model. The POs were instructed to fill out a *need areas worksheet* with each SAVRY. Consistent with the SPJ approach, rather than ‘score’ need areas, POs were trained to consider youths’ ratings on the items within each of these need areas to identify the areas of greatest concern. Need areas comprised mainly dynamic risk factors but some static risk factors were included when marked as critical, which would mean the POs thought the factor continued to be strongly related to the youths’ offending. The need areas were:

- Disruptive behavior problems (impulsivity, aggression, ADHD, etc),
- Substance abuse,
- Family/parenting problems,
- Education,
- Peer relations,
- Attitudes/orientation, and
- Emotional stability concerns (difficulty coping, etc)

Need areas in this study were identified in two ways. First, POs were trained to use the need areas worksheets and their structured professional judgment to determine which need areas were priorities for the youth. In Rhode Island, the need areas worksheet automatically populated in their electronic data system. In both states’ data systems, POs entered their selected criminogenic needs at the end of each SAVRY assessment. Second, we created “calculated need area scores” based on prior studies of the item-reliability for sets of items within different scales (see Nelson & Vincent, in press). These calculations also were added to the electronic systems in both states to serve as a quality assurance check but POs did not have access to these. In the calculated needs version, a

criminogenic need area was considered 'present' if youth had high scores in the calculated need area domain relative to a prior sample of over 4000 JJ youth.

## **CRAFFT**

The CRAFFT (Knight, Shrier, & Bravender, 1999) is a short substance abuse screening tool designed for adolescents in community settings with sound psychometric properties (Dhalla, Zumbo, & Poole, 2011). The original tool is constructed with three screening questions (Part A) referring to use of alcohol or substances in the past 12 months, followed by six questions (Part B) gauging the severity of use for those who answered "yes" to any of the first 3 items. We implemented only Part B given the juvenile justice population is generally going to answer yes to Part A. In every study site, the policy was to administer the CRAFFT by allowing youth to complete it on paper, but POs were to read the questions to youth who had reading difficulties. We used a cut-off score of 3 or above (out of a possible 6) to identify youth in need of a substance use evaluation.

## **Massachusetts Youth Screening Instrument- Version 2 (MAYSI-2)**

Youth completed the MAYSI-2 (Grisso & Barnum, 2006) on the voice MAYSIWARE, which reads youth questions and they answer it by clicking yes or no. The MAYSI-2 is a scientifically valid and reliable brief screening tool for use in the juvenile justice system to identify youth who might have special behavioral health needs. This tool consists of 52 'yes/no' questions concerning whether something has been true for a youth "*in the past few months.*" The MAYSI-2 was normed for use with youth aged 12 to 17 and is scored on six clinical scales (see Table 1). The Traumatic Experiences scale is included in the MAYSI-2 to obtain number of traumatic events but is not a clinical scale.

The MAYSI-2's six clinical scales have two levels of cut-off scores: Caution and Warning. Scores above the Caution cut-off on a given scale indicate the youth scored at a level with 'possible clinical significance' according to the MAYSI-2 development study comparing MAYSI scores to clinical assessment inventories. Scores above the Warning cut-off on a given scale are intended to

alert staff that the youth has scored exceptionally high (the upper 10%) relative to JJ youth in the MAYSI-2 national norm sample. Warning cut-off scores are higher than Caution cut-offs.

The tool developers recommend juvenile justice agencies set criteria to be used by the agency for identification of youth who are *critical cases* and in need of some form of response. For the RABS study, both states set their critical case criteria **as scoring above Caution on the Suicide Scale or above Warning on any other two clinical scales**. Once a youth is flagged as a critical case, staff are instructed to conduct a 'secondary screening', which involves asking youth a few questions for scales that are over the Caution or Warning cut-off scores to obtain information that will assist in deciding whether the youth requires an immediate intervention.

**Table 1. MAYSI-2 Clinical Scales**

<b>MAYS-2 Scale Name</b>	<b>MAYSI-2 Scale Description</b>
Alcohol/Drug Use	Pattern of frequent use of alcohol or drugs, with risk for substance abuse
Angry-Irritable	Experiences frustration, lasting anger, and moodiness
Depressed-Anxious	Experiences a mix of depressed and anxious feelings
Somatic Complaints	Experiences body aches and pains associated with emotional distress
Suicide Ideation	Thoughts and intentions to harm oneself
Thought Disturbance ( <i>boys only</i> )	Has unusual beliefs or perceptions suggestive of thought disorder



## Methods for Research Question 1:

### Were the Risk Assessment, Behavioral Health Screening Tools, and RNR-Based Case Planning Procedures Used With Fidelity?

#### Probation Officer Interviews and Knowledge Tests

Before one examines whether implementation of the SAVRY, MAYSI, CRAFFT and RNR-based case planning protocol effectuated changes in case processing and management, it is first necessary to examine whether the probation offices followed the new protocol. It is also necessary to examine whether probation officers stated they were using the instruments in their decisions. To assess whether all of the procedures were used with fidelity, we conducted phone interviews with every probation officer, intake officer, and supervisor at two time points. Time 1 was between four and five months after implementation and Time 2 was 10 to 12 months after implementation. The researchers provided supervisors in each state and in each Arkansas county with a report and recommendations following the Time 1 interviews in order to improve use of the instruments and RNR by Time 2.

Interviews gathered both quantitative and qualitative information (see Appendix A). To determine whether POs were eligible for most of the interview questions, they were first asked if they had completed any of the instruments with their youth cases and how many they had conducted. Next, to assess *adherence* to the office procedures, interviewers asked POs at what point in the process they conducted the instruments (e.g., pre-adjudication, post-adjudication/pre-disposition, post-disposition), and whether any were missed and why. Next, to assess use of the SAVRY and RNR in *decision-making*, interviewers asked POs about their SAVRY use in disposition, probation violation, and service recommendations, as well as supervision level decisions. For each of these topics, the interview used a scale adapted from Miller and Maloney (2013), asking them to rate their level of use of the SAVRY on a scale ranging from 0 (Never) to 7 (Always) for four questions. The questions were as follows: How often do you.....

- . . . . make a recommendation that corresponds with the risk level on the SAVRY
- . . . . make a more restrictive recommendation than the SAVRY's risk level indicates?
- . . . . make a less restrictive recommendation than the SAVRY's risk level indicates?
- . . . . make a recommendation without consulting the SAVRY?

For service recommendations, the questions were as follows: When you have input into service decisions, how often do you....

- . . . . target the criminogenic needs identified by the SAVRY (e.g., peer relations, disruptive behavior, family, education/employment)?
- . . . . disregard some criminogenic needs that are identified by the SAVRY?
- . . . . target needs that are not identified by the SAVRY?
- . . . . make a decision/recommendation about services without consulting the SAVRY?

For each area of decision-making, interviewers also gathered qualitative information about the PO's perceived barriers to using the SAVRY in their decisions. These responses were recorded and transcribed. The Time 2 interviews added questions to obtain examples of cases where recommendations deviated from the SAVRY risk level or criminogenic needs.

To assess use of the screening tools, interviewers asked about the number of youth cases that the PO had referred for an evaluation based on the results of either instrument, or for an immediate mental health consultation based on results of the MAYSI-2. The same questions were asked in Times 1 and 2.

We also attempted to measure whether probation officers' knowledge of the SAVRY and RNR increased with use of the SAVRY. POs completed a 17 item SAVRY quiz and a 30 item RNR quiz at the end of each of these trainings. We attempted to have each probation officer complete these quizzes again during the Time 2 interview by emailing them a link to the quizzes in RedCap but many did not complete the quizzes until their 2<sup>nd</sup> booster trainings, which resulted in significant variability in the time lag between quizzes across POs. Another limitation with this planned analysis was that the

final N of POs who took the quizzes at both time points was small due to turnover. Therefore, we do not include results from the quizzes in this report.

### **Inter-Rater Reliability of the SAVRY**

To gather data on the inter-rater reliability of the SAVRY, youth were randomly selected to have the SAVRY rated by two independent raters. One rater for each randomly selected case was a PO (referred to as juvenile officer [JO] in Arkansas) who conducted the youth and parent interviews, gathered collateral information, and rated the SAVRY. POs and supervisors at each probation office/department in the study were instructed to ensure every PO had at least one or two of their cases double-rated to get an accurate reliability index for the office as a whole. Raters of inter-rater cases were instructed to rate the SAVRY and document the criminogenic need areas they would prioritize.

The methods for obtaining a second rater differed by probation department. Every attempt was made to have the second rater observe the interviews conducted by the first rater; however, challenges with scheduling made this process infeasible in many circumstances. In two Arkansas (AR) probation departments, the second rater was another JO who observed the interviews, reviewed the same collateral information and rated the SAVRY. In one AR probation department, the second rater was another JO who did not observe the interview but instead read detailed interview notes from the first JO. In the fourth AR probation department, the second rater was one of two interns trained on the SAVRY. The interns had to base their SAVRY ratings on interview notes and file information. In Rhode Island, the second rater was a supervisor in 60% of cases and a trained Master's level intern in 40% of cases. Every attempt was made for the second raters in Rhode Island to observe the interview but occasionally the second ratings had to be completed based on interview notes.

### **Data Analysis**

We used quantitative data from PO interviews to examine adherence to the SAVRY, MAYSI-2, and CRAFFT administration and use policies. We calculated means and standard deviations

comparing Time 1 and Time 2 responses on the 7-point scale questions related to the SAVRY's use in various decisions. Within-Subjects Analyses of Variance (ANOVA) tests were conducted with the rating scale data to examine the presence of significant changes at the individual PO level over time in the use of the SAVRY in decisions. We categorized POs' qualitative responses into themes. Interview data were analyzed separately by state in order to identify any issues with fidelity prior to conducting analyses of their case-level data to examine changes in case management and youth outcomes.

To test the POs' inter-rater reliability (IRR) on the SAVRY, we conducted intraclass correlation coefficients (ICC<sub>1</sub>) using a two-way random effects model for absolute agreement. This statistic is appropriate for research designs using a random sample of raters selected from a larger population of judges where each rater rates the same subjects or targets (Shrout & Fleiss, 1979). We conducted ICC<sub>1</sub>s for the SAVRY risk rating and the criminogenic need areas. Criminogenic need area reliability was examined in two ways: 1) low, moderate, or high ratings in each overall need area if SAVRY need areas were scored (calculated needs), and 2) the rater/PO-identified SAVRY need area. Fleiss (1986) suggested the following classifications for ICC<sub>1</sub>s. ICC<sub>1</sub> values of  $\geq .75$  indicate excellent agreement, .60 to .74 indicate good agreement, and .40 to .59 indicate fair agreement.

### **Methods for Research Question 2:**

#### **Did Implementation of the SAVRY, MAYSI-2, and CRAFFT Lead to Significant Changes in the Way Youth Cases Were Handled and Youth Outcomes?**

We answered Question 2 using a pre-post, quasi-experimental design comparing samples of youth referred to the juvenile courts for delinquency offenses before and after implementation of the instruments and procedures. The pre-implementation samples were identified by selecting a random sample of youth petitioned to the court in each study site over the year prior to implementation. The post-implementation sample comprised all youth petitioned to the courts for a new offense over a period of nine months after implementation of the SAVRY, MAYSI-2, and CRAFFT. The pre and post-

implementation samples were independent. The researchers gathered the samples and all juvenile court, probation, and recidivism data using administrative probation data supplemented by individual PO case notes, hard copy social history reports, and disposition recommendation forms when necessary.

### **Differences in Case Processing and Youth Outcomes Before and After Implementation**

We initially planned to track both case processing and individual outcome variables for each youth for the period between their baseline petition date and the date their disposition terminated, or until the end of the follow-up period, whichever came first. The follow-up date was set to ensure each youth was tracked for a minimum of 6-months from their petition. Due to implementation challenges, we had to change our tracking period in Rhode Island to start with the disposition date rather than the petition date (see Findings: Rhode Island). We conducted pre-post comparisons on the following case processing outcome variables:

1. **Disposition:** Disposition was defined according to the most restrictive disposition imposed for the baseline petition. For example, if a youth was sent to detention for two weeks and then placed on probation, the disposition was recorded as detention. For youth sent to detention pre-adjudication who received dispositions of “time served” plus probation, the disposition also was recorded as detention.
2. **Post-Adjudication Out-of-Home Placements:** We tracked all placements where youth were removed from the community over the study period, including mental health and substance abuse facilities, residential treatment, and correctional placements. We categorized placements to report four sets of placement rates: 1) JJ-related placements ever (correctional, detention, and JJ residential placements at any point over the follow-up), 2) JJ-related placements at disposition, 3) any placement ever (includes inpatient treatment, group homes, etc. occurring over the course of the follow-up for the current disposition), and 4) any placement at disposition.

3. **Probation violations:** We tracked serious probation violations, defined as those resulting in a formal reprimand.
4. **Recidivism:** Although we did not anticipate the implementation effort would have a significant impact on recidivism after such a short follow-up period (see Flores et al., 2006, Vincent et al., 2016), recidivism is always an important outcome to report. Recidivism was operationalized in two ways: 1) any new petition, and 2) any new disposition involving court intervention (discounts 'dismissed') that occurred after the baseline petition. We also categorized offenses as *violent* (involved potential or actual harm to another individual) or *any* (includes non-violent and violent offending but excludes violations). Researchers gathered recidivism data from both juvenile and adult records in each state. Recidivism was tracked over the time youth had the opportunity to re-offend by using their first release date (either the date of petition/disposition or the date they were released from a facility if sent to a facility at disposition) to the end of the follow-up period. We calculated time at-risk separately for each offense category, defining the start date as the youth's petition date or first release date for those sent to a placement and the end date as the follow-up date (for youth who did not re-offend) or the first violent or any re-offense date, respectively.

### **Concordance Between Case Processing Decisions and Risk**

In addition to the pre-post implementation comparisons, we also answered the question of whether the implementation effort influenced the way youth cases were handled by examining the concordance between the SAVRY risk level and case management decisions in the post-implementation samples only. This part of the analyses involved examining the concordance between risk level and the outcomes listed above: a) disposition, b) post-adjudication out-of-home placements, c) probation violations, and d) recidivism. We also examined the concordance between risk level and the number of services referred and received. To gather service data, for each youth case, we recorded the services referred by the court, the agency and type of service, the start and end dates of

the service, and whether the service was completed successfully or terminated. We categorized services into two categories: 1) services referred by the court, which excludes services the youth was already obtaining prior to court involvement, and 2) services completed, which includes services youth were receiving prior to court involvement but excludes services that were terminated unsuccessfully.

## **Data Analysis**

Comparisons between the pre- and post-implementation samples were made following propensity score matching within each site to equate the groups along a number of important youth characteristics (e.g., offense history, severity of current offense, demographics, psychosocial history) that might affect case processing. Propensity score matching is a technique commonly used in observational studies to reduce potential bias resulting from differences on relevant characteristics between control and treated groups (Rosenbaum & Rubin, 1983). Matching is completed to identify control and treatment participants who have a better balance on a range of relevant characteristics. Propensity score matching was conducted using the custom dialog add-on 'psmatching' version 3.04, which was programmed in R (version 3.2.2) for SPSS Version 24. Using the psmatching program, propensity weights were calculated using logistic regression with the pre-implementation versus post-implementation groups as the dependent variables and the following covariates as predictors: gender, race, age at baseline petition, any violent priors, number of prior arrest events, and most serious baseline offense. Aside from gender, race, and age, these variables were selected because they were correlated with the dispositions youth received. Participants were matched using 1:1 nearest neighbor matching (without replacements) with common support and a caliper of .2. After the match, balance diagnostic tests were completed in order to verify that the post-match differences between the groups were not significant.

Researchers used chi-squares to compare the matched pre- and post-implementation groups to determine whether there was a significant change in rates of variables that were not correlated with

time (e.g., dispositions, placements) following implementation of the SAVRY. Cox proportional-hazards regression was used to compare groups in the rates of recidivism and probation violations, which are somewhat dependent on the amount of time one has the opportunity to engage in these events. Moreover, Cox regression permits inclusion of *censored cases* (in this context, those who had not yet violated or recidivated) while comparing groups in the likelihood of an event.

To examine the association between risk and case processing decisions, we used chi-squares comparing dichotomous case-processing outcomes and categorical risk levels on the SAVRY, and ANOVAs to compare the number of services received between the low, moderate, and high risk groups. These analyses were conducted with the full post-implementation samples (as opposed to the post-implementation youth matched to the pre-implementation youth) in each site to examine the sites' decision-making processes for the entire group.

### **Methods for Research Question 3:**

**Does presence of a mental health concern and/or substance use severity interact with risk for reoffending in the prediction of recidivism? Is this interaction moderated by treatment?**

Question 3 was investigated with the post-implementation samples only because we needed accurate measures of risk, substance use severity, and presence of potential mental health concerns.

These variables were operationally defined as follows:

- Risk = The summary risk rating (SRR) on the SAVRY
- Mental health condition = A critical case on the MAYSI-2. Technically, this means the youth has a 'potential' mental health condition. Critical cases were those who scored above the Caution cut-off on the Suicide Ideation scale and/or above the Warning cut-off on any other two scales.
- Substance use severity = CRAFFT total score or whether the youth scored above the cut-off on the CRAFFT, depending on the analysis.



We conducted chi-squares to determine whether mental health (MH) or substance use (SU) severity was associated with risk or criminogenic needs. We used moderated hierarchical Cox regression analyses (includes an interaction term for MH x Risk or SU x Risk) to determine whether the behavioral health variables interacted with risk level in the prediction of recidivism. Finally, we investigated whether the moderated regression models differed for youth who did or did not receive mental health treatment and those who did and did not receive substance use treatment. "Treatment" was operationalized as a generic mental health or substance abuse (SA) service (specific counseling, inpatient or residential treatments, etc.) and/or an evidence-based practice that should address mental health (e.g., Cognitive-Behavioral Therapy [CBT], Functional Family Therapy [FFT], Multi-systemic therapy [MST]). Psychological and substance use evaluations were not considered treatment.

## **FINDINGS: RHODE ISLAND**

### **Specifics of the Implementation Process, Policy and Procedures**

The lead agency for this initiative was the Department of Children, Youth and Families/Division (DCYF) of Juvenile Correctional Services-Juvenile Probation in Rhode Island. The agency handles both child welfare and juvenile justice under separate divisions. The juvenile justice division is a centralized agency that oversees juvenile corrections and detention (the Rhode Island Training School - RITS) and all juvenile probation offices. In addition to the benefits of implementation occurring through one centralized body, the agency also has a sophisticated centralized data system called RICHIST which contains child welfare and juvenile justice data. This also posed some challenges for the project because RICHIST and many of the case planning policies followed by the juvenile justice division were driven by the child welfare system. Therefore, the agency leaders were never able to obtain approval for adjusting the case plan in RICHIST to be aligned with the SAVRY and criminogenic needs. Instead, we attempted to train POs how to fill out the case plan differently to ensure criminogenic needs were being addressed. The SAVRY was integrated into RICHIST prior to

actual implementation by a sophisticated design team that required POs to input the item ratings and select the priority criminogenic need areas.

Because the state is small, implementation occurred in all of probation and corrections at the same time, which greatly enhanced continuity of case planning. Thus, there were no pilot sites. The state had a risk assessment in place previously, called the Probation Risk Assessment, but POs were not using it for any decisions. POs also had to complete a child welfare driven assessment, which they were unable to replace throughout the project due to child welfare regulations. Therefore, POs were completing both the existing child welfare assessment and the SAVRY for every case. Rhode Island did not have probation intake departments, all assessments were conducted post-disposition, and the court rarely bifurcated adjudication and disposition hearings, which were both driven largely by plea bargaining. Thus, another hurdle was to change the system in order to conduct the SAVRY and screening pre-adjudication. The PI and JJ Division leads met with the judge in the largest county and the Chief Justice, who both bought into the idea of POs conducting the SAVRY pre-adjudication and providing pre-disposition recommendations. We also met with public defenders and prosecutors who stated they were willing to pilot pre-adjudication assessments. Then other barriers arose which prevented the implementation of pre-adjudication assessments, including changes in leadership at DCYF, changes in the Chief Justice, resistance from the probation union, and eventually loss of too many POs to staff a pre-disposition assessment unit (which the JJ Division and union eventually agreed to as a compromise). Therefore, the SAVRY was only administered post-disposition throughout the study period.

The timeline for Rhode Island was as follows: POs were trained on the SAVRY, MAYSI-2, CRAFFT and RNR from May thru June, 2015; full implementation July 1, 2015; booster training January 2016; 2nd booster training December 5, 2016.

## Summary of Departures from the Planned Implementation Process

- POs had to complete both their existing child welfare assessment and the SAVRY for case planning;
- POs had to complete their original electronic, child welfare-driven, case plan using some strategies to make it more RNR-focused;
- SAVRY data gathering and ratings occurred over three interview sessions, one being in the home;
- All SAVRY's, MAYSI-2, and CRAFFT were conducted post-disposition;
- As a result of IT and data protection issues, MAYSIWARE was not available in every office until late in the implementation process and many MAYSI-2s were completed and scored by hand;
- Implementation occurred in all probation offices and in the correctional facilities for re-assessments, which improved continuity of case planning.

### **Research Question 1: Were the risk assessment, behavioral health screening tools, and RNR based case planning procedures used with fidelity?**

Twenty-eight probation officers completed both the four-month (Time 1) and 10-12 month interviews (Time 2). Of those, 20 were responsible for completing the SAVRY, MAYSI-2, and CRAFFT. Twenty-five of the 28 POs interviewed overlapped between Time 1 and Time 2. Three probation officers from Time 1 left the agency before Time 2 and three POs in Time 2 had not been interviewed at Time 1 because they were on leave.

### **Adherence**

Adherence to the post-disposition administration policies that had to be used over the course of the study appeared strong. However, the eventual youth sample that had to be used for this study was drawn based on whether a SAVRY had been completed, and therefore, whether any youth were not administered SAVRYs could not be determined. At Time 1, 90% ( $n = 18$ ) of POs had the

opportunity to conduct at least one SAVRY post-disposition. By Time 2, 100% of POs had conducted SAVRYs post-disposition. The median number of days between disposition and SAVRY completion was 77.5 days, which is longer than the 60 day recommendation. At Time 1, five POs indicated they had an occasion where they could not complete a SAVRY in the timeframe required or at all. The majority of the reasons given were legitimate (e.g., family moved out of state, youth had to be hospitalized). There were a few instances where the SAVRY was not conducted because the youth and parent refused to be interviewed, which is not a legitimate reason unless there is no file information about the youth. At Time 2, a few POs still reported that they did not complete the SAVRY if the family could not be contacted.

Based on POs' reports, adherence to policies regarding use of the SAVRY in decisions was poor until Time 2. By Time 2, 85% of POs reported using a written case plan; however, these were not aligned with the SAVRY since the SAVRY case plan was not implemented. Only 60% reported using the service matrix.

All POs at both time points indicated that they completed the MAYSI-2 and CRAFFT post-disposition for all youth, which was in line with their policy. Only 3 POs reported cases in which a MAYSI-2 and CRAFFT would have been required by policy but were not administered. These reasons were legitimate (e.g., youth hospitalized) in most cases. The MAYSI-2 and CRAFFT were missing for 16 and 20 youth in the final sample of 150, respectively, which was due to these reasons. We could not calculate a valid length of time between disposition and completion of the screening tools due to data entry issues. This was a limitation with delayed use of the MAYSI-2 software in Rhode Island and many CRAFFTs not being entered into RICHIST at the time they were completed.

### **SAVRY Use in Decision-Making**

The number of assessments conducted by individual POs provided the sample with sufficient experience for answering all the SAVRY questions at both time points. In the first four months following implementation, the number of SAVRYs conducted by any one PO ranged from 2 to 29 ( $M =$

9.35,  $SD = 6.05$ ). At Time 2, the number of SAVRYs conducted since Time 1 (including reassessments) ranged from 2 to 30 ( $M = 14$ ,  $SD = 8.65$ ).

Table 2 provides the mean and standard deviation on the 7-point scale (0 = Never, 7 = Always) for each of the questions related to use of the SAVRY in decisions for all POs interviewed at Time 1 and at Time 2. The table also provides whether there was a significant difference between Time 1 and 2 in the average ratings given by POs who completed both interviews (within-subjects comparison). The sample sizes for paired-comparisons were small so not always significant. However, there are instances where the T1 and T2 mean scores suggested there was an improvement over time on the whole for the agency (agency-level improvement) even if there was not change at the individual-PO level.

**Service recommendations.** In RI, POs did not have the ability to make service recommendations based on the SAVRY unless the youth went back to court after their disposition for some reason, such as a violation. At Time 1, only 65% of the 20 POs who had an opportunity to make service recommendations reported that they had used the SAVRY in these decisions. Table 2 indicates recommendations targeted criminogenic need areas only occasionally, on average. By Time 2, there was substantial improvement with 94% of the 17 POs interviewed stating they used the SAVRY. POs reported often targeting needs on the SAVRY ( $M = 5.59$ ,  $SD = 1.77$ ) but also occasionally made recommendations for services that addressed needs not identified on the SAVRY ( $M = 2.88$ ,  $SD = 1.83$ ). As Table 2 indicates, there was no change in use of SAVRY criminogenic need areas to guide service selection at Time 2 at the individual PO level. Based on qualitative responses, it appeared a couple POs had their standard service recommendations that they just continued to use regardless of SAVRY results.

**Supervision level.** At Time 1, only 61.1% ( $n = 11$ ) of the 18 POs who had an opportunity to make a decision regarding supervision level stated that they had used the SAVRY in these decisions. By Time 2, this increased to 100% of the 18 POs'. There was a significant jump in POs'

correspondence between the SAVRY risk level and their supervision level decisions, from a mean of 2.94 ( $SD = 2.6$ ) at Time 1, to 5.80 ( $SD = .78$ , see Table 2) at Time 2. At the agency level, the means indicated 1) a trend towards making supervision level decisions that were more restrictive than the SAVRY risk level at both time points, and 2) POs were more likely to consult the SAVRY in their decisions by Time 2. Because only 12 POs at Time 1 said they had made a supervision level decision, the sample was too small for within-subject analyses (only 8 POs overlapped).

**Probation violations.** At Time 1, only 10% of the 20 POs ( $n = 2$ ) had a youth with a probation violation during this time period. There was a substantial increase in use of the SAVRY by Time 2 (81.3% of the 16 POs) because all POs had at least one violation by this time. Therefore, there was a significant within-subjects increase and shift at the agency-level (Time 1 -  $M = 0.60$ ,  $SD = 1.88$  vs. Time 2 -  $M = 4.19$ ,  $SD = 2.56$ ) in giving probation violation recommendations that corresponded with risk level (see Table 2). There also was a significant decrease in the frequency of not consulting the SAVRY at all in these decisions. Other violation questions could not be compared between time points because so few POs had violated a youth by Time 1. There was a trend towards giving more restrictive recommendations than the risk level would indicate when recommendations did not correspond with risk level.

**Table 2: Probation Officer Interview Ratings for Their Use of the SAVRY In Case Processing Decisions At 4-Months (T1) and 10-12-Months (T2) Post-Implementation**

	<b>T1 M(SD)</b>	<b>T2 M(SD)</b>	<b>Within-Subjects ANOVA</b>
<b>Service Recommendations</b>	<b>n = 20</b>	<b>n = 17</b>	<b>n = 16</b>
Target criminogenic needs identified by SAVRY	4.85(2.11)	5.59(1.77)	$F(1,15) = 0.64$
Disregard some needs identified by SAVRY	1.45(1.67)	1.06(1.30)	$F(1,15) = 0.46$
Target needs not identified in the SAVRY	3.30(2.03)	2.88(1.83)	$F(1,15) = 0.22$
Make service recommendations without using the SAVRY	2.55(3.15)	1.65(2.23)	$F(1,15) = 0.99$
<b>Supervision Level</b>	<b>n = 18</b>	<b>n = 18</b>	<b>N = 12</b>
Made a recommendation that corresponds with the SAVRY risk level	2.94(2.60)	5.80(0.78)	$F(1,11) = 16.29^{**}$
Made a more restrictive recommendation than the risk level would indicate	3.91(1.51)	3.07(1.71)	a
Made a less restrictive recommendation than the risk level would indicate	0.91(1.81)	2.27(1.91)	a
Made a recommendation without consulting the SAVRY	2.94(3.40)	1.27(1.49)	$F(1,11) = 1.55$
<b>Probation Violations</b>	<b>n = 20</b>	<b>n = 16</b>	<b>n = 15</b>
Made a recommendation that corresponds with the SAVRY risk level	0.60(1.88)	4.19(2.56)	$F(1,14) = 12.25^{**}$
Made a more restrictive recommendation than the risk level would indicate	b	2.62(1.81)	b
Made a less restrictive recommendation than the risk level would indicate	b	1.23(1.64)	b
Made a recommendation without consulting the SAVRY	6.45(1.76)	2.96(2.85)	$F(1,14) = 22.56^{***}$

Note: Ratings ranged from 0 (Never) to 7 (Always). <sup>a</sup> = Only 8 POs completed these questions at both time points, too few for analyses. <sup>b</sup> = At Time 1, only 2 POs had used the SAVRY for probation violation recommendations.

### **Behavioral Health Screening Use in Decision-Making**

At Time 1, POs reported completing approximately 159 MAYSI-2's. Of those, POs reported that approximately 12% of cases resulted in a referral for a mental health or co-occurring disorders evaluation. Sixty percent stated they never made a referral. This is a significant reduction in evaluations based on prior reports by the agency stating most of their youth were receiving mental health evaluations. At Time 2, the proportion sent for a referral was approximately 14% of 285 cases.

The POs' self-reported frequency of referrals for an immediate mental health consultation was low, with most POs (80% at Time 1, 67% at Time 2) stating they never did this.

Results did not differ much for the CRAFFT. At Time 1, POs reported making a referral for a substance use or co-occurring disorders evaluation in only 9% of cases, on average, based on CRAFFT results. This increased to 17% of 285 cases at Time 2. Approximately half of the POs stated they never made one of these referrals during the time periods (55% at Time 1, 48% at Time 2).

### **Barriers to Use**

At Time 1, POs reported some barriers to use of the SAVRY and/or behavioral health screening in their decisions. Much of these related to the fact that the SAVRY was not being conducted prior to disposition. Perceived barriers reported by POs had the following themes, listed by type of decision.

Service recommendations:

- In order for POs to recommend services, a violation of probation must be filed so that a judge can adjust the conditions of probation.
- POs were not in the habit of referring to the SAVRY for case planning yet.
- POs were not 100% confident in their ability to select criminogenic needs.
- Lack of service options.

Supervision level:

- Some POs stated they had not seen the policy for basing supervision level on the SAVRY risk level.
- POs were still getting used to using the SAVRY and to reducing supervision level if the SAVRY indicated a lower level of supervision than their prior policy, which involved starting all youth on high supervision.
- Some POs simply stated they did not use the SAVRY because they have never reduced the frequency of visits for low risk youth.



### Behavioral health referrals:

- Many POs stated they were uncomfortable making ‘clinical judgments’ about the need for an immediate mental health consultation based on the MAYSI-2.

### General issues:

- A common theme was that POs felt the interview guides implemented for the SAVRY were too long and cumbersome. Additionally, in practice they were instructed that the SAVRY interview had to be completed over three interview sessions, one being a home visit.

The researchers assisted with corrective actions to address barriers after the Time 1 interviews were completed. This included providing a report to the administration and supervisors with recommendations, reinforcing their quality assurance steps, and conducting a booster training that involved a review of the policy and reinforced the idea that the SAVRY interviews were semi-structured and not all questions were required. Supervisors also reinforced the need to assign supervision level based on the SAVRY. With respect to behavioral health issues, POs received a training from a clinician to explain how to determine need for a mental health consultation and what to do in these cases. Researchers suggested the practice of conducting three interview sessions with each youth should be changed; however, this practice continued.

At Time 2, interviewers obtained more information from POs regarding barriers to valid use of the SAVRY by requesting examples of cases where POs deviated from the SAVRY in recommendations. Barriers that persisted or were recently reported are below.

### Service recommendations:

- POs cannot make service recommendations until the youth has violated probation.
- Approximately 3 POs continued to state that they relied on their “experience” to make service recommendations.
- Approximately 5 POs continued to not individualize case planning because they had their typical set of recommendations.

- Many were emphasizing mental health without considering criminogenic needs.

