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ARTICLE *in* INTERNATIONAL JOURNAL OF LAW AND PSYCHIATRY · SEPTEMBER 2014

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## Envisioning the next generation of behavioral health and criminal justice interventions



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### ARTICLE INFO

Available online 22 March 2014

#### Keywords:

Behavioral health  
Criminal justice  
Serious mental illnesses  
Intervention

### ABSTRACT

The purpose of this paper is to cast a vision for the next generation of behavioral health and criminal justice interventions for persons with serious mental illnesses in the criminal justice system. The limitations of first generation interventions, including their primary focus on mental health treatment connection, are discussed. A person–place framework for understanding the complex factors that contribute to criminal justice involvement for this population is presented. We discuss practice and research recommendations for building more effective interventions to address both criminal justice and mental health outcomes.

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### 1. Introduction

Over the past two decades in the United States, there has been a systematic effort to develop and implement interventions to address the needs of persons with serious mental illnesses (SMI)<sup>1</sup> who are involved in the criminal justice system. The need for these interventions was driven in part by the overrepresentation of adults with mental illnesses in the criminal justice system and in part by the pervasive belief that it is socially and clinically inappropriate for most people with SMI to be enmeshed in that system. These factors motivated both federal legislation and state and local policies and mandates to develop targeted responses to reduce the prevalence of justice-involved persons with SMI. These interventions included jail diversion programs, mental health courts, specialized probation and parole caseloads, and forensic mental health services emphasizing psychiatric rehabilitation.

We refer to this collection of interventions by the term “first generation” for two reasons. The first is to acknowledge that these interventions are united by a common philosophy and theme: criminal justice involvement of people with SMI is reduced primarily by providing mental health treatment to these individuals. Correspondingly, the principal objective of first generation interventions was to create or strengthen

linkages to effective mental health services. The treatment emphasis of first generation interventions, while laudable, has overshadowed a growing body of research suggesting that people with SMI have encounters with the criminal justice system for many of the same reasons as people without SMI (Fisher, Silver, & Wolff, 2006). Limiting the focus of intervention to treatment engagement may account for the weak performance of first generation interventions. To date, empirical research on first generation interventions has demonstrated limited effectiveness in terms of improving both criminal justice and clinical outcomes for justice-involved persons with SMI (Martin, Dorken, Wamboldt, & Wootten, 2011). Practice confirms this research: over the past 20 years that these interventions have proliferated, there has been no meaningful decrease in the prevalence of persons with SMI in the criminal justice system (Fazel & Danesh, 2002; Steadman, Osher, Robbins, Case, & Samuels, 2009; Teplin, 1990; Torrey, Kennard, Eslinger, Lamb, & Pavle, 2010).

The second reason, then, for classifying these interventions collectively as “first generation” is to draw attention to the need for a more nuanced and evidence-based foundation for the next generation of interventions. To be effective, research is suggesting that these interventions need to be reframed to more directly account for the multitude of factors contributing to the criminal justice involvement of persons with SMI. These factors are supported by research showing that people with SMI, in general, display many of the same risk factors for criminal involvement as the broader offender population. Effective mental health treatment will be an important response to their unique needs, but focusing primarily on treatment is likely to be insufficient for most persons with SMI in the criminal justice system.

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<sup>1</sup> We use the term “serious mental illnesses” (SMI) to describe major Axis I diagnoses, including schizophrenia spectrum disorders, bipolar spectrum disorders, and major depressive disorders. We also use the term “mental illnesses” to refer to a broader category of any diagnosed mental health condition.

The purpose of this paper is to cast a vision for the next generation of behavioral health and criminal justice interventions by presenting a set of empirically informed individual and environmental factors that directly and indirectly contribute to criminal justice involvement for individuals with SMI and are, therefore, critical targets for intervention. Although justice-involved persons with SMI bear unique stressors attributable to their mental illness, they also have many “normal” risk factors for criminal behavior. Attending to these shared risk factors, when combined with those associated directly with mental illness, provides a richer, more nuanced foundation for the next generation of interventions, which will likely improve their performance in reducing recidivism and psychiatric relapse. Finally, we present practice recommendations for developing the next generation of interventions and suggest a research agenda for the future.

## 2. First generation mental health and criminal justice interventions

The first generation of mental health and criminal justice interventions emerged over growing concern regarding the overrepresentation of persons with SMI involved in the criminal justice system. The first rigorous study to measure the prevalence of SMI in the criminal justice system was conducted by Teplin and colleagues in Chicago’s Cook County Jail (Teplin, 1990; Teplin, Abram, & McClelland, 1996). Using then state-of-the-art field epidemiologic techniques, they estimated a prevalence of SMI of 6.4% for men and 15% for women (Teplin, 1990; Teplin et al., 1996). These rates of SMI and co-occurring substance abuse substantially exceeded the general population rates obtained in the Epidemiologic Catchment Area study (Robins & Regier, 1991). Although prevalence estimates in subsequent studies have varied, a meta-analysis of 62 surveys from 12 countries indicates that roughly 14% of persons in the criminal justice system suffer from one or more SMI (Fazel & Danesh, 2002). Some of the most recent research in U.S. jails estimates the rate of SMI to be approximately 14% and as high as 31% for female inmates (Parsons & Sandwick, 2012; Steadman et al., 2009). Based on this body of research, it is estimated that over one million adults with SMI in the U.S. are under correctional supervision, with most living in the community while being supervised (Ditton, 1999; Glaze & Parks, 2012).

In response to the overrepresentation of persons with SMI in the criminal justice system, numerous first generation interventions were planned, developed, and implemented. These interventions have been situated in a variety of mental health and criminal justice settings, and were predicated on the “criminalization” hypothesis. Psychiatrist David Abramson first used this term in 1972 to describe the “criminalization of mentally disordered behavior,” by which he was referring to the increasing numbers of former state hospital patients who were now found in jails and prisons (Abramson, 1972). It was reasoned, at the time, that the solution to the problem of criminalization resided within the mental health system. That is, it was assumed that untreated symptoms of mental illness caused criminal justice involvement. As a result, the first generation of interventions was grounded in two related beliefs. The first was that the justice system entanglement of persons with SMI was caused either by ineffective access to mental health services or disconnection from services. The second was that developing mechanisms for connecting or reconnecting persons with SMI to mental health treatment would prevent further criminal justice involvement (Fisher et al., 2006).

Federal legislation and state and local policies responded to the growing concern about the criminalization of persons with SMI. In 1997, the Jail Diversion Knowledge Development Application initiative was launched by the U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Mental Health Services (Case, Steadman, Dupuis, & Morris, 2009). The Center for Mental Health Services later supported jail diversion programs through several Targeted Capacity Expansion funding projects. America’s Law Enforcement and Mental Health Project was signed

into law by President Bill Clinton in 2000, which established the Mental Health Courts Program within the U.S. Department of Justice, and provided grants to develop continuing judicial supervision and the coordinated delivery of services to persons with SMI in the criminal justice system (Litschge & Vaughn, 2009). Even more influential was a second piece of federal legislation: the Mentally Ill Offender Treatment and Crime Reduction Act (MIOTCRA), signed by President George W. Bush in 2004, which has authorized over \$50 million in grants to promote the development of first generation interventions (Council of State Governments Justice Center, 2012). The MIOTCRA, informed by President Bush’s New Freedom Commission’s 2004 report, recommended diversion from jails and prisons to mental health treatment programs for persons with SMI as an emerging best practice and cost-saving measure (Litschge & Vaughn, 2009). The MIOTCRA offered incentives for state and local governments to create policies and programs that would foster an environment that was supportive of and hospitable to interventions focusing on mental health service linkage for justice-involved persons with SMI. For example, both California and Florida have developed formal grant programs geared toward crime reduction and reinvestment for persons with SMI (Case et al., 2009).

Guided by the belief about the criminalization of persons with SMI and the effectiveness of existing treatment and services, the first generation of interventions was designed and implemented primarily to divert justice-involved people with SMI to the mental health system, with the goal of establishing an enduring treatment connection between people with SMI and mental health providers. First generation “connecting” interventions were implemented at various intercept points in the justice system, beginning with police, proceeding through the courts, and ending at the point of reentry to the community following a spell of incarceration and/or supervision (Munetz & Griffin, 2006) (for a detailed review of these intervention types, see Epperson et al., 2011; Skeem, Manchak, & Peterson, 2011). These interventions may be situated within criminal justice or mental health settings. Criminal justice interventions generally expand police, court-based, and mandatory supervision practices in ways that use legal means at their disposal to divert persons with SMI to the mental health system. Mental health interventions, on the other hand, are traditionally case management-based services that have been altered to enhance mental health treatment access and adherence for persons with SMI entangled in the criminal justice system.

