

THE
SQUARE ONE
PROJECT

REIMAGINE JUSTICE

**EXECUTIVE SESSION
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TOWARDS A NEW FRAMEWORK FOR ACHIEVING DECARCERATION: A REVIEW OF THE RESEARCH ON SOCIAL INVESTMENTS

The Square One Project aims to incubate new thinking on our response to crime, promote more effective strategies, and contribute to a new narrative of justice in America.

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MEMBERS OF THE
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There is a rare bipartisan agreement that American's modern criminal legal policies are a failure of unprecedented proportion. From Kim Kardashian to Mariame Kaba to Charles Koch, advocates of disparate ideologies decry both the inhumanity and inordinate expense of the vast criminal legal system.

The last year has seen a surge in general public interest in the topic, as racially disparate abuses at every level of the legal system ignited nationwide organizing and demonstrating. People outside of the criminal legal system—community leaders, public health experts, and physicians—are often among those advocating for a new way. Such calls are well-founded, with mounting evidence that exposure to the criminal legal system imposes lasting threats to physical and mental health at both the individual and community level (Binswanger, Stern, Deyo, Heagerty, Cheadle, Elmore, and Keopsell 2007; Sugie and Turney 2017; Nosrati, Kang-Brown, Ash, McKee, Marmot, and King 2021).

The COVID-19 pandemic has amplified these harms. Early in the pandemic, physicians, public health experts, and incarcerated people were quick to raise alarm that the virus would spread rapidly within the walls of carceral buildings and leave those incarcerated, correctional officers, and the facilities' surrounding communities vulnerable to infection (Hawks, Woolhandler, and McCormick 2020; Reinhart and Chen 2020). Indeed, by the fall of 2020, prisons, jails, and detention centers would make up over 90 of the top 100 outbreaks in the country.

The community-carceral connection was demonstrated by the effects of the first federal prison outbreak at the Federal Correctional Complex (FCC) in Oakdale, Louisiana. Ultimately, eight incarcerated people died and hundreds of people both incarcerated and employed by the facility fell ill, sparking fear and confusion for the entire surrounding community (Reitman 2020). Another study in Chicago, Illinois attributed as many as five additional cases of community spread per person jailed in the Cook County Jail System (Reinhart and Chen 2021). Public attention on this catastrophe and others led to calls for dramatic reduction of population density within prisons and jails—*decarceration*—to prevent further public health crises (Wang, Western, and Berwick 2020).

When the pandemic ends, the urgent mandate to decarcerate will remain. Some level of decarceration is likely, given the current political tides. However, the best approach to reduce the scope of the correctional control system permanently, not just temporarily, remains unclear. Sustained decarceration will require a comprehensive approach which centers community supports, unattached to the correctional control system, alongside criminal legal reform. However, which societal investments and what



SUSTAINED DECARCERATION WILL REQUIRE A COMPREHENSIVE APPROACH WHICH CENTERS COMMUNITY SUPPORTS, UNATTACHED TO THE CORRECTIONAL CONTROL SYSTEM, ALONGSIDE CRIMINAL LEGAL REFORM.

“dose” of such investments will best complement ongoing and future policy reforms to reduce prison populations have not been systematically described.

Historical precedent suggests that decarceration without careful consideration of the necessary community supports could have unintended consequences. The movement which led to the deinstitutionalization of the seriously mentally ill bears multiple similarities to current efforts toward decarceration. First, the deinstitutionalization movement was driven by both ethical concerns for the conditions within state mental hospitals as well as the financial burden of maintaining them (Yohanna 2013; Chettiar and Raghavan 2019). Secondly, the effort to deinstitutionalize state mental hospitals was not accompanied by sufficient investment in community resources needed to care for patients as they reentered the community. The deinstitutionalization of the seriously mentally ill is widely cited as a failed effort: instead of providing a more humane, community-based experience for those with mental health needs, it resulted in unprecedented rates of incarceration and homelessness in this population. This has rendered healthcare providers and the healthcare system at large unable to optimize the health and livelihood of many seriously mentally ill individuals (Braslow and Messac 2018). Similarly, public discourse on criminal legal system reform has focused on ways to reduce the prison population but fails to center the lifeblood of permanent decarceration: how to support a safe and thriving community.