### Supervision level

- 3 POs continued to assign more restrictive levels of supervision because they were relying instead on their experience. For example, they felt regular contact was the only way to ‘get to know the kid’, or they saw every youth at the same level and that was how they always had done things.
- There continued to be some barriers related to misunderstandings of structured professional judgment because they cited youth behaviors as reasons for being more restrictive, yet these behaviors should have been captured in the risk level.

### Probation Violations

- There often wasn’t enough time to re-administer the SAVRY prior to needing to make a recommendation.
- Pressure to comply with the judge and prosecutor’s decisions.

### Behavioral Health Screening

By Time 2, the number of referrals for behavioral health consults and evaluations had increased. Thus, previous barriers appeared to have been addressed by the added mental health training POs received. POs became a little more comfortable with their ability to address youth’s responses to suicide-related questions. The only issue expressed by some POs was they felt the MAYSI-2 was “too clinical”.

### **SAVRY Inter-rater Reliability Results**

A total of only 18 cases were rated by two independent raters and used for inter-rater reliability analyses. There were significant challenges to scheduling interviews that could be attended by two people, largely due to the policy of completing the SAVRY over three different sessions with the youth and parents, one of which was in the home. Agreement on the overall SAVRY risk level was excellent ( $ICC_1 = .92, p < .001$ ), and agreement on a SAVRY total risk score constructed for research purposes

was also excellent ( $ICC_1 = .92, p < .001$ ). Agreement was poor on only one risk factor item (History of Self-Harm or Suicide Attempts) and one protective factor item (Strong Attachments and Bonds), and agreement was fair on five risk items (e.g., Peer Delinquency, Lack of Personal Support) and one protective factor item (Strong Commitment to School). Agreement on all other items was good to excellent.

Table 3 reports the IRR for the criminogenic need areas if they were calculated versus those selected by the POs. The Peer Relations need area had low agreement in both cases. PO's and the second rater (a supervisor or intern) also had only fair agreement on the substance abuse and poor agreement on the emotional stability areas. Agreement on the PO-identified need areas was poor due to over-identification of need areas.

**Table 3: Inter-Rater Reliability for SAVRY Criminogenic Need Areas**

Need Areas	Calculated Needs $ICC_1$	PO Identified Needs Kappa
<b>Disruptive Behavior Problems</b>	.77***	.65
<b>Attitudes/Orientation</b>	.88***	.61
<b>Emotional Stability</b>	.89***	.29
<b>Family</b>	.59	.68
<b>Education/Employment</b>	.81***	.66
<b>Peer Relations</b>	.50	.20
<b>Substance Abuse</b>	.85***	.49

Note. \*\*\* =  $p < .001$

### Research Question 1: Summary

POs were adhering to their policies for administering the SAVRY, MAYSI-2, and CRAFFT. Quantitative data suggests POs were rarely using the SAVRY in their case management decisions at Time 1 but that use increased by Time 2 after reinforcement from supervisors and booster training. There appeared to be PO buy-in to use of the SAVRY but many barriers to their ability to use it in

decisions because the SAVRY was not conducted until after disposition. Therefore, risk-needs assessment would have no impact on disposition and limited impact on case planning at least until youth violated. Qualitative data indicated there were still concerns with a few POs being resistant to the idea of using an assessment or screening tool in their decisions due, in part, to lack of understanding of structured professional judgment, using their experience, and the sentiment that they were not clinicians. Inter-rater reliability on the SAVRY was exceptional, indicating fidelity was maintained; however, the reliability of selecting criminogenic need areas to prioritize was in need of improvement. Use of the behavioral health screening tools appeared to be strong by Time 2.

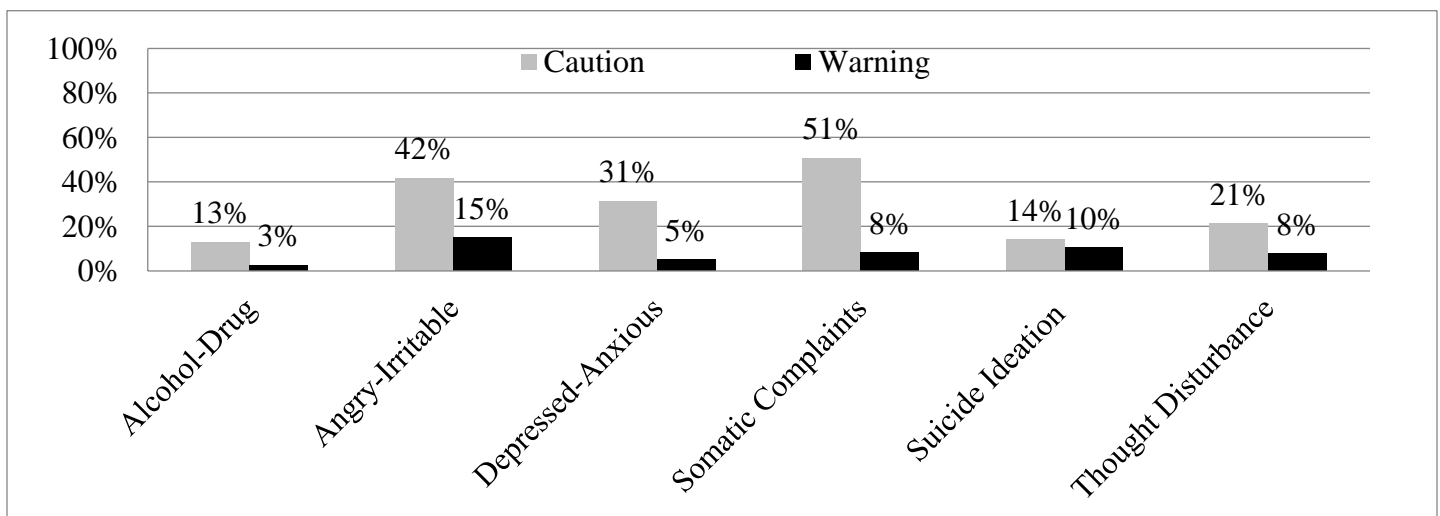
**Research Question 2: Did Implementation of the SAVRY, MAYSI-2, and CRAFFT Lead to Significant Changes in the Way Youth Cases Were Handled and Youth Outcomes?**

Whether changes occurred following implementation cannot be examined in Rhode Island because 1) the SAVRY and screening tools were never administered pre-disposition and therefore, were not driving any decisions unless youth had been violated, and 2) despite use of the same youth Identifiers between court data (all youth who had been petitioned) and probation, it was impossible to match the youths' petitions and dispositions and to the correct sentences for probation or correctional placement. Therefore, we were limited to drawing a sample ( $N = 150$ ) of all youth, post-implementation, who had received the SAVRY following their disposition and examining the correspondence between risk and decisions. This section provides the post-implementation sample characteristics (see Table 4 for demographic information).

**Table 4: Sample Description (N = 150)**

	<i>n</i> (%)	<i>M</i> ( <i>SD</i> )
Female	29(19.3%)	
Race		
White	82(54.6%)	
Black	43(28.7%)	
Other	10(6.6%)	
Unknown	12(8.0%)	
Hispanic	51(34%)	
Age @ adjudication		15.47(1.48)
Violent index offense	62(41.3%)	
Age first arrest		14.84(1.74)
# prior petitions		1.71(2.52)
prior violent petition	24(16%)	
MH placement history	24(16%)	
SA placement history	2(1.3%)	
Prior child welfare involvement (substantiated)	62(41.3%)	
Prior child welfare involvement (unsubstantiated)	52(34.7%)	

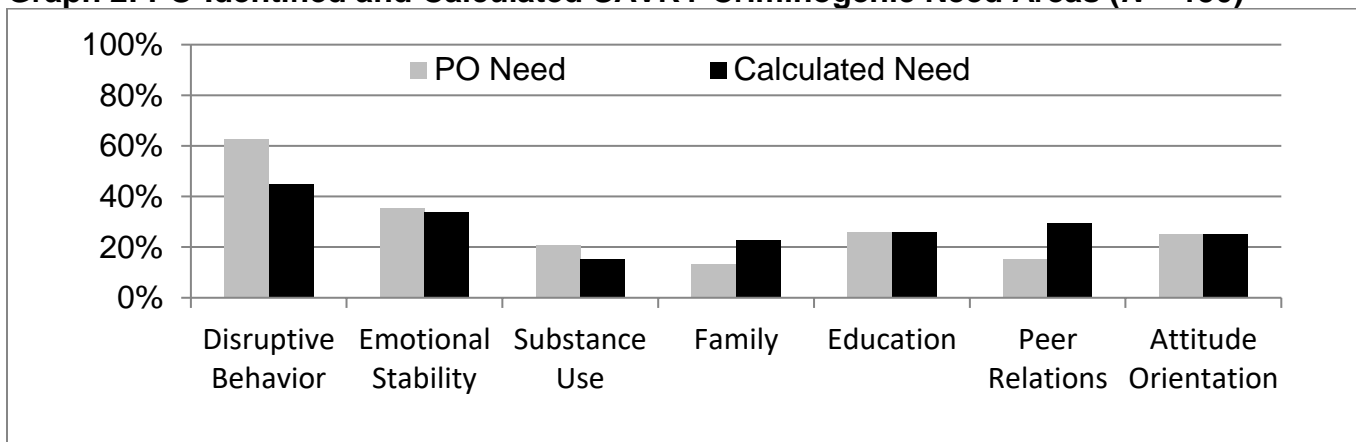
The MAYSI-2 could not be located for 16 (10.7%) of the 150 youth. Of the 134 youth with a completed a MAYSI-2, 31 (30.1%) were critical cases, meaning they had a potential mental health concern. Graph 1 provides the MAYSI-2 profiles of all youth. The CRAFFT could only be located for 130 of the 150 youth. Among the 130, the average score was 1.36 (*SD* = 1.78) with 24.6% scoring above the cut-off, meaning they had a potential substance use problem.

**Graph 1: Youth Scoring Above Caution and Warning Cut-offs by MAYSI-2 Scale (n = 134)**

SAVRY risk levels indicated 42 (28%) youth were rated as low risk, 75 (50%) were moderate risk, and 33 (22%) were high risk. Graph 2 provides the criminogenic need profiles of the sample by

displaying the percentages of youths' PO-identified needs (indicated as present) versus the percentages with calculated criminogenic needs (scoring "high" in the area relative to their peers). Graph 2 suggests that PO's may have over-identified Disruptive Behavioral concerns and under-identified negative Peer Relations. It is important to note that this is not a one-to-one comparison because POs should select the criminogenic need areas that seem to be driving the offending or underlying the other criminogenic need areas while a calculation cannot capture these nuances. Moreover, calculations are based on youth who would have been 'high' in the need areas while POs may occasionally decide a need area should be addressed even if it closer to moderate.

**Graph 2: PO-Identified and Calculated SAVRY Criminogenic Need Areas (N = 150)**



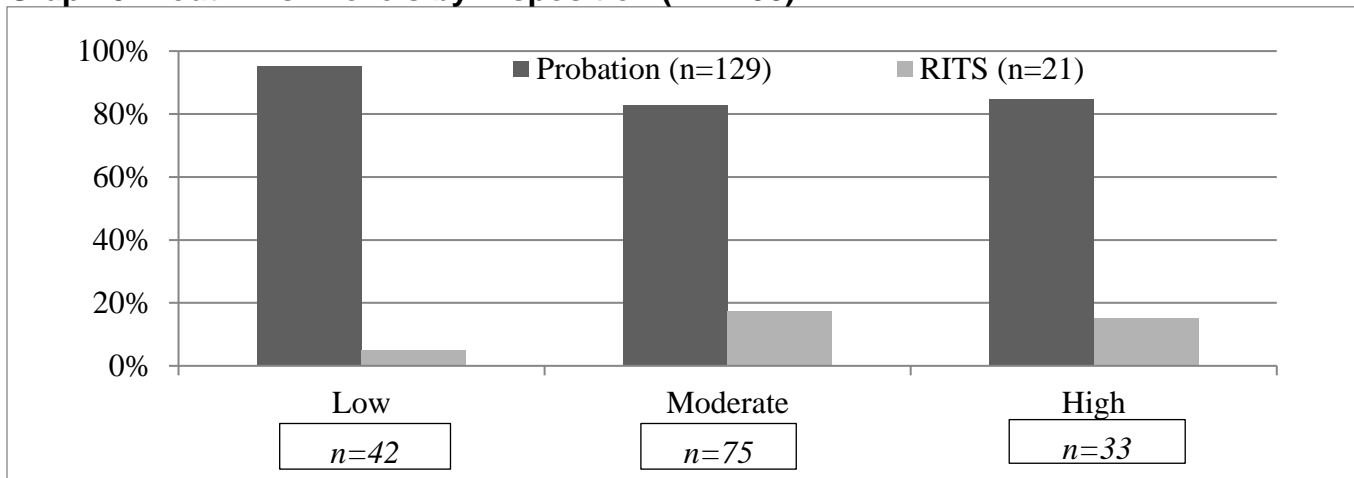
**Case-Processing and Youth Outcomes**

Case-processing outcomes were tracked from each youth's disposition date to the end of their sentence, or the end of the follow-up period, whichever came first. The follow-up period was a minimum 6-months but could be up to 15-months depending on the disposition date of the case. The average length of follow-up was almost one-year (303.34 days, *SD* = 82.73 days).

**Dispositions**

There was little variability in disposition in Rhode Island because the sample included only those who were sentenced. Out of 150 youth, 21 (14%) were sent to detention or a correctional placement, both of which were at the RITS, and 129 (86%) received probation. Graph 3 displays the association between disposition and youths' risk levels. There was a clear difference in dispositions for low risk youth but no difference for moderate and high risk youth;  $\chi^2(2) = 4.37, p = .11, \phi = .17$ .

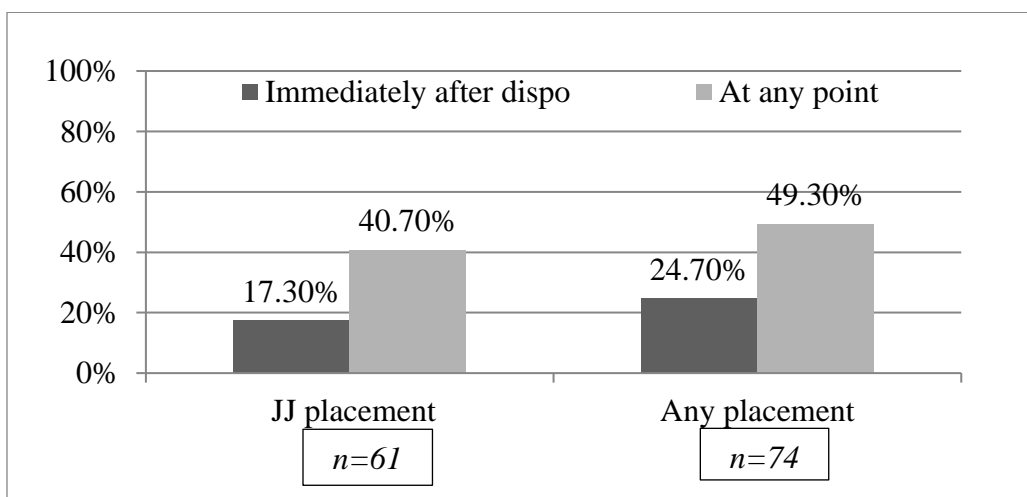
**Graph 3: Youth Risk Levels by Disposition (N = 150)**



### Post-Disposition Out-of-Home Placements

Overall, 61 (40.7%) of youth were put in a JJ placement (secure facility or detention) and 74 youth (49.3%) were put in any kind of out-of-home placement (e.g., treatment, residential delinquency treatment) before their sentence commenced or at the end of the follow-up period. Graph 4 provides the percentages of youth put in a placement as a result of their disposition versus those put in a placement later. The graph indicates that youth receiving a disposition had a 50/50 chance of ending up in a placement at some point.

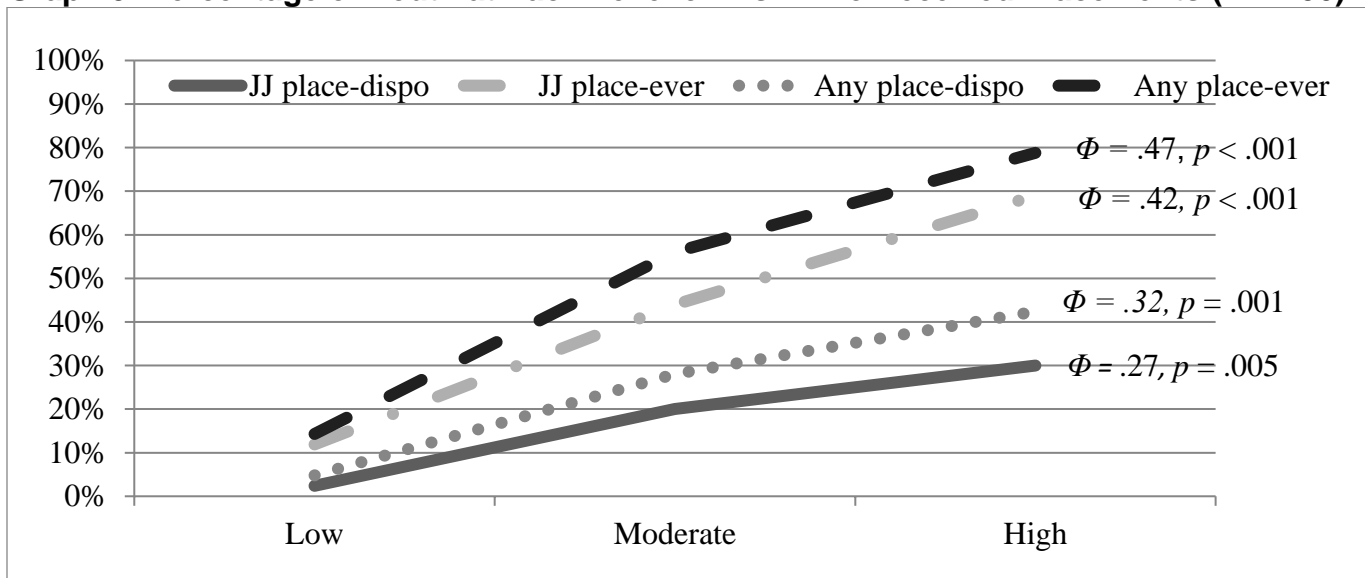
**Graph 4: Placement Rates by Type of Placement and Time Period (N = 150)**



Graph 5 displays the association between risk level and the types and point at which placements were received. The association was significant in every category with a medium to large effect. Effects were stronger for placements that occurred later during probation than at disposition,

with 80% of high risk youth ending up in a placement at some point, 70% of those being a JJ placement. The data indicate that youth being served in the community were being violated and put in a JJ-placement or were determined to need residential treatment sometime after disposition. If the SAVRY had been used to inform disposition and case management earlier in the process, it may be that the high rates of later placements could be avoided because youths needs may have been addressed sooner.

**Graph 5: Percentage of Youth at Each Level of Risk Who Received Placements (N = 150)**



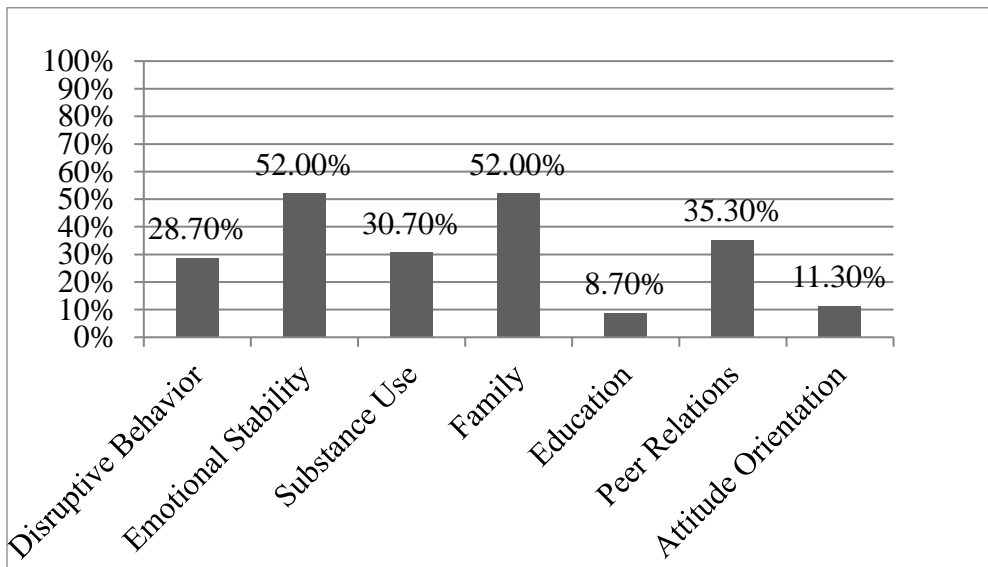
**Services**

The service data in Rhode Island was obtained from file information. The dates of services were not available. It is possible some of the services counted here actually occurred after a new offense rather than as part of the baseline disposition. Thirty-two youth appeared to not receive any services. For the remaining 118 youth, the average number of services *referred* was 1.53 ( $SD = 1.23$ ) and the average number of services *received* was higher at 1.71 ( $SD = 1.50$ ). More services were received than referred because many youth were already receiving services prior to their disposition. Graph 6 displays the types of services youth received. Service types were categorized to be relatively consistent with the SAVRY need areas and were derived based on court and PO notes as well as information from service provider websites. Youth were much more likely to get mental health and



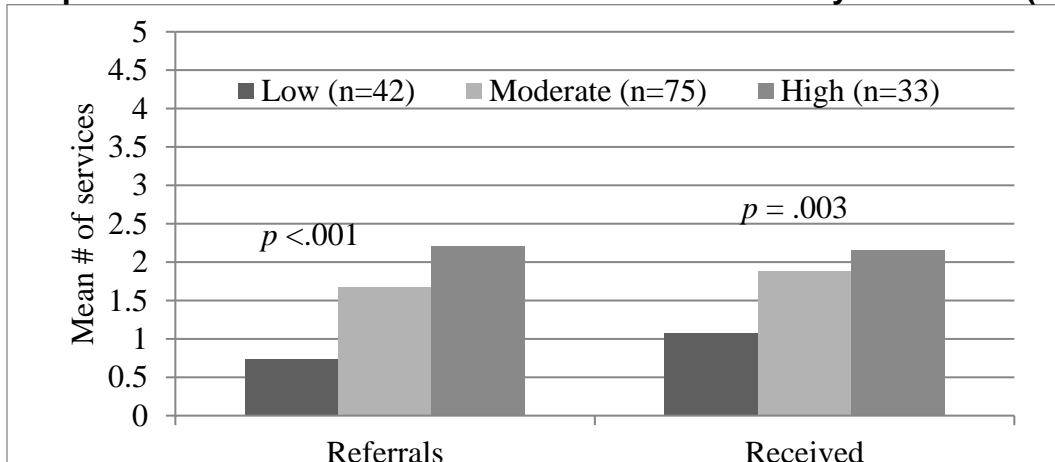
family-related needs addressed than their disruptive behavioral problems, which was the most commonly rated need area.

**Graph 6: Types of Service Received (N = 150)**



Graph 7 displays the association between risk level and number of services referred and received. There was a significant difference in the number of referrals made ( $F(2,147) = 17.37, p < .001$ ), and in the number of services received ( $F(2,147) = 6.08, p = .003$ ) by risk level. For example, high risk youth received an average of 2.15 ( $SD = 1.54$ ) services compared to 1.88 ( $SD = 1.55$ ) for moderate and 1.07 ( $SD = 1.17$ ) for low risk youth.

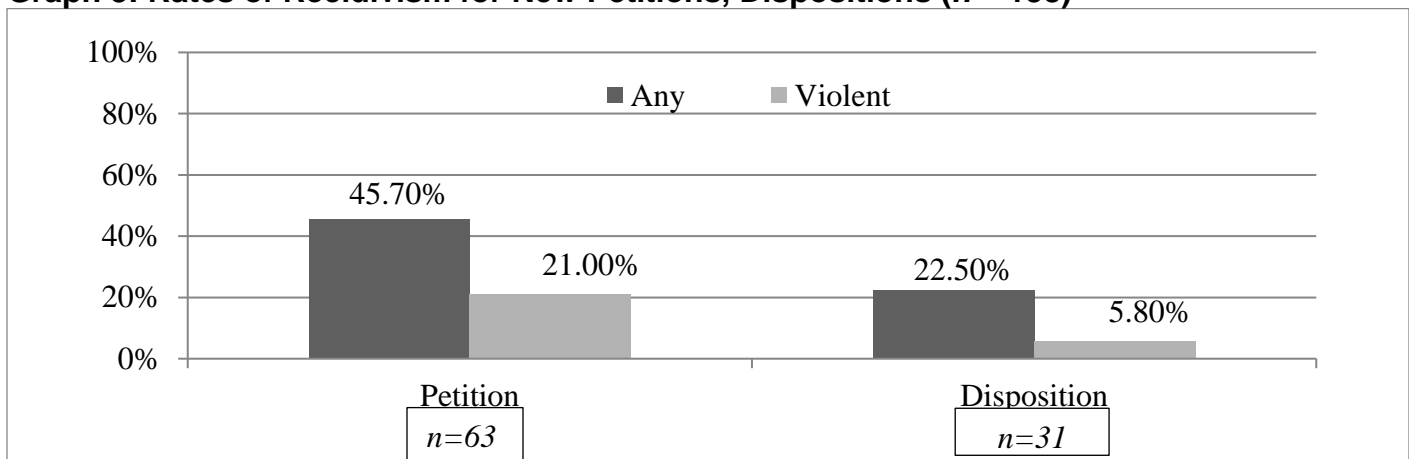
**Graph 7: Number of Services Referred and Received by Risk Level (N = 150)**



## Recidivism and Probation Violations

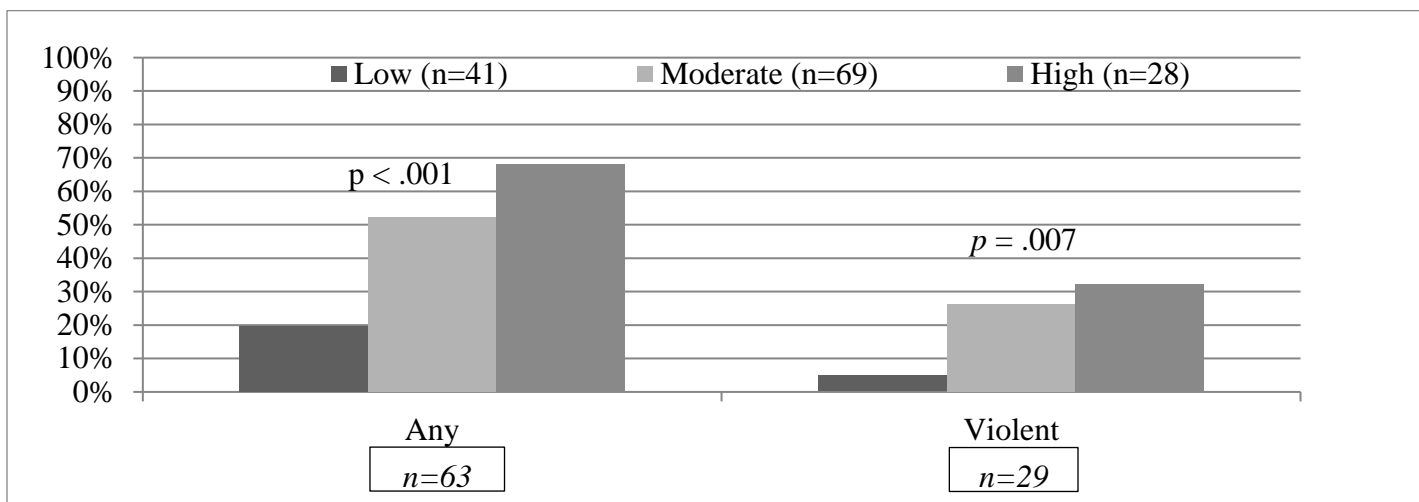
We tracked recidivism outcomes longer than case-processing outcomes, averaging from a minimum 447 to a maximum of 743 days with a median follow-up period of 602.50 days ( $SD = 68.50$  days), so about 1.7 years. Twelve youth were not included in recidivism analyses because there was no evidence they had been released during the follow-up period. Graph 8 displays the rates *any* and *violent* recidivism for both new petitions and for petitions that resulted in a disposition. Almost half the sample received a petition for a new offense but only 21% of these had a violent offense. Reliable data on probation violations could not be obtained.

**Graph 8: Rates of Recidivism for New Petitions, Dispositions ( $n = 138$ )**



Graph 9 displays rates of new petitions by risk level (excluding youth never released), indicating the higher the risk the more likely the recidivism in every category. Each of these analyses was significant. One of the limitations with these analyses is they do not take time at risk into account. Therefore, we conducted Cox regressions. These analyses taking time at-risk into account indicated the SAVRY risk level significantly predicted any new petitions ( $\beta = .81$  [ $SE = .19$ ],  $Exp[B] = 2.25$ ,  $CI$  [1.56, 3.23],  $p < .001$ ) and new violent petitions ( $\beta = .81$  [ $SE = .27$ ],  $Exp[B] = 2.24$ ,  $CI$  [1.31, 3.84],  $p = .003$ ). Thus, the SAVRY summary risk ratings, as completed by POs in Rhode Island, were a significant predictor of both any and violent recidivism, such that with each increase in risk level, youth were more than twice as likely to recidivate. Recidivism was less than 20% for low risk youth and significantly higher for high risk youth (close to 70%).

**Graph 9: Recidivism (new petition) Rates by Risk Level (n = 138)**



**Research Question 3: Does presence of a mental health concern and/or substance use severity interact with risk for reoffending in the prediction of recidivism? Is this interaction moderated by behavioral health treatment?**

**Mental health**

**Services received.** Roughly 30% of the 134 youth in this sample with a MAYSI-2 scored as critical cases, meaning they scored above Caution on the Suicide Ideation scale and/or scored above Warning on at least two scales. There was a significant difference in the likelihood of receiving some form of mental health service (not including an evaluation) for youth who were a critical case on the MAYSI-2 (50%) versus those who were not a critical case (30%), indicating the MAYSI-2 screening procedures may have been followed appropriately;  $\chi^2 (1) = 3.90, p = .05, \phi = .17$ . A significant percentage of youth who were not indicated as needing mental health services on the MAYSI-2 still received some form of mental health services, however. None of the youth scoring as a critical case on the MAYSI-2 received a mental health service that could be categorized as an evidence-based practice (e.g., CBT, FFT); whereas 12% of the non-critical cases did. We investigated whether youth who received an evidence-based practice (EBP) were simply higher risk youth but the association between receipt of an EBP and risk level was not significant;  $\chi^2 (2) = 3.50, p = .17, \phi = .16$ .

**Concordance between MAYSI-2 and SAVRY risk level.** There was not a significant association between MAYSI-2 results and the SAVRY ( $\chi^2 (2) = 2.06, p > .05, \phi = .12$ ) but there was a trend that

youth who were a critical case on the MAYSI-2 were more likely to be high risk (28.6%) than moderate (18.2%) or low risk (15%). Within the need areas, youth who were critical cases on the MAYSI-2 were 2.86 times as likely to be calculated with a high need in Emotional Stability concerns ( $\chi^2(1) = 5.72, p = .02, \phi = .21$ ) and 2.71 times as likely to have Family/Parenting Problems ( $\chi^2(1) = 4.05, p = .04, \phi = .18$ ). There were no other significant associations between criminogenic needs and mental health.

**Recidivism.** Table 5 provides the percent of youth who re-offended as a function of whether they scored as a critical case on the MAYSI-2 and whether they received mental health treatment. The table displays data for only youth who had been released during the study period. Essentially, the table indicates that mental health treatment had little to no association with recidivism for either critical or non-critical cases. However, there were very few MAYSI-2 critical cases among youth who had been released ( $n = 23$ ). When examining the sample as a whole, there was no difference in recidivism rates for those who received a generic mental health service (48.9% any recidivism and 17.8% violent recidivism) and those who did not (44.1% any and 22.6% violent). In fact, youth who received mental health services that should have been classified as EBPs (e.g., CBT, FFT) were more likely to recidivate (79.9% any and 46.2% violent) than those who did not receive these services (42.4% any and 18.4% violent);  $\chi^2(1) = 5.66, p = .017, \phi = .20$  for any, and  $\chi^2(1) = 5.47, p = .019, \phi = .20$  for violent.