### 2.1. Criminal justice interventions

Energized by federal funding and cooperative state and local policies, a range of first generation interventions flourished. Focusing primarily on diversion of non-dangerous offenders with SMI from jails and, to a lesser extent, prisons to mental health treatment, these interventions are classified as either “pre-booking” or “post-booking.” Pre-booking diversion refers generally to training police officers to recognize symptoms of SMI and, if possible, transport of persons with SMI to a designated mental health portal in lieu of criminal arrest. In the U.S., the most common pre-booking diversion model is the Crisis Intervention Team (CIT), with over 1000 police departments nationwide indicating that they are implementing this model or have already done so. CIT entails a cadre of specially trained officers who are designated first responders to any call involving a person known or suspected to have a serious mental illness, with the goal of diverting persons with SMI to mental health services (Cochran, Deane, & Borum, 2000; Dupont & Cochran, 2000; Watson, Morabito, Draine, & Ottati, 2008). Post-booking diversion programs divert persons with SMI to mental health treatment after the individual has undergone processing within the justice system. This type of diversion typically takes place at the point of a court hearing. Mental health courts are the most widely implemented form of post-booking diversion; there were over 250 mental health courts in operation or development as of 2010 (Steadman, Redlich, Callahan, Robbins, & Vesselinov, 2011). Like drug courts, mental health

courts place a priority on treatment goals over punitive sanctions, with compliance with mental health treatment being a mandated condition of graduation from these courts (Epperson, Canada, & Lurigio, 2013; Wolff, 2003).

Another form of post-booking diversion is specialized probation. Some people with SMI who are found guilty of criminal charges are sentenced to a “specialized probation” officer or unit. While under specialized probation, mental health treatment compliance is a common condition of supervision and a requirement for satisfactory completion of probation (Lurigio, Epperson, Canada, & Babchuk, 2012). Features of specialized mental health probation programs include reduced caseloads consisting only of clients with mental disorders, sustained officer training on behavioral health problem management, and active integration of community resources (Skeem & Eno Louden, 2006).

Several reentry assistance interventions have been developed to assist people with SMI after a period of incarceration. An early model, the Forensic Transition Team, brings case workers into correctional settings to identify persons who might be eligible for mental health services and works with them and community providers to create a more seamless transition from treatment in the correctional setting to the community (Hartwell & Orr, 1999). A more recent model, Critical Time Intervention, uses time-limited case management services during the transition period of reentry to enhance engagement with mental health services and supports in the community (Draine & Herman, 2007).

## 2.2. Mental health interventions

First generation interventions located in the mental health system are typically variants on evidence-based mental health services available in the community. Two types of services in particular have gained prominence. They are: Forensic Assertive Community Treatment (FACT), based on the Assertive Community Treatment (ACT) model and Forensic Intensive Case Management (FICM), based on Intensive Case Management (ICM). ACT is a well established evidence-based practice that has achieved broad success in, among other things, reducing the use of psychiatric hospitalization (Stein & Santos, 1998). Like ACT, FACT uses a multidisciplinary team that includes psychiatrists, nurses and case managers, and grafts onto it a forensic specialty component. This may include receiving referrals for FACT services directly from the criminal justice system or having a probation officer as a member of the FACT team. The purpose of these relationships is to facilitate jail diversion and assure linkage to mental health treatment (Lamberti, Weisman, & Faden, 2004). Building on Intensive Case Management, which responds to the needs of high service users and delivers assertive outreach on an indefinite basis, FICM programs focus on justice-involved clients and employ case managers with specialized training in forensics. FICM programs emphasize linking to and coordination of services over direct service provision. Both FACT and FICM programs occasionally work in conjunction with local probation departments to coordinate both the mental health and criminal justice systems' expectations for engagement in mental health treatment (Lamberti, Deem, Weisman, & Laduke, 2011).

## 2.3. Limitations of first generation interventions

The outcome research on first generation interventions is quite thin, but is beginning to build.<sup>2</sup> Least is known about FICM, specialized probation caseloads, and critical time intervention, which are relatively new intervention models.<sup>3</sup> But even where the intervention research is somewhat more robust, such as with CIT, mental health courts, and FACT, the evidence base is fraught with methodological problems that

compromise generalizability. Some of the more significant methodological issues include: the lack of appropriate comparisons to competing alternatives; non-randomization of clients to intervention or interventions to setting; and limited follow-up periods to measure psychiatric and criminal justice outcomes. In a recent review of first generation efforts, Dvoskin, Skeem, Novaco, and Douglas (2011) assert that the evaluations of first generation interventions have not been rigorous enough to ascertain whether they are more than minimally effective.

Several recent research reviews have been conducted on first generation interventions. Martin et al. (2011) conducted a meta-analysis of 25 studies of diversion and institutional interventions, slightly less than half of which would fall under our designation of first generation interventions (i.e. mental health court, jail diversion, and forensic case management services). The authors found that all but one study demonstrated some effectiveness in the area of reducing subsequent arrests and days spent in jail. However, there were no significant effects of these interventions on mental health service utilization or medication use, and the authors note the absence of mental health outcome data in many of the studies reviewed (Martin et al., 2011). While these programs may have shown modest results in reducing recidivism, it is not clear that these improved outcomes were achieved by improving psychiatric symptoms.

In a separate study, Skeem et al. (2011) reviewed some of the most rigorous studies of first generation interventions to date, including jail diversion, mental health courts, specialized probation, re-entry programs, FACT, and FICM. Of the studies reviewed, several criminal justice-based models demonstrated mixed effectiveness on recidivism reduction, and FACT and FICM showed little to no effect on reducing criminal recidivism. None of the six jail diversion programs examined in this review demonstrated a reduction in arrests, although two showed some reduction in days incarcerated. Most interesting was their finding of no relationship between the reduction of symptoms of SMI and reduced recidivism across the interventions (Skeem et al., 2011). Watson et al. (2008), reviewing the numerous studies on CIT, found that, while CIT training improves officer knowledge and attitudes regarding SMI, all but one study showed no reduction in arrests of persons with SMI (Watson et al., 2008).

These studies highlight two important deficiencies of first generation interventions and their evaluation. First, many studies of first generation interventions focus primarily on criminal justice outcomes, such as re-arrest, jail days, or injuries to officers occurring during “mental health calls” to the exclusion of mental health outcomes. Second, those studies that do evaluate both types of outcomes find little to no relationship between mental health outcomes (i.e., symptom reduction or increased service utilization) and reduced criminal justice involvement. In fact, only one rigorous study of a first generation intervention (FACT) has found the “connecting” intervention to significantly increase outpatient mental health utilization and reduce arrests (Cusack, Morrissey, Cuddeback, Prins, & Williams, 2010).

While over the past two decades, states and localities have been resoundingly successful in implementing first generation interventions, these interventions, in sharp contrast, have been less successful in demonstrating their effectiveness or efficiency in reducing recidivism or increasing psychiatric recovery, which was their two-pronged objective. Indeed a recent report by the Treatment Advocacy Center entitled *More Mentally Ill Persons in Jails and Prisons than Hospitals: A Survey of the States* (Torrey et al., 2010) describes a persistent overrepresentation of persons with SMI in the criminal justice system in spite of the proliferation of targeted interventions. This conclusion is substantiated by numerous studies that, when viewed over a 20-year period, show no meaningful decrease in the proportion of persons with SMI in the criminal justice system (Teplin, 1990; Teplin et al., 1996; Fazel & Danesh, 2002; Parsons & Sandwick, 2012; Steadman et al., 2009).

This, then, begs the question: Why have first generation interventions been so impotent? What explains their lack of ability to depopulate the nation's jails and prisons of persons with SMI? Here there is

<sup>2</sup> Detailed reviews of the research evidence for the specific interventions can be found elsewhere (see: [http://www.cbhs-cjr.rutgers.edu/intervention\\_fact.html](http://www.cbhs-cjr.rutgers.edu/intervention_fact.html)).

<sup>3</sup> Two studies of critical time intervention focusing on reentering prisoners are currently underway (see: [http://www.cbhs-cjr.rutgers.edu/pdfs/Fact\\_Sheet\\_CTI\\_1\\_2009.pdf](http://www.cbhs-cjr.rutgers.edu/pdfs/Fact_Sheet_CTI_1_2009.pdf)).

more speculation than evidence. Some argue that first generation interventions have not reduced the justice involvement of persons with SMI, despite their goal, because they have failed to provide adequate mental health treatment to their clients (Boothroyd, Poythress, McGaha, & Petril, 2003; Broner, Lattimore, Cowell, & Schlenger, 2004). That is, they argue for more mental health services to achieve the goals of first generation interventions. While this may explain some of the lackluster performance of evaluated interventions, the argument is not compelling in general. In a review of ACT services, less than 20% of reviewed studies found that ACT (which is well-established as an evidence-based mental health treatment) reduced time incarcerated (Bond, Drake, Mueser, & Latimer, 2001). That is, even one of the mental health system's most effective evidence-based interventions, ACT, has performed poorly on criminal justice outcomes. Similarly, a recent study of administrative data for persons with SMI with previous criminal justice involvement, receiving outpatient services was associated with a modest reduction in subsequent arrests, though receiving inpatient or emergency services was associated with an increase in arrests (Constantine, Robst, Andel, & Teague, 2012).

Others might argue that first generation interventions have not achieved their macro-goal of depopulating the nation's prisons and jails because they have not adequately addressed the need for intervention within the criminal justice system. Indeed the limited penetration of the broader offender population by first generation interventions has been previously noted (Epperson et al., 2011; Wolff & Pogorzelski, 2005). This suggests that if the number of locales implementing first generation interventions was simply doubled or tripled, a meaningful decline would be expected in the prevalence of incarcerated people with SMI. But this has not been empirically observed. Over the past 20 years, as first generation interventions have proliferated and received significant structural and financial support, there has been no evidence of depopulation. This result makes sense in light of the effectiveness research. The overall effectiveness of first generation interventions is determined by the marginal change in key outcomes (e.g., recidivism, psychiatric recovery) yielded by the intervention multiplied by their number. If the marginal change per intervention is small or null, increasing the number of these programs within a state will do very little to change the prevalence of people with SMI who are incarcerated.