In medicine, we have systematically built a vast evidence base for how to improve health outcomes. For example, driven to decrease the negative impacts of disease, we obsess over *how* to best to accomplish it. In the 1980s, alarmed by high rates of death from stroke and heart disease in the United States, public health agencies invested billions of dollars to test strategies to improve outcomes for these conditions. These ranged from large-scale prevention efforts (smoking cessation and prevention campaigns) to wide-ranging clinical randomized control trials to test new drugs and invasive interventions which can prevent heart disease or treat attacks. Based on research proving that *response time* is as important as any medication or interventional skill in treating a heart attack, every hospital in the country has streamlined their approach to get patients into cardiac catheterization labs as soon as a clogged artery is suspected. To optimize prescribing practices for breakthrough cholesterol medications called statins, medical researchers conducted over 5,600 randomized control trials, nearly 1,000 systematic reviews, and, adjusting to new data, overhauled prescribing guidelines on several occasions.¹ The costs for such precision research amounts to billions of dollars. As a result, physicians can calculate the precise likelihood our patient will benefit from taking a statin before prescribing one.² Even community interventions that reduce risk factors for cardiovascular disease have been evaluated using randomized trials, including community education and physical fitness classes (Paschal, Lewis, Martin, Dennis Shipp, and Sanders Simpson 2006; Resnick, Shaughnessy, Galik, Scheve, Fitten, Morrison, Michael, and Agness 2009). As a result of this exacting science, national cardiovascular disease mortality has plummeted by over 50 percent from 336 per 100,000 in 1980 to 161 per 100,000 in 2019 (National Center for Health Statistics 1985; National Center for Health Statistics 2020).

We have not, however, applied the same resources nor scientific rigor to the vital intersection of social needs and population health. Instead, social behavioral interventions are often developed using trial and error, rather than formative science. Health systems develop de novo and intuitive programs to address patients' unmet social needs and promote healthy behavior which are funded, implemented, and scaled without strong evidence—or sometimes even despite evidence demonstrating lack of effectiveness (Berkowitz and Kangovi 2020). For example, multidisciplinary care teams whose purpose is to reduce healthcare costs for “super-utilizers” (people who are often in the hospital given their extreme vulnerability to poor health outcomes) are common, in spite of studies failing to demonstrate their intended effect (Finkelstein, Zhou, Taubman, and Doyle 2020). Ride-sharing interventions are implemented to address transportation barriers but have had null findings in relation to health (Chaiyachati, Hubbard, Yeager, Mugo, Lopez, Asch, Shi, Shea, Rosin, and Grande 2018). And at the same time, health policy can be influenced by other considerations unrelated to health outcomes, including political expediency and cost savings. Examples of such policy include mandated work requirements for Medicaid recipients. These work requirements are politically popular with some policymakers and voters, despite studies showing that they neither reduced unemployment nor saved costs but did contribute to higher uninsurance rates (Goldman and Sommers 2018; Sommers, Goldman, Blendon, Orav, and Epstein 2019). Even less scientific rigor has been applied to the effect of criminal

legal system involvement when conceiving of how best to improve the health of individuals, families, and community impacted by said system.

Consideration of this science is especially important in light of recent localized attempts at decarceration in the United States. For example, as a consequence of the 2011 Supreme Court case *Brown v. Plata* and the consequent federal court proceedings, California was mandated to reduce its prison population. This decarceral effort was required by the federal government due to overcrowding so severe the Supreme Court deemed it unconstitutional under the Eighth Amendment clause forbidding cruel and unusual punishment (Ghandnoosh 2021). In order to decarcerate effectively, California had to do more than modify its sentencing laws; it had to direct more funds to community resources. Shortly thereafter, Californians for Safety and Justice successfully organized for the passage of California Proposition 47, “The Safe Neighborhoods and Schools Act,” which both reclassified certain theft and drug possession offenses from felonies to misdemeanors and reapportioned between 150 and 200 million dollars annually to mental health, substance abuse, and case planning services (Pew Research Center 2014; Californians for Safety and Justice 2020). Programs funded by Proposition 47 in various



SOCIAL BEHAVIORAL INTERVENTIONS ARE OFTEN DEVELOPED USING TRIAL AND ERROR, RATHER THAN FORMATIVE SCIENCE.

jurisdictions report recidivism rates around 12–14 percent, in comparison to the non-programmatic control average of 40.5 percent (Californians for Safety and Justice 2020:2; RAND Corporation and KH Consulting Group 2019:25–29). This legislation, along with the Public Safety Realignment Act of 2011 which transferred supervision responsibilities to local jurisdictions and limited the amount of time one could spend incarcerated for technical violations of probation, aided the state of California in reducing its prison population by a modest 30 percent in five years (Lofstrom and Martin 2015).