**Table 5. Recidivism (Petition) Rates by MAYSI-2 Critical Case and Treatment Received ( $n = 126$ )**

	Any Recidivism $n(\%)$	Violent Recidivism $n(\%)$
Received MH Treatment		
Critical MAYSI-2	4(40.0%)	2(20%)
Not-Critical MAYSI-2	16(51.6%)	4(12.9%)
No MH Treatment Received		
Critical MAYSI-2	6(46.2%)	2(15.4%)
Not-Critical MAYSI-2	31(43.1%)	17(23.6%)

We used moderated hierarchical Cox regression analyses including an interaction term for the MAYSI-2 Critical Case x SAVRY Risk Level to determine whether mental health concerns interacted with risk level in the prediction of recidivism. Regardless of whether we investigated violent or any new petitions, or used the SAVRY risk level or total score, the presence of a potential mental health concern did not predict recidivism and did not interact with risk in the prediction of recidivism. Therefore, there was no reason to test whether receipt of a mental health service moderated an association between mental health and recidivism.

Next, we investigated the association between EBP mental health services and recidivism further by conducting Cox regression and accounting for youths' risk levels. The pattern was the same for violent and any recidivism. Using violent recidivism as an example, receipt of an EBP service alone predicted violent recidivism ( $\beta = 1.10$  [ $SE = .46$ ],  $Exp[B] = 3.00$ ,  $CI [1.22, 7.40]$ ,  $p = .017$ ). Once the SAVRY risk level was added to the model, EBP services were no longer significant. However, adding an interaction term for the risk level by EBP services led to both EBP mental health services ( $\beta = 2.53$  [ $SE = 1.14$ ],  $Exp[B] = 12.60$ ,  $CI [1.32, 119.83]$ ,  $p = .03$ ) and risk level ( $\beta = .91$  [ $SE = .31$ ],  $Exp[B] = 2.48$ ,  $CI [1.36, 4.53]$ ,  $p = .003$ ) being significant. However, the confidence intervals for EBP services were very wide and only 13 youth received them so these results are tenuous without further replication.

## **Substance Abuse**

**Services received.** Roughly 25% of the 130 youth with a CRAFFT scored above the cut-off. Among these youth, only 25% received a substance use service (not counting evaluations) compared to 16% of youth who did not score high on the CRAFFT. There was a significant correlation between total CRAFFT scores and receipt of substance use services;  $Rho(128) = .22$ ,  $p = .006$ ). Because there was significant concordance between the CRAFFT cut-off and the MAYSI-2 Alcohol-Drug Use (ADU) scale Caution ( $\chi^2(1) = 32.06$ ,  $p < .001$ ,  $\phi = .50$ ) and Warning cut-offs ( $\chi^2(1) = 12.79$ ,  $p < .001$ ,  $\phi = .32$ ), we investigated whether the MAYSI-2 had a better association with receipt of substance use

services than the CRAFFT. However, youth scoring above Caution on the MAYSI-2 ADU scale also were not significantly more likely to receive substance use services than those who did not. Thus, it is not entirely clear how decisions were made to refer youth for substance use evaluations and later treatment.

**Concordance between CRAFFT and SAVRY risk level.** CRAFFT total scores were significantly related to the SAVRY risk level ( $r(128) = .27, p = .001$ ) indicating the higher the CRAFFT score, the higher the risk. However, whether one scored above the cut-off on the CRAFFT was not related to risk level. With respect to criminogenic needs, the only area that was elevated for those scoring high on the CRAFFT was negative peer relations;  $\chi^2(1) = 4.34, p = .03, \Phi = .19$ .

**Recidivism.** Whether one scored above the CRAFFT cut-off was not related to any or violent recidivism. Total scores on the CRAFFT were significantly predictive of any new petitions ( $\beta = .21 [SE = .07], Exp[B] = 1.23, CI [1.07, 1.42], p = .004$ ) but not violent petitions. However, after taking risk level into account, the CRAFFT was no longer significant and there was not a significant interaction between substance use severity on the CRAFFT and risk level. In other words, this measure of substance use severity appeared to be related to recidivism due to its association with overall risk.

Youth who received a substance use service (75.9%) were significantly more likely than youth who did not (38%) to recidivate;  $\chi^2(1) = 13.52, p < .001, \Phi = .30$ . Youth who received a substance use service (41.4%) were also significantly more likely than those who did not (16.5%) to receive a new violent petition;  $\chi^2(1) = 8.61, p = .003, \Phi = .24$ . Moderated Cox regression analyses indicated the CRAFFT total score and receipt of substance use services interacted in the prediction of recidivism (interaction term,  $\beta = -.47 [SE = .16], Exp[B] = 0.63, CI [0.46, 0.86], p = .004$ ). The interaction indicated substance use **treatment moderated or buffered the association between substance use problems and recidivism for those with substance use concerns**. Those with a high CRAFFT score who received treatment were not likely to reoffend ( $\beta = -.16 [SE = .14], Exp[B] = 0.86, CI [0.66, 1.11], p = .26$ ) but those who did not receive treatment were ( $\beta = .30 [SE = .09], Exp[B] =$

1.35,  $CI [1.14, 1.60]$ ,  $p < .001$ ). Substance use treatment did not significantly moderate risk level in the prediction of recidivism, meaning, substance use treatment did not decrease recidivism for higher risk youth.

### **CONCLUSIONS: RHODE ISLAND**

- POs were rarely using the SAVRY in their case management decisions until reinforcement from supervisors and booster training occurred about 6-months into the implementation effort. As indicated by the second round of PO-interviews, there were significant increases in use of the SAVRY for case management decisions consistent with RNR.
- There appeared to be PO buy-in to use of the SAVRY but many barriers to their ability to use it in decisions because the SAVRY was not conducted until after disposition and both services/programming and dispositions were determined by the court.
- Inter-rater reliability on the SAVRY was exceptional, indicating good fidelity, with the exception of POs' selection of need areas, which requires more training.
- Dispositions were not related to youths' level of risk except for low risk youth, who rarely ended up at the RITS.
- Most high-risk youth being supervised in the community ended up in a placement eventually. One can speculate that using risk-needs assessment to inform disposition and service decisions earlier in the process may have led to youth receiving services and case management to address their needs sooner and could avoid later placements.
- The number of services referred and received followed the risk principle; however, needs did not appear to be addressed well. For example, half the youth received emotional stability and family-related services when only 35% or less of the youth seemed to have these needs. Few youth received disruptive behavior-related services even though over 40% appeared to need them.
- Almost half the sample received a petition for a new offense, which is well above an estimated national average (30%) and 21% of these had a violent offense. Only 22% of the youth were high

risk so it does not entirely explain the high recidivism rates. It appeared mental health services may have been over utilized and did not lead to lower recidivism, especially for high risk youth. Substance use services also did not decrease recidivism for high risk youth. The state may benefit from examining their use of services and bringing in more EBPs focused on risk reduction.

- The SAVRY was a strong and significant predictor of recidivism, such that with each increase in risk level, youth were more than twice as likely to recidivate. Thus, the state should encourage more reliance on the SAVRY in case management decisions sooner in the process.



## **FINDINGS: ARKANSAS**

### **Specifics of the Implementation Process, Policy and Procedures**

The lead agency for the effort in Arkansas was the Administrative Office of the Courts (AOC). The state does not have a centralized juvenile probation agency. Juvenile officers (JOs, similar to POs) technically work for the judges; and therefore, the AOC was the most logical administrator for the project. The Arkansas Department of Youth Services (DYS) is a centralized agency that handles juvenile corrections and was involved with this project peripherally. As noted in the Method section, the AOC and researchers selected four county probation departments to be the study sites. One county covered a large urban area and the others were smaller. The names of counties will be kept anonymous.

As a result of the decentralized structure of the probation system, the PI, project leads at the AOC, and implementation committee decided to create one state level policy for the SAVRY and one for the behavioral health screens that mandated the instruments be completed within seven days prior to disposition. Each of the four study sites created their own written practice procedures regarding how they would complete the instruments pre-disposition. Three of the sites decided to complete the instruments pre-adjudication and two of these eventually designated JOs to be 'intake JOs' to complete the instruments. All counties only completed the SAVRY and screens with youth they determined they would not divert. Two of these counties also only completed the SAVRY for youth they were pretty sure would go on to receive a petition to the court, but one of the counties consistently completed the SAVRY with all referrals that were not diverted. Because the largest site had an intake department already, they opted to adopt a risk screening tool to be completed by juvenile intake officers along with the MAYSI-2 and CRAFFT. Prosecutors used the risk screening tool in their decisions regarding whether to file a petition. JOs were to complete the SAVRY prior to disposition on all cases that were petitioned.

In May 2015, the PI and AOC leads discovered that three of the four pilot sites had either not yet been trained on Contexte, or had been trained but were not using it. Use of the juvenile justice electronic data system was essential to the project for completion of the SAVRY and CRAFFT and for all case management data tracking. Thus, it was necessary to delay implementation of the instruments. The department trained all JOs in Contexte over the course of a month, using data tip sheets about where to input placements, services, etc produced by the researchers. The system was difficult for JOs to learn and get comfortable with, which resulted in two major barriers for the project. First, POs were disgruntled and associated the project with being forced to learn Contexte. Second, there were major problems with data entry into this system throughout the project, creating significant limitations to the data received by the researchers.

The timeline for Arkansas was as follows: Training on the SAVRY, screening tools, and RNR in May to June 2015; training on Contexte in June to July 2015; implementation in four counties August 1, 2015; booster training April 2016; second booster training December 2016.

### **Summary of Departures from the Planned Implementation Process**

- Judges were heavily engaged in the process and the PI presented at one of their trainings in the early planning stages and again in the second year;
- The study sites differed slightly in their SAVRY and screening administration procedures but the most important implementation-related policies were consistent;
- In addition to being on the implementation committee and involved in completing service matrices, providers attended the RNR training to understand criminogenic needs and how POs would make referrals;
- The largest county probation department did not have PO supervisors. The supervisors were technically the judges, one of which decided to not buy-in to the SAVRY shortly after it was implemented despite being involved in the selection of the instrument. As a result, JOs did not complete the SAVRY when they knew the case would be seen by this judge;

- Most pilot counties were not using the centralized electronic case management system (Contexte) and had to be trained just prior to implementation, leading to data and morale problems in most counties throughout the project.

**Research Question 1: Were the risk assessment, behavioral health screening tools, and RNR based case planning procedures used with fidelity?**

Forty-six juvenile officers (JOs) completed the four-month interview (Time 1) and 46 completed the 10-12-month interview (Time 2). Of those, 33 JOs at Time 1 and 34 JOs at Time 2 were responsible for completing the SAVRY. Forty of the JOs interviewed completed both the Time 1 and Time 2 interviews. The difference in sample sizes between Times 1 and 2 were due to staff turnover.

**Adherence**

Adherence to the administration policies as reported by JOs was strong in that they stated they completed all SAVRYs pre-disposition. At Time 1, the majority of JOs (54%) in the three counties with pre-adjudication policies reported they had completed all SAVRYs pre-adjudication and the others completed the SAVRY post-adjudication/pre-disposition on a few of their cases. At Time 2, a handful of JOs indicated they had to complete a few SAVRYs post-disposition. By Time 2, most JOs (86%) reported using their service matrix to identify appropriate services but only 56% were using a written case plan.

At Time 1, six JOs indicated they had an occasion where they did not complete a SAVRY as required due to the parent refusing to be interviewed or because a decision had already been made to place the youth on probation. Neither were legitimate reasons. At Time 2, six JOs also reported that they did not complete the SAVRY in approximately 15 cases, some of which were legitimate (e.g., youth left jurisdiction) and some were due to the family not showing up. There were a few instances where they could not complete the SAVRY in the time prior to disposition because there was not enough time.

Most JOs at both time points reported they completed the MAYSI-2 and CRAFFT pre-disposition for all their youth, which was consistent with policy. However, one JO at Time 1 and three JOs at Time 2 indicated they administered these tools to all their youth post-disposition. JOs reported at both time points that there were occasionally issues where the MAYSI-2 and CRAFFT could not be completed, including failure to appear for the screening, scheduling conflicts, or the youth was already receiving mental health treatment.

The JOs' self-reports pertaining to adherence to their administration policies was inconsistent with the data. The number of cases in our post-implementation sample across counties who would have been expected to receive a SAVRY, MAYSI-2 and CRAFFT according to the individual office policies were 730. This number excludes youth from one county who were diverted and youth in another county who were diverted or not petitioned by the prosecutor (*nolle prosequere*). Of the 730 youth, SAVRY data could only be located for 45%, the MAYSI-2 was located for 45%, and the CRAFFT could be located for 48%. In an attempt to improve these rates, we discounted youth who received a *nolle prosequere* in two other counties where juvenile intake officers did not have to complete the screening/assessment protocol if they thought youth would not receive a petition. Excluding these cases did not improve the rates of screening/assessment completion. In other words, the protocol seemed to be followed less than half the time when examining the counties as a whole. However, there was wide variability across counties; with one site having an excellent SAVRY completion rate of 91%, two sites being above 60% (e.g., 63% and 68%), and the largest site completing the SAVRY on only 22% of its cases. The investigators received multiple updated data extractions after supervisors gave staff reminders to make sure the screenings and SAVRY were entered into MAYSIWARE and Contexte. Thus, it is difficult to conclude that the seemingly poor adherence to the administration policies was due to data entry issues.

## SAVRY Use in Decision-Making

The number of assessments conducted by individual JOs provided them with sufficient experience for answering all the SAVRY questions at both time points and was comparable with Rhode Island. In the first four months following implementation, the number of SAVRYs conducted by any one JO ranged from 1 to 33 ( $M = 10.12$ ,  $SD = 7.26$ ). At Time 2, the number of SAVRYs conducted since Time 1 (including re-assessments) ranged from 1 to 45 ( $M = 14.91$ ,  $SD = 12.05$ ). Table 6 provides the mean and standard deviation on the 7-point scale (0 = Never, 7 = Always) for each of the questions related to use of the SAVRY in decisions for all JOs interviewed at Time 1 and at Time 2, and the within-subjects comparisons for JOs who overlapped.

**Disposition recommendations.** At Time 1, 96.9% of the 32 JOs responsible for making disposition recommendations stated they used the SAVRY in those recommendations, and at Time 2 93.1% of the 32 JOs said they did. Results in Table 6 indicate that, on average, JOs reported their recommendations corresponded with the SAVRY risk level most of the time and they rarely made more or less restrictive recommendations. There was no significant within-subjects change in use of the SAVRY in disposition recommendations but there was little room for improvement. The means at Time 1 and Time 2 indicate that any changes over time trended in the direction indicative of greater use of the SAVRY risk level.

**Service recommendations.** At Time 1, 94% of the 34 JOs who could make service recommendations stated they used the SAVRY in these decisions. By Time 2, all 100% of the 31 JOs interviewed reported using the SAVRY in their service recommendations. Results in Table 6 indicate, on average, JOs were usually recommending services based on criminogenic need areas at Time 1. Only one JO indicated they did not consult the SAVRY and no other JOs stated they disregarded SAVRY need areas in their decisions. There were no significant within-subjects differences in use over time but, again, there was little room for improvement. Means between time points all trended in the direction indicative of greater reliance on SAVRY criminogenic needs in service

recommendations. JOs reported basing their recommendations on criminogenic need areas almost always, on average. Reasons given for referring to services that did not target criminogenic needs were generally consistent with the responsivity principle (e.g., educational needs, sex offender treatment, safety issues).

**Supervision level.** At Time 1, 94% of the 34 JOs responsible for making supervision level decisions stated that they had used the SAVRY in these decisions. At Time 2, this increased slightly to 96.4% of the 28 POs. At Time 1, JOs were reporting usually assigning supervision based on the SAVRY risk level ( $M = 5.71$ ,  $SD = 1.85$ ) but seemed to also occasionally deviate in the more restrictive direction (see Table 6). Again, all means at Time 2 shifted in the direction of greater reliance on the SAVRY for assigning supervision level. There was a significant within-subjects difference in ratings of the frequency of assigning supervision levels that were less restrictive than the SAVRY risk level, which essentially went from rarely to almost never.

**Probation violations.** At Time 1, 81.5% of the 27 JOs who had made a probation violation recommendation stated they used the SAVRY risk level in their recommendations. At Time 2, only 63% of the 27 JOs were using the SAVRY in these recommendations. There was a clear decrease in use of the SAVRY in these decisions over time, with 11 JOs at Time 2 stating they never consulted the SAVRY, compared to only 5 JOs at Time 1. Table 6 indicates recommendations corresponded with the SAVRY risk level only occasionally, on average, and at Time 2, the correspondence decreased even further. There were no significant within-subjects differences.

**Table 6: Juvenile Officer Interview Ratings for Their Use of the SAVRY In Case Processing Decisions At 4-Months (T1) and 10-12-Months (T2) Post-Implementation**

	<b>T1 M(SD)</b>	<b>T2 M(SD)</b>	
<b>Disposition Recommendations</b>	<b>n = 32</b>	<b>n = 29</b>	<b>n = 24 to 27</b>
Recommendation corresponds with SAVRY risk level	5.78(1.50)	5.90(1.80)	$F(1, 26) = .07$
Made a more restrictive recommendation than the risk level would indicate	1.90(2.02)	1.81(1.30)	$F(1, 24) = .39$
Made a less restrictive recommendation than the risk level would indicate	1.35(1.82)	0.74(1.06)	$F(1, 24) = 2.79$
Made a recommendation without consulting the SAVRY	0.50(1.72)	0.83(2.00)	$F(1, 26) = 1.63$
<b>Service Recommendations</b>	<b>n = 34</b>	<b>n = 31</b>	<b>n = 29</b>
Target criminogenic needs identified by SAVRY	5.94(1.77)	6.61(.62)	$F(1,28) = 3.82, p = .06$
Disregard some needs identified by SAVRY	0.91(1.60)	0.55(1.15)	$F(1,28) = 1.23$
Target needs not identified in the SAVRY	3.06(2.28)	2.19(1.60)	$F(1,28) = 2.55$
Make service recommendations without consulting the SAVRY	1.24(1.94)	0.87(1.57)	$F(1,28) = 0.34$
<b>Supervision Level</b>	<b>n = 34</b>	<b>n = 28</b>	<b>N = 26</b>
Made a recommendation that corresponds with the SAVRY risk level	5.71(1.85)	5.93(1.44)	$F(1,25) = .01$
Made a more restrictive recommendation than the risk level would indicate	2.25(2.10)	1.78(1.42)	$F(1,23) = 2.91$
Made a less restrictive recommendation than the risk level would indicate	1.53(2.00)	0.78(1.09)	$F(1,23) = 7.55^{**}$
Made a recommendation without consulting the SAVRY	0.94(1.89)	0.46(1.40)	$F(1,25) = 0.74$
<b>Probation Violations</b>	<b>n = 27</b>	<b>n = 26</b>	<b>N = 21 to 14</b>
Made a recommendation that corresponds with the SAVRY risk level	4.93(2.65)	3.92(3.22)	$F(1,20) = 1.72$
Made a more restrictive recommendation than the risk level would indicate	2.14(2.21)	2.00(2.03)	$F(1,13) = 1.40$
Made a less restrictive recommendation than the risk level would indicate	1.45(1.90)	0.47(0.72)	$F(1,13) = 3.55$
Made a recommendation without consulting the SAVRY	1.67(2.82)	2.88(3.39)	$F(1,20) = 1.69$

## **Behavioral Health Screening Use in Decision-Making**

At Time 1, JOs or intake officers reported approximately 1024 MAYSI-2's had been conducted. Of those, officers reported that approximately 28% of cases resulted in a referral for a mental health or co-occurring disorders evaluation. In contrast to Rhode Island, no officers stated that they never made a referral and most had done so in one or two cases. There were a few outliers, however. At Time 2, according to officers, the proportion sent for a referral was approximately 37% of roughly 1021 cases. The frequency of referrals for an immediate mental health consultation based on the MAYSI-2 was low, with most officers (63%) at both Times 1 and 2 stating they never did so. The reported percentage of cases needing a referral for a mental health evaluation was consistent with data reported for probation samples in the MAYSI national norm study (Grisso & Barnum, 2006) and twice that of Rhode Island.

Results did not differ much for the CRAFFT between time points. JOs and intake officers reported making a referral for a substance abuse or co-occurring disorders evaluation in only 13% of cases, on average, at Time 1, and 11% at Time 2. Only about one-third of the officers stated they never made one of these referrals at both time points.

### **Barriers to Use**

At Time 1, very few barriers were noted about the SAVRY and these did not differ by type of decision being made. JOs reported perceiving the following barriers to use of the SAVRY and/or behavioral health screening in their decisions.

Use of SAVRY in decisions:

- One or two JOs stated they only provided recommendations based on the SAVRY for disposition and services if the judge asked for it.
- The JO responsible for handling sex offender cases stated that he/she always disregarded the SAVRY and used the psychosexual evaluation for all recommendations instead.



- There were challenges noted with having time to complete the SAVRY prior to disposition and probation violation recommendations.
- Similar to Rhode Island, some JOs noted they didn't consult the SAVRY because they 'know what they are doing' since they have been doing it for so long. This was particularly an issue with respect to use in probation violations.

#### Behavioral health referrals:

- The only barriers noted with respect to behavioral health screening were those that affected adherence to the policy and completing these within the timeframe, due to scheduling problems with the youth or parents and failure to cooperate.
- Unlike Rhode Island, no JOs mentioned having difficulty with using the MAYSI-2 to make mental health consult or evaluation referrals.

#### General issues:

- Similar to Rhode Island, many JOs found the interview guide for the SAVRY took too long and was repetitive.
- The most common barrier noted was problems with their data management system, Contexte, not being user-friendly and lack of knowledge about how to use it.

Although barriers were minimal, the researchers assisted with corrective actions to address barriers after the Time 1 interviews were completed. This included providing separate reports to the administration and supervisors in each county with recommendations, reinforcing their quality assurance steps, and conducting a booster training that involved a review of the policy and reinforced the idea that the SAVRY interviews were only intended to be semi-structured. Most importantly, support staff were made more available for Contexte-related questions and provided booster training for all sites, which included the court clerks in addition to JOs.

At Time 2, interviewers obtained more information regarding barriers because they asked for examples of cases where JOs deviated from the SAVRY in their recommendations. Barriers that persisted or were newly reported are provided below.

Disposition and probation violation recommendations:

- Similar to Rhode Island, JOs reported deviating from the SAVRY risk level in ways that indicated they did not understand structured professional judgment (e.g., “they had more information [about the youth] than the SAVRY covered”, “youth showed no empathy”, “youth was low functioning”).
- New information came to light since the SAVRY had been conducted causing a deviation from the SAVRY risk level. This is a lack of adherence to the policy because the SAVRY was supposed to be updated prior to the disposition recommendation.
- Youth or parents were untruthful, which compromised the validity of the initial SAVRY assessments.
- Some responses indicated JOs were relying on their gut or personal impressions of the youth and not the risk factors.
- In one county, half of the JOs were continuing to not provide the disposition recommendations form to the judge unless the judge requested it, which was inconsistent with policy.

Service recommendations:

- A few JOs reported referring youth and families to services they did not need simply because the services were available.
- Lack of service availability.

Supervision level:

- In one county, some JOs had the perception that supervision level was only based on the SAVRY following a probation violation.
- Similar to disposition recommendations, some deviations from supervision level were due to lack of understanding of using structured professional judgment to determine risk level.

- Most reported deviations in assigning supervision level were a result of youths' behavior while under supervision, such as positive drug screens and failure to go to school. Most counties were not adjusting supervision levels as the result of their SAVRY reassessments, which was inconsistent with policy.

#### Behavioral health referrals:

- The only barriers noted with respect to behavioral health screening were difficulties completing these within the timeframe, due to scheduling problems with the youth or parents and failure to cooperate.
- In one county, about half the JOs were continuing to administer the MAYSI and CRAFFT at the wrong time point (post-disposition).

#### General issues:

- One county did not follow the policy for completing SAVRY reassessments or case plans throughout the study period.

### **SAVRY Inter-Rater Reliability**

A total of 67 cases from the four study counties were rated by two independent raters and used for inter-rater reliability analyses. Agreement on the overall SAVRY risk level was excellent ( $ICC_1 = .80, p < .001$ ), and agreement on a SAVRY total risk score constructed for research purposes was also excellent ( $ICC_1 = .92, p < .001$ ). All protective and risk factor items had good to excellent reliability with the exception of one protective factor item (e.g., Resilient Personality Traits). The majority of poor agreement came from the largest county with the most JOs. This was also the only county that used trained interns as the second raters so it is impossible to conclude whether this was an issue with the JOs' ratings or a problem with the procedures.

Table 7 reports the IRR for the criminogenic need areas if they were calculated versus those selected by the JOs. Although the reliability for all need areas was significant, the indices indicate

reliability in most of the JO-identified need areas was only fair. Similar to Rhode Island, this was due to JOs over-identifying need areas.

**Table 7: Inter-Rater Reliability for SAVRY Criminogenic Need Areas**

Need Areas	Calculated Needs	JO Identified Needs
	<i>ICC<sub>1</sub></i>	Kappa
<b>Disruptive Behavior Problems</b>	.80***	.51*
<b>Attitudes/Orientation</b>	.77***	.53*
<b>Emotional Stability</b>	.78***	.58*
<b>Family</b>	.57***	.52*
<b>Education/Employment</b>	.70***	.63*
<b>Peer Relations</b>	.82***	.60*
<b>Substance Abuse</b>	.80***	.61*

Note. \* =  $p < .05$ ; \*\*\* =  $p < .001$

### Research Question 1: Summary

JO interviews indicated there was good adherence to completion of the SAVRY pre-disposition and reasonable adherence to completing the behavioral health screens pre-disposition; however, the electronic records indicate adherence was exceptional in one county (91% of cases), poor in two counties (approx. 65%), and exceptionally poor in another county (22% of cases). There was very poor adherence to use of the case plan. JOs in most of the counties saw the probation conditions as the ‘case plan’ and were resistant to making this culture shift. Nonetheless, they reported very strong use of the SAVRY in their recommendations and case planning decisions during the course of the study by consulting the SAVRY always to most of the time and making recommendations that corresponded with risk level or need areas. There was a striking difference between Rhode Island and Arkansas in officers’ self-report use of tools in their decisions, which we believe was due to completing the SAVRY early enough to make recommendations and standard use of the disposition recommendations form.

Despite the overall positive results in the sample of JOs as a whole, in a couple counties, the JOs were not following some of the state level policies (e.g., not conducting SAVRY reassessments, not adjusting supervision levels, not always providing the disposition recommendations form to the judges) and were applying RNR inconsistently across JOs. Inter-rater reliability on the SAVRY was exceptional, indicating fidelity was maintained; however, the reliability of selecting the priority criminogenic need areas was only fair.

## **Research Question 2: Did Implementation of the SAVRY, MAYSI-2, and CRAFT Lead to Significant Changes in the Way Youth Cases Were Handled and Youth Outcomes?**

In order to answer research question 2, we originally analyzed data by combining all four study sites to examine outcomes as a whole. This approach led to the good implementation practices and outcomes in one site being watered down by less good outcomes in other sites. Moreover, the wide variability across sites in their adherence to tool administration policies made combined site analyses difficult to interpret even if we included a site-variable in the analyses. Therefore, this section reports the results for all four sites separately.

Because Arkansas did implement their screening and assessment protocol prior to disposition, unlike the Rhode Island analyses, we were able to conduct pre-post comparisons of outcomes. Therefore, analyses related to research question 2 used different samples depending on the analysis. First, for all pre-post comparisons, we compared randomly drawn samples of youth referred to the courts for a delinquency offense in each county over the year prior to implementation (pre-implementation group) to a sample of all youth referred to the court for a delinquency offense for almost one-year after implementation (post-implementation group). The initial pre and post-implementation cases were matched within sites using the propensity-score matching procedures described in the Methods of this report, in order to compare outcomes between similar groups of youth before and after implementation. The sample sizes varied across sites. Appendix D contains a table of the matched sample characteristics for each site. Despite attempts to obtain psychosocial

history variables (e.g., mental health history, child welfare history) from file information and pre-disposition reports in order to be included in the matching procedure, these variables were missing for over 60% of cases in most sites and, therefore, could not be compared between samples or used as covariates in analyses.

For all analyses related to whether screening and assessment tools were used in decision-making in a manner consistent with RNR, we used the full post-implementation samples of youth from every site, rather than the matched samples. This approach led to larger sample sizes and provided a more accurate picture of RNR-related decision-making practices for all of the probation department's cases.

### **Assessment and Screening Data for Whole Post-Implementation Samples**

Table 8 provides the N of each post-implementation sample by site, along with the number and proportion of these youth who actually received the MAYSI-2 and CRAFFT. Table 8 also provides the proportion of youth with MAYSI-2's and CRAFFT's who scored as critical cases. As indicated by Table 8, there was wide variability with adherence to the screening administration policies, with Site 1 having excellent adherence and Site 4 having the worst adherence. There was also fairly wide variability in the proportions of youth scoring as having a potential mental health condition (11% to 24%) or potential substance use problem (11% to 22%). Aside from the rates in Site 1, it is difficult to conclude the rates of potential behavioral health conditions generalize to all youth seen by these probation departments because of the large percentage of cases missing screening information. At any rate, the table indicates Site 4 had the highest rates of potential behavioral health issues and Site 2 had the lowest.

**Table 8: MAYSI and CRAFFT Results for the Post-Implementation Samples by Site**

	<b>Sample N</b>	<b>MAYSI-2's completed n(%)</b>	<b>n(%) Critical</b>	<b>CRAFFT's completed n(%)</b>	<b>n(%) Above CRAFFT Cut-off</b>
Site 1	135	121(90%)	27(22%)	118(87.4%)	26(22%)
Site 2	118	78(66%)	13(11%)	69((55%)	8(11%)
Site 3	59	31(53%)	6(16%)	44(75%)	6(13.5%)
Site 4	418	97(23.2%)	23(24%)	120(28.7%)	26(22%)

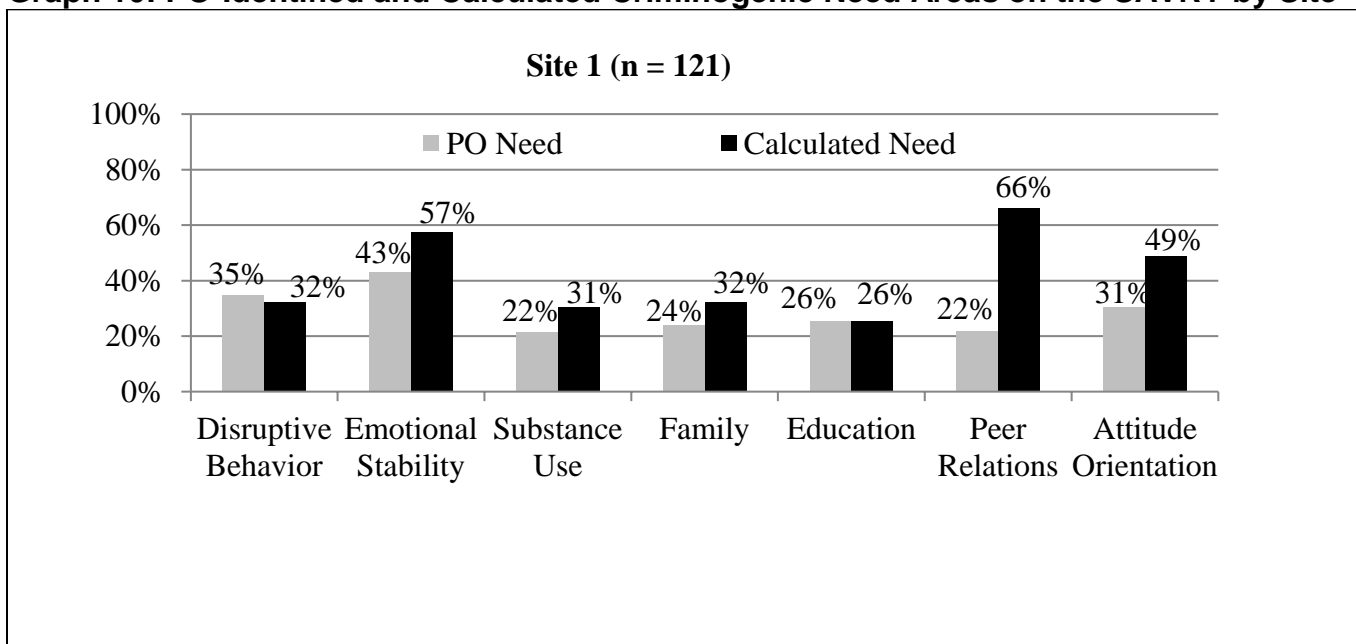
Table 9 provides findings pertaining to the SAVRY risk-needs assessment by site. Adherence to the SAVRY protocol did not differ substantially from the screening protocol with the exception of Site 3, which was missing more MAYSI-2's than SAVRYs. For sites 2 and 3, it is difficult to conclude whether the relatively low completion rates were entirely due to problems following the policy because the policies permitted JOs to only administer the SAVRY for cases they were fairly certain would be petitioned to the court. It is possible the JOs guessed wrong in some cases, which is an argument for the need for clearer policy. Other issues were likely due to court processing occurring too quickly for intake to complete the instruments, and parent/youth refusals or not showing up for their appointments, as stated by the JOs during their study interviews. Another reason for SAVRY administration problems, which was specific to Site 2, was that they were not administering the SAVRY to youth under the age of 12 or to sex offenders because they had the impression it was not valid for these groups. Site 2 had very low rates of high risk youth. Site 4 had the highest rates of high risk youth; however, they only conducted the SAVRY for youth who were definitely petitioned, which is likely to be a higher risk group than the youth in the other sites, which included some cases that were never petitioned.