Another more plausible explanation is that the fundamental beliefs underpinning the first generation interventions are faulty. First generation interventions have strongly coalesced around a singular objective — to link offenders with SMI to mental health treatment, and they are predicated on the criminalization hypothesis, which asserts that offenders with SMI are engaging in criminal behavior mainly because of their mental illness. But what if, generally speaking, the driving force behind the justice-involvement of persons with SMI is more than the symptoms of mental illness? This is not to say that some portion of people with SMI may be tangled in the criminal justice system solely because of untreated symptoms. But, more generally, there is a growing consensus that this explanation does not account for the majority of persons with SMI under correctional supervision (Draine, Salzer, Culhane, & Hadley, 2002; Fisher et al., 2006). In fact, a recent estimate suggests that the symptom-based criminalization explanation accounts for only one in ten offenders with SMI (Skeem et al., 2011).

With persistently high rates of incarcerated persons with SMI and the requirements of the 8th Amendment, it has been incumbent on correctional facilities to respond to the treatment needs of this population. Jails and prisons have responded by importing community-based mental health services, such as crisis intervention, medication monitoring, suicide prevention, and symptom management into incarceration settings. A meta-analysis of 26 studies by Morgan et al. (2011) yielded inconclusive results for these types of correctional mental health services on criminal and psychiatric recidivism, though some individual studies demonstrated promise in improving these outcomes. Unlike first generation interventions, correctional mental health services were not systematically developed, but resulted from correctional

facilities responding individually to local institutional needs and constitutional requirements. What also separates these programs from our classification of first generation interventions is that the reason for providing mental health services was not diversion but rather safe management of incarcerated persons with SMI. These programs, like their first generation counterparts, focused primarily on treating mental illness at the cost of more holistic services (Bewley & Morgan, 2011). It is not surprising, then, that the combined efforts of first generation interventions and correctional mental health services have not systematically or incrementally reduced the prevalence of SMI in the criminal justice system.

### 3. The next generation of behavioral health and criminal justice interventions

To efficiently achieve the objective of depopulating prisons and jails of people with SMI, more potent interventions are in order. Getting from here to there requires learning from the successes and limitations of first generation programs. Two lessons are most prominent. First, effective and accessible mental health treatment will be an active component of any intervention for this population but mental health treatment alone, or as traditionally designed, is not sufficient (Frank & McGuire, 2011; Skeem et al., 2011). Second, a richer, more refined understanding of the multiple and complex factors, in addition to mental illness, that place persons with SMI at risk for criminal justice involvement, and the defining of modifiable risk factors as targets for intervention are vital. The incorporation of these lessons into new or adapted intervention models would notably shift the field from first generation interventions and ad hoc correctional programming to the “next generation” of behavioral health and criminal justice interventions.

In this section, we lay the foundation for the next generation of interventions, which is based on a more open and nuanced perspective on what underpins the justice involvement of persons with SMI. Foundationally, we begin to address the issue of justice-involved persons with SMI not from the perspective of what is the desired outcome (e.g., diversion to treatment) and then working backwards to develop interventions that achieve this a priori outcome; but rather, by beginning with a general understanding of factors that contribute to criminal behavior, and by assuming that the experiences of people with SMI are “normal” with respect to many of the factors that place them at risk for criminal justice involvement. Thus, we developed a person–place framework, informed by research that identifies a set of factors known to contribute to criminal behavior, which is then stylized to persons with SMI. These person and place-level risk factors for criminal justice involvement are targets for next generation interventions. We conclude by making practice and research recommendations for the building of the next generation of interventions for justice-involved people with SMI.

#### 3.1. Person–place framework: Attributes of criminality

Relevant empirical and conceptual research from numerous disciplines was synthesized to formulate a person–place framework that identifies changeable risk factors for criminal justice involvement among persons with SMI. This framework is informed by the coping–relapse model, developed by Zamble and Quinsey (1997), which describes a complex series of cognitive, emotional, and environmental factors that interact to influence the criminal recidivism process (Jones, Brown, & Zamble, 2010). The coping–relapse model emphasizes the relationship between an individual's coping behaviors, which are influenced by criminal cognitions, values, attitudes and external factors, such as stressful precipitating events. While the coping–relapse model focuses primarily on dynamic individual-level factors, we build on this model to suggest that both person and place-level factors can be conceptualized as targets for intervention.

In this framework (Fig. 1), two levels of factors are identified: person (individual) and place (environment). Person-level factors include mental illness, criminogenic risk, addictions, and trauma exposure, which will be discussed in greater detail below. These factors work separately, additively, and interactively to affect the risk of criminal justice entanglement. In addition, individuals with SMI often live within environments that increase their risks of criminal justice involvement, as indicated by the outer ring depicting the social and community context or “place” factors, including forms of social and environmental disadvantage. Stress is conceptualized as the interaction of person and place risk factors, which increases the likelihood of behaviors that are harmful to individuals and the community. This catalytic process produces pressure toward criminal justice entanglement for persons with SMI.

As the figure illustrates, for most persons with SMI in the criminal justice system, their path to criminal involvement is not simply explained by a lack of mental health treatment; but rather, by a complex interplay of individual and environmental factors and resulting stress. This is not to say that all people with SMI have identical risk factors. However, it is important to acknowledge the full complement of risk factors to form a general risk model that can then be used to identify which factors are relevant to particular individuals in specific locations. As such, in order for the next generation of behavioral health and criminal justice interventions to effectively reduce the overrepresentation of people with SMI in the criminal justice system, these risk factors must be understood and incorporated as targets for intervention. We will describe person- and place-level factors that have, to varying degrees, not been fully incorporated into first generation interventions, and we suggest ways in which these concepts can inform the next generation of interventions.

### 3.2. Person-level factors

#### 3.2.1. Mental illness

A confluence of person and place factors, including mental illness, directly and indirectly places persons with SMI at risk of criminal justice involvement (Frank & McGuire, 2011). In general, two pathways have been identified to explain how people with SMI become involved in the criminal justice system (Skeem et al., 2011). The first is direct; untreated symptoms of mental illness directly cause criminal behavior. Examples might include violence, stealing, or public urination. In these scenarios, the person may be experiencing delusions that motivate fear and compel behaviors to save self or others from harm, or the person may hear voices that advocate or compel behavior that is antisocial or be so removed from “reality” that behavior is driven more by impulse than by rational processes. Symptoms of mental illness, such as cognitive and functional impairments, may hamper decision making skills and foster impulsivity, or a lack of behavioral inhibition (Najt et al.,

2007), causing antisocial behaviors. Elevated rates of general impulsivity and aggression have been found in mood phases for those diagnosed with bipolar disorder, particularly in the presence of substance abuse (Swann, Anderson, Dougherty, & Moeller, 2001; Swann, Pazzaglia, Nicholls, Dougherty, & Moeller, 2003).

While the propensity of those with SMI toward violence is greatly exaggerated (Pescosolido, Monahan, Link, Stueve, & Kikuzawa, 1999), research shows that persons with SMI display somewhat higher rates of violent behavior than those without SMI (Monahan et al., 2001; Swanson, Holzer, Ganju, & Jono, 1990). One symptom in particular, psychosis, has been found to be associated with violence (Douglas, Guy, & Hart, 2009). However, experts on this subject estimate that positive symptoms of mental illness (i.e. delusions, hallucinations) actually cause only 5 to 8% of violent and criminal acts committed by persons with SMI (Junginger, Claypoole, Laygo, & Cristiani, 2006; Monahan et al., 2001; Peterson, Skeem, Hart, Vidal, & Keith, 2010).

If the untreated symptoms of mental illness are treated, an individual will not be compelled by mental illness to act criminally. However, many people with SMI, whether or not they are symptomatic, may engage in criminal behavior for the same reasons that people without mental illness engage in crime, which leads to the second pathway into the criminal justice system. This way is more indirect, whereby mental illness is mediated by criminogenic risk factors – factors known to predict antisocial behavior, such as how people think, who they associate with, and what they do with their time (Walters, 2011). For example, a high proportion of violence committed by people with SMI is attributed to concurrent abuse of alcohol or other drugs (Fazel, Gulati, Linsell, Geddes, & Grann, 2009; Steadman et al., 1998). Moreover, historical and contextual factors for persons with SMI, such as past victimization, lower income, and recent unemployment are stronger predictors of violence than severe mental illness alone (Elbogen & Johnson, 2009; Monahan & Steadman, 2012). As such, treatment of symptoms related to SMI, concurrent to addressing other factors presented below, is of primary clinical importance for justice-involved persons with SMI. Direct provision or connection to evidence-based treatment of SMI will be a critical component of the next generation of behavioral health and criminal justice interventions.

#### 3.2.2. Criminogenic risk

Over the past 20 years, researchers have identified a variety of individual-level factors that elevate risk of offending behavior. Factors that are most predictive are called the “Central Eight” because, when considered individually, they are most likely to accurately and reliably predict the risk of criminal behavior (Andrews & Bonta, 2006). These factors, or criminogenic needs, include: history of antisocial behavior; antisocial personality patterns; criminal thinking and antisocial attitudes; antisocial associates; family and/or relationship circumstances; school and/or work functioning; leisure and/or recreational activities; and substance abuse (for a full description of these factors, see Andrews & Bonta, 2006). Most of these risk factors are dynamic (i.e., fluid and changeable) and, as such, have been identified as targets for interventions in an effort to reduce criminal recidivism in the general offender population. Although some first generation interventions, such as FACT programs, focused on substance abuse, employment, and family relationships, the factors considered the “Big Four:” history of antisocial behavior, antisocial personality patterns, criminal thinking, and antisocial associates, were largely neglected by first generation interventions. By ignoring these more traditional predictors of criminality, it was implicitly assumed that people with SMI were not “normal” in their criminal behavior, an assumption that has not been supported by empirical inquiry.