Other jurisdictions around the country have heeded calls to reallocate government spending to reflect this new policy priority to decarcerate, and the number of initiatives seem to be increasing. In 2014, the Colorado Criminal Justice Reform Coalition successfully advocated for the Colorado State Legislature to pass HB14–1355, the first community-based grant program from the Department of Corrections to support reentry efforts throughout Colorado. This fund, managed by Latino Coalition for Community Leadership, apportions (to date) nine million dollars annually to organizations like the Second Chance Center in Aurora, which provides employment services, housing and transportation, and fitness training to paroled individuals (Colorado Criminal Justice Reform Coalition 2021; Public Welfare Foundation 2021; Second Chance Center 2020).

In this vein, this paper aims to examine the science behind sustainable decarceration—and the extent to which there is scientific support for how community organizations and societal entities can lead decarceration efforts in concert with continued legal reforms to descale facility-based and community corrections populations. To be sure, academics of disparate ideology have previously studied sections of this road map. Some support the need for improving correctional programming, including a *risk-needs-responsivity* model of correctional programming, which aims to optimize resources within correctional systems to rehabilitate those incarcerated. Others, including Professors Angela Davis and Ruth Wilson Gilmore, conceptually reject reforms within the correctional sector and propose a framework for dismantling the prison industrial complex that emphasizes investments in alternate sectors, prioritizing economic and political liberation of the historically oppressed (Davis 2005; Wilson Gilmore 2007). With this paper, we intend to add to this latter school of thought by systematically cataloguing community investments detached from the criminal legal system which promote decarceration. We then highlight what academics have not yet sought to study. We undertake this study with the belief that decarceration is as worthy of careful study and investment as the prevention of cardiovascular disease and warrants experimentally designed studies at the individual and community level which tests the short and long-term benefits of intervention, dose of intervention, and the costs and benefits to society.

To our knowledge, no review has identified and synthesized the experimental evidence to determine which community investment efforts effectively support ongoing decarceration efforts and which do not. To fill

this gap, we have conducted a scoping review to identify interdisciplinary interventions, detached from the correctional control system, in the domains of education, housing, healthcare, employment, and social support programs that help reduce incarceration by reducing likelihood of becoming involved in the criminal legal system (referred to in this paper as **incident incarceration**) or repeat involvement in the criminal legal system (referred to in this paper as **recidivism**). We centered our review on the following research question:

Which interventions (including social policies) grounded in community investment have been shown to achieve decarceration as measured by reduced incident incarceration or reduced recidivism?

The results of our scoping review identify a few important themes for evidence-based community investments which will reduce societal reliance on the correctional control system. An equally important finding of this review is the lack of attention investigators have dedicated to understanding this question. A summary of our findings is as follows:

- Interventions with intergenerational impact support decarceration.

- Interventions which promote income stability lead to decarceration and, when studied, are essentially always cost-saving programs.
- Dose matters: higher impact interventions are consistently more effective.
- Too few studies have focused on decarceration.
- Interventions which even inadvertently increase contact with community corrections may perpetuate the cycle of recidivism.
- Funding structures do not support long-term studies of decarceration.
- Efficacious interventions have not been implemented at scale.
- Stakeholders, particularly system-impacted people, have not been included in either research design creation or funding decision-making for studies.

In framing a comprehensive approach to decarceration as a process of “rebuilding the human resources and physical infrastructure—schools, healthcare facilities, parks, and public areas—of neighborhoods devastated by high levels of incarceration,” this scoping review sought to identify the building blocks needed to fortify a community (Frost, Clear, and Monteiro 2018). We recognize that many innovative ideas that have emerged from communities have not been properly resourced or are not appropriate for study with experimental trials. These interventions are no less worthy, valuable, or deserving of acknowledgement, resources, and

further study. We also identified the extensive work yet to be done in understanding the interconnectivity of community-based programs and incarceration. In doing so, we intended to contribute to a framework for decarceration policy and future research that has the potential to transform how we invest in and support communities and individuals that have long been targeted for resource disinvestment. In this paper, we seek to examine what existing research tells us—and to underscore the shocking dearth of research—about how to accomplish this by affirming health and livelihood. Our goal is to contribute to a new framework for decarceration, one that drives a deeper understanding of the ways in which

we can bolster existing community supports and create new ones focused on safety and wellbeing on our country's path to decarceration. □

METHODOLOGY

Our research inquiry led us to conduct a scoping review.