**Table 9: SAVRY Results for the Post-Implementation Samples by Site**

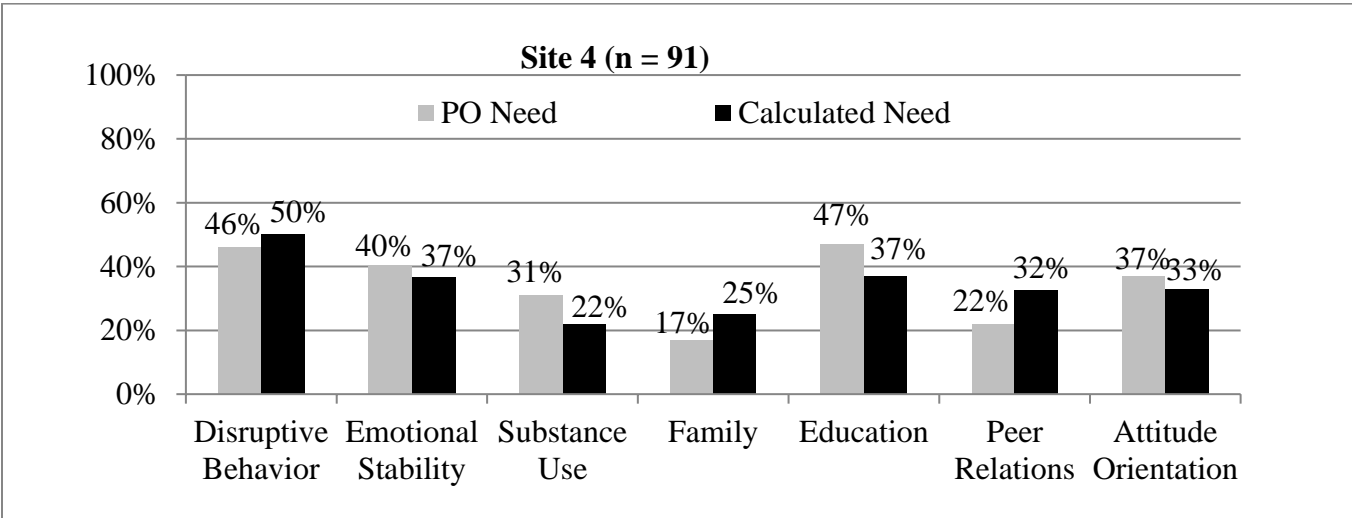
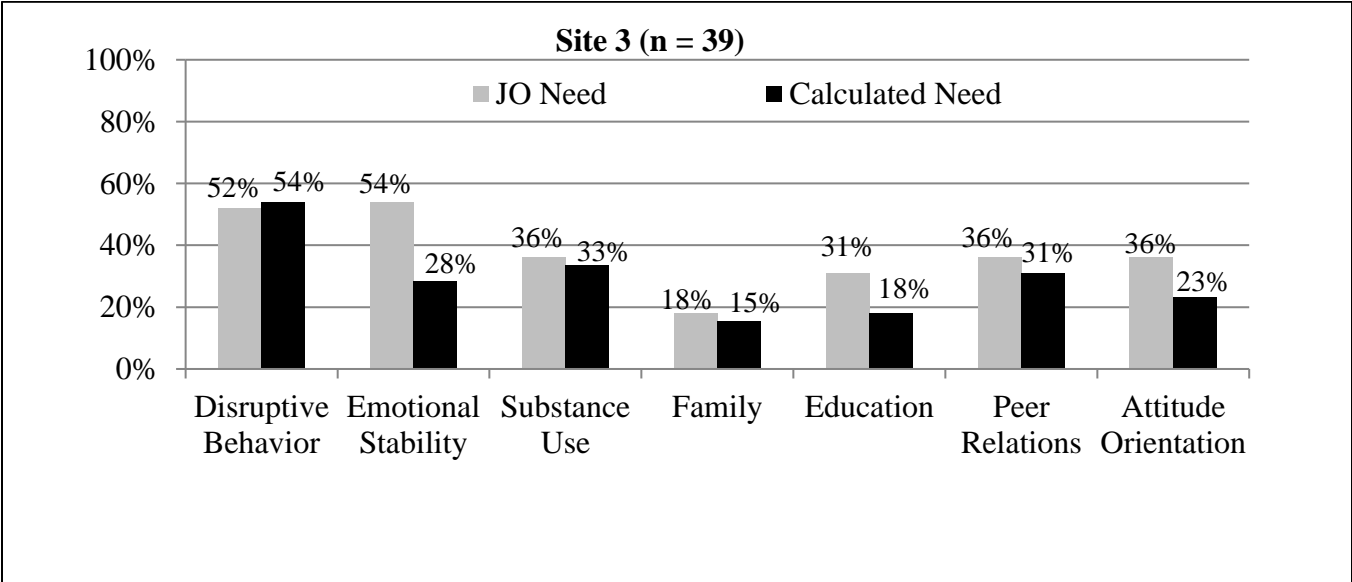
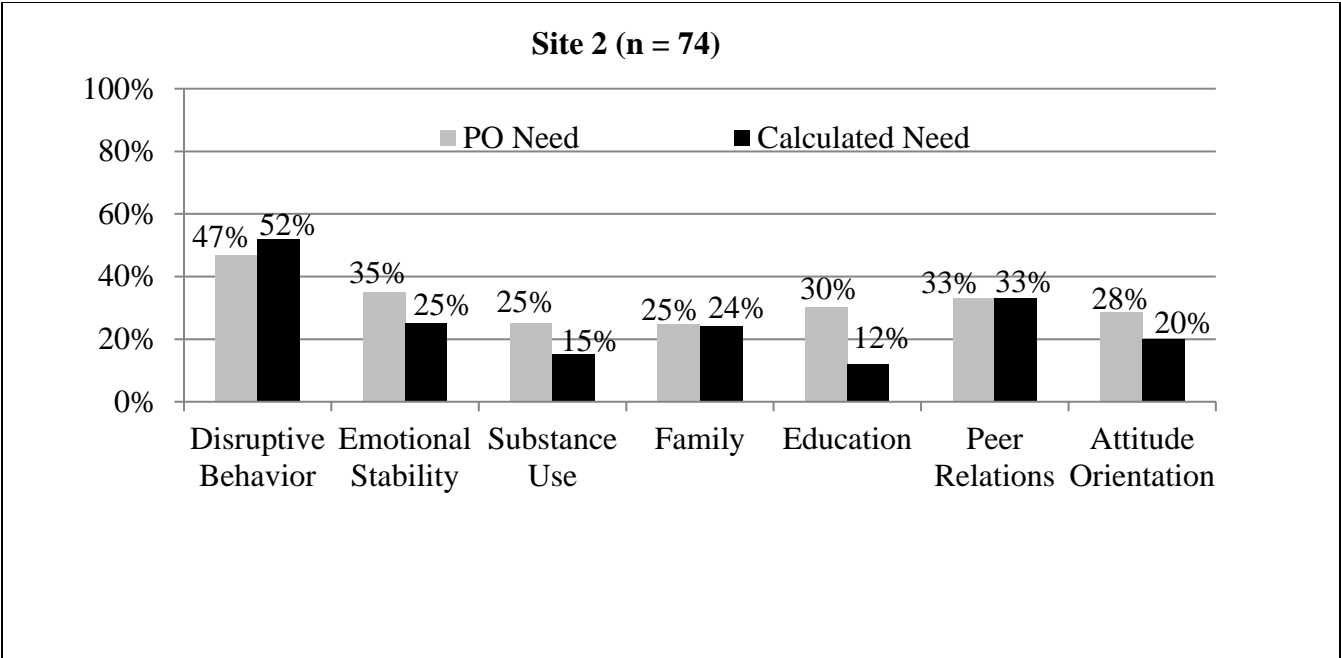
	<b>Sample N</b>	<b>SAVRYS completed n(%)</b>	<b>Low risk n(%)</b>	<b>Moderate risk n(%)</b>	<b>High risk n(%)</b>
Site 1	135	121(90%)	59 (49%)	41 (34%)	21 (17%)
Site 2	118	74(63%)	38 (51%)	31 (42%)	5 (7%)
Site 3	59	39(66%)	19 (49%)	15 (39%)	5 (13%)
Site 4	418	91(21%)	36(40%)	34(37%)	21(23%)

Graph 10 provides the criminogenic need profiles of youth with completed SAVRYs (percentages reflect the rates of needs within the SAVRY samples) in each site by displaying the percentages of youths' JO-identified needs (indicated as present) versus the percentages with calculated criminogenic needs (scoring "high" in the area relative to their peers). The graph indicates the need area profiles of samples differed somewhat across sites and JOs differed with respect their ostensible ability to accurately prioritize need areas. Site 1 had the highest rates of emotional stability needs and the lowest rates of disruptive behavioral issues. JOs in Sites 2 and 4 appeared to do the best job of selecting need areas, being within 10% of the rates of calculated needs created for quality assurance purposes. JOs in Site 1 appeared to under-identify peer relations and attitudes need areas, Sites 2 and 3 over-identified educational needs, and Site 3 substantially over-identified emotional stability needs.

**Graph 10: PO-Identified and Calculated Criminogenic Need Areas on the SAVRY by Site**







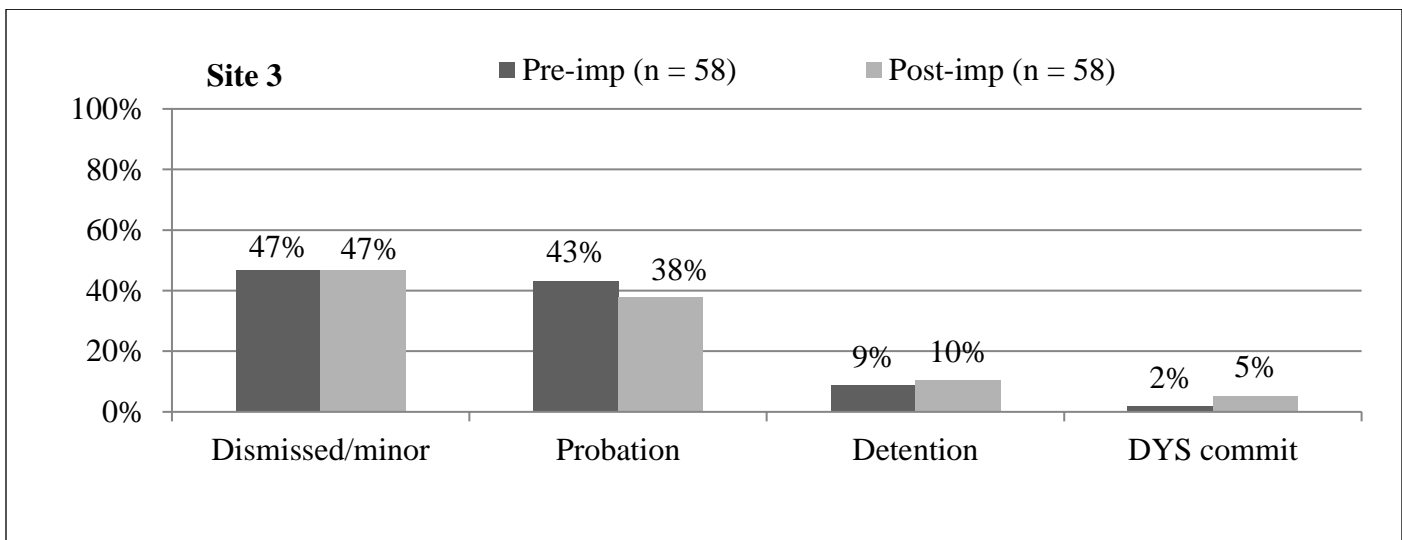
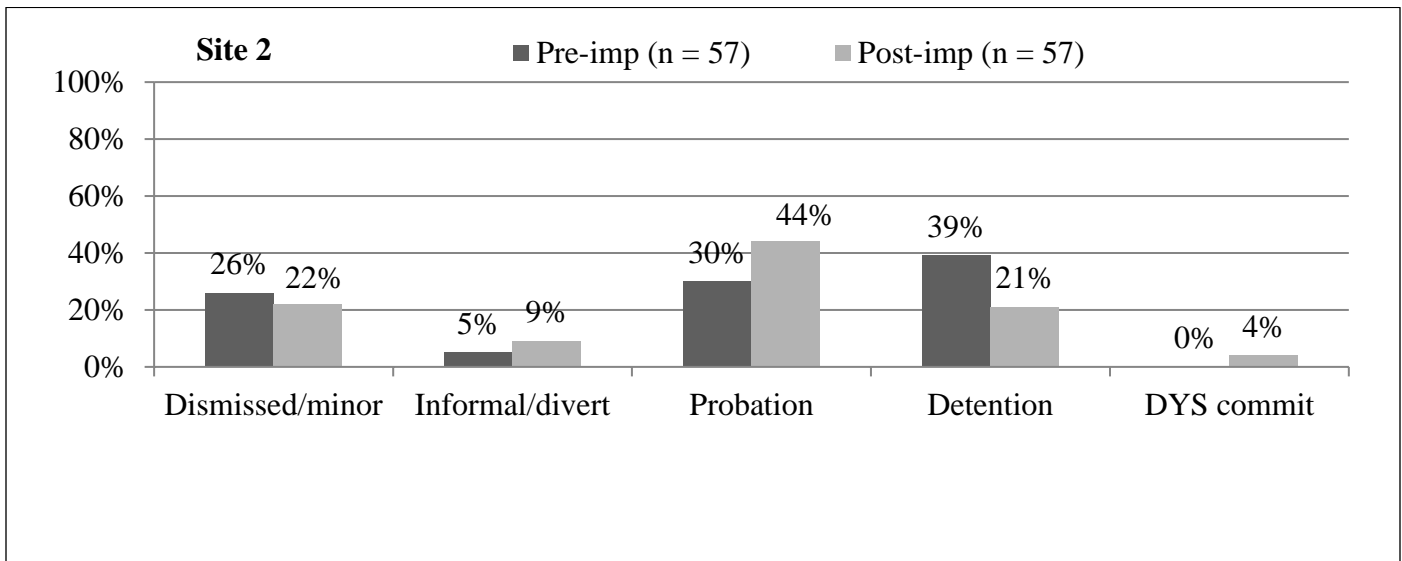
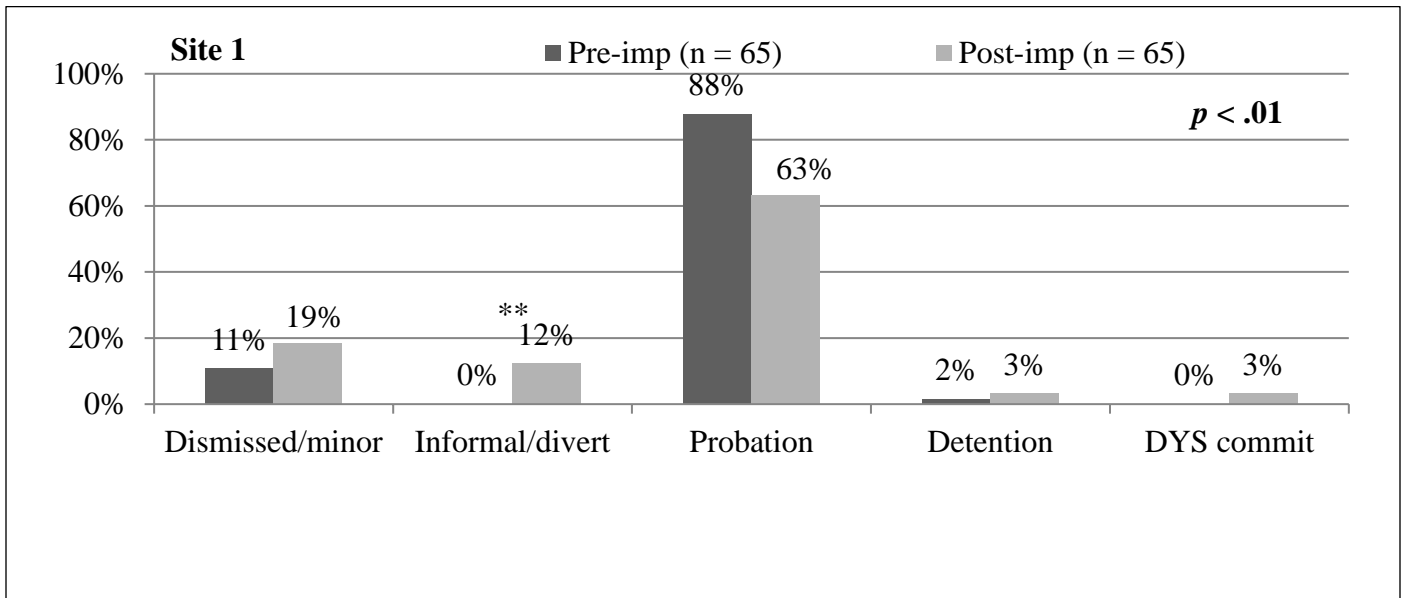
## Case-Processing Outcomes

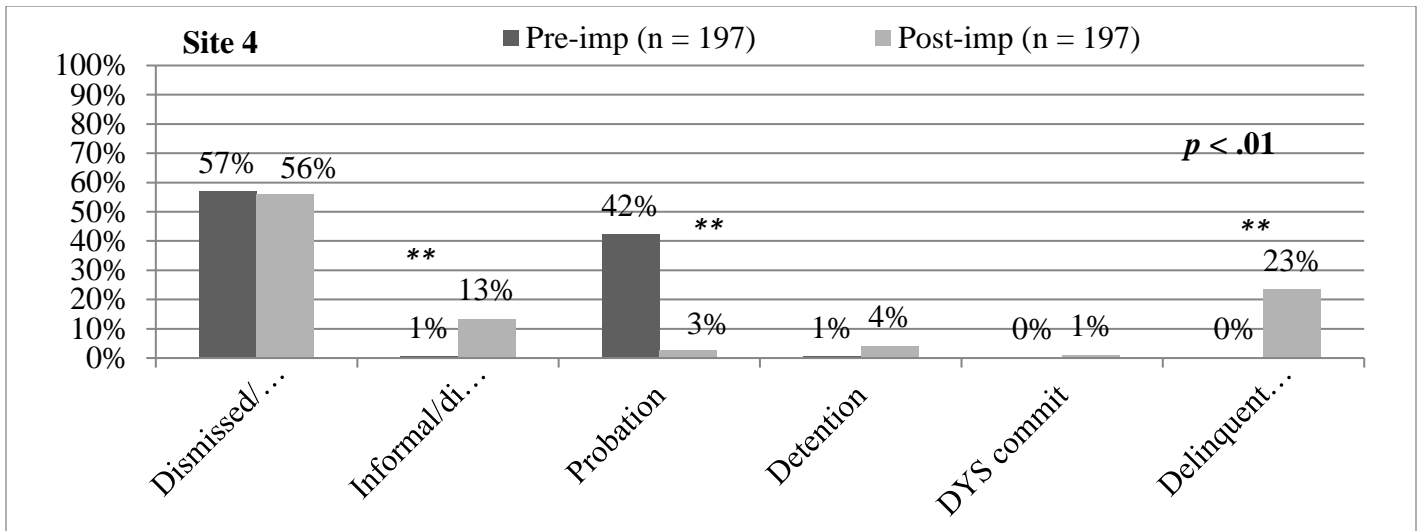
Case-processing outcomes were tracked for both the pre and post-implementation groups from each youth's court petition date for three of the sites, and youths' intake dates for Site 1, to the end of their disposition, or the end of the study follow-up period, whichever came first. The follow-up period was a minimum 6-months for both groups at each site but could be up to 12-months depending on the disposition date of the case. The median length of follow-up across sites ranged from 7 to 10 months.

### Dispositions

Graph 11 provides a comparison of the most serious dispositions received by the pre and post-implementation groups in each county. It is important to note that the court clerks in Site 4 frequently entered 'found delinquent' as a disposition in Contexte without being more specific. The AOC permitted one of their staff to provide the actual dispositions from court orders to the researchers but a substantial number of cases were missing court orders. Thus, Site 4 has an additional disposition labeled delinquent-unknown. There were significant changes in rates of the most serious dispositions in only two sites. In Site 1, similar types of youth were significantly more likely to be dismissed or handled informally than to be formally processed after the SAVRY went into place;  $\chi^2(8) = 14.26$ ,  $p < 0.01$ ,  $\phi = .33$ , Fisher's exact analyses to adjust for small cell sizes (14.49,  $p = .002$ ). In Site 4, similar types of youth were significantly less likely to receive probation and more likely to be handled informally after the SAVRY went into effect, even if we were to assume all the unknown delinquency findings resulted in probation dispositions;  $\chi^2(5) = 147.75$ ,  $p < 0.01$ ,  $\phi = .61$ , and Fisher's exact analyses to adjust for small cell sizes (175.76,  $p < .01$ ).

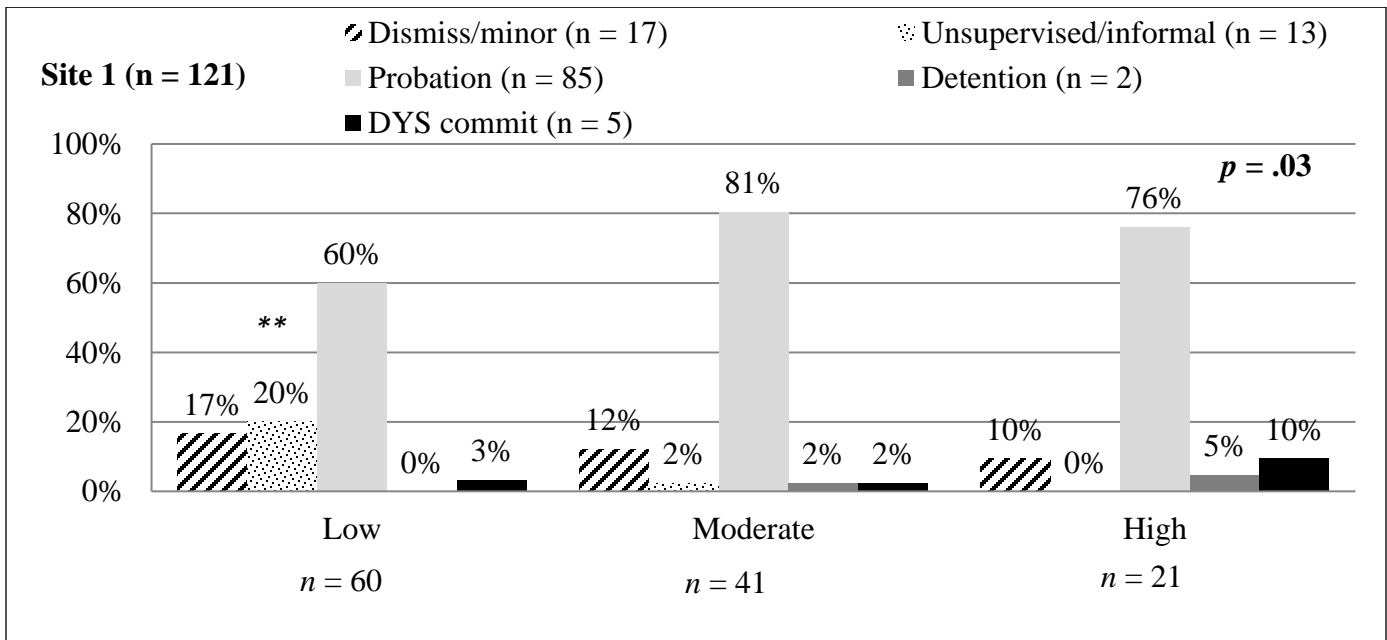
**Graph 11: Dispositions Comparing Matched Pre- and Post-Implementation Groups by Site**





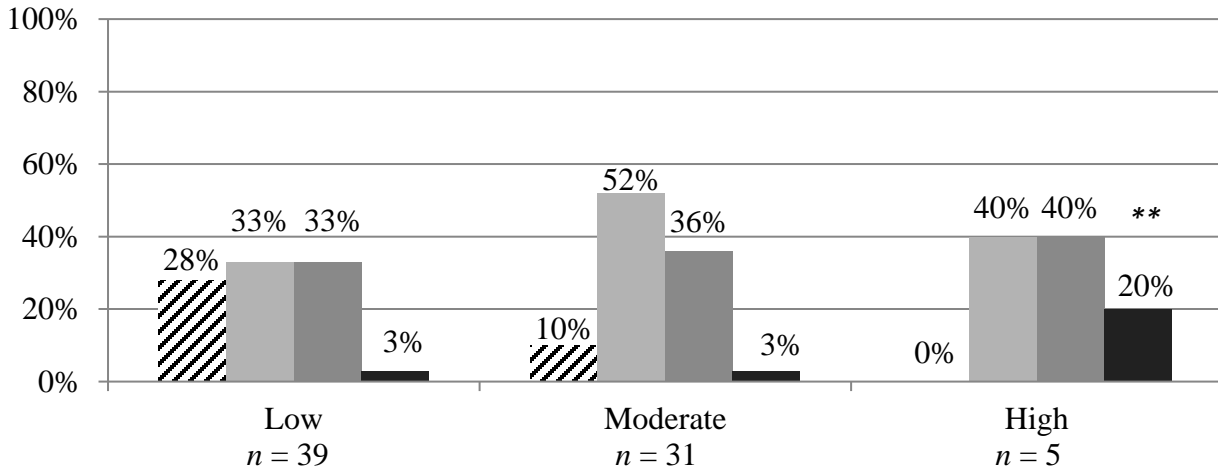
Graph 12 displays the association between disposition and youths' risk levels for the post-implementation groups at each site. Only two sites had significant associations between risk level and disposition. At Site 1, low risk youth had a higher probability of being handled informally than other youth;  $\chi^2(8) = 16.340$ ,  $p = 0.03$ ,  $\phi = .37$ , Fisher's exact to account for small cell sizes (15.80,  $p = 0.02$ ).

**Graph 12: Post-Implementation Group's Dispositions at Each Risk Level by Site**



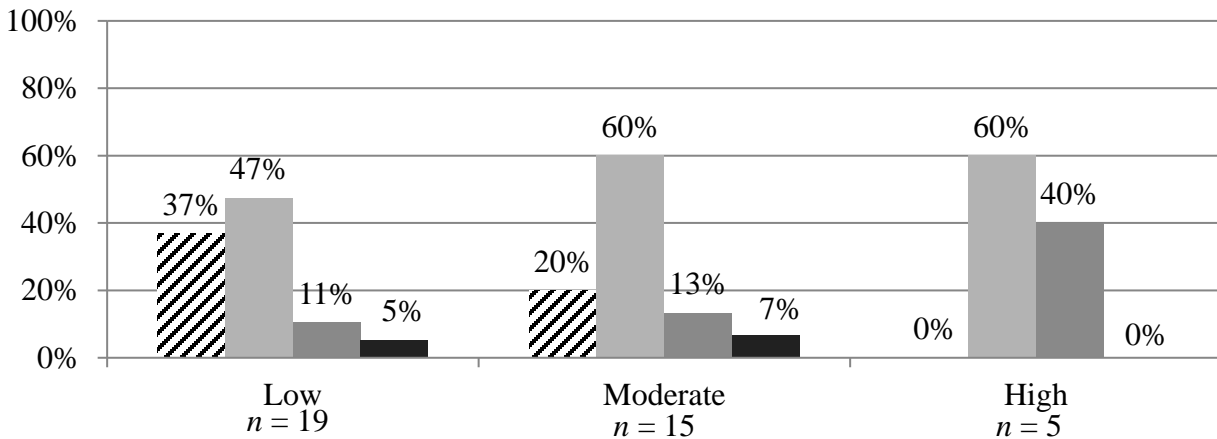
**Site 2 (n = 74)**

Dismiss/minor (n=14) 
  Probation (n=31) 
  Detention (n=26) 
  DYS commit (n=3)



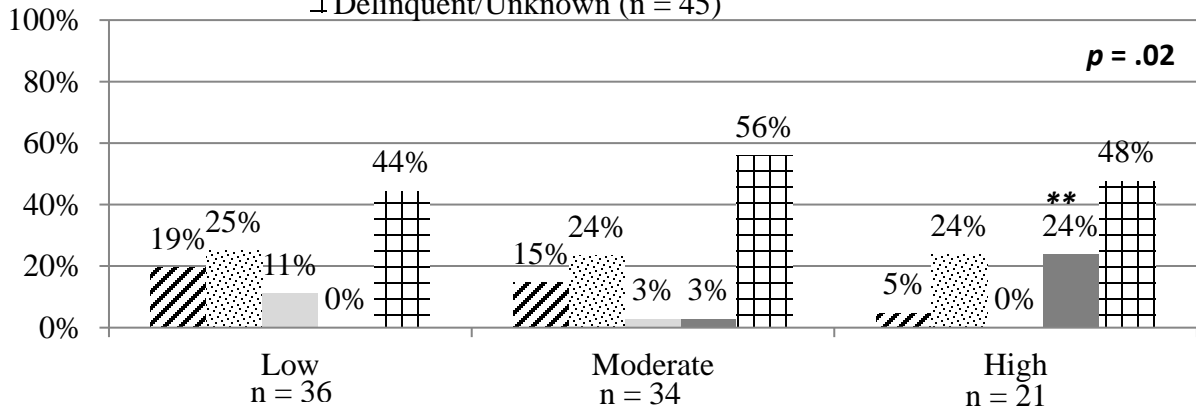
**Site 3 (n = 39)**

Dismiss/minor (n=10) 
  Probation (n=21) 
  Detention (n=6) 
  DYS commit (n=2)



**Site 4 (n = 91)**

Dismiss/minor (n = 13) 
  Probation (n = 5) 
  Unsupervised/informal (n = 22) 
  Detention (n = 6) 
  Delinquent/Unknown (n = 45)