Over the past few years, researchers have begun investigating the prevalence of general criminal risk variables among people with SMI. Of particular interest has been criminal thinking and antisocial attitudes among offenders with and without SMI. Two studies are noteworthy. Based on a sample of 416 inmates with SMI, Morgan, Fisher, Duan,

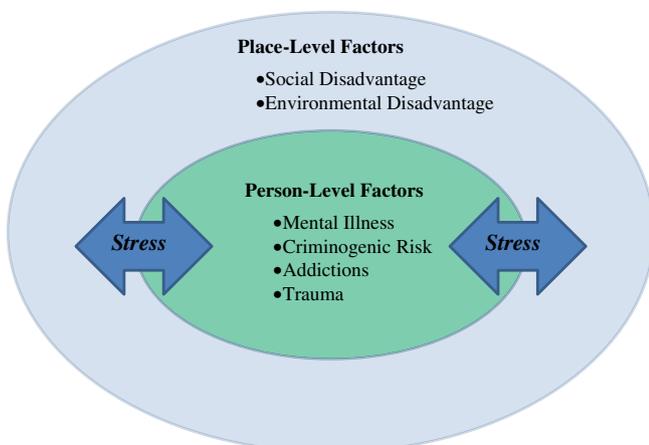


Fig. 1. Person–place framework of factors contributing to criminal justice involvement.

Mandracchia, and Murray (2010) found that inmates demonstrated similar patterns of criminal thinking and antisocial attitudes, regardless of the presence of SMI. More specifically, inmates with SMI, like their counterparts without SMI, endorsed styles of thinking that supported a criminal lifestyle – i.e., they were “normal” in their criminal thinking compared to offenders without SMI. Similar results were found by Wolff, Morgan, Shi, Fisher, and Huening (2011b) based on a sample of 3986 male inmates and 218 female inmates. In this study, inmates with SMI, as well as other mental illnesses (depression, anxiety), displayed antisocial attitudes that were comparable to inmates without mental illnesses, suggesting that these criminogenic risks are prevalent among offenders both with and without SMI.

Just as offenders with SMI possess cognitive styles that are supportive of criminal behaviors, they may share other important risk factors with their non-mentally ill peers. For example, it seems reasonable to suggest, due to downward drift (described below) that persons with SMI are likely to forge relationships with antisocial peers. We know that antisocial peer groups increase the likelihood of criminal involvement (Andrews & Bonta, 2006), and it is possible that antisocial peer groups are even more influential with people with SMI who frequently lack healthy familial supports (Young et al., 2005). That is, with loss of meaningful, prosocial supports, people with SMI may be more likely to socially interact with those involved in crime, and be susceptible to manipulation by these associations (Padgett & Drake, 2008). We also know that reduced educational and occupational opportunities are a central risk factor for crime, and, unfortunately, these limited opportunities are often a reality for people with SMI (Department of Health, & Human Services, Office of the Surgeon General, 1999). Consequently, limited academic and work opportunities are likely to place people with SMI at greater risk for criminal involvement. This is especially true when other primary risk factors, such as antisocial attitudes or substance abuse, are present. As is true for the general offender population, the greater the number of these risk factors, the greater the risk of people with SMI to engage in future criminal acts.

If the Central Eight factors are, to varying degrees, relevant to all justice-involved people, i.e., those with and without mental illnesses, then it is prudent to incorporate them into the next generation of interventions. Failure to address these criminogenic risk factors may continue to limit the effectiveness of mental health treatment on improving both mental health and criminal justice outcomes. More specifically, for people with SMI, ignoring their co-occurring criminogenic needs may constrain treatment effectiveness in ways analogous to ignoring their co-occurring substance abuse problems. From this perspective, the challenge becomes how to address criminogenic risks within a behavioral health orientation, not simply on rerouting mechanisms that channel justice-involved persons with SMI into mental health treatment.

### 3.2.3. Addictions and behavioral patterns

Substance abuse is a central risk factor for criminal involvement and is pervasive among justice-involved persons (Chandler, Fletcher, & Volkow, 2009; James & Glaze, 2006). Not only is drug use in and of itself criminal behavior, but effects on the individual's neurochemistry, paired with secondary offending in support of drug habits (i.e., theft, prostitution, etc.), also render drug use a significant contributor to criminal justice involvement. According to a national survey conducted by the Bureau of Justice Statistics, about 75% of prison and jail inmates with a mental health problem met the criteria for substance dependence or abuse, and drug use prior to arrest was more common among state prisoners with mental health problems than those without (James & Glaze, 2006). Because of the co-morbidity of mental illness and substance disorders, researchers have been exploring the relative impact of these disorders on recidivism. In a large study of Texas parolees, those with a dual diagnosis of SMI and a substance use disorder were at greatest risk of parole revocation (Baillargeon et al., 2009). By contrast, no increased risk of parole revocation was found among parolees with singularly occurring SMI or a substance use disorder. Similarly, jail detainees

with co-morbid SMI and substance use disorders demonstrated increased levels of arrests for property crimes (Swartz & Lurigio, 1999). In an Australian study, psychiatric patients with co-morbid schizophrenia and substance abuse had higher rates of criminal conviction when compared to patients with schizophrenia alone (Wallace, Mullen, & Burgess, 2004). Lastly, Steadman et al. (1998) found co-occurring substance abuse to be a significant predictor of self-reported violent behavior among persons in the community following psychiatric hospitalization.

Justice-involved persons with and without SMI struggle with a variety of other behavioral patterns and personality traits that increase the risk of criminal justice involvement, including addictive personalities, novelty seeking, and tendencies toward instant gratification. Problematic behavioral patterns and addictions may arise in many areas including gambling (Clark & Walker, 2009), eating disorders (Messina & Grella, 2006), sexual risk behaviors (Epperson, El-Bassel, Gilbert, Orellana, & Chang, 2008; Meade & Sikkema, 2005), and other compulsive behaviors. To varying degrees, these thought and behavior patterns may be related to impulsivity or behavioral decision making styles that contribute to criminal involvement. The interaction of these behavioral patterns presents an important factor in criminogenic risk for people with SMI. Incorporating treatment for substance abuse and other compulsive behavioral patterns in the next generation of interventions is likely to enhance the effectiveness of mental health treatment and lead to reduced criminal behavior as well.

### 3.2.4. Trauma exposure

Although trauma exposure alone is not predictive of criminal justice involvement (see Andrews & Bonta, 2006), sexual or physical victimization is a highly relevant issue for people with SMI who are involved in the criminal justice system. A significant association exists between trauma history and addictive behaviors and criminal justice involvement (Wolff & Shi, 2009). While lifetime exposure to a traumatic event is fairly common in general populations, severe physical and sexual victimization are more prevalent among criminal justice populations, particularly those with SMI (Teplin, McClelland, Abram, & Weiner, 2005). Incarcerated adults, especially those with SMI, report extremely high lifetime rates of physical and sexual traumas, often occurring during their formative childhood years through adulthood (Wolff & Shi, 2010; Wolff et al., 2011a). In one study, a majority of 209 female inmates interviewed reported experiencing at least one type of crime-related (58%), general disaster (98%), and/or interpersonal (87%) trauma, and most (74%) reported a childhood history of sexual or physical trauma (Wolff et al., 2011a). Timing and type of trauma among incarcerated people also significantly predict interpersonal problems (e.g., having stormy relationships, not getting along with family members, not having any friends), problems with self regulation (e.g., doing things impulsively, not being able to keep track of money or keep a job, gambling), aggression, and hopelessness (Wolff & Shi, 2012).

Incarceration heightens the risk for further victimization. For example, Wolff, Blitz, and Shi (2007) found that male inmates with SMI, compared to those without SMI, were roughly three times more likely to report incidents of sexual victimization by another inmate. Similar results were also found for physical victimization (Blitz, Wolff, & Shi, 2008). These findings parallel the finding among psychiatric populations; involuntarily committed adults with SMI have been found to experience high levels of trauma as well as a wide range of indignities in controlled institutional environments (Frueh et al., 2005).

The psychological consequences of sexual or physical trauma are potentially severe and include fear, anxiety, depression, anger, guilt, somatic symptoms (e.g., gastrointestinal symptoms), substance abuse, suicidal ideation, and post-traumatic stress disorder (PTSD) (Breslau, Davis, Andreski, & Peterson, 1991; Bryant, 2010). It is not surprising that while rates of PTSD have been estimated at 8% of the adult U.S. population (APA, 2000), among adults with SMI the rates of PTSD are considerably higher, ranging from 13 to 46% (Grubaugh, Zinzow, Paul, Egede, & Frueh, 2011). Recent attention has been drawn to the

importance of trauma-informed care, but first generation interventions have generally not addressed this critical issue among persons with SMI.

### 3.3. Place-level factors

As noted in Fig. 1, place factors contribute to the involvement of persons with and without SMI in the criminal justice system. The environmental or “place” context includes not only the mental health treatment system, but also community characteristics such as high levels of violence, law enforcement presence, homelessness, unemployment, and other forms of disadvantage. More broadly, people with SMI who are enmeshed in the criminal justice system often lack employment and other prosocial skills, contributing to an overall sense of desperation when struggling to address their daily needs. These challenges often occur within disorganized communities, in which discrimination and stigma toward people with SMI further exacerbate risk.