Through a systematic and transparent search and synthesis procedure, the purpose of a scoping review is “to map key concepts, types of evidence, and gaps in research related to a defined area or field” (Munn, Peters, Stern, Tufanaru, McArthur, and Aromataris 2018).

The objective of our review was to identify and synthesize peer-reviewed studies which considered the causal impact of community-based interventions which reduced incident incarceration or recidivism. We considered the following societal domains: healthcare, housing, employment, education, or social support. The interventions in this review complement, rather than substitute, continued legal reform efforts to descale both facility-based and community corrections populations, such as sentence length reduction, alternative sentencing, and elimination of cash bail.

With the assistance of a university librarian, an official search was recorded using six databases including PubMed, Embase, three EBSCO databases (CINAHL, ERIC, PsycINFO), and Criminal Justice Abstracts with Full Text. Studies published between January 1990 and September 2019 (reflecting the time in which the related literature experienced an increase in academic interest through the initiation of this project) were considered for full text review. We included original research describing experimental or quasi-experimental trials, based in the five above domains, which reported criminal legal involvement outcomes. The included interventions could target individual-level programs or policies, or laws with broader impact. However, the outcome—incident incarceration or recidivism—was examined at the individual-level. Thus, studies examining community rates of crime were not included, which was necessary to narrow the focus of our study. Additional studies were identified in reference lists of included studies or relevant systematic reviews or by recommendation from an interdisciplinary field of experts, including those who participate in Square One efforts. We did not include studies evaluating the

role of pharmacotherapy for substance use disorders, or psychologic interventions (such as cognitive behavioral therapy) which have been studied elsewhere, unless they additionally provided services from one of our five included domains.

Both the assumptions inherent in our research question, as well as our chosen research method of a systematic scoping review, merit a discussion of some of its limitations. First, our research question presumes that community investments that have been successful at decarceration have experimental research undergirding these claims. This is not always the case, as many innovative and promising approaches have not—and sometimes cannot—be evaluated in an experimental manner. Such examples include trauma-based intensive support initiatives, which are common around the country but have no peer-reviewed experimental evaluations. Oftentimes these approaches are not studied because of the nature of research funding; community-based programs have a harder time securing funding for program evaluation than government- or university-run counterpart programs. That our review cannot assess such interventions does not undermine their quality. Rather, it suggests both that funders, whether public or private, should be thinking creatively about future awards and how

community-led efforts can be resourced to the same (or greater) extent as traditional funding grantees.

Second, this project does not interrogate whether experimental research is actually as essential to determining efficacy as it is purported to be. The randomized controlled trial (RCT) is often considered the gold standard for study design, and the field of medicine is both expectant of and accustomed to RCTs and the implications of such methodology (Deaton and Cartwright 2018). However, many argue that its limitations are too often understated; for example, some community interventions cannot be measured on an individual scale, and so do not lend themselves to the “micro” level of study that is necessary for experimental metrics. While we did include studies of quasi-experimental design, each of these has its own limitations as well. Our study is confined by the implications inherent in our question and process, and was not intended to broach the question of how efficacy can be measured without overreliance on experimental methods.

Additionally, because we only included peer-reviewed papers, a handful of high-quality working papers—particularly common in academic economics—are not included. These excluded papers included evaluations of youth employment programs and the impact of the earned income tax credit or Medicaid expansion on crime. We attempt to summarize these key reports—albeit less systematically—in our conclusion. We acknowledge these limitations.

To conduct the systematic scoping review in a rigorous fashion, we established the following process outlined *a priori* in a written protocol. A team of seven authors screened all 23,066 abstracts that resulted from our initial search terms, and then two authors independently conducted a full text review of 674 studies screened for possible inclusion. Of these, 53 studies describing 43 distinct interventions were considered eligible for inclusion in the scoping review. Any disputes were settled by discussion and consensus.

We grouped studies by intervention domain (education, housing, healthcare, employment, or social services) and by outcome (incident incarceration or recidivism).³ The following information was extracted and reviewed by at least two authors:

- **Study description:** title, author, journal of publication, year of publication, year of intervention, type of study (randomized controlled versus quasi-experimental).
- **Intervention description:** targets incident incarceration versus recidivism, intervention domain, census region, setting, funding source.
- **Design description:** type of study (randomized controlled versus quasi-experimental), sample size, study population, follow-up duration.
- **Outcomes description:** outcome measures, criminal legal involvement findings, other findings.

The results are presented in the following sections. □