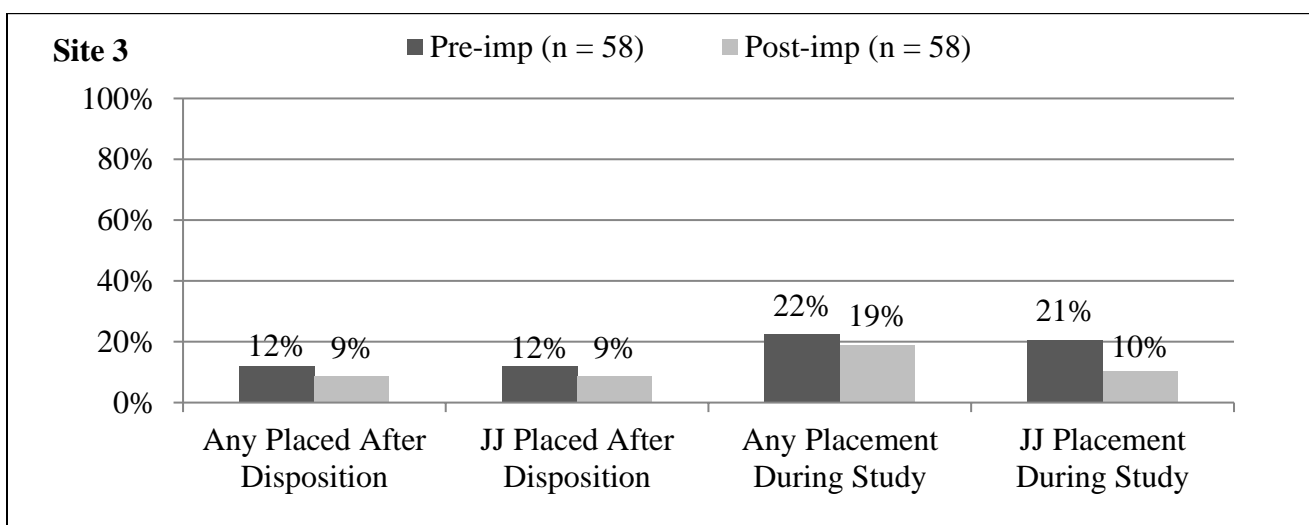
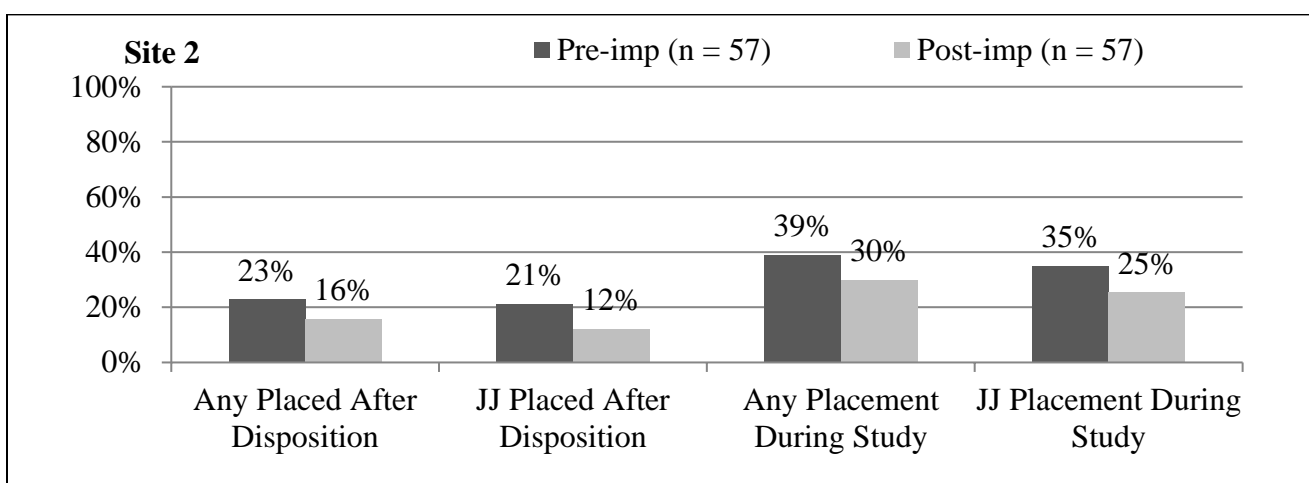
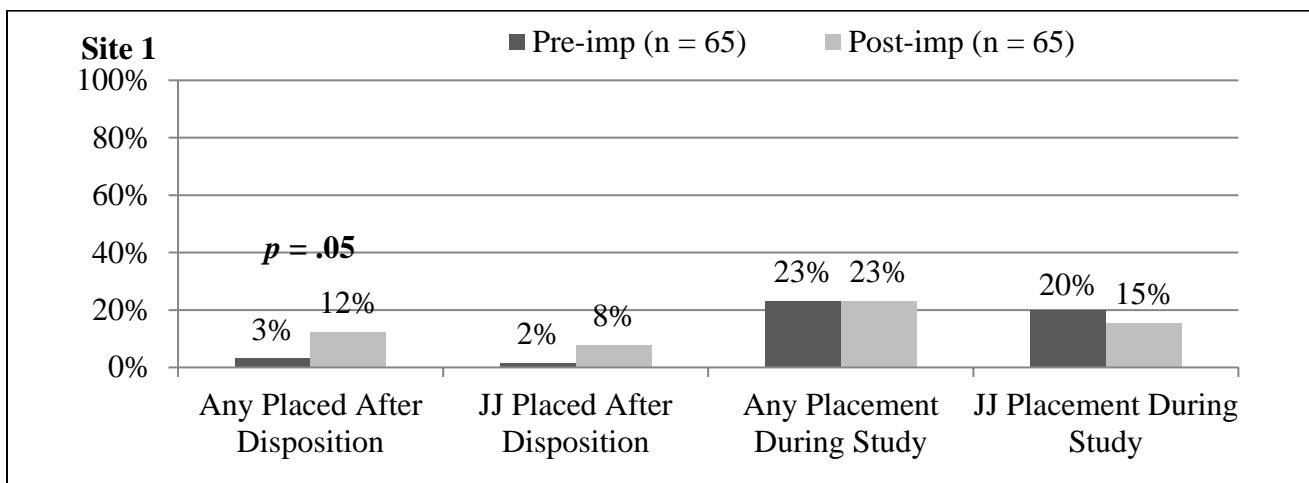


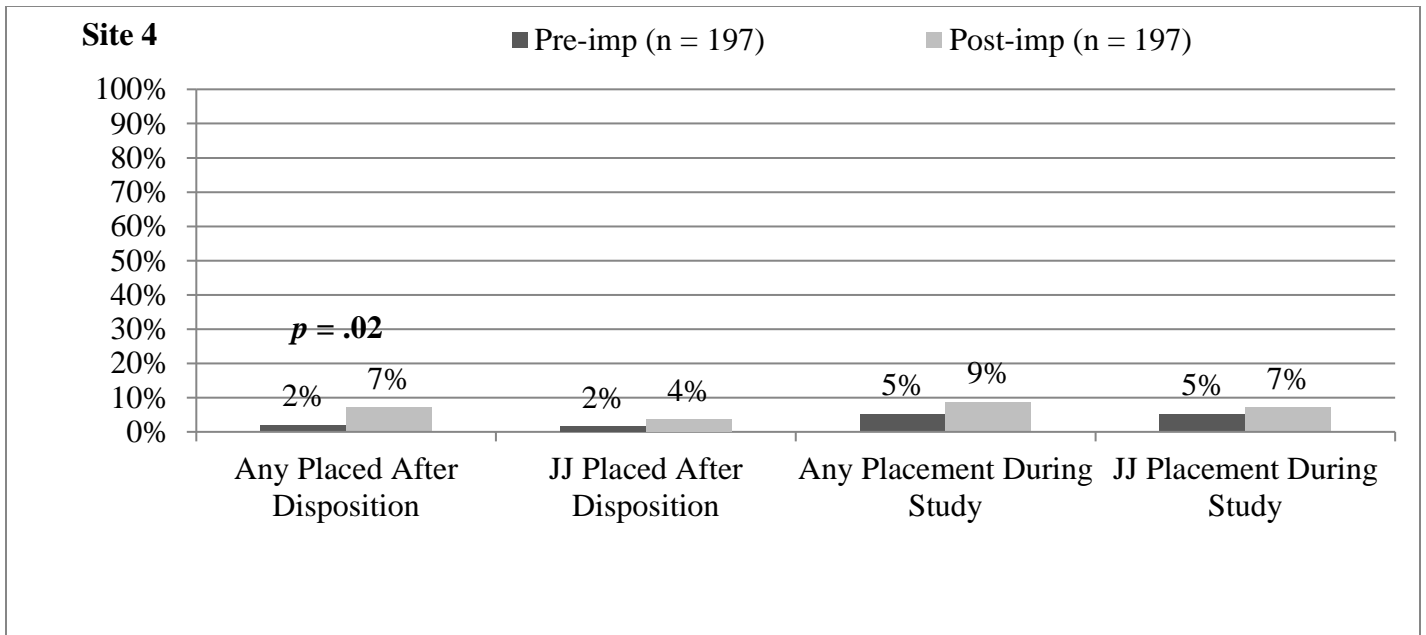
The numbers of youth receiving each type of disposition who had completed SAVRYs was too small in Sites 2 and 3 to really make any inferences, but in Site 2 high risk youth had a higher probability of being committed to DYS than any other youth (standardized residual = 2.20). At Site 4, the data indicate that a greater percentage of high risk youth than low or moderate risk youth were sent to detention;  $\chi^2(8) = 18.63$ ,  $p = 0.02$ ,  $\phi = .45$  (standardized residuals = 3.1), Fisher's exact to account for small cell sizes (14.22,  $p = 0.05$ ). However, since less than half of the youth who received a disposition received a SAVRY, it is difficult to infer anything about how risk was really used in disposition decisions in Site 4. Whether cases were handled formally versus informally did not appear to have any relation to risk level.

### **Post-Adjudication Out-of-Home Placements**

The placement data was extremely limited in Sites 3 and 4 because JOs were not consistently entering this information into Contexte, so results for these sites are suspect. We examined rates of post-adjudication out-of-home placements in four ways: 1) *any* out-of-home placement (e.g., treatment, residential delinquency treatment, secure) imposed while youth were serving their current sentence to the end of the follow-up period, 2) the same rates only for JJ-related placements specifically (e.g., detention, secure corrections), 3) any placement occurring right after disposition, and 4) JJ-related placements occurring right after disposition. Graph 13 provides site comparisons of the matched pre and post-implementation groups in the percentages of youth receiving placements within each of these four categories. In Site 1, the rate of *any* placements occurring at disposition increased significantly after the SAVRY was implemented when comparing similar types of youth. However, the numbers went from 2 to 8 youth, which was still very low ( $\chi^2(1) = 3.90$ ,  $p = 0.05$ ,  $\phi = .17$ ) and there was no difference in the rates of placement by the end of the study period. A similar pattern occurred in Site 4 where there were significant differences in *any* placements at disposition;  $\chi^2(1) = 5.82$ ,  $p = 0.02$ ,  $\phi = .12$ . Site 2 had a reduction in placements but these were not significant and Site 3 had no change.

**Graph 13: Pre and Post-Implementation Group Placement Rates by Category and Site**

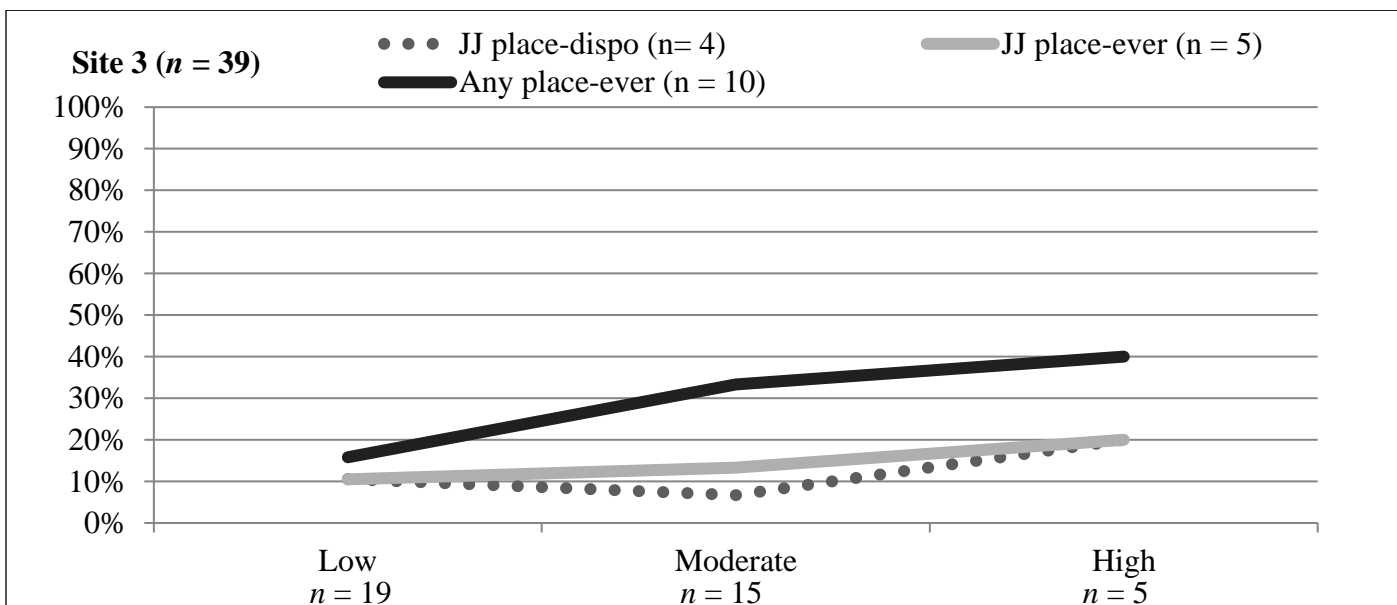
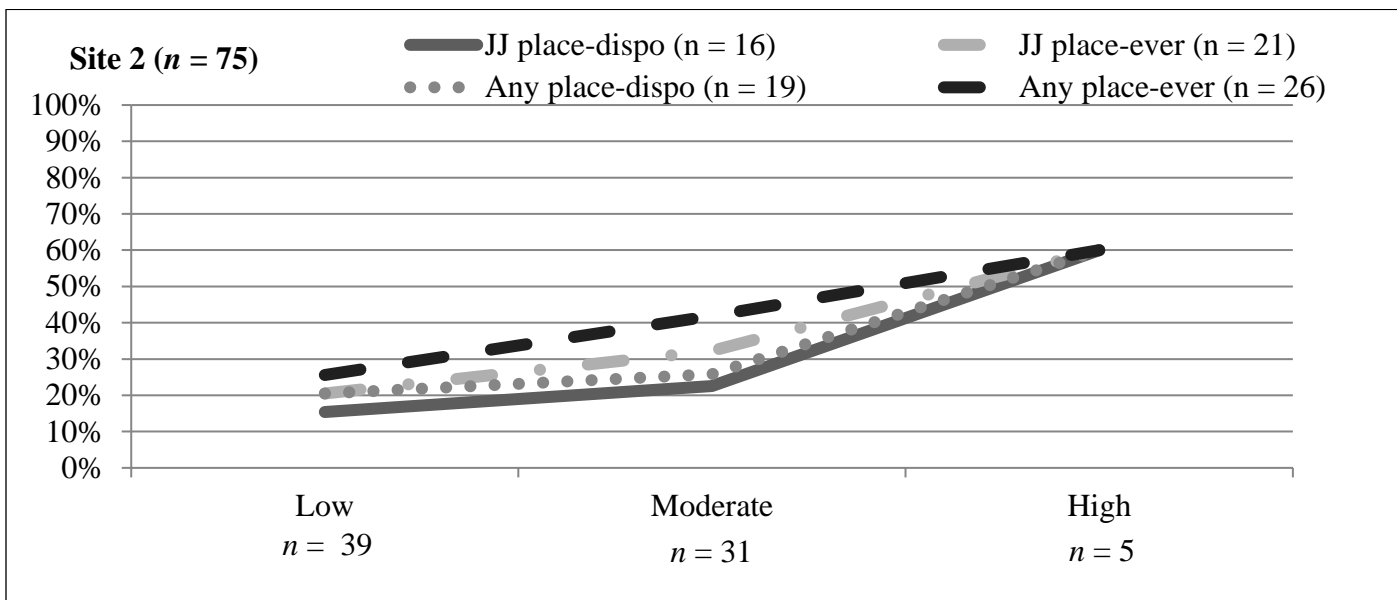
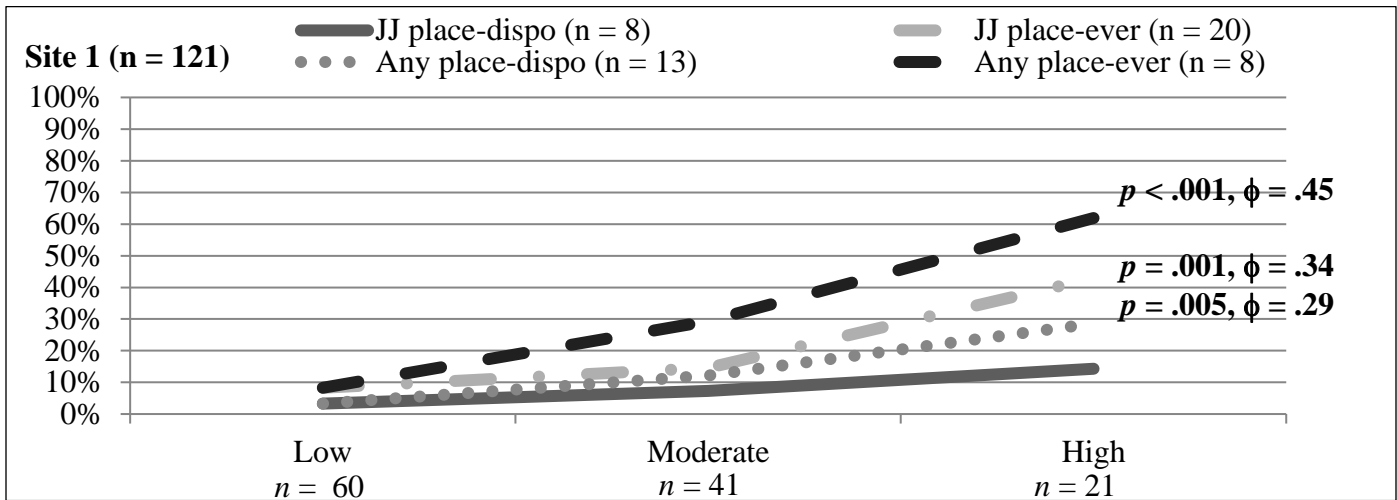


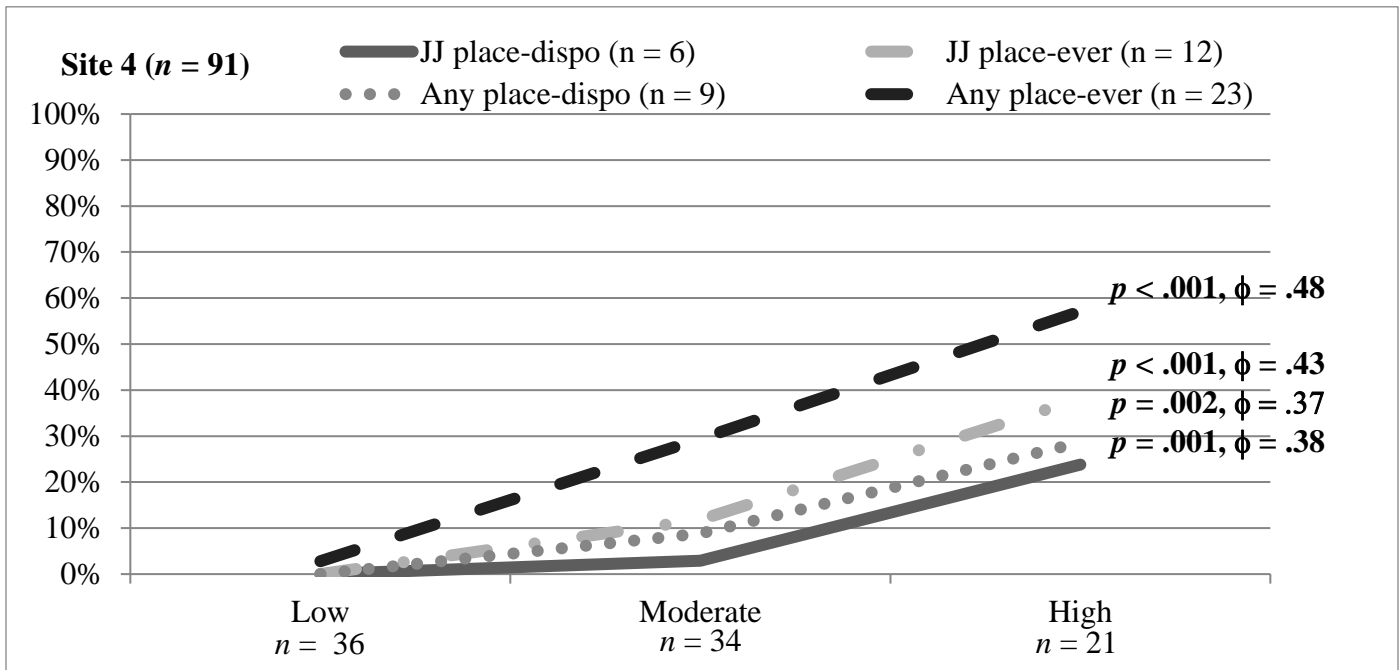


Graph 14 displays the association between risk level and each of the four categories of placements by site. These rates are relatively low; however, these data only represent half the youth who received a disposition that could have resulted in a placement because so many youth were missing the SAVRY. In Site 1, risk level and placement were significantly associated, with medium to large effect sizes for all placement types except JJ placements at disposition, which trended in the expected direction but had a very small *n*. In general, high risk youth were more likely to end up in a placement than lower risk youth. In Site 4, a significantly greater rate of high risk youth than other youth ended up in a placement for all categories, with a medium to large effect size. In Site 2, risk level and placement were not significantly associated and there was little difference in the initial treatment of low vs moderate risk youth. Site 3 had similar findings except there was no difference in the initial treatment of youth at any risk level and there were not higher rates of high risk youth in placement than moderate risk youth even by the end of the follow-up period.



**Graph 14: Association Between Placements and Risk Level by Site**



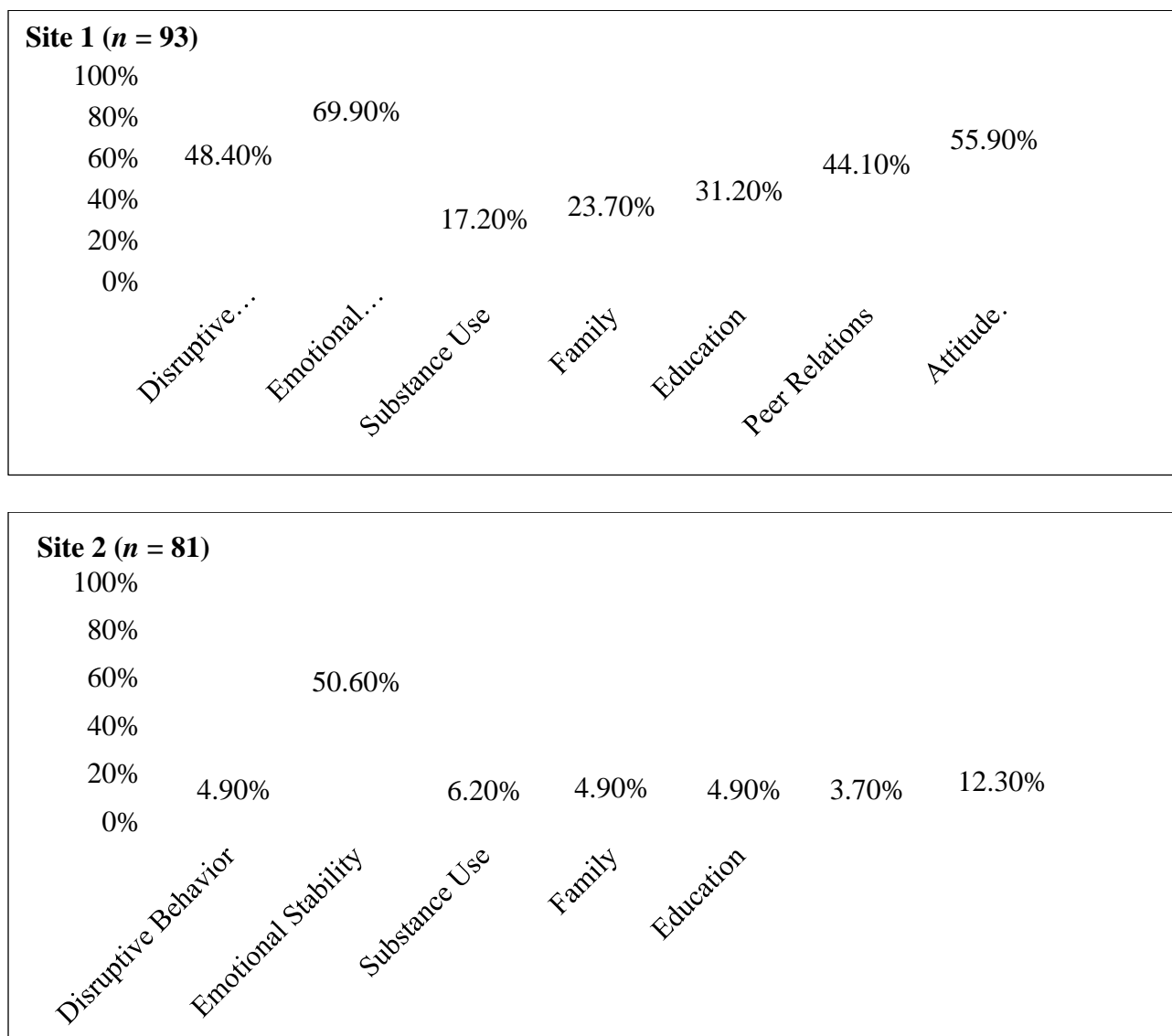


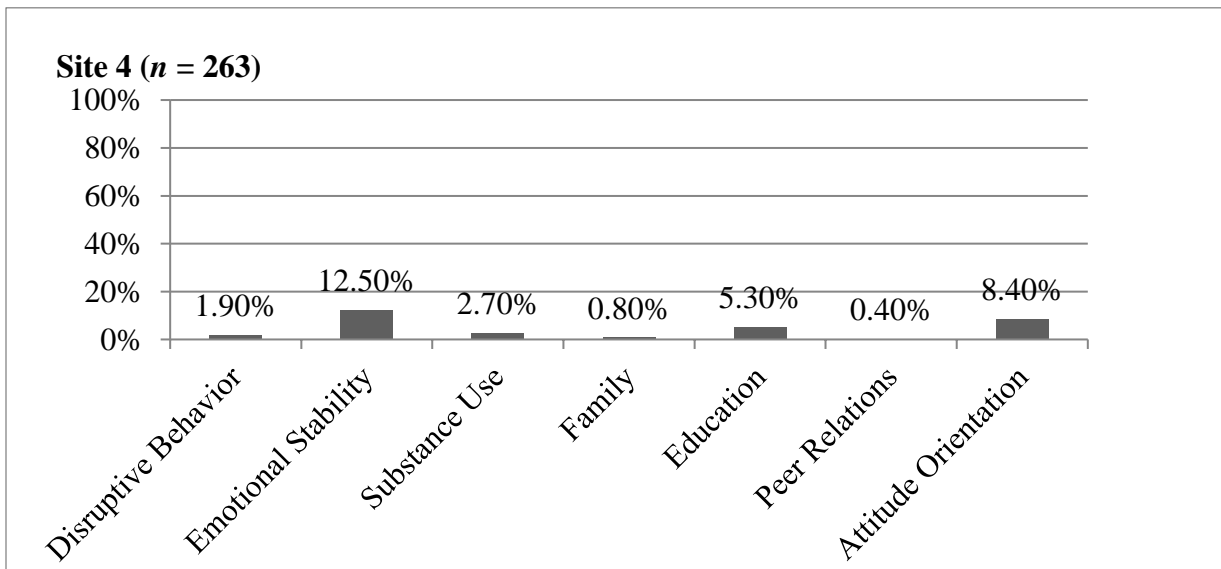
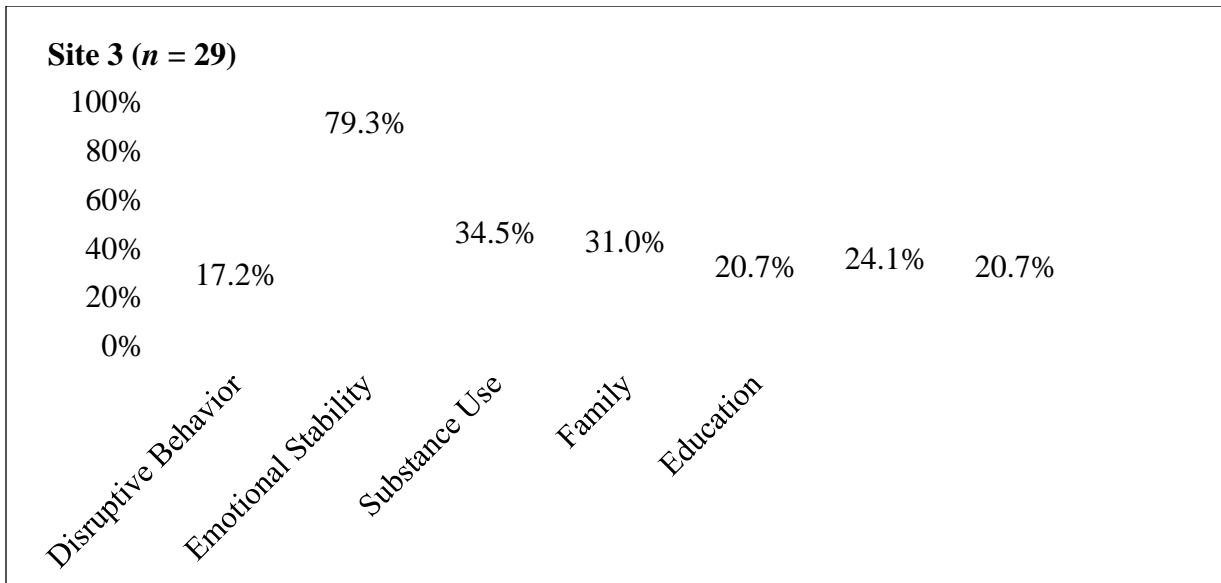
### Services: Post-Implementation Groups Only

The service data in Arkansas was very limited for every site except Sites 1 and 2 because data were not entered into Contexte by many JOs. The researchers supplemented the data as much as possible using social history summaries and case notes but many service dates were not available. It is possible some of the services counted here actually occurred after the baseline disposition. For each site, researchers determined the number of youth in the post-implementation groups who would be expected to receive community services, which includes those who's most serious disposition was probation or detention (which is usually short-term). We considered youth sent to DYS or handled informally to not be expected to receive community services unless we had service data for these cases. In Site 1, 71 of 93 youth appeared to receive services. In Site 2, 41 or 81 youth received services. In Site 3, 26 of 29 youth received services. In Site 4, we could only verify that 55 of 263 youth received services. We categorized the types of services youth received in each county to be relatively consistent with the SAVRY need areas. Service categories were derived from court and JO notes, service provider websites, and the service matrix for each site. Graph 15 displays the types of services youth in the post-implementation groups received for each site. Across sites, youth were

much more likely to get emotional stability-related services (e.g., counseling, residential or inpatient treatment, MH evaluations) than any other type. In Site 1, there was a good distribution of other service types used as well, and the rate of receipt of emotional stability services (70%) was not terribly different than the rates of youths' needs (57%). In Sites 2 and 3, the rate of emotional stability services (51% and 79%, respectively) was considerably greater than what the SAVRY suggested youths needed (25% and 28%, respectively). Site 1 was the only site where many youth received services to address disruptive behaviors and attitudes, with Site 3 having the second highest usage of such services.