#### 3.3.1. Social disadvantage

Criminologists have repeatedly highlighted the effects of environment and social class on offending. Nearly 80 years ago, Faris and Dunham (1939) coined the term “downward drift” to describe the process by which individuals with SMI move to ever-poorer neighborhoods; this pattern was re-confirmed in a more recent study of people with SMI in four urban areas (Silver, Mulvey, & Swanson, 2002). Drifting into communities with higher levels of social and economic disadvantage increases exposure to crime, violence, drug use, and police supervision, and may be seen as a source of criminogenic risk. Although the causal relationship between SMI symptoms and crime is relatively weak, issues of poverty, under-education, unemployment, and paucity of positive social relationships typically accompany SMI and are likely to contribute more strongly to crime than psychiatric symptomatology (Draine et al., 2002). First generation interventions implemented among populations with high levels of social disadvantage were likely hampered by the effects of these place-level factors on criminal justice involvement.

#### 3.3.2. Environmental disadvantage

In general, having a serious mental illness exposes individuals to high crime environments. People with SMI, who are disproportionately homeless and unemployed, as well as those receiving residential services from mental health agencies or local housing authorities, often reside in areas shared with other persons of low socioeconomic status (Fisher et al., 2006). The economic circumstances of persons with SMI combined with the limits of state mental health agency residential program budgets and other stressors associated with poverty, such as limited or no insurance coverage, trap many of these individuals in low-income, high crime areas (Lurigio, 2011). Characteristic of these neighborhoods, particularly those in inner cities, is the prominence of drug users and dealers as well as others who have significant criminal histories. Crowding people with SMI into these communities increases their exposure to crime, criminal elements, and opportunities for criminal activity, including but not limited to substance use and distribution. Findings from the Massachusetts Mental Health – Criminal Justice Cohort Study indicate that many drug arrests among persons with SMI involve not only possession, but also drug trafficking and manufacturing (Fisher et al., 2007). The fact that persons with SMI take on the level of antisocial behavior characteristic of their surroundings is further reinforced by data from the MacArthur Risk Study, which found that the likelihood of such individuals engaging in acts of interpersonal violence was roughly the same as those of persons without SMI living in the same neighborhoods (Monahan et al., 2001). These environmental disadvantages place individuals with SMI at risk of developing antisocial relationships and attitudes, which are person-level risk factors for criminality.

Failure to consider these issues suggests an additional disconnect between the designers of specialized criminal justice interventions for persons with SMI and what is known about criminal offending in

general. A vast body of criminological research identifies these factors as predictors and correlates of offending. The fact that this body of work has been overlooked in first generation interventions reflects the narrow, psychiatric driven view of causality that guided their development.

### 3.4. Stress as a mediating catalyst

Life is stressful, especially for many persons with SMI who struggle to meet their basic needs, such as food, housing, work, and personal safety. Chronic stress and an overactive autonomic nervous system, stimulated by the body's fight, flight, or freeze response, can have unintended effects on mental, physical, and emotional well-being, in addition to hindering prosocial functioning. Criminal behavior has also been associated with the inability to regulate severe stress, emotional discomfort, and deprivation (Samuelson, Carmody, Kabat-Zinn, & Bratt, 2007). Whether people can successfully cope with stressful ambient external conditions depends on a host of factors. Research on coping suggests that the ability to manage stress is shaped by a combination of cognitive and affective states, prior adaptive behavior, as well as the availability of coping and response mechanisms, which are influenced by values and attitudes (Zamble & Quinsey, 1997). Unmanaged and persistent stress exposure, which is often a consequence of living in chaotic environments and in poverty, may develop into serious health-related problems as well as coping strategies that include aggression, suppression, and obsession (Kabat-Zinn, 1990). Negative affect may also manifest as a consequence of stress in part as a coping mechanism and in part as a response to feelings of hopelessness and helplessness (Ong, Bergeman, Bisconti, & Wallace, 2006).

Reacting in unhealthy ways to stress, including acting out frustration through violence, self-medication through drugs, alcohol, sex, or gambling, or giving up and becoming more reckless, can result in encounters with the justice system. People with SMI may be more susceptible to unhealthy stress reactions if they have weak or undiversified coping abilities and social support systems. A person with SMI already challenged by frustrations caused by having a chronic illness and by living and work conditions that are bleak may be less able to cope with additional stresses associated with an environment that is discriminatory, disorganized, chaotic, hostile, disrespectful, and suspicious. Greater sensitivity to environmental stressors may trigger relapse of symptoms associated with SMI, addictive behaviors, or other maladaptive coping strategies. For instance, living in neighborhoods with high levels of stress and drug use may create a “perfect” environment for maladaptive coping among people with SMI: the “place” stress adds to “person” stress and creates the need for self-medication as well as easy access to drugs. Similarly, an individual with SMI who demonstrates aspects of criminal thinking or antisocial attitudes may be particularly susceptible to the stress produced by poverty, unemployment, and living in a social environment with high levels of criminal activity and antisocial associates.

Place factors of social and environmental disadvantage produce stress on individuals that can exacerbate person-level risk factors for criminal involvement. The stress generated from the interaction of risk factors thus becomes an important target for intervention. Although effective mental health treatment may incorporate aspects of stress management through skill-building, the first generation of interventions has not fully responded to the unique stress of justice involvement or the interaction between person and place factors on persons with SMI. What is needed, then, is a collective shift toward the new generation of interventions which will attend to the stress induced by both person and place-level risk factors for criminality.

### 3.5. Identifying “intervenable” risk factors

We offered a conceptual framework that better represents the set of factors and pressures likely to predict the criminal behavior of people with and without SMI. One objective of this framework was to move

our collective thinking away from the uncomplicated notion that mental illness is the sole cause of criminal behavior and toward a more open view that people with SMI share criminal risk factors with justice-involved people without SMI (Morgan et al., 2010; Wolff et al., 2011b). Our model turns its attention to the relative predictive effects across a set of “intervenable” risk factors. This perspective does not ignore mental illness. Rather, it puts mental illness within a set of person and place risk factors and identifies these factors in ways that allows for targeted intervention, while also recognizing that some factors may be more strongly predictive of criminal behavior than others, that persons vary in the extent of their exposures to risk factors, and that some risks may not be addressable until others are managed through therapeutic intervention (suggesting sequential intervention). For example, intervening to change antisocial cognitions would not make sense if the justice-involved person is actively psychotic, experiencing a seizure, or intoxicated, even though criminal thinking is a stronger predictor of criminal behavior than mental illness, physical illness, or addiction.

By focusing more broadly on the constellation of risks associated with person and place, we have proffered a more realistic and informed framework for building the next generation of interventions and for sequencing the steps within these interventions to achieve better outcomes for individuals with SMI and their communities. Some exemplary first generation interventions have already begun to incorporate a broader perspective beyond mental illness in identifying targets for intervention (e.g., criminal thinking). While anecdotal examples of such programs do exist, the preponderance of first generation models do not systematically target the range of risk factors discussed in our person–place framework. Moreover, this broader perspective has been largely absent in the existing literature on first generation interventions. The degree to which the next generation of behavioral health and criminal justice interventions can address this array of person and place factors, as well as the stress produced by their interaction, will determine their success in serving those persons with SMI who are at risk of criminal justice involvement.

#### 4. Recommendations for developing the next generation of interventions

Herein we provide practice and research recommendations for the evolution of the next generation of behavioral health and criminal justice interventions.

##### 4.1. Practice recommendations

We recommend the modularization of interventions for justice-involved persons with SMI, regardless of whether the intervention is delivered in a criminal justice location, a mental health agency, a hybrid setting, or multiple service locations. Problem-specific modules would reflect evidence of what works for people with and without SMI who are justice-involved. There is emerging research evidence to guide module development. Morgan et al. (2011) identified a handful of comprehensive treatments in correctional settings addressing trauma, stress, medication compliance, and skill building that showed promise for reducing criminal justice involvement of offenders with SMI. Other interventions were found to reduce distress, improve coping, and reduce behavioral problems. Another example of a modularized intervention is the Connecticut Offender Reentry Program, which entails a life skills reentry curriculum that is being piloted for persons with SMI discharging from state prisons (Kesten et al., 2012). Drawing on this evidence and with a unified protocol, problem-specific modules would be structured to address key person and place risk factors, in addition to receiving evidence-based mental health treatment. Developing specific intervention modules could also help fill gaps in existing first generation interventions, broaden their potential to influence both mental health and criminal justice outcomes. The modules would draw heavily on psycho-educational approaches and would be developed for particular

risk areas but would integrate other risks into skill building exercises and discussions, and would include a:

##### Medication adherence module

To address the symptoms of SMI, the medication adherence module would seek to build an understanding of how medications regulate and improve the body's functioning, with recognition of the presence of co-occurring medical and psychiatric disorders. Medication treatment would be oriented first to chronic medical conditions and then to psychiatric conditions. The effects of substance use would be addressed as part of this discussion. The focus of this module is on educating people with SMI on the biological mechanisms of schizophrenia, bipolar disorder, and major depressive disorder, the importance of treating these disorders pharmacologically, and the benefits and side effects of various types of medications. Skill building exercises would empower clients to engage clinicians in an open dialogue on topics relating to medications, specifically side effects encountered, as well as build coping strategies that respond to undesirable side effects.

##### Criminogenic risk module

In a recent survey of mental health and criminal justice staff who work directly with offenders with SMI, it was reported that most of the clients of these respondents had criminogenic risks, such as criminal thinking, lack of family support, and limited opportunities for prosocial activities (Wolff et al., 2011b). The aim of the criminogenic risks module is to help justice-involved persons with SMI develop an understanding of factors contributing to criminal behavior and promote skill development such as social and problem-solving skills, as well as anger management to counter personality attributes of impulsivity and weakened self-control. One goal of this module is to reduce criminal thinking and connections with criminal associates. This criminogenic risk module would be informed by and coordinated with modules seeking to increase psychiatric stabilization and recovery, decrease substance abuse, build environmental supports for prosocial living, improve skills that support healthy interpersonal relationships, and increase participation in prosocial activities such as employment, education achievement, volunteering, and recreational activities. Given that cognitive-behavioral therapy (CBT) interventions have proven to effectively reduce criminal recidivism (Gendreau, 1996; Henning & Frueh, 1996; Landenberger & Lipsey, 2005; MacKenzie, 2000; Wilson, 2005), CBT approaches would be incorporated into multi-component interventions designed for the treatment of SMI (see below for one example of this).

##### Addiction risk module

An addiction risk module would focus on various forms of addictive behavior. Addictive behaviors may be (a) caused by genetic predispositions triggered by environmental circumstances or (b) a coping response to environmental circumstances that cannot be tolerated in healthy ways. In either case, addictive behavior is connected to experiences in the environment. Focusing only on substance use and addiction is problematic in correctional settings because it is often assumed that without the availability of substances, the substance abuse problem is addressed. However, when substance use is a coping strategy for feelings that are intolerable, people often substitute other addictive behaviors to manage these feelings in correctional settings, such as gambling and romantic relationships. For this reason, the addiction risk module would assess the type and level of addiction, examine antecedents to addictive behavior, and identify the circumstances (including thoughts and feelings, as well as “place” factors) that trigger addictive behavior. This module would examine

the client's life goals and how reducing addictive behavior can assist the client in reaching them. It would also develop knowledge and build healthy coping skills for changing addictive patterns. Mindfulness-based relapse prevention for addictive behaviors is one promising intervention for this module (Bowen, Chawla, & Marlatt, 2011).

#### Trauma risk module

The trauma risk module would incorporate a “trauma-informed” care approach, which focuses on increasing staff awareness of trauma exposure prevalence and its consequences, and how best to engage clients who have experienced trauma. Staff would be trained to ask clients about past traumatic experiences and to respond to their clients in ways that are respectful, reassuring, and hopeful about the possibility of recovery. Clients would be guided through a process of understanding how trauma has impacted them and about the connection between trauma and related responses (e.g., depression, anxiety, addictions, criminal behavior). The Institute of Medicine has identified exposure therapy as the evidence-based treatment with the most empirical support for treating PTSD (Institute of Medicine, 2007). However, exposure therapy, while potentially effective for some prisoners, is quite narrowly focused on the cardinal symptoms of PTSD, and it may not be appropriate for prisoners who are currently living within a highly stressful or potentially traumatic prison context. Two promising interventions that could provide additional content for this module are Seeking Safety (Najavits, 2002) and Trauma Recovery and Empowerment Model (Fallot & Harris, 2002). More broadly, a transdiagnostic treatment approach, combining treatment elements to target different symptoms and behavioral problems, has been gaining traction (Barlow et al., 2010; Gros, Magruder, Ruggiero, Shaftman, & Frueh, 2012). In the PTSD field, investigators have combined exposure-based practices with behavioral activation, anger management, emotion regulation training, or other relevant components common in the treatment of other mood and anxiety disorders to treat patients with PTSD (Beidel, Frueh, Uhde, Wong, & Mentrakoski, 2011; Ford, Steinberg, & Zhang, 2011). These multi-component treatments incorporate a range of strategies to target specific aspects of the clinical syndrome associated with PTSD. Many believe that this is likely to be the future of clinical services for a large percentage of people with PTSD, and this approach could be integral to next generation interventions.

#### Stress risk module

The stress risk module would build skills for managing stress in healthy ways. It would focus on building an understanding of stress proliferation and how decision-making skills can decrease the accumulation of stress and increase healthier responses. A growing body of evidence shows mindfulness-based techniques to be effective in reducing levels of stress, anxiety, and depression (Baer, 2003). Mindfulness-based approaches have been increasingly incorporated into treatment for a range of medical and psychological disorders, including chronic pain, depression, anxiety, eating disorders, substance abuse, and smoking cessation (Baer, 2003). This module holds promise both for managing the stress associated with the effects of incarceration or correctional supervision and living in socially disadvantaged communities, as well as the management of thought and emotional processing that can trigger relapse of mental illness, addiction, and criminal behavior.

#### Social and environmental disadvantage risk module

Interventions geared toward the individual are not effective at changing systemic layers of disadvantage. The social and environmental

disadvantage risk module would build skills on how to identify and avoid high risk situations, to distinguish between “good friends” and persons who are interested in causing harm, to establish intra- and interpersonal boundaries to avoid being manipulated by others, and to avoid people and places that increase the risk of victimization or criminalization (Drake & Wallach, 1989; Drake, Wallach, & McGovern, 2005). Additionally, this module would assess needs related to social disadvantage, including housing, education, and job training, and would provide linkages to services to address these needs. Existing evidence-based multi-leveled interventions, such as multisystemic therapy (MST) — a family and home-based intervention for juvenile offenders, could be considered as exemplars to guide this module (Butler, Baruch, Hickey, & Fonagy, 2011). Moreover, communities that have high concentrations of justice-involved persons with SMI could be identified as key targets of community-level interventions, such as agencies and programs (i.e. supportive housing) that build and strengthen both formal and informal support systems.

Collectively, we outline an intervention program that targets multiple issues, including co-occurring issues of mental illness and criminality. Managing multiple co-occurring problems of this population is of utmost importance (Wolff et al., 2011b). Unfortunately, minimal progress has been made on addressing mechanisms of change to reduce criminal recidivism, improve psychiatric status, or enhance quality of life (Wilson & Draine, 2006). We found only two programs exemplifying this approach. Project Link is a consortium of community based agencies which collaboratively work to reduce both psychiatric hospitalizations and incarceration (Lamberti et al., 2001). The program includes healthcare, social service, and criminal justice systems and features a mobile treatment team including a forensic psychiatrist and dual diagnosis treatment. Another treatment program, *Changing Lives and Changing Outcomes* (Morgan, Kroner, Mills, & Bauer, 2012) has been developed specifically to respond to the co-occurring issues of mental illness and criminality. This program includes 77 sessions and nine therapeutic modules developed to target treatment needs of individuals suffering from SMI (mental illness awareness, medication adherence, and coping with mental illness) and criminality (criminal attitudes and cognitive processes, criminal associates, and emotion management), as well as overlapping problem areas (preparing for change, skill development including social skills, vocational skill development, and housing skills, and substance abuse). The uniqueness of this intervention is in the integration of best mental health practices (psychiatric rehabilitation) and correctional rehabilitative practices. While this program remains in the early phases of development, preliminary findings are promising. These innovative programs exemplify the possibilities of next generation interventions.

#### 4.2. Research recommendations

As the next generation of behavioral health and criminal justice interventions is developed, it will be important to learn from the pitfalls of research on first generation interventions and to develop a clear and meaningful research agenda. The extant research on first generation interventions typically focuses on outcomes of greatest interest to the systems that fund or deliver the interventions. As such, interventions situated in justice settings (e.g., courts, probation or parole offices, prisons) often measure changes in recidivism specifically and changes in psychiatric relapse generally. By contrast, interventions located in the behavioral health system reverse the order of specificity, with more rigorous measurement of treatment outcomes than recidivism outcomes. If, however, second generation interventions are to effectively address both mental illness and criminal justice involvement, it will be critical to standardize the outcome measurement for psychiatric

relapse and recidivism across interventions. Further, global outcomes of recidivism, relapse, and treatment compliance, assume that change occurs either as a linear or binary process, which it does not. For this reason, we recommend the development of outcome measures that are specific to areas of risk and that capture the *process of change* toward outcomes associated with prosocial living, including symptom and harm reduction, healthy relationships, stable housing, vocational and avocational involvement, community living, compliance with treatment and supervision conditions, and improvements in quality of life. Actors in the justice and mental health systems need to be attuned to the full spectrum of outcome measures and develop mechanisms for information sharing; all must be reading from the same playbook. This attention to more comprehensive outcomes would allow for the calculation of outcome to cost ratios that measure the change in risk to program expenditures to evaluate the cost effectiveness of interventions.

The impact of next generation interventions will rely, in part, on the identification of persons with SMI at early stages of involvement in the criminal justice system. However, with nearly 13 million admissions to local jails annually, current efforts to provide timely and efficient screening of SMI in the criminal justice system are not sufficient (Ogloff, Davis, Rivers, & Ross, 2007; Steadman et al., 2009). Brief, accurate, and cost-effective SMI screening instruments are needed that can be implemented along the criminal justice continuum in order to identify appropriate targets for next generation interventions. Lastly, we recommend a research agenda for next generation interventions that adheres to the highest levels of scientific inquiry, including randomized controlled trials, selection of alternative treatment models as comparison conditions (and not simply “treatment as usual”), and rigorous analyses of mediating and moderating effects.