**Graph 15: Types of Service Received by Post-Implementation Youth by Site**

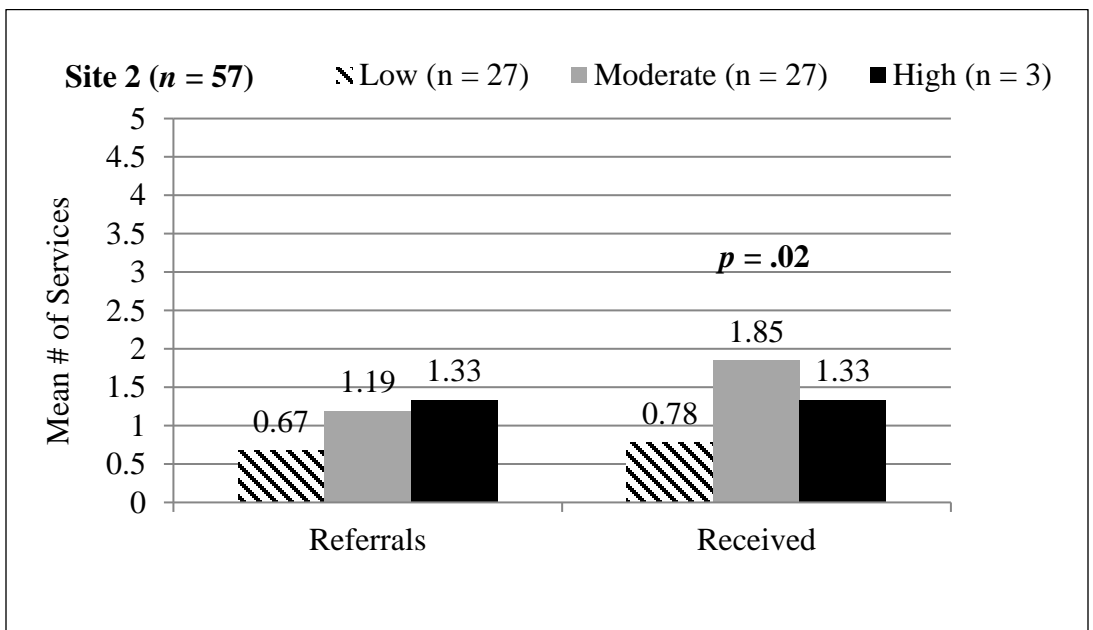
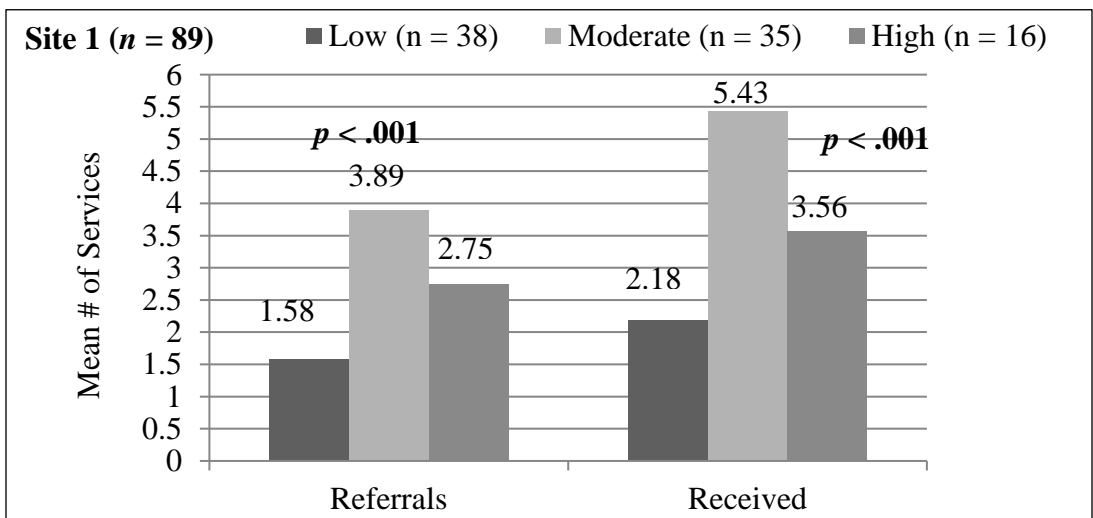


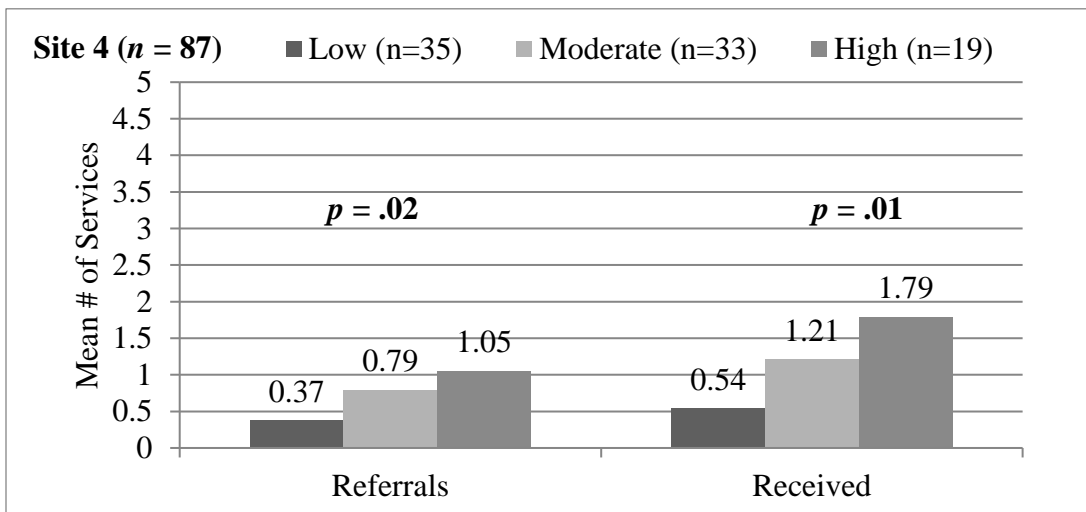
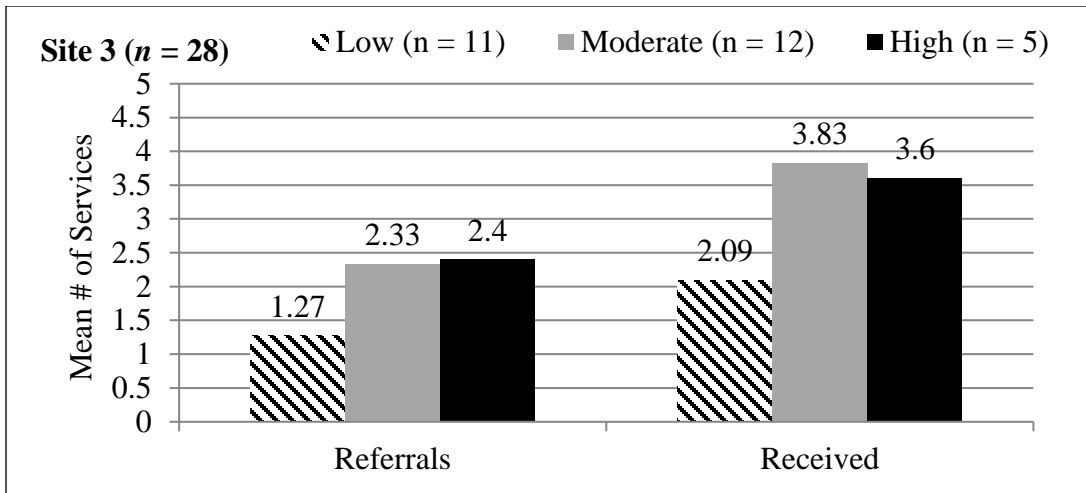


Graph 16 displays the association between risk level and number of services *referred* and *received* for each site for youth who spent any time in the community. Most sites had a significant association between youths' risk levels and the number of services received and/or referred, indicating some consistency with the risk principle. In Sites 1 and 2, there were significant differences in the average numbers of services *received* by risk level; however, in both cases, moderate risk youth received the most services; Site 1 -  $F(2, 86) = 15.30, p < .001, \eta = .26$ ; Site 2 -  $F(2, 54) = 4.09, p = .02, \eta = .13$ . The pattern of findings for service *referrals* was the same except there was not a significant difference in Site 2. In Site 3, moderate and high risk youth received more services

than low risk youth, but the differences were not significant. It is not clear any of these findings represent a problem with probation following the risk principle. Instead, we suspect the reason high risk youth did not receive more services in each of these sites was because they spent less time in the community than moderate to low risk youth, and in two sites (2 and 3) only 5 youth were actually high risk. In Site 4, the pattern of number of *referrals* ( $F(2, 84) = 4.13, p = .02, \eta = .09$ ) and services *received* ( $F(2, 84) = 5.14, p = .01, \eta = .11$ ) were significantly associated with risk level in the expected direction, but effect sizes were small.

**Graph 16: Number of Services Referred and Received by Risk Level by Site**





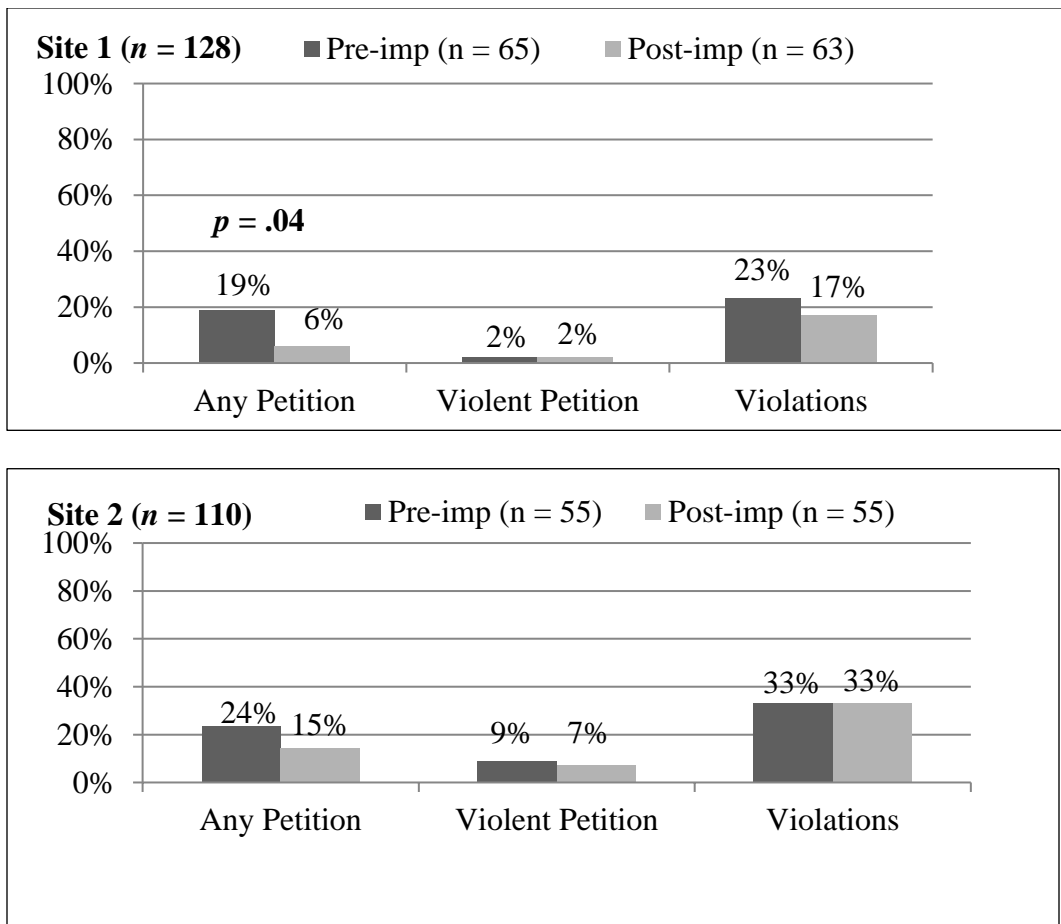
## Recidivism

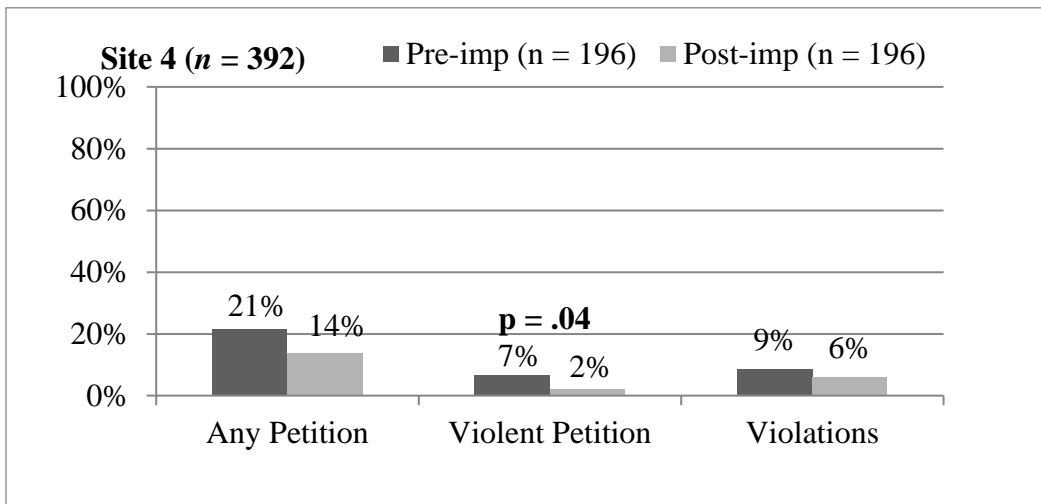
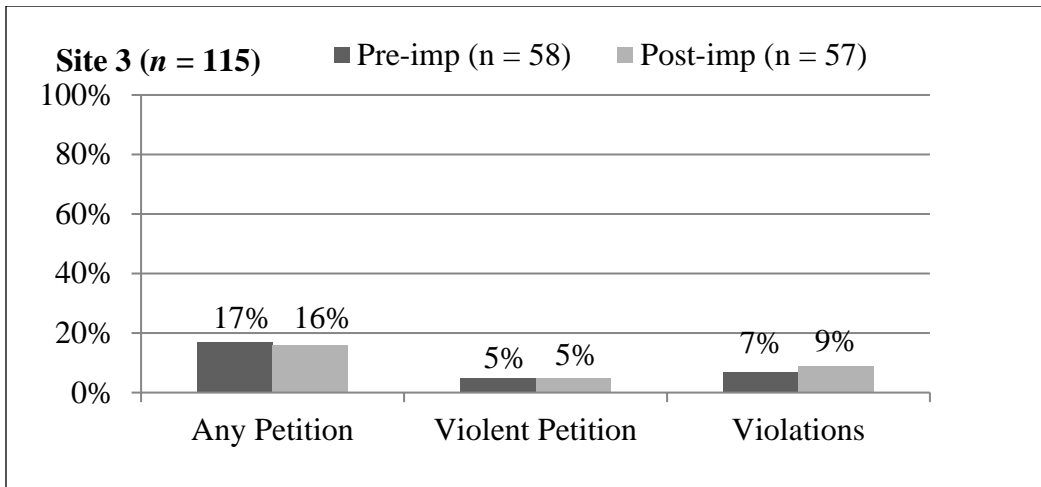
We tracked recidivism outcomes from each youth’s date of first release (if they went to a placement) or date of petition until the end of the study period, which resulted in a median follow-up period of 11 to 13.5 months depending on the site (Site 3 had the longest tracking period because it had the fewest youth going to a placement). All recidivism analyses excluded the youth from each site for whom we had no evidence they had ever been released during the study period. We calculated each youths time at-risk based on their first release date from a placement; however, we did not account for time spent in all subsequent placement stays, which may have posed some limitations in predicting recidivism for higher risk youth. We examined probation violations separately. The tracking period for violations was the same as the period for all other case processing outcomes without

accounting for time spent in placement because technically youth can receive violations in placement (e.g. assaulting staff).

Graph 17 displays the rates for *any* and *violent* recidivism for new petitions and charges for probation violations for each site. We only tracked new petitions because the rates of new dispositions were incredibly low due to the relatively short follow-up period and delays in court processing. In Site 1, the post-implementation group was about one-third as likely to recidivate as the pre-sample (odds ratio = .30). After taking time at-risk into account, rates for any recidivism were significantly different; any new petitions -  $B = -1.17$  (SE = .58),  $\text{Exp}[B] = .31$  (CI = .10 - .97),  $p = .04$ . Rates of violent recidivism were too low to compare. In Site 4, the rates of violent recidivism significantly dropped after implementation of the SAVRY;  $B = -1.17$  (SE = .57),  $\text{Exp}[B] = .31$  [CI = .10 - .95],  $p = .04$ . Sites 2 and 3 did not have any significant shifts in recidivism rates.

**Graph 17: Pre and Post-Implementation Group Recidivism Rates for Any and Violent Petitions by Site**





Graph 18 displays rates of new petitions and violations by SAVRY risk level (excluding youth never released and who never received a SAVRY) for the post-implementation groups at each site for outcomes with a sufficient base rate to examine this association. In Site 1, the base rate of recidivism among the released post-implementation group (n=118) was very low (6%) and unrelated to risk level. Probation violations were significantly related to risk level after taking time at-risk into account, such that high risk youth were significantly more likely to violate than low risk youth;  $B = .69$  (SE = .29),  $\text{Exp}[B] = 2.00$  (CI = 1.14 – 3.52),  $p = .02$ . A deeper examination of the data indicated that over half of the 17 high risk youth were sent to a mental health, detention, or wilderness camp/boot camp placement at some point after disposition, which may have been as a result of their probation violation. This resulted in less opportunity for them to reoffend. The majority of these high risk youth (n = 10) also received services that addressed the behavioral and attitudes/orientation needs. Thus,

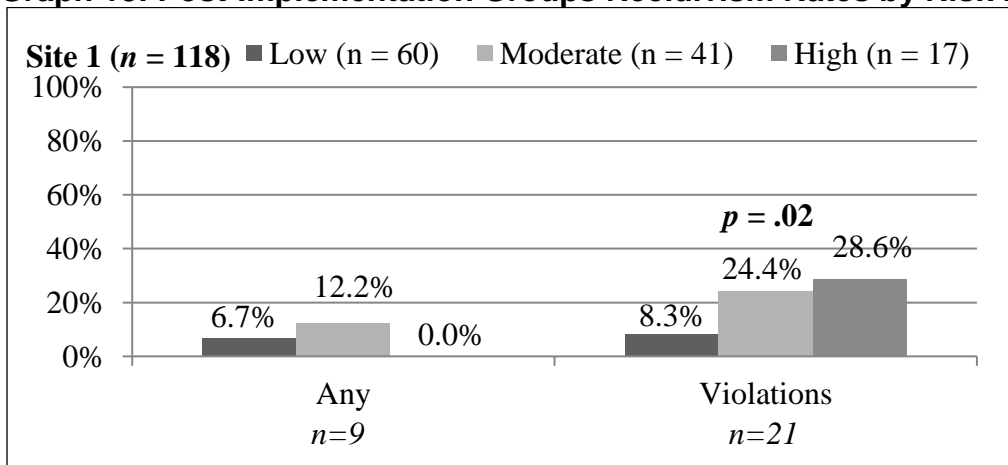


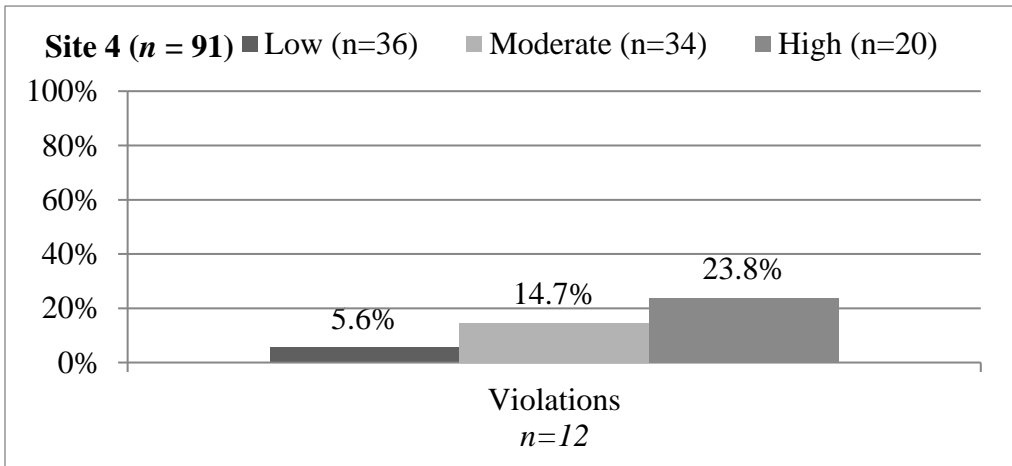
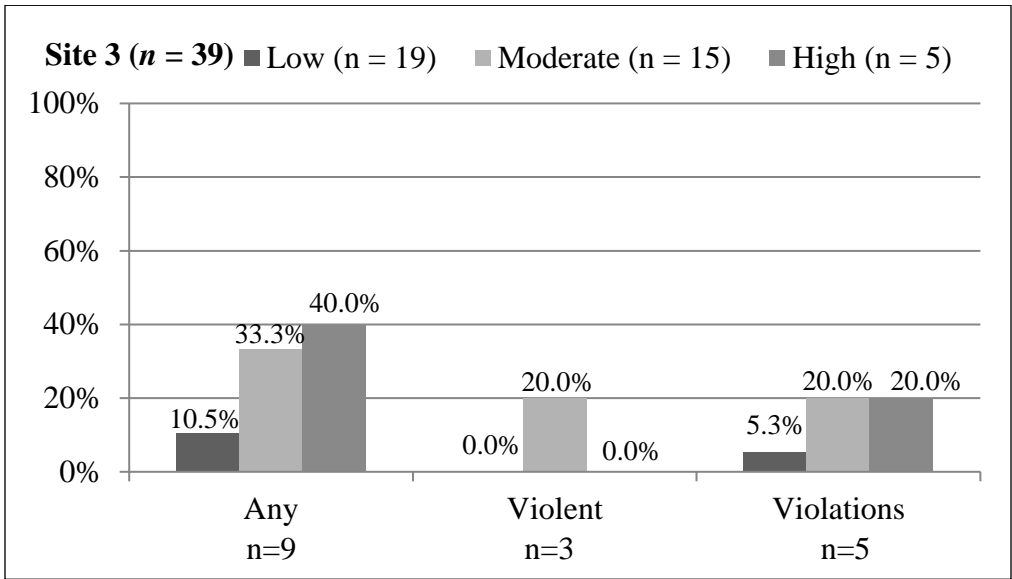
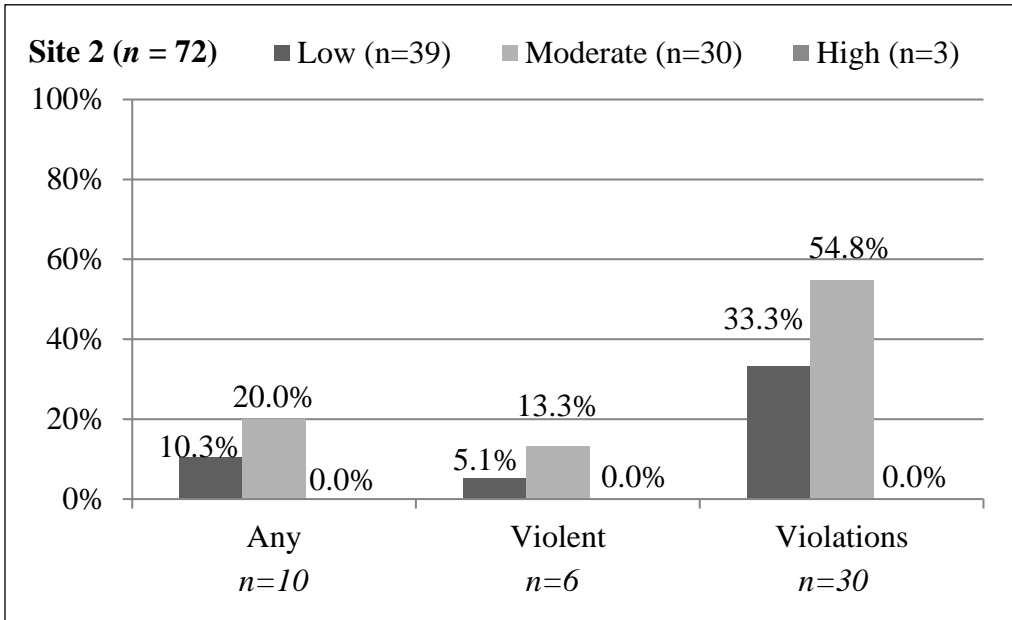
there is some evidence that the high risk youth did not recidivate in Site 1 as a result of good case management.

In Site 2, only 3 high risk youth had been released during the follow-up period and had an opportunity to reoffend, and there were only 5 high risk youth total to examine the association between risk level and violations. Rates of any recidivism for this sample was only 14% and 8% for violent recidivism. Given the low number of high risk youth, associations between risk level and these outcomes are really examining the difference between low and moderate risk youth. Moderate risk youth had higher rates of all outcomes than low risk youth (see Graph 18) but none of the differences were significant after taking time at risk into account. The occurrence of recidivism and violations among youth with a completed SAVRY in Site 3 were far too low to conduct any meaningful analyses.

In Site 4, we could not reliably examine the association between risk level and recidivism because out of 47 youth in the post-implementation group that had new offenses (10 of which had violent offenses), only 8 of these youth had a SAVRY and only 2 of the violent recidivators had a SAVRY. Thus, the data are inadequate for examining whether SAVRY risk ratings were related to new offenses. With respect to violations, 12 youth violated and they all had a SAVRY. Graph 18 demonstrates the association between risk level and violations trended in the expected direction. It was not significant but the base rate is so low it is difficult to conclude these results are reliable.

**Graph 18: Post-Implementation Groups Recidivism Rates by Risk Level by Site**





**Research Question 3: Does presence of a mental health concern and/or substance use severity interact with risk for reoffending in the prediction of recidivism? Is this interaction moderated by behavioral health treatment?**

In order to answer research question 3, we merged the service, MAYSI-2, CRAFFT, SAVRY, and recidivism data across all four counties in Arkansas. Whether behavioral health treatment buffers risk for reoffending should not be dependent on site-level implementation effects and large samples are needed to answer these research questions. Therefore, most of the following analyses were conducted with all youth who had some time in the community during the follow-up period and would have been expected to receive some community services as a result of their disposition (N = 466). The sample sizes for specific analyses differed due to missing assessment/screening tool data. Mental health treatment was counted as ‘present’ only for youth who attended counseling, inpatient or outpatient mental health treatment, or received an EBP that incorporates treatment for mental health (e.g., MST, FFT, CBT). Mental health evaluations were not counted as mental health treatment.

**Mental Health – Post-Implementation Sample**

**Concordance between MAYSI-2 and SAVRY risk level.** These analyses used all youth with a MAYSI-2 and SAVRY regardless of whether they spent any time in the community and regardless of disposition because the goal was purely to examine the association between mental health and risk level (n = 252). Unlike findings in RI, high risk youth were significantly more likely to be a critical case on the MAYSI-2 (34%) than moderate (23%) or low risk youth (14%); ( $\chi^2(2) = 7.11, p = .03, \Phi = .17$ ). Within the need areas, youth who were critical cases on the MAYSI-2 were 4.78 times as likely to be calculated with a moderate to high need in Emotional Stability concerns ( $\chi^2(1) = 19.08, p < .001, \Phi = .28$ ), 2.58 times as likely to have Disruptive Behavioral needs ( $\chi^2(1) = 7.57, p = .006, \Phi = .17$ ), and 3.81 times as likely to have Negative Peer Relations ( $\chi^2(1) = 9.41, p = .002, \Phi = .19$ ).

**Services received.** Over 200 of the 466 youth who would have been expected to receive services were missing the MAYSI-2 results. Of the 244 youth who could have received services and

had a MAYSI-2, 21% scored as a critical case. With respect to mental health services, we could verify that 29% (n = 135) of the 466 youth received a generic mental health service and only 6% (n = 29) received a service that appeared to be evidence-based. There was not a significant difference in the likelihood of receiving some form of mental health service (not including an evaluation) for youth who were a critical case on the MAYSI-2 (48%) versus those who were not a critical case (43%);  $\chi^2(1) = 0.48, p = .49$ . A significant percentage of youth who did not appear to have a mental health need according to the MAYSI-2 received some form of mental health services (43%). Only 15% of the youth scoring as a critical case on the MAYSI-2 received a mental health service that could be categorized as an evidence-based practice, which was not significantly different from the non-critical cases (11%). It does not appear the MAYSI-2 was used to refer youth for mental health evaluations either since only 19% of critical cases were referred compared to 12% of non-critical cases. The MAYSI-2 did not appear to be used for mental health service decisions; however, the SAVRY did. High (58%) and moderate (55%) risk youth were significantly more likely to be sent to a mental health service than low risk youth (33%); ( $\chi^2(2) = 13.29, p = .001, \Phi = .23$ ).

**Recidivism.** Table 9 provides the percent of the 244 youth who had been released at some point and recidivated as a function of whether they scored as a critical case on the MAYSI-2 and whether they received mental health treatment. Essentially, the table indicates that mental health treatment had no impact on reoffending for both critical and non-critical MAYSI-2 cases. When examining the sample as a whole, there was no difference in recidivism rates for those who received a generic mental health service (9.6% any recidivism and 3.7% violent recidivism) and those who did not (10% any and 2.1% violent). This was also true for youth who received mental health services that could have been classified as EBPs (e.g., CBT, FFT).

**Table 10. Recidivism (Petition) Rates by MAYSI-2 Critical Case and Any MH Treatment Received (n = 244)**

	Any Recidivism n(%)	Violent Recidivism n(%)
Received MH Treatment		
Critical MAYSI-2	1(4.0%)	0
Not-Critical MAYSI-2	9(11%)	5(6.1%)
No MH Treatment Received		
Critical MAYSI-2	2(7.4%)	1(3.7%)
Not-Critical MAYSI-2	13(11.8%)	4(3.6%)

In general, recidivism rates were very low (under 10%), at least among youth who received a MAYSI-2. We attempted moderated hierarchical Cox regression analyses including an interaction term for the MAYSI-2 Critical Case x SAVRY Risk Level to determine whether mental health concerns interacted with risk level in the prediction of recidivism. Regardless of whether we investigated violent or any new petitions, or used the SAVRY risk level or total score, the presence of a potential mental health concern did not predict recidivism and did not interact with risk in the prediction of recidivism. The low baserates of recidivism make any conclusions tenuous.

**Substance Abuse – Post-Implementation Sample Only**

**Services received.** Roughly 19% of the 371 youth with a CRAFFT scored above the cut-off. Among these youth, only 13.4% received a substance use service (not counting evaluations), but this was significantly higher than youth not scoring above the cut-off (3.7%);  $\chi^2(1) = 9.97, p = .002, \Phi = .17$ . Thus, it appears the CRAFFT was being better utilized as a screening tool than the MAYSI-2 was.

**Concordance between CRAFFT and SAVRY risk level.** CRAFFT total scores were significantly related to the SAVRY risk level ( $r(301) = .29, p < .001$ ) indicating the higher the CRAFFT score, the higher the risk. Unlike RI, whether one scored above the cut-off on the CRAFFT was also related to risk level, such that a larger portion of high risk (40%) than moderate (25.7%) or low risk (25%) youth were scoring high on the CRAFFT. The majority of youth scoring high on the CRAFFT; however, were moderate risk (45.3%);  $\chi^2(2) = 20.38, p < .001, \Phi = .26$ . With respect to criminogenic

needs, every need was significantly elevated for those scoring high on the CRAFFT such that youth were rated as moderate to high risk in these need areas: Disruptive Behaviors [ $\chi^2(1) = 12.77, p < .001, \Phi = .21$ ], Emotional Stability [ $\chi^2(1) = 4.21, p = .04, \Phi = .12$ ], Attitudes/Orientation [ $\chi^2(1) = 9.75, p = .002, \Phi = .18$ ]; Substance Use [ $\chi^2(1) = 103.12, p < .001, \Phi = .58$ ]; Family [ $\chi^2(1) = 5.85, p = .02, \Phi = .14$ ]; Education/Employment [ $\chi^2(1) = 13.24, p < .001, \Phi = .21$ ], and negative Peer Relations [ $\chi^2(1) = 15.10, p < .001, \Phi = .22$ ]. Clearly there is a strong association between substance use and risk among adolescents.

**Recidivism.** Despite the strong association between CRAFFT scores and risk level and criminogenic needs, neither the CRAFFT total score or the CRAFFT cut-off was significantly related to recidivism. Individuals who received substance abuse treatment were more likely to recidivate (22.7%) than those who did not receive these services (8%;  $\chi^2(2) = 6.15, p = .013, \Phi = .08$ ); however, this was a small effect and it disappeared once time at-risk was taken into account.

### CONCLUSIONS: ARKANSAS

- The data indicated adherence to the administration policies was very poor in the large county, exceptional in one county, and fair in two counties. The finding that over thirty percent of youth were missing screens and SAVRYs in Sites 2 and 3 partially represent the challenges with attempting to complete assessments prior to adjudication (e.g., challenges scheduling interviews with the family during a short window) and likely also represent some limitations with the policies in these counties. JOs were to complete the tools for youth who had a high likelihood of getting petitioned; thus, the screens and the SAVRY were sometimes completed for youth who were not petitioned and occasionally were missed for youth who were petitioned. The county with particularly poor adherence may be explained by lack of JO supervisors in the department, the fact one of the three judges was not requiring the SAVRY, and that JOs rotated to different judges every three months. It is unclear the extent to which this was due to problems tracking youth's records.