## 5. Conclusions

The development of first generation interventions for justice-involved persons with SMI has spanned over two decades and resulted in the vast expenditure of resources. However, to advance the ultimate goal of these interventions, which is to alleviate the overrepresentation of people with SMI in the criminal justice system, significant changes are required that entail more than simple adjustments to existing interventions. In this paper, we offer a conceptual framework, key components of effective interventions, and recommendations for the content and study of these interventions. The comprehensive changes that we suggest will prefigure a “next generation” of behavioral health and criminal justice interventions that, we believe, will yield significantly improved outcomes at multiple levels. While some existing first generation interventions may be amenable to adaptation, the need for second-generation philosophical and practical approaches will also likely require entirely new and innovative intervention models.

Building the next generation of interventions will not be an easy task. There are many individual, organizational, and structural factors that resist change. But just as we advocate for an orientation that views individual change as a continuum, so must we expect a similar process of change within systems, organizations, programs, and interventions. Change, at any level, is a process that moves in small, often non-linear increments, not in leaps, bounds, or straight lines. It is time, however, to actively engage in this process; there is simply too much at stake to continue to rely solely on first generation interventions. The framework presented herein is a step in that process and we hope that it will inspire additional steps to be taken toward better outcomes for individuals with SMI and the society of which they are a part.

## Acknowledgments

This study was supported by grants from the National Institute of Mental Health (Grant #P30 MH079920; P.I. Wolff) and the National Institute of Justice (Grant #IJCX0033; P.I. Epperson).

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# Washington State Institute for Public Policy

## Benefit-Cost Results

The WSIPP benefit-cost analysis examines, on an apples-to-apples basis, the monetary value of programs or policies to determine whether the benefits from the program exceed its costs. WSIPP's research approach to identifying evidence-based programs and policies has three main steps. First, we determine "what works" (and what does not work) to improve outcomes using a statistical technique called meta-analysis. Second, we calculate whether the benefits of a program exceed its costs. Third, we estimate the risk of investing in a program by testing the sensitivity of our results. For more detail on our methods, see our [technical documentation](#).

Current estimates replace old estimates. Numbers will change over time as a result of model inputs and monetization methods.

### Adult Criminal Justice

Program name	Date of last literature review	Total benefits	Taxpayer benefits	Non-taxpayer benefits	Costs	Benefits minus costs (net present value)	Benefit to cost ratio	Chance benefits will exceed costs
Employment & job training assistance during incarceration	Sep. 2015	\$34,745	\$10,068	\$24,677	(\$463)	\$34,282	\$75.07	99 %
Electronic monitoring (probation)	Dec. 2014	\$25,411	\$7,076	\$18,335	\$1,118	\$26,529	n/a	94 %
Offender Re-entry Community Safety Program (dangerously mentally ill offenders)	Apr. 2012	\$56,465	\$22,324	\$34,141	(\$33,791)	\$22,673	\$1.67	94 %
Therapeutic communities for offenders with co-occurring disorders	Nov. 2014	\$25,765	\$7,947	\$17,817	(\$3,717)	\$22,047	\$6.93	99 %
Correctional education (basic or post-secondary) in prison	Aug. 2015	\$21,720	\$6,423	\$15,297	(\$1,180)	\$20,539	\$18.40	100 %
Day reporting centers	Mar. 2015	\$22,721	\$7,027	\$15,694	(\$3,919)	\$18,802	\$5.80	92 %
Vocational education in prison	Aug. 2015	\$19,920	\$5,976	\$13,945	(\$1,644)	\$18,277	\$12.12	100 %
Drug Offender Sentencing Alternative (for drug offenders)	Apr. 2012	\$19,823	\$5,865	\$13,958	(\$1,600)	\$18,223	\$12.39	98 %
Mental health courts	May. 2014	\$18,816	\$5,856	\$12,960	(\$3,051)	\$15,764	\$6.17	100 %
Electronic monitoring (parole)	Dec. 2014	\$14,211	\$3,939	\$10,272	\$1,118	\$15,329	n/a	100 %
Outpatient/non-intensive drug treatment (incarceration)	Nov. 2014	\$14,963	\$4,448	\$10,515	(\$933)	\$14,030	\$16.04	100 %
Swift and Certain sanctions for offenders on community supervision	Oct. 2015	\$13,242	\$3,674	\$9,568	\$693	\$13,935	n/a	100 %
Inpatient/intensive outpatient drug treatment (incarceration)	Nov. 2014	\$15,287	\$4,634	\$10,653	(\$1,594)	\$13,693	\$9.59	100 %
Sex offender treatment in the community	Dec. 2013	\$14,320	\$3,445	\$10,876	(\$1,655)	\$12,665	\$8.65	93 %
Risk Need & Responsivity supervision (for high and moderate risk offenders)	Dec. 2013	\$17,019	\$5,604	\$11,415	(\$4,974)	\$12,045	\$3.42	100 %
Therapeutic communities for chemically dependent offenders (community)	Nov. 2014	\$11,515	\$3,502	\$8,013	(\$1,557)	\$9,958	\$7.39	100 %
Cognitive behavioral treatment (for high and moderate risk offenders)	Aug. 2014	\$10,357	\$3,042	\$7,315	(\$431)	\$9,925	\$24.01	100 %
Case management: swift & certain/graduated sanctions for substance abusing offenders	Dec. 2012	\$14,186	\$4,737	\$9,449	(\$4,972)	\$9,214	\$2.85	95 %
Drug Offender Sentencing Alternative (for property offenders)	Dec. 2012	\$10,502	\$3,214	\$7,288	(\$1,599)	\$8,903	\$6.57	70 %
Drug courts	Aug. 2014	\$12,972	\$4,082	\$8,889	(\$4,958)	\$8,013	\$2.62	100 %
Jail diversion programs for offenders with mental illness (post-arrest programs)	Mar. 2015	\$2,406	(\$4,513)	\$6,919	\$5,601	\$8,007	n/a	57 %
Employment & job training assistance in the community	May. 2015	\$8,378	\$2,452	\$5,926	(\$463)	\$7,915	\$18.10	100 %
Work release	Aug. 2015	\$6,426	\$1,951	\$4,474	(\$689)	\$5,736	\$9.32	98 %
Correctional industries in prison	Aug. 2015	\$6,391	\$2,057	\$4,334	(\$1,486)	\$4,905	\$4.30	100 %
Therapeutic communities for chemically dependent offenders (incarceration)	Nov. 2014	\$9,830	\$3,573	\$6,257	(\$4,990)	\$4,839	\$1.97	94 %
Outpatient/non-intensive drug treatment (community)	Nov. 2014	\$4,642	\$1,441	\$3,200	(\$851)	\$3,791	\$5.46	90 %
Sex offender treatment during incarceration	Dec. 2013	\$8,753	\$2,585	\$6,169	(\$5,190)	\$3,563	\$1.69	75 %
Restorative justice conferencing	Oct. 2015	\$4,315	\$1,346	\$2,969	(\$1,078)	\$3,236	\$4.00	71 %
Intensive supervision (surveillance & treatment)	Apr. 2012	\$11,393	\$4,406	\$6,987	(\$8,184)	\$3,209	\$1.39	72 %
Inpatient/intensive outpatient drug treatment (community)	Nov. 2014	\$1,235	\$501	\$733	(\$1,043)	\$192	\$1.18	51 %

Program name	Date of last literature review	Total benefits	Taxpayer benefits	Non-taxpayer benefits	Costs	Benefits minus costs (net present value)	Benefit to cost ratio	Chance benefits will exceed costs
Case management: not swift and certain for substance abusing offenders	Nov. 2015	\$4,324	\$1,935	\$2,389	(\$4,973)	(\$649)	\$0.87	44 %
Intensive supervision (surveillance only)	Apr. 2012	(\$3,304)	(\$329)	(\$2,975)	(\$4,307)	(\$7,611)	(\$0.77)	6 %
Domestic violence perpetrator treatment (Duluth-based model)	Aug. 2014	(\$7,883)	(\$2,043)	(\$5,840)	(\$1,426)	(\$9,309)	(\$5.53)	17 %
<b>Prison</b>								
For lower risk offenders, decrease prison average daily population by 250, by lowering length of stay by 3 months	Oct. 2013	(\$4,096)	(\$785)	(\$3,311)	\$5,784	\$1,688	n/a	71 %
For moderate risk offenders, decrease prison average daily population by 250, by lowering length of stay by 3 months	Oct. 2013	(\$14,657)	(\$2,249)	(\$12,408)	\$5,783	(\$8,874)	n/a	10 %
For high risk offenders, decrease prison average daily population by 250, by lowering length of stay by 3 months	Oct. 2013	(\$40,740)	(\$5,260)	(\$35,480)	\$5,770	(\$34,969)	n/a	0 %
<b>Police (results per-officer)</b>								
Deploy one additional police officer with hot spots strategies	Oct. 2013	\$568,570	\$70,153	\$498,417	(\$95,047)	\$473,523	\$5.98	100 %
Deploy one additional police officer with statewide average practices	Oct. 2013	\$489,620	\$59,960	\$429,660	(\$90,629)	\$398,991	\$5.40	100 %

### Other Adult Criminal Justice topics reviewed:

Program name	Date of last literature review	Notes
Dialectical Behavior Therapy	Sep. 2015	Click for meta-analytic results
Domestic violence perpetrator treatment (Non-Duluth models)	Aug. 2014	Click for meta-analytic results
Driving Under the Influence (DUI) court	Feb. 2014	Click for meta-analytic results
Housing supports for offenders returning to the community	Apr. 2012	Click for meta-analytic results
Ignition interlock devices for alcohol-related offenses	Mar. 2014	Click for meta-analytic results
Parenting programs (during incarceration)	Nov. 2014	No rigorous evaluation measuring outcome of interest.
Veteran's courts	Nov. 2014	No rigorous evaluation measuring outcome of interest.
Adult boot camps	Oct. 2006	See previous WSIPP publication for past findings.
Life skills education programs	Oct. 2006	See previous WSIPP publication for past findings.
Sex offender community notification and registration	Jun. 2009	See previous WSIPP publication for past findings.