- Most JOs self-reported buy-in to use of the SAVRY and most expressed clear knowledge regarding how to use it in their decision-making. Actual use of the SAVRY in decisions according to case-level data seemed to vary across sites, with Site 1 having the strongest implementation, which was most consistent with RNR principles.
- Inter-rater reliability on the SAVRY was exceptional with the exception of over-selection of need areas rather than prioritizing only a couple. Case-level data indicated that most need areas were selected accurately. It seemed JOs did not narrow down the areas on which to focus. The Emotional Stability need area was most likely to be over-identified.
- Dispositions had a significant shift in two sites towards use of less serious dispositions. In both of these sites, decisions were significantly related to risk such that higher proportions of low risk youth were dismissed or handled informally. Higher percentages of high risk youth were placed in detention or received a DYS commitment but overall these numbers were low. This pattern was fairly consistent across all counties even when it was not significant.
- Overall placement rates were quite low and there was no difference in placements after implementing the SAVRY with the exception of two sites that seemed to be more likely to place higher risk youth sooner at disposition. The actual numbers of these placement cases at disposition were low. There was no appreciable difference in rates of placements between the pre and post-implementation groups by the end of the study. A significantly higher proportion of high risk youth were ending up in a placement in two of the study sites, with fairly large effect sizes. The other two sites appeared to not follow the risk principle in placement decisions at all, but again, their numbers were small.
- The number of services referred and received followed the risk principle to some extent in all sites. High risk youth did not receive the highest average number of services in any site but this is largely because they had less time in the community than other youth. Moderate risk youth always received more services than low risk youth. Use of services related to Emotional Stability

appeared to be over utilized in all sites but Site 1, such that most youth received these services and little else even though Emotional Stability was not the dominant need area for these groups of youth.

- Surprisingly, two sites had significant reductions in recidivism after the SAVRY was implemented. We cannot draw any conclusions about the association between SAVRY risk levels and recidivism in AR because of very low baserates among youth who received a SAVRY in most sites. The only site where some conclusions can be drawn was Site 1, where the SAVRY did not predict recidivism; however, it appeared the lack of recidivism among high risk youth was due to effective case management.
- There was no evidence that the MAYSI-2 was used to make referrals for mental health evaluations but the CRAFFT scores were related to referrals for substance use evaluations and eventual services. There was no evidence that receipt of any form of behavioral health services decreased recidivism.
- All conclusions related to Arkansas case management data in Sites 3 and 4 are somewhat tenuous due to poor data quality.

## **DISCUSSION**

### **Limitations**

Any overall conclusions of this study should be considered in light of some limitations, which differed for each state. A major limitation with any conclusions that could be drawn in Arkansas was that, overall, among the youth who would have been expected to receive a SAVRY, MAYSI-2 and CRAFFT according to the individual office policies (n = 738), only 44% actually had a SAVRY, 45% had a MAYSI-2 and 48% had a CRAFFT. In other words, the protocol seemed to be followed less than half the time when combining all the county's data. Individually, there was wide variability, with Site 1 having excellent adherence to the administration policies (90% of cases) and Site 4 having very poor adherence (22% of cases). It is possible the SAVRY and screens were completed but not



entered into the respective data systems in Sites 3 and 4, however, the researchers made several attempts to track these down and received multiple data pulls. We are confident we received all the assessments/screens that had been conducted for youth in Site 2 as a result of considerable conversations with their JOs. The limitations with assessment and screening data, combined with the low recidivism rates, make it impossible to draw any strong conclusions about the effectiveness of services (particularly mental health and substance use services) or the predictive accuracy of the SAVRY.

In Arkansas, the relatively short follow-up period of less than one-year, on average, combined with a primarily post-adjudication sample that tends to be lower risk, led to very low recidivism rates. The recidivism rate for the post-implementation group across all sites combined was only 8%. Once the post-implementation sample was reduced to only youth who received a SAVRY, MAYSI-2, CRAFFT, and/or community service, the baserates were even lower. The low baserates and samples made it impossible to conduct valid analyses of whether the SAVRY predicted recidivism. Fortunately, the SAVRY had a very strong association with recidivism in Rhode Island where a post-disposition sample was used with a longer follow-up period resulting in higher recidivism rates. It is also important to note that the SAVRY was used in more case management decisions in Arkansas. These procedures could have led to better risk reduction strategies, which also would have impacted the ability of the SAVRY to predict recidivism. There was good evidence a ‘case management effect’ was present at least in Site 1 in Arkansas.

Another limitation in Arkansas stemmed from splitting up the sites to examine the results separately for research question 2. This was a limitation in our ability to draw conclusions for the sites with small matched sample sizes (sites 2 and 3), which may have had an impact on our ability to detect within-site significant effects. Small sample sizes were not an issue in Sites 1 and 4.

## Findings Related to Use of SAVRY and RNR

Rhode Island's implementation of the SAVRY to be conducted after youth had already received their disposition was likely the reason for few case management outcomes being related to risk level, particularly disposition and placements earlier in the process. Shifts in dispositions and placement decisions did seem to result in Arkansas with the exception of sites with small pre and post-group sample sizes. Arkansas did a good job of sharing disposition recommendations with the courts when SAVRY's were conducted, which was largely a result of the disposition recommendations form.

Perhaps the most notable limitation to implementation of RNR-related principles in both states related to the need principles. Although this study did not match services to needs at the individual level, it was clear that many youth, on average, did not get the types of services they needed. In Rhode Island, over half of youth were receiving family-related and emotional stability services when only about one-third or less of the youth needed these. This over-reliance on mental health/emotional stability related services was also present in most counties in Arkansas, with the exception of Site 1 and to some extent, Site 2. Not coincidentally, Site 1 was the only site to have an appreciable reduction in recidivism. Site 1 differed from the other three with respect to having more service providers and service types available for their population. They had rich resources with respect to services. This was surely a factor in their success.

Another clear factor of successful SAVRY and RNR implementation related to the leadership and supervision at each probation office. In Rhode Island, even though they were unable to implement the SAVRY pre-disposition, they did have the leadership and supervision in place to reinforce the need to use RNR and to administer the SAVRYs on their cases. Similarly, Arkansas Site 1 had strong leadership and quality assurance from their judge and their probation supervisor. The other Arkansas sites varied in terms of their leadership, most notably in Site 4 where there were no supervisors and one judge discounted the SAVRY as soon as implementation started.

## Findings Pertaining to Behavioral Health

With respect to behavioral health screening procedures, the states differed in the quality of implementation. In Arkansas, we can state with confidence that the screening tools did not appear to be used to make referrals for evaluations; and therefore, youth ‘screened in’ were no more likely than other youth to receive behavioral health services. It is possible that juvenile intake officers ruled out referrals from the MAYSI-2 by conducting secondary screening with many of the youth, but this does not explain the nearly equivalent rates of behavioral health referrals for youth who did not score as a critical case on the MAYSI-2. In Rhode Island, critical cases on the MAYSI-2 and high scorers on the CRAFFT were more likely than other youth to receive behavioral health services, suggesting that the POs followed the policy for use of these tools.

Consistent with studies from other researchers of juvenile samples (Guebert & Olver, 2014; Schubert et al., 2011) it appeared youth with potential behavioral health issues, according to whether they were a critical case on the MAYSI-2 or CRAFFT, tended to be higher risk and had elevated rates of multiple criminogenic need areas (e.g., Disruptive Behavioral Problems, Negative Peer Relations, and Emotional Stability). Also consistent with other studies, mental health treatment was not associated with reductions in recidivism in either state. Substance use treatment was related to recidivism for youth with substance use needs in both directions, being associated with elevated recidivism in Arkansas and reduced recidivism in Rhode Island. However, in both cases, once youth’s risk levels were taken into account, substance use treatment was unrelated to recidivism. In other words, substance use treatment did not buffer the recidivism of higher risk youth.

## IMPLICATIONS FOR POLICY, PRACTICE, AND FUTURE RESEARCH

Some strong implications for policy and practice can be made based on the results of this study:

- It is possible to train probation officers to reliably rate risk-needs assessment instruments and to use risk-need-responsivity in their case planning when there is supervisory oversight and booster trainings.
- Conducting risk-needs assessments prior to disposition is crucial. In jurisdictions where the risk assessment is not conducted prior to disposition (like Rhode Island), it seems many case processing decisions may still be related to risk level (i.e., number of services received, placements) possibly because these youth may clearly need more intervention. However, services are unlikely to be matched to youths' needs (over 40% of youth had disruptive behavioral needs but less than 30% received a service that met these needs). This limitation may be one of the factors that drove recidivism rates.
- There is a strong need for clear office policies regarding when tools are to be administered and with whom. In Arkansas the adherence rates of the SAVRY and screening tool administration in Sites 2 and 3 was approximately 65%, in part due to JOs having flexibility to only conduct these procedures with youth they 'thought' would be petitioned. This resulted in many petitioned youth not being assessed. Moreover, Site 2 essentially adapted their policy to not conduct the SAVRY with youth under age 12, sex offenders, and youth who were sent to drug court because drug court youths all received the same services. The short timeframe involved in attempting to conduct these instruments pre-adjudication was also likely a factor; however, Site 1 was under the same pressures and did not miss assessments on nearly as many youth as Sites 2 and 3.
- There appears to be an over-reliance on mental health services in the system, particularly in jurisdictions where few service options are available. Mental health services were the most

commonly used types across the board with little evidence that this is what most youth needed. There were the low rates of youth screening in on the MAYSI-2 (less than 20% in most jurisdictions) and emotional stability needs were not the dominant criminogenic need area in any county. Moreover, the data indicated receipt of mental health services were unrelated to recidivism.

- Probation departments that have adequate options for community services, particularly services that address disruptive behaviors and attitudes/orientation need areas, are likely to be more effective matching services to youths' needs and in reducing recidivism.
- Problematic implementation of data systems for case management produces a significant barrier to good outcomes. Not only were some counties in Arkansas unable to track their data, training on this new system caused a significant distraction to their ability to use the SAVRY effectively.
  - Another clear barrier to implementation of a screening and assessment approach is lack of probation supervisors performing quality assurance. In Arkansas Site 4, the organizational structure of judges being the supervisors of probation officers was a significant limitation because judges do not have time to perform the level of quality assurance needed to ensure staff are administering assessments and tracking data. Having judges or a similar type of professional as the sole supervisors is particularly problematic especially if any judges lack buy-in to the process. Site 4 had the lowest adherence rate to administration policies than we have reported across 15 probation offices reported here and in prior studies (Vincent et al., 2016; Guy et al., 2014).

## **APPENDIX A: PROBATION OFFICER INTERVIEWS**

## RABS 4-Month Post-Implementation Interview

ID: \_\_\_\_\_ Probation Office: \_\_\_\_\_

Gender: 1. Male 2. Female

Interviewer: \_\_\_\_\_ Date: \_\_\_ / \_\_\_ / \_\_\_

I am \_\_\_\_\_ and I am conducting this interview as part of the RABS project to ask you some questions about your experience with the SAVRY, MAYSI and CRAFFT now that you have been using it for several months. This should take no more than 30 minutes. Your individual responses will be kept strictly confidential and will be accessible only to members of the research group. Your name is not recorded anywhere on this survey so we cannot connect your responses back to you. No reference will be made in any oral or written reports that could connect you to this evaluation. Instead, we will report any results from these surveys as the average responses across staff in your state. This interview is voluntary and you can stop at any time. There will not be any consequences to you or your employment if you chose not participate.

We are conducting this survey to better assist your probation office with the screening and assessment procedures and it will help us to interpret your probation data. We are NOT personally or financially invested in the outcome. DOES THIS SOUND OKAY TO YOU?

Please answer all of the questions to the best of your ability. There are no “right” or “wrong” answers.

### Current position:

1. Probation officer/juvenile officer \_\_\_\_\_
2. Intake officer \_\_\_\_\_
3. Supervisor \_\_\_\_\_
4. Other \_\_\_\_\_ Please Specify: \_\_\_\_\_

How long have you been in current your position? \_\_\_\_\_ Years \_\_\_\_\_ Months

How long have you been working with justice-involved youth? \_\_\_\_\_ Years \_\_\_\_\_ Months

**Race:** 0 - White 1 - Black/African American 2 - Asian 3 - East Indian  
4 - American Indian/Alaska Native 5 - Middle Eastern 6 - Pacific Islander/Native Hawaiian 7 -  
Other (specify: \_\_\_\_\_)

**Ethnicity:** 0 Non-Hispanic 1 Hispanic

## SAVRY QUESTIONS

- 1) Have you been trained how to complete the SAVRY? 0. No 1. Yes
- 2) Have you had an opportunity to conduct a SAVRY assessment? 0. No 1. Yes 9. N/A  
**IF NO to #2, Why haven't you had an opportunity to use the SAVRY?**
- 

## IF THE SAVRY IS NOT PART OF THEIR JOB, MARK N/A & SKIP TO MAYSJ QUESTIONS

### IF YES TO #2:

- 3) Roughly how many SAVRY's would you say you have done up to this point? \_\_\_\_\_
- 4) Roughly what percentage of these were conducted pre-adjudication? \_\_\_\_\_
- 5) Roughly what percentage were conducted after adjudication but before disposition? \_\_\_\_\_
- 6) Roughly what percentage were conducted after disposition – meaning soon after disposition (within 30 days of disposition)? \_\_\_\_\_
- 7) What percentage of your SAVRYs were conducted on existing cases on your case load that may have come up for a court review? \_\_\_\_\_
- 8) Have there been any instances where you should have conducted a SAVRY on a case according to your office policy, but you did not or you were unable to? 0. No 1. Yes 9. Don't know  
(note to interviewer – it will be important to check the accuracy of their statement based on their actual policy and the way they answered their previous questions. If Pulaski – all SAVRYs should be #5 or #7 above; in other counties all SAVRYs should be #4)
- 8a) (IF NO) So no youth who should have received a SAVRY were missed? 0. No, none were missed 1. Yes, some were missed
- 8b) (IF YES) In how many cases have SAVRY's been missed? \_\_\_\_\_
- 8c) (IF YES) Under what circumstances has this happened? \_\_\_\_\_
- 

- 9) When you conduct interviews for the purpose of completing the SAVRY – do you:
- Interview the Parent and Youth together
  - Interview the Parent and Youth separately
  - Interview them together for part of the interview and separately for part of the interview

- 10) Are you asked to make recommendations to the court about **disposition on new cases**?  
Meaning specifically whether the youth should be supervised on probation, committed to the state DYS, or receive some other form of supervision? I will ask you about the conditions of probation and services later. 0. No 1. Yes

- 10a) (If YES) Have you had the ability to use the SAVRY in these recommendations? 0. No 1. Yes  
**IF NO TO 10a** – Why not? What is the biggest barrier to using the SAVRY for disposition recommendations?
- 
-



**IF YES TO 10a** – For the next few questions pertaining specifically to disposition, please respond on a 7-point scale, with 0 = Never and 7 = Always

How often do you.....

- 10b. ... make a recommendation that corresponds with the risk level on the SAVRY? \_\_\_\_\_
- 10c. .... make a more restrictive recommendation than the SAVRY's risk level indicates? \_\_\_\_\_
- 10d. .... make a less restrictive recommendation than the SAVRY's risk level indicates? \_\_\_\_\_
- 10e. .... make a recommendation without consulting the SAVRY? \_\_\_\_\_

*consider adding a note under 10e (and all the others like it) that it is backwards*

11) Are you asked to make recommendations to the court about how to handle **a youth who committed a probation violation or a new charge while on probation**? 0. No 1. Yes

11a) (If YES) Have you had the ability to use the SAVRY in these recommendations? 0. No 1. Yes  
**IF NO TO 11a** – Why not? What is the biggest barrier to using the SAVRY in these recommendations?

\_\_\_\_\_

**IF YES TO 11a** – For the next few questions pertaining specifically to your use of the SAVRY in probation violations or when handling youth on probation who receive new charges, please respond on a 7-point scale, with 0 = Never and 7 = Always

How often do you.....

- 11b. ... make a recommendation that corresponds with the risk level on the SAVRY? \_\_\_\_\_
- 11c. .... make a more restrictive recommendation than the SAVRY's risk level indicates? \_\_\_\_\_
- 11d. .... make a less restrictive recommendation than the SAVRY's risk level indicates? \_\_\_\_\_
- 11e. .... make a recommendation without consulting the SAVRY? \_\_\_\_\_

12) Now I am going to ask you about referrals to **services and making case management plans** for youth on probation? By “services”, I mean treatment related services such as life-skills courses, therapy, etc. I am not referring to restrictions youth may have like electronic monitoring, community service, etc. Which answer best describes your situation:

0. Services are determined by the judge w/o my recommendation
1. Services are determined by the judge with my recommendation
2. The services and case plan are determined completely by me

12a) (**IF 0 or 1 above**) Do you have the ability to suggest additional services or activities to the youth and/or their parents?

0. No
1. Yes, but I rarely do (*Note: if they say yes, prompt them by asking if they do it rarely or frequently*)
2. Yes, and I frequently do

12b) Have you used the SAVRY in either your service decisions, service recommendations to the judge, or service suggestions to the youth or parents? 0. No 1. Yes 9. N/A

**IF NO TO 12b** – Why not? What is the biggest barrier to using the SAVRY in your case planning?

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**ASK FOR EVERYONE DOING SAVRY** For the next few questions pertaining to your service recommendations, please respond on a 7-point scale, with 0 = Never and 7 = Always (or put NA)

**When you have input into service decisions**, how often do you....

12c. .... target the criminogenic needs identified by the SAVRY (for example, peer relations, disruptive behavior/personality, family/parenting, education/employment)? \_\_\_\_\_

12d. .... disregard some criminogenic needs that are identified by the SAVRY? \_\_\_\_\_

12e. .... target needs that are not identified by the SAVRY? \_\_\_\_\_

12f. .... make a decision/recommendation about services without consulting the SAVRY? \_\_\_\_\_

13) Do you use some form of written case plan to record services that youth are receiving or are referred to? \_\_\_\_\_  
0. No 1. Yes

13a) **(RI Only)** Does your case plan align will with the SAVRY criminogenic need areas?  
0. No 1. Yes 9. Don't know

13b) **(AR Only)** For what percentage of youth on your case load have you completed the case plan that was implemented as part of the RABS project? \_\_\_\_\_

13c) **If NO**, are you the inputting services youth receive into Contexte? 0. No 1. Yes

14) Do you make decisions or recommendations about the **level of supervision** youth will receive while on probation? \_\_\_\_\_  
0. No 1. Yes

14a) (If YES) have you used the SAVRY to make decisions about levels of supervision? 0. No  
1. Yes 9.N/A

**IF NO TO 14a** – Why not? What is the biggest barrier to using the SAVRY in your supervision level decisions? \_\_\_\_\_

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**IF YES TO 14** – For the next few questions pertaining to supervision level, please respond on a 7-point scale, with 0 = Never and 7 = Always

How often do you.....

14b. ... make a decision about a supervision level that corresponds with the risk level on the SAVRY? \_\_\_\_\_

14c. ... make a decision about a more restrictive level of supervision than the SAVRY's risk level indicates? \_\_\_\_\_

14d. ... make a decision about less restrictive level of supervision than the SAVRY's risk level indicates? \_\_\_\_\_

14e. ... make a decision about supervision level without consulting the SAVRY? \_\_\_\_\_

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**15. Interviewer SAVRY-related comments:**

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**MAYSI & CRAFFT QUESTIONS**

- 1) Have you been trained on the MAYSI and CRAFFT? 0. No 1. Yes
- 2) Have you had an opportunity to conduct a MAYSI or CRAFFT Screening? 0. No 1. Yes 9. N/A  
**IF NO to #2, Why haven't you had an opportunity to conduct this screening?**
- 

**IF THE MAYSI/CRAFFT ARE NOT PART OF THEIR JOB, MARK N/A & END INTERVIEW**

**IF YES TO #2:**

- 3) Roughly how many MAYSI's & CRAFFT's would you say you have done up to this point? \_\_\_\_\_
- 4) Roughly what percentage of these were conducted pre-adjudication? \_\_\_\_\_
- 5) Roughly what percentage were conducted after adjudication but before disposition? \_\_\_\_\_
- 6) Roughly what percentage were conducted after disposition – meaning soon after disposition (meaning within 30 days after disposition)? \_\_\_\_\_
- 7) Are there any other time points in which you would have done a MAYSI or a CRAFFT screening that I may have missed? 0. No 1. Yes  
IF YES, What other circumstances? \_\_\_\_\_
- 8) Have there been any instances where you should have conducted a MAYSI & CRAFFT on a case according to your office policy, but you did not or were unable to? 0. No 1. Yes 9. Don't know  
(note to interviewer - *meaning youth always receive the screening at intake and all youth who get an intake are screened*)  
8a) (IF YES) In how many cases has the MAYSI/CRAFFT been missed?  
\_\_\_\_\_  
8b) (IF YES) Under what circumstances has this happened?  
\_\_\_\_\_  
\_\_\_\_\_

9) In roughly how many instances have you made a recommendation that a youth receive a mental health or co-occurring disorders **evaluation** as a result of their MAYSI scores? And I am speaking about recommendations either to the youth and family or to the court. \_\_\_\_\_

10) In roughly how many instances have you made a recommendation that a youth receive a substance abuse or co-occurring disorders **evaluation** as a result of their CRAFFT scores? And I am speaking about recommendations either to the youth and family or to the court. \_\_\_\_\_

11) In roughly how many instances have you made a referral (or a recommendation to the youth and parent) for an **immediate mental health consultation** or similar form of care as a result of a youth's MAYSI scores? \_\_\_\_\_

12) Has the number of youth identified as having a mental health problem in need of an evaluation or immediate attention been more, less, or the same than you would have expected?

0. Less than I expected 1. About the same as I expected 2. More than I expected

13) Those are all the questions I have. But is there anything you would like to mention that would be helpful for us to know about how to improve your implementation process for the SAVRY, MAYSI, or CRAFFT? (lots of space here)

**14. Interviewer comments on MAYSI or CRAFFT-related:**

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## RABS 10-Month Post-Implementation Interview

ID: \_\_\_\_\_ Probation Office: \_\_\_\_\_

Gender: 1. Male 2. Female

Interviewer: \_\_\_\_\_ Date: \_\_\_ / \_\_\_ / \_\_\_

I am \_\_\_\_\_ and I am conducting this interview as part of the RABS project to ask you some questions about your experience with the SAVRY, MAYSI and CRAFFT now that your office has been using it at least 10 months. This should take no more than 30 minutes. Your individual responses will be kept strictly confidential and will be accessible only to members of the research group. Your name is not recorded anywhere on this survey so we cannot connect your responses back to you. No reference will be made in any oral or written reports that could connect you to this evaluation. Instead, we will report any results from these surveys as the average responses across staff in your state. This interview is voluntary and you can stop at any time. There will not be any consequences to you or your employment if you chose not participate.

We are conducting this survey to better assist your probation office with the screening and assessment procedures and it will help us to interpret your probation data. We are NOT personally or financially invested in the outcome. DOES THIS SOUND OKAY TO YOU?

Please answer all of the questions to the best of your ability. There are no “right” or “wrong” answers.

### Current position:

1. Probation officer/juvenile officer \_\_\_\_\_
2. Intake officer \_\_\_\_\_
3. Supervisor \_\_\_\_\_
4. Other \_\_\_\_\_ Please Specify: \_\_\_\_\_

How long have you been in current your position? \_\_\_\_\_ Years \_\_\_\_\_ Months

How long have you been working with justice-involved youth? \_\_\_\_\_ Years \_\_\_\_\_ Months

Race: 0 - White 1 - Black/African American 2 - Asian 3 - East Indian  
4 - American Indian/Alaska Native 5 - Middle Eastern 6 - Pacific Islander/Native Hawaiian 7 -  
Other (specify: \_\_\_\_\_)

Ethnicity: 0 Non-Hispanic 1 Hispanic

## SAVRY QUESTIONS

10) Have you been trained how to complete the SAVRY? 0. No 1. Yes

11) Have you had an opportunity to conduct a SAVRY assessment? 0. No 1. Yes 9. N/A  
IF NO to #2, Why haven't you had an opportunity to use the SAVRY?

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### IF THE SAVRY IS NOT PART OF THEIR JOB, MARK N/A & SKIP TO SUPERVISOR QUESTIONS IF APPLICABLE AND MAYSIS QUESTIONS IF NOT

#### IF YES TO #2:

12) Roughly how many SAVRY's would you say you have done up to this point? \_\_\_\_\_

13) Roughly what percentage of these were conducted pre-adjudication? \_\_\_\_\_

14) Roughly what percentage were conducted after adjudication but before disposition? \_\_\_\_\_

15) Roughly what percentage were conducted after disposition – meaning soon after disposition (within 30 days of disposition)? \_\_\_\_\_

16) What percentage of your SAVRYs were conducted on existing cases on your case load that may have come up for a court review? \_\_\_\_\_

17) What percentage of your SAVRYs were conducted on a case as a result of a probation violation?  
\_\_\_\_\_

#) Roughly how long does it take you to conduct and rate the first SAVRY for a youth (including review of collateral information)? \_\_\_\_\_ hours (NOTE: This should be entered as hours – if they give you days transform it into hours)

18) Have there been any instances where you should have conducted a SAVRY on a case according to your office policy, but you did not or you were unable to? 0. No 1. Yes 9. Don't know (note to interviewer – it will be important to check the accuracy of their statement based on their actual policy and the way they answered their previous questions. If Pulaski – all SAVRYs should be #5, #7, or #8 above; in other counties all SAVRYs should be #4 or #5. In RI, all SAVRYs will be #7 or #8)

8a) (IF NO) So no youth who should have received a SAVRY were missed? 0. No, none were missed 1. Yes, some were missed

8b) (IF YES) In roughly how many cases have SAVRY's been missed? \_\_\_\_\_

8c) (IF YES) Under what circumstances has this happened?

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19) When you conduct interviews for the purpose of completing the SAVRY – do you:

- a. Interview the Parent and Youth together
- b. Interview the Parent and Youth separately
- c. Interview them together for part of the interview and separately for part of the interview

10) Are you asked to make recommendations to the court about **disposition on new cases**?  
Meaning specifically whether the youth should be supervised on probation, committed to the state  
DYS, or receive some other form of supervision? I will ask you about the conditions of probation and  
services later. 0. No 1. Yes

10a) (If YES) Have you used the SAVRY in these recommendations? 0. No 1. Yes  
**IF NO TO 10a** – Why not? What is the biggest barrier to using the SAVRY for disposition  
recommendations? \_\_\_\_\_  
\_\_\_\_\_

#) (**AR ONLY**) IF YES, do you give the “Disposition recommendations” form to the judge in  
every case? 0. No 1. Yes

#) IF NO, Why not? \_\_\_\_\_

**IF YES TO 10a** – For the next few questions pertaining specifically to disposition, please respond on  
a 7-point scale, with 0 = Never and 7 = Always

How often do you.....

10b. ... make a recommendation that corresponds with the risk level on the SAVRY? \_\_\_\_\_

10c. .... make a more restrictive recommendation than the SAVRY’s risk level indicates? \_\_\_\_\_

10d. .... make a less restrictive recommendation than the SAVRY’s risk level indicates? \_\_\_\_\_

10e. .... make a recommendation without consulting the SAVRY? \_\_\_\_\_

*consider adding a note under 10e (and all the others like it) that it is backwards*

11) Are you asked to make recommendations to the court about how to handle **a youth who  
committed a probation violation or a new charge while on probation**? 0. No  
1. Yes

11a) (If YES) Have you used the SAVRY in these recommendations? 0. No 1. Yes  
**IF NO TO 11a** – Why not??  
\_\_\_\_\_  
\_\_\_\_\_

**IF YES TO 11a** – For the next few questions pertaining specifically to your use of the SAVRY in  
probation violations or when handling youth on probation who receive new charges, please respond  
on a 7-point scale, with 0 = Never and 7 = Always

How often do you.....

11b. ... make a recommendation that corresponds with the risk level on the SAVRY? \_\_\_\_\_

11c. .... make a more restrictive recommendation than the SAVRY’s risk level indicates? \_\_\_\_\_

11d. .... make a less restrictive recommendation than the SAVRY’s risk level indicates? \_\_\_\_\_

11e. .... make a recommendation without consulting the SAVRY? \_\_\_\_\_

12) Now I am going to ask you about referrals to **services and making case management plans** for  
youth on probation? By “services”, I mean treatment related services such as life-skills courses,  
therapy, etc. I am not referring to restrictions youth may have like electronic monitoring, community  
service, etc. Which answer best describes your situation:

0. Services are determined by the judge w/o my recommendation

1. Services are determined by the judge with my recommendation

2. The services and case plan are determined completely by me

12a) (IF 0 or 1 above) Do you have the ability to suggest additional services or activities to the youth and/or their parents?

0. No

1. Yes, but I rarely do (Note: if they say yes, prompt them by asking if they do it rarely or frequently)

2. Yes, and I frequently do

12b) Have you used the SAVRY in either your service decisions, service recommendations to the judge, or service suggestions to the youth or parents? 0. No 1. Yes 9. N/A

IF NO TO 12b – Why not? What is the biggest barrier to using the SAVRY in your case planning? \_\_\_\_\_

---

**ASK FOR EVERYONE DOING SAVRY** For the next few questions pertaining to your service recommendations, please respond on a 7-point scale, with 0 = Never and 7 = Always (or put NA)

**When you have input into service decisions**, how often do you....

12c. .... target the criminogenic needs identified by the SAVRY (for example, peer relations, disruptive behavior/personality, family/parenting, education/employment)? \_\_\_\_\_

12d. .... disregard some criminogenic needs that are identified by the SAVRY? \_\_\_\_\_

12e. .... target needs that are not identified by the SAVRY? \_\_\_\_\_

12f. .... make a decision/recommendation about services without consulting the SAVRY? \_\_\_\_\_

#) Have you seen your probation department's service matrix? 0. No 1. Yes

#) If yes, have you used it to identify appropriate services for any youth on your caseload? 0. No 1. Yes

No 1. Yes

13) Do you use some form of written case plan to record services that youth are receiving or are referred to? 0. No 1. Yes

13a) (RI Only) Does your case plan align with the SAVRY criminogenic need areas?

0. No 1. Yes 9. Don't know

13b) (AR Only) For what percentage of youth on your case load have you completed the case plan that was implemented as part of the RABS project? \_\_\_\_\_

13c) If NO, are you inputting the services youth receive into Contexte? 0. No 1. Yes –  
REPLACE WITH:

#) (AR) Are you inputting the services youth receive into Contexte? 0. No 1. Yes

#) (RI) Are you inputting the services youth receive into RICHIST? 0. No 1. Yes

14) Do you make decisions or recommendations about the **level of supervision** youth will receive while on probation? 0. No 1. Yes

14a) (If YES) have you used the SAVRY to make decisions about levels of supervision? 0. No 1. Yes 9.N/A



**IF NO TO 14a** – Why not? What is the biggest barrier to using the SAVRY in your supervision level decisions? \_\_\_\_\_

---

**IF YES TO 14** – For the next few questions pertaining to supervision level, please respond on a 7-point scale, with 0 = Never and 7 = Always

How often do you.....

14b. ... make a decision about a supervision level that corresponds with the risk level on the SAVRY?  
\_\_\_\_\_

14c. ... make a decision about a more restrictive level of supervision than the SAVRY's risk level indicates? \_\_\_\_\_

14d. ... make a decision about less restrictive level of supervision than the SAVRY's risk level indicates? \_\_\_\_\_

14e. ... make a decision about supervision level without consulting the SAVRY?  
\_\_\_\_\_

#) Have you conducted any SAVRY reassessments yet for youth on your caseload? 0. No 1. Yes

#) How do you know when it is time to conduct a reassessment (how often should it be done)?  
\_\_\_\_\_

\_\_\_\_\_ (NOTE: we are looking for them to say something like they do it every 6 mths)

**15. Interviewer SAVRY-related comments:**

---

**QUESTIONS FOR SUPERVISORS ONLY**

1. Have you (or some other designated party) been reviewing POs' initial SAVRY assessments to ensure these are being conducted when they are supposed to be? 0. No 1. Yes
  2. Have you (or some other designated party) been reviewing POs' SAVRY assessments to check that these are being completed properly, mainly
    - a. ...that the overall risk level seems to be consistent with the rest of the assessment? 0. No 1. Yes
    - b. .... That POs are selecting the right criminogenic need areas and only 0 to 3 need areas to focus on? 0. No 1. Yes
  3. Have you (or another designated party) been reviewing POs' case plans to ensure they are using the SAVRY in their decisions, including level of supervision decisions? 0. No 1. Yes
  4. Could you describe your quality assurance or supervisory approval process for the SAVRY and subsequent recommendations or case planning decisions?
- 

**MAYSI & CRAFT QUESTIONS**

- 9) Have you been trained on the MAYSI and CRAFT? 0. No 1. Yes

10) Have you conducted any MAYSI or CRAFFT Screening? 0. No 1. Yes 9. N/A  
IF NO to #2, Why not? (Note: in Pulaski the POs do not do this – only the intake workers do)

---

**IF THE MAYSI/CRAFFT ARE NOT PART OF THEIR JOB, MARK N/A & END INTERVIEW**

**IF YES TO #2:**

11) Roughly how many MAYSI's & CRAFFT's would you say you have done up to this point? \_\_\_\_\_

12) Roughly what percentage of these were conducted pre-adjudication? \_\_\_\_\_

13) Roughly what percentage were conducted after adjudication but before disposition? \_\_\_\_\_

14) Roughly what percentage were conducted after disposition – meaning soon after disposition (meaning within 30 days after disposition)? \_\_\_\_\_

15) Have there been any instances where you should have conducted a MAYSI & CRAFFT on a case according to your office policy, but you did not or were unable to? 0. No 1. Yes 9. Don't know

(note to interviewer - *meaning youth always receive the screening at intake and all youth who get an intake are screened*)

8a) (IF YES) In roughly how many cases has the MAYSI/CRAFFT been missed? \_\_\_\_\_

8b) (IF YES) Under what circumstances has this happened?

9) In roughly how many instances have you made a recommendation that a youth receive a mental health or co-occurring disorders **evaluation** as a result of their MAYSI scores? And I am speaking about recommendations either to the youth and family or to the court. \_\_\_\_\_ 99. N/A

10) In roughly how many instances have you made a recommendation that a youth receive a substance abuse or co-occurring disorders **evaluation** as a result of their CRAFFT scores? And I am speaking about recommendations either to the youth and family or to the court. \_\_\_\_\_ 99. N/A

11) In roughly how many instances have you made a referral (or a recommendation to the youth and parent) for an **immediate mental health consultation** or similar form of care as a result of a youth's MAYSI scores? \_\_\_\_\_ 99. N/A

13) Those are all the questions I have. But is there anything you would like to mention that would be helpful for us to know about how to improve your implementation process for the SAVRY, MAYSI, or CRAFFT? (lots of space here)

**14. Interviewer comments on MAYSI or CRAFFT-related:**

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## APPENDIX B: DISPOSITION RECOMMENDATIONS FORM

## Social History and Disposition Recommendations

Name:

Docket#:

DOB:

Assessment Conducted by:  
Date Assessment Conducted:  
SSN:

Court Date:  
Probation Officer:  
Driver's License:

### Social History

**Prior Court Involvement:**

**Family history of violence and offending:**

**Home environment:**

**Education and employment:**

**Peer interactions:**

**Health and mental health:**

**Substance abuse:**

**Neighborhood and community:**

**Overall attitudes and emotions:**

Submitted by:

Print

Date

---

Signature

## Social History and Disposition Recommendations

Name:

Docket:

DOB:

### Assessments & Disposition Recommendations

#### SAVRY Assessment

The above youth presently presents as the following risk for serious re-offending:

- Low Risk                       Moderate Risk                       High Risk

The following needs were identified as significantly increasing the likelihood of re-offending if not addressed:

<input type="checkbox"/>	Family/Parenting:	
<input type="checkbox"/>	Education/Employment:	
<input type="checkbox"/>	Emotional Stability:	
<input type="checkbox"/>	Substance Abuse:	
<input type="checkbox"/>	Disruptive Behaviors/Personality:	
<input type="checkbox"/>	Negative Peers:	
<input type="checkbox"/>	Attitudes/Orientation:	
<input type="checkbox"/>	Other:	

The youth has the following protective factors that may decrease the likelihood of re-offending:

The youth lacks the following protective factors that may increase the likelihood of re-offending:

Additional information regarding risk:

#### Behavioral Health Screening

**MAYSI-2** – screen for potential mental health problems. Youth  *Did*  *Did Not* score as a critical case.

**CRAFTT** - screen for substance use problems. Youth  *Did*  *Did Not* score as a critical case.

**Recommendation:**     a mental health evaluation                       a substance use evaluation  
 a co-occurring disorders/dual diagnosis evaluation     No further action

#### **Disposition Recommendations:**

**Recommended Supervision level:**     Low                       Moderate                       High

Priority Need Areas	Services/Action Recommended

## APPENDIX C: CASE PLAN FORM

## CASE SUPERVISION PLAN (SAVRY, MAYSI, CRAFFT)

**Name:** \_\_\_\_\_ **DOB:** \_\_\_\_\_ **Age:** \_\_\_\_\_ **PIDM #:** \_\_\_\_\_  
**Gender:** Choose Gender **Ethnicity:** Choose Ethnicity **Race:** Choose Race  
 If other, please indicate: \_\_\_\_\_

**Probation Officer:** \_\_\_\_\_ **Probation Start:** \_\_\_\_\_

**Detained Pre-Adjud?** Yes/No

**Pre-Adj Detention Start Date:** \_\_\_\_\_ **Pre-Adj Detention End Date:** \_\_\_\_\_

**SUPERVISOR SIGNATURE:** \_\_\_\_\_ **DATE:** \_\_\_\_\_

### REVIEW HISTORY DATES/SUPERVISION LEVEL

Date of Initial Plan and Reassessment(s)	Risk Level from SAVRY	Assigned Supervision Level

### Service Participation Rating Scale

X	Referral pending	3	Successfully completed service
0	No progress/willful non-compliance	4	Condition removed, waived, or replaced - no space/ problem with service
1	Less than expected progress, sporadic/poor participation	5	Condition removed, waived, or replaced - another reason
2	Expected progress		

## NEED AREAS/GOALS

- Historical risk factors are in *italics* and should be considered for intervention if rated as relevant or critical
- **Check off risk factors with ratings of High or if rated as critical, and protective factors rated as Absent**

### Disruptive Behaviors/Personality

- |  |  |
|--|--|
| <input type="checkbox"/> Risk Taking / Impulsivity (#18)<br><input type="checkbox"/> Anger Management Problems (#20)<br><input type="checkbox"/> Other _____ | <input type="checkbox"/> Low Empathy / Remorse (#21)<br><input type="checkbox"/> Attention Deficit/Hyperactivity |
|--|--|

	Objective Goal	Service Provider	Service Type	Referral Date	Start Date	End Date	Participation <small>(use rating scale above)</small>
1							
Actions taken to arrange services:							
Note any special factors about the youth and/or his/her circumstances you considered when selecting this service (examples at end)							
2							
Actions taken to arrange services:							
Note any special factors about the youth and/or his/her circumstances you considered when selecting this service:							

### Examples of special factors to be considered when selecting services that would be the best “fit” for the juvenile:

- |  |   |   |
|--|---|---|
| <ul style="list-style-type: none"> <li>• Poor social skills</li> <li>• Financial/housing problems</li> <li>• Shy/withdrawn</li> <li>• Physical health problems</li> <li>• Communication barriers (e.g., language)</li> <li>• Low IQ / developmental delay</li> </ul> | <ul style="list-style-type: none"> <li>• Learning disability</li> <li>• Psych. functioning (e.g., anxiety, depression, or psychosis)</li> <li>• Personality characteristics</li> <li>• Medication needs</li> <li>• Cultural issues</li> </ul> | <ul style="list-style-type: none"> <li>• Motivation of youth or parents to participate</li> <li>• Female-specific issues (e.g., mothering)</li> <li>• Uncooperative parent</li> </ul> |
|--|---|---|



## Attitudes /Orientation

Negative Attitudes (#17)

Past Supervision/Intervention Failures (#4)

Poor Compliance (#23)

Other:

	Objective Goal	Service Provider	Service Type	Referral Date	Start Date	End Date	Participation (use rating scale above)
1							

Actions taken to arrange services:

Note any special factors about the youth and/or his/her circumstances you considered when selecting this service (examples at end)

2							
---	--	--	--	--	--	--	--

Actions taken to arrange services:

Note any special factors about the youth and/or his/her circumstances you considered when selecting this service:

## Education/Employment

Poor School Achievement (#10)

Low Interest / Commitment to School (#24)

Other

	Objective Goal	Service Provider	Service Type	Referral Date	Start Date	End Date	Participation (use rating scale above)
1							

Actions taken to arrange services:

Note any special factors about the youth and/or his/her circumstances you considered when selecting this service (examples at end)

2							
---	--	--	--	--	--	--	--

Actions taken to arrange services:

---

Note any special factors about the youth and/or his/her circumstances you considered when selecting this service:

**Emotional Stability**

**MAYSI-2 date:**

**Location MAYSI-2 completed:**

**MAYSI-2 results:**       *Did*       *Did Not* score as a critical case

Recommendations from a psychological evaluation (if one was conducted):

Previous Mental Health Diagnoses:

Current Mental Health Diagnoses:

Youth has no previous or current mental health diagnoses

*History of Self-Harm or Suicide Attempts (#5)*

*Stress and Poor Coping (#13)*

*Other*

	Objective Goal	Service Provider	Service Type	Referral Date	Start Date	End Date	Participation (use rating scale above)
1							

Actions taken to arrange services:

---

Note any special factors about the youth and/or his/her circumstances you considered when selecting this service (examples at end)

2							
---	--	--	--	--	--	--	--

Actions taken to arrange services:

---

Note any special factors about the youth and/or his/her circumstances you considered when selecting this service:

## Family/Parenting

- Exposure to Violence in the Home* (#6)
  *Childhood History of Maltreatment* (#7)
  *Parental/Caregiver Criminality* (#8)
  *Early Caregiver Disruption* (#9)
  *Poor Parental Management* (#14)
  *Lack of Personal/Social Support* (if no support from adult family members) (#15)
  *Other*

	Objective Goal	Service Provider	Service Type	Referral Date	Start Date	End Date	Participation (use rating scale above)
1							

Actions taken to arrange services:

Note any special factors about the youth and/or his/her circumstances you considered when selecting this service (examples at end)

2							
---	--	--	--	--	--	--	--

Actions taken to arrange services:

Note any special factors about the youth and/or his/her circumstances you considered when selecting this service:

## Peer Relations

- Peer Delinquency* (#11)
  *Peer Rejection* (#12)
  *Other*

	Objective Goal	Service Provider	Service Type	Referral Date	Start Date	End Date	Participation (use rating scale above)
1							

Actions taken to arrange services:

Note any special factors about the youth and/or his/her circumstances you considered when selecting this service (examples at end)

2							
---	--	--	--	--	--	--	--

Actions taken to arrange services:

Note any special factors about the youth and/or his/her circumstances you considered when selecting this service:

--

## Substance Abuse

Substance Abuse Difficulties (#19)

Other

**CRAFFT Score:**

*Did*

*Did Not* score as a critical case.

	Objective Goal	Service Provider	Service Type	Referral Date	Start Date	End Date	Participation (use rating scale above)
1							

Actions taken to arrange services:

Note any special factors about the youth and/or his/her circumstances you considered when selecting this service (examples at end)

2							
---	--	--	--	--	--	--	--

Actions taken to arrange services:

Note any special factors about the youth and/or his/her circumstances you considered when selecting this service:

## Protective Factors to Enhance

Lack of Personal/Social Support (if no support from non-family pro-social adults) (#15)

Prosocial Involvement (#P1)

Strong Social Support (#P2)

Strong Attachments and Bonds (#P3)

Pos. Attitude Towards Intervention & Authority (#P4)

Strong Commitment to School (#P5)

Resilient Personality Traits (#P6)

Other

	Objective Goal	Service Provider	Service Type	Referral Date	Start Date	End Date	Participation (use rating scale above)
1							
Actions taken to arrange services:							
Note any special factors about the youth and/or his/her circumstances you considered when selecting this service (examples at end)							
2							

## **APPENDIX D: PRE-IMPLEMENTATION AND POST-IMPLEMENTATION SAMPLES AFTER MATCH IN ARKANSAS**

**SITE 1**

	<b>Pre- Implementatio n (n = 65)</b>	<b>Post- Implementatio n (n = 65)</b>	<b>Significance Testing</b>
Gender			n.s.
% Male	61.9%	60.9%	
% Female	38.1%	39.1%	
Race			n.s.
% African American	28.3%	26.6%	
/Black	71.7%	71.9%	
% White	0.0%	0.0%	
% Hispanic	0.0%	1.6%	
% Other			
Age at Petition	<i>M</i> = 16.4	<i>M</i> = 16.0	n.s.
% Any Violent Priors	0.0%	0.0%	n.s.
Mean # of Prior Arrests	<i>M</i> = 0.1	<i>M</i> = 0.1	n.s.
Mean # of unique arrest history charge dates	<i>M</i> = 0.2	<i>M</i> = 0.2	n.s.
Most Serious Baseline Charge			n.s.
% Violent	10.8%	6.2%	
% NonViolent	87.7%	93.8%	
% Sex offense (minor)	1.5%	0.0%	

**SITE 2**

	<b>Pre- Implementatio n (n = 57)</b>	<b>Post- Implementatio n (n = 57)</b>	<b>Significance Testing</b>
Gender			n.s.
% Male	68.4%	64.9%	
% Female	31.6%	35.1%	
Race			n.s.
% African American /Black	54.4%	52.6%	
% White	43.9%	45.6%	
% Hispanic	1.8%	1.8%	
% Other	0.0%	0.0%	
Age at Petition	<i>M</i> = 15.9	<i>M</i> = 15.4	n.s.
% Any Violent Priors	10.5%	8.8%	n.s.
Mean # of Prior Arrests	<i>M</i> = 0.2	<i>M</i> = 0.2	n.s.
Mean # of unique arrest history charge dates	<i>M</i> = 0.5	<i>M</i> = 0.4	n.s.
Most Serious Baseline Charge			n.s.
% Violent	22.8%	19.3%	
% NonViolent	77.2%	77.2%	
% Sex offense (minor)	0.0%	3.5%	



**SITE 3**

	<b>Pre- Implementatio n (n = 58)</b>	<b>Post- Implementatio n (n = 58)</b>	
	<i>n(%) or M(SD)</i>	<i>n(%) or M(SD)</i>	Significance Testing
Gender			n.s.
% Male	82.8%	82.8%	
% Female	17.2%	17.2%	
Race			n.s.
% African American /Black	86.2%	86.2%	
% White	12.1%	12.1%	
% Hispanic	1.7%	1.7%	
% Other	0.0%	0.0%	
Age at Petition	<i>M = 15.5</i>	<i>M = 15.7</i>	n.s.
% Any Violent Priors	13.8%	15.5%	n.s.
Mean # of Prior Arrests	<i>M = 0.3</i>	<i>M = 0.4</i>	n.s.
Mean # of unique arrest history charge dates	<i>M = 1.0</i>	<i>M = 1.0</i>	n.s.
Most Serious Baseline Charge			n.s.
% Violent	39.7%	36.2%	
% NonViolent	60.3%	63.8%	
% Sex offense (minor)	0.0%	0.0%	

**SITE 4**

	<b>Pre- Implementation (<i>n</i> = 197)</b>	<b>Post- Implementation (<i>n</i> = 197)</b>	
	<i>n</i> (%) or <i>M</i> ( <i>SD</i> )	<i>n</i> (%) or <i>M</i> ( <i>SD</i> )	Significance Testing
Gender			n.s.
% Male	70.8%	72.1%	
% Female	29.2%	27.9%	
Race			n.s.
% African American /Black	85.0%	82.1%	
% White	14.4%	16.7%	
% Hispanic	0.0%	0.0%	
% Other	0.6%	1.2%	
Age at Petition	<i>M</i> = 15.8	<i>M</i> = 15.7	n.s.
% Any Violent Priors	11.2%	10.2%	n.s.
Mean # of Prior Arrests	<i>M</i> = 0.3	<i>M</i> = 0.3	n.s.
Mean # of unique arrest history charge dates	<i>M</i> = 0.6	<i>M</i> = 0.7	n.s.
Most Serious Baseline Charge			n.s.
% Violent	23.4%	31.5%	
% NonViolent	76.6%	68.5%	
% Sex offense (minor)	0.0%	0.0%	

## REFERENCES

- Andrews, D. A., & Bonta, J. (2010). Rehabilitating criminal justice policy and practice. *Psychology, Public Policy, and Law*, *16*, 39-55. doi:10.1037/a0018362
- Andrews, D. A., & Bonta, J. (2017). *The psychology of criminal conduct* (6th ed.). Abingdon, Oxon: Taylor & Francis.
- Andrews, D. A., Bonta, J., & Hoge, R. (1990). Classification for effective rehabilitation: Rediscovering psychology. *Criminal Justice and Behavior*, *17*(1), 19–52.  
doi:10.1177/0093854890017001004
- Bonta, J., Bogue, B., Crowley, M., & Mottuk, L. (2001). Implementing offender classification systems: Lessons learned. In G. A. Bernfeld, D. P. Farrington, & A. Leschied (Eds.), *Offender rehabilitation in practice* (pp. 227-245). Chichester, UK: Wiley.
- Bonta, J., Bourgon, G., Rugge, T., Gress, C., & Gutierrez, L. (2013). Take the leap: From pilot project to wide-scale implementation of the Strategic Training Initiative in Community Supervision (STICS). *Justice Policy and Research*, *15*, 17-35.  
doi:10.3818/JRP.15.1.2013.17
- Borum, R., Bartel, P., & Forth, A. (2006). *Structured Assessment of Violence Risk in Youth (SAVRY)*. Florida: Psychological Assessment Resources, Inc.
- Borum, R., & Verhaagen, D. (2006). *Assessing and managing violence risk in juveniles*. New York: Guilford Press.
- Chassin, L., Knight, G., Vargas-Chanes, D., Losoya, S. H., & Naranjo, D. (2009). Substance use treatment outcomes in a sample of male serious juvenile offenders. *Journal of Substance Abuse Treatment*, *36*, 183-194.
- Coca-Perraillon, M. (2006). Matching with propensity scores to reduce bias in observational

- studies. Presented at the North East SAS Users Group Conference (NESUG), Philadelphia, PA.
- Cocozza, J. J., & Skowrya, K. R. (2000). Youth with mental health disorders: Issues and emerging responses. *Journal of the Office of Juvenile Justice and Delinquency Prevention, 2*(1), 3-13.
- Copeland, W. E., Miller-Johnson, S., Keeler, G., Angold, A., & Costello, E. J. (2007). Childhood psychiatric disorders and young adult crime: A prospective, population-based study. *American Journal of Psychiatry, 164*, 1668-1675.
- Dhalla, S., Zumbo, B. D., Poole, G. (2011). A review of the psychometric properties of the CRAFT instrument: 1999-2010. *Curr Drug Abuse Rev., 4*(1), 57-64. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/21466499>.
- Eno Louden, J., Skeem, J., Camp, J., & Vidal, S. (2012). Supervision practices in specialty mental health probation: What happens in officer-probationer meetings? *Law and Human Behavior, 36*(2), 108-119.
- Espinosa, E., Sorensen, J, & Lopez, M. (2013). Youth pathways to placement: The influence of gender, mental health need, and trauma on confinement in the juvenile justice System. *Journal of Youth and Adolescence, 42*(12), 1824-1836.
- Fixsen, D. L., Naoom, S. F., Blasé, K. A., Friedman, R. M., & Wallace, F. (2005). *Implementation research: A synthesis of the literature*. Tampa: FL: University of South Florida, Louis de la Parte Florida Mental Health Institute, The National Implementation Research Network (FMHI Publication #231).
- Fleiss, J. L. (1986). *The design and analysis of clinical experiments*. New York: Wiley.
- Flores, A. W., Travis, L. F., & Latessa, E. J. (2004). *Case classification for juvenile corrections:*

*An assessment of the Youth Level of Service/Case Management Inventory (YLS/CMI), final report.* Washington, DC: National Institute of Justice.

- Flores, A. W., Lowenkamp, C. T., Holsinger, A. M., and Latessa, E. J. (2006). Predicting outcome with the level of service Inventory-Revised: The importance of implementation integrity. *Journal of Criminal Justice, 34*(5), 523–529.
- Gatti, U., Tremblay, R. E., & Vitaro, F. (2009). Iatrogenic effect of juvenile justice. *Journal of Child Psychology & Psychiatry, 50*, 991-998. doi:10.1111/j.1469-7610.2008.02057
- Greenhalgh, T., Robert, G., MacFarlane, F., Bate, P., & Kyriakidou, O. (2004). Diffusion of innovations in service organizations: Systematic review and recommendations. *Milbank Quarterly, 82*, 581-629.
- Grisso, T. (2017). Policy brief: Assuring the future of developmental reform in juvenile justice: Recommendations of the fourth wave forecasting project. Retrieved from <http://www.nysap.us/Products.html#FourthWave>
- Grisso, T., & Barnum, R. (2000). *Massachusetts Youth Screening Instrument-Version 2: User's manual*. Sarasota, FL: Professional Resource Press.
- Grisso, T., & Barnum, R. (2006). *Massachusetts Youth Screening Instrument-Version 2: User's manual and technical report*. Sarasota, FL: Professional Resource Press.
- Guebert, A. F., & Olver, M. E. (2014). An examination of criminogenic needs, mental health concerns, and recidivism in a sample of violent young offenders: Implications for risk, need, and responsivity. *International Journal of Forensic Mental Health, 13*, 295-310.
- Guy, L. S. (2008). *Performance indicators of the structured professional judgment approach to assessing risk for violence to others: A meta-analytic survey* (Unpublished doctoral dissertation). Simon Fraser University, Vancouver, British Columbia, Canada.

- Haas, S. M., & DeTardo-Bora, K. A. (2009). Inmate reentry and the utility of the LSI-R in case planning. *Corrections Compendium, 11-16*, 49-52.
- Hoge, R. D., & Andrews, D. A. (2006). *Youth Level of Service/Case Management Inventory: User's manual*. North Tonawanda, NY: Multi-Health Systems.
- Juvenile Justice and Delinquency Prevention Act of 2002, the 21st Century Department of Justice Appropriation Authorization Act, Pub. L. No. 107-273, 116 Stat. 1758.
- Knight, J. R., Shrier, L. A., Bravender, T. D. (1999). A new brief screen for adolescent substance abuse. *Arch Pediatr Adolesc Med., 153*(6), 591-6. doi:10.1001/archpedi.153.6.591
- Latessa, E. J. & Lovins, B. (2010). The role of offender risk assessment: A policy maker guide. *Victims and Offenders, 5*(3), 203-213. doi:10.1080/15564886.2010.485900
- Lipsey, M. W. (2009). The primary factors that characterize effective interventions with juvenile offenders: A meta-analytic overview. *Victims & Offenders, 4*, 124-147.  
doi:10.1080/15564880802612573
- Loughran, Thomas A.; Mulvey, Edward P.; Schubert, Carol A.; Fagan, Jeffrey; Piquero, Alex R.; Losoya, Sandra H. (2009). Estimating a dose-response relationship between length of stay and future recidivism in serious juvenile offenders. *Criminology: An Interdisciplinary Journal, 47*(3), 699-740. DOI: 10.1111/j.1745-9125.2009.00165.x
- Luong, D., & Wormith, J. (2011). Applying risk/need assessment to probation practice and its impact on the recidivism of young offenders. *Criminal Justice & Behavior, 38*, 1177–1199. doi:10.1177/0093854811421596
- MacKenzie, D. L., Wilson, D. B., & Kider, S. B. (2001). Effects of correctional boot camps on offending. *Annals of the American Academy of Political and Social Science, 578*, 126–143.

- Manchak, S., Skeem, J., & Rock, K. (2013). Care, control, or both? Characterizing major dimensions of the mandated treatment relationship. *Law and Human Behavior, 38*(1) 47-57. doi:10.1037/lhb0000039
- McCormick, S., Peterson-Badali, M., & Skilling, T. A. (2017). The role of mental health and specific responsivity in juvenile justice rehabilitation. *Law and Human Behavior, 41*(1), 55-67. doi:10.1037/lhb0000228
- Miller, J., & Maloney, C. (2013). Practitioner compliance with risk/needs assessment tools: A theoretical and empirical assessment. *Criminal Justice and Behavior, 40*, 716-736. doi:10.1177/0093854812468883
- Monahan, J., & Skeem, J. (2014). The evolution of violence risk assessment. *CNS Spectrums, 19*(5), 419-424. doi:10.1017/S1092852914000145
- The National Implementation Research Network (n.d.). "Implementation Drivers." Available at <http://nirn.fpg.unc.edu/learn-implementation/implementation-drivers>. Accessed March 12, 2018.
- National Resource Council. (2013). *Reforming juvenile justice: A developmental approach*. Washington, DC: The National Academics Press. doi:10.17226/14685
- Nelson, R., & Vincent, G.M. (accepted for publication). Matching services to needs and RNR-related case planning: A comprehensive approach. *Criminal Justice and Behavior*.
- Olver, M., Stockdale, K., & Wormith, J. (2009). Risk assessment with young offenders: A meta-analysis of three assessment measures. *Criminal Justice and Behavior, 36*, 329-353. doi:10.1177/0093854809331457
- Peterson-Badali, M., Skilling, T., & Hoqanee, Z. (2015). Implementation of risk assessment in

- case management for youth in the justice system. *Criminal Justice and Behavior*, 42(3), 304-320. doi:10.1177/0093854814549595
- Petrosino, A., Turpin-Petrosino, C., & Guckenburg, S. (2010). Formal system processing of juveniles: Effects on delinquency. *Campbell Systematic Reviews*, 2010(1), 1–88. DOI: 10.4073/csr.2010.1
- Rosenbaum, P. R., & Rubin, D. B. (1983). The central role of the propensity score in observational studies for causal effects. *Biometrika*, 70, 41-55.
- Schubert, C. A., Mulvey, E.P., & Glasheen, C. (2011). Influence of mental health and substance use problems and criminogenic risk on outcomes in serious juvenile offenders. *Journal of the American Academy of Child and Adolescent Psychiatry*, 50, 925-937.
- Seigle, E., Walsh, N., & Weber, J. (2014). *Core principles for reducing recidivism and improving other outcomes for youth in the juvenile justice system*. New York: NY. Council of State Governments Justice Center.
- Shook, J. L. & Sarri, R. C. (2007). Structured decision making in juvenile justice: Judges' and probation officers' perceptions and use. *Children and Youth Services Review*, 29, 1335-1351. doi.org/10.1016/j.childyouth.2007.05.008
- Shrout, P. E., & Fleiss, J. L. (1979). Intraclass correlations: Uses in assessing reliability. *Psychological Bulletin*, 86, 420-428. doi: 10.1037/0033-2909.86.2.420
- Shufelt, J. & Cocozza, J. (2006). *Youth with mental health disorders in the juvenile justice system: Results from a multi-state prevalence study*. National Center for Mental Health and Juvenile Justice. Delmar, N.Y. Retrieved from <https://www.ncmhjj.com/resources/youth-mental-health-disorders-juvenile-justice-system-results-multi-state-prevalence-study>.



- Sickmund, M., Sladky, T.J., Kang, W., & Puzzanchera, C. (2011). "Easy access to the census of juveniles in residential placement." Retrieved from <http://www.ojjdp.gov/ojstatbb/ezacjrp>.
- Singh, J. P., Grann, M., & Fazel, S. (2011). A comparative study of risk assessment tools: A systematic review and metaregression analysis of 68 studies involving 25,980 participants. *Clinical Psychology Review*, 31(3), 499-513. doi:10.1016/j.cpr.2010.11.009
- Skowrya, K. R., & Cocozza, J. J. (2007). *Blueprint for change: A comprehensive model for the identification and treatment of youth with mental health needs in contact with the juvenile justice system*. Washington, D.C.: National Center for Mental Health and Juvenile Justice. Retrieved from [http://www.ncmhjj.com/wp-content/uploads/2013/07/2007\\_Blueprint-for-Change-Full-Report.pdf](http://www.ncmhjj.com/wp-content/uploads/2013/07/2007_Blueprint-for-Change-Full-Report.pdf).
- Skowrya, K., & Powell, S. (2006). *Juvenile diversion: Programs for justice-involved youth with mental health disorders*. Delmar N.Y.: National Center for Mental Health and Juvenile Justice.
- Teplin, L., Abram, K., McClelland, G., Dulcan, M., & Mericle, A. (2002). Psychiatric disorders in youth and juvenile detention. *Archives of General Psychiatry*, 59, 1133-1143.
- Teplin, L., Welty, L.J., Abram, K.M., Dulcan, M. K., & Washburn, J.J. (2012). Prevalence and persistence of psychiatric disorders in youth after detention: A prospective longitudinal study. *Archives of General Psychiatry*, 69, 1031-1043.
- U.S. House of Representatives. (2004). *Incarceration of youth who are waiting for community mental health services in the United States*. Washington, D.C.: Committee on Government Reform. Retrieved from

<http://www.hsgac.senate.gov/download/incarceration-of-youth-who-are-waiting-for-community-mental-health-services>.

Vaughn, M., Salas-Wright, C., DeLisi, M., Maynard, B., & Boutwell, B. (2015). Prevalence and correlates of psychiatric disorders among former juvenile detainees in the United States.

*Comprehensive Psychiatry*, 59, 107-116. doi:10.1016/j.comppsy.2015.02.012

Vieira, T.A., Skilling, T.A., & Peterson-Badali, M. (2009). Matching court-ordered services with treatment needs. *Criminal Justice and Behavior*, 36, 385-401.

doi:10.1177/0093854808331249

Viglione, J., Rudes, D. S., & Taxman, F. S. (2014). Misalignment in supervision: Implementing risk/needs assessment instrument in probation. *Criminal Justice in Behavior*, 42(3), 263-

285. doi:10.1177/0093854814548447

Vincent, G. M., & Grisso, T. (2005). A Developmental Perspective on Adolescent Personality, Psychopathology, and Delinquency. In T. Grisso, G. Vincent, & D. Seagrave (Eds.), *Mental health screening and assessment in juvenile justice* (pp. 3-21). New York: Guilford Press.

Vincent, G. M., Guy, L. & Grisso. (2012). *Risk assessment and juvenile justice: A guidebook for implementation*. New York: Models for Change. Retrieved from

<http://modelsforchange.net/publications/346>

Vincent, G. M., Guy, L. S., Fusco, S. L., & Gershenson, B. G. (2012). Field reliability of the SAVRY with probation officers: Implications for training. *Law and Human Behavior*, 36,

225-236. doi:10.1007/s10979-011-9284-2

Vincent, G. M., Paiva, M., Cook, N. E., Guy, L. S., & Perrault, R. (2012). Impact of risk/needs

assessment on juvenile probation officers' decision-making: Importance of implementation. *Psychology, Public Policy, & the Law*, 18, 546-576.

doi:10.1037/a0027186

Vincent, G. M., Guy, L. S., Perrault, R. T., & Gershenson, B. (2016). Risk assessment matters, but only when implemented well: A multisite study in juvenile probation. *Law and Human Behavior*, 40(6), 683–696. doi:10.1037/lhb0000214

Vincent, G. M., Cope, L. M., Nyalakanti, P., Huang, W., & Kiehl, K. (2017). Callous-Unemotional traits modulate brain drug craving response in high-risk young offenders. *Journal of Abnormal Child Psychology*. doi:10.1007/s10802-017-0364-8

Wasserman, G., McReynolds, L., Schwalbe, C., Keating, J., & Jones, S. (2010). Psychiatric disorder, co-morbidity, and suicidal behavior in juvenile justice youth. *Criminal Justice and Behavior*, 37, 1361-1376. doi:10.1177/0093854810382751

Young, D., Moline, K., Farrell, J., & Biere, D. (2006). Best implementation practices: Disseminating new assessment technologies in a juvenile justice agency. *Crime & Delinquency*, 52(1), 135–158. doi:10.1177/0011128705281752