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Printed on 01-06-2016



## Washington State Institute for Public Policy

The Washington State Legislature created the Washington State Institute for Public Policy in 1983. A Board of Directors—representing the legislature, the governor, and public universities—governs WSIPP and guides the development of all activities. WSIPP's mission is to carry out practical research, at legislative direction, on issues of importance to Washington State.

The WSIPP benefit-cost analysis examines, on an apples-to-apples basis, the monetary value of programs or policies to determine whether the benefits from the program exceed its costs. WSIPP's research approach to identifying evidence-based programs and policies has three main steps. First, we determine "what works" (and what does not work) to improve outcomes using a statistical technique called meta-analysis. Second, we calculate whether the benefits of a program exceed its costs. Third, we estimate the risk of investing in a program by testing the sensitivity of our results. For more detail on our methods, see our [technical documentation](#).

Current estimates replace old estimates. Numbers will change over time as a result of model inputs and monetization methods.

## Adult Criminal Justice

Program name	Date of last literature review	Total benefits	Taxpayer benefits	Non-taxpayer benefits	Costs	Benefits minus costs (net present value)	Benefit to cost ratio	Chance benefits will exceed costs
Electronic monitoring (probation)	Dec. 2014	\$28,043	\$6,883	\$21,160	\$1,119	\$29,162	n/a	94 %
Offender Re-entry Community Safety Program (dangerously mentally ill offenders)	Apr. 2012	\$61,700	\$21,370	\$40,330	(\$33,813)	\$27,888	\$1.82	96 %
Therapeutic communities for offenders with co-occurring disorders	Nov. 2014	\$28,016	\$7,624	\$20,392	(\$3,720)	\$24,297	\$7.53	99 %
Correctional education (basic or post-secondary) in prison	Dec. 2014	\$23,308	\$6,104	\$17,204	(\$1,183)	\$22,125	\$19.70	100 %
Day reporting centers	Mar. 2015	\$24,889	\$6,738	\$18,152	(\$3,926)	\$20,963	\$6.34	92 %
Drug Offender Sentencing Alternative (for drug offenders)	Apr. 2012	\$21,828	\$5,666	\$16,162	(\$1,599)	\$20,229	\$13.65	99 %
Vocational education in prison	Dec. 2014	\$21,746	\$5,764	\$15,982	(\$1,645)	\$20,101	\$13.22	100 %
Mental health courts	May. 2014	\$20,640	\$5,658	\$14,982	(\$3,052)	\$17,588	\$6.76	100 %
Electronic monitoring (parole)	Dec. 2014	\$16,329	\$4,042	\$12,287	\$1,119	\$17,447	n/a	100 %
Outpatient/non-intensive drug treatment (incarceration)	Nov. 2014	\$16,189	\$4,256	\$11,933	(\$933)	\$15,256	\$17.35	100 %
Inpatient/intensive outpatient drug treatment (incarceration)	Nov. 2014	\$16,694	\$4,469	\$12,225	(\$1,594)	\$15,100	\$10.47	100 %
Risk Need & Responsivity supervision (for high and moderate risk offenders)	Dec. 2013	\$18,797	\$5,395	\$13,402	(\$4,976)	\$13,821	\$3.78	100 %
Therapeutic communities for chemically dependent offenders (community)	Nov. 2014	\$12,727	\$3,386	\$9,341	(\$1,557)	\$11,169	\$8.17	100 %
Cognitive behavioral treatment (for high and moderate risk offenders)	Aug. 2014	\$11,414	\$2,953	\$8,461	(\$431)	\$10,983	\$26.49	100 %
Case management: swift & certain/graduated sanctions for substance abusing offenders	Dec. 2012	\$15,752	\$4,557	\$11,194	(\$4,968)	\$10,784	\$3.17	96 %
Drug Offender Sentencing Alternative (for property offenders)	Dec. 2012	\$12,019	\$3,211	\$8,808	(\$1,600)	\$10,419	\$7.51	72 %
Drug courts	Aug. 2014	\$14,900	\$3,988	\$10,912	(\$4,959)	\$9,941	\$3.00	100 %
Sex offender treatment in the community	Dec. 2013	\$10,659	\$2,283	\$8,376	(\$1,654)	\$9,005	\$6.44	86 %
Jail diversion for offenders with mental illness (post-booking programs)	Mar. 2015	\$3,146	\$69	\$3,077	\$4,700	\$7,846	n/a	62 %
Work release	Apr. 2012	\$6,978	\$1,871	\$5,107	(\$690)	\$6,289	\$10.12	99 %
Employment & job training assistance in the community	May. 2015	\$5,995	\$1,517	\$4,478	(\$125)	\$5,870	\$47.79	99 %
Therapeutic communities for chemically dependent offenders (incarceration)	Nov. 2014	\$10,856	\$3,433	\$7,423	(\$4,993)	\$5,863	\$2.17	96 %
Correctional industries in prison	Dec. 2014	\$7,078	\$2,000	\$5,079	(\$1,485)	\$5,594	\$4.77	100 %
Intensive supervision (surveillance & treatment)	Apr. 2012	\$12,910	\$4,267	\$8,643	(\$8,191)	\$4,719	\$1.58	79 %
Sex offender treatment during incarceration	Dec. 2013	\$9,886	\$2,494	\$7,392	(\$5,194)	\$4,692	\$1.90	79 %
Outpatient/non-intensive drug treatment (community)	Nov. 2014	\$5,210	\$1,410	\$3,800	(\$848)	\$4,363	\$6.15	91 %
Inpatient/intensive outpatient drug treatment (community)	Nov. 2014	\$1,324	\$463	\$860	(\$1,043)	\$281	\$1.27	52 %
Case management: not swift and certain for substance abusing offenders	Nov. 2014	\$3,154	\$1,405	\$1,750	(\$4,971)	(\$1,817)	\$0.63	35 %
Intensive supervision (surveillance only)	Apr. 2012	(\$3,479)	(\$331)	(\$3,148)	(\$4,305)	(\$7,784)	(\$0.81)	7 %

Program name	Date of last literature review	Total benefits	Taxpayer benefits	Non-taxpayer benefits	Costs	Benefits minus costs (net present value)	Benefit to cost ratio	Chance benefits will exceed costs
Domestic violence perpetrator treatment (Duluth-based model)	Aug. 2014	(\$8,607)	(\$1,987)	(\$6,620)	(\$1,427)	(\$10,034)	(\$6.03)	17 %
<b>Prison</b>								
For lower risk offenders, decrease prison average daily population by 250, by lowering length of stay by 3 months	Oct. 2013	(\$1,047)	(\$459)	(\$588)	\$5,783	\$4,736	n/a	99 %
For moderate risk offenders, decrease prison average daily population by 250, by lowering length of stay by 3 months	Oct. 2013	(\$6,054)	(\$1,126)	(\$4,929)	\$5,784	(\$270)	n/a	48 %
For high risk offenders, decrease prison average daily population by 250, by lowering length of stay by 3 months	Oct. 2013	(\$11,292)	(\$1,818)	(\$9,473)	\$5,783	(\$5,508)	n/a	16 %
<b>Police (results per-officer)</b>								
Deploy one additional police officer with hot spots strategies	Oct. 2013	\$665,306	\$72,297	\$593,009	(\$95,064)	\$570,242	\$7.00	100 %
Deploy one additional police officer with statewide average practices	Oct. 2013	\$586,899	\$63,833	\$523,067	(\$90,633)	\$496,266	\$6.48	100 %

### Other Adult Criminal Justice topics reviewed:

Program name	Date of last literature review	Notes
Domestic violence perpetrator treatment (Non-Duluth models)	Aug. 2014	<a href="#">Click for meta-analytic results</a>
Driving Under the Influence (DUI) court	Feb. 2014	<a href="#">Click for meta-analytic results</a>
Housing supports for offenders returning to the community	Apr. 2012	<a href="#">Click for meta-analytic results</a>
Ignition interlock devices for alcohol-related offenses	Mar. 2014	<a href="#">Click for meta-analytic results</a>
Parenting programs (during incarceration)	Nov. 2014	No rigorous evaluation measuring outcome of interest.
Veteran's courts	Nov. 2014	No rigorous evaluation measuring outcome of interest.
Adult boot camps	Oct. 2006	See previous WSIPP publication for past findings.
Jail diversion for mentally ill offenders	Oct. 2006	See previous WSIPP publication for past findings.
Life skills education programs	Oct. 2006	See previous WSIPP publication for past findings.
Restorative justice for lower-risk offenders	Oct. 2006	See previous WSIPP publication for past findings.
Sex offender community notification and registration	Jun. 2009	See previous WSIPP publication for past findings.

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Printed on 11-06-2015



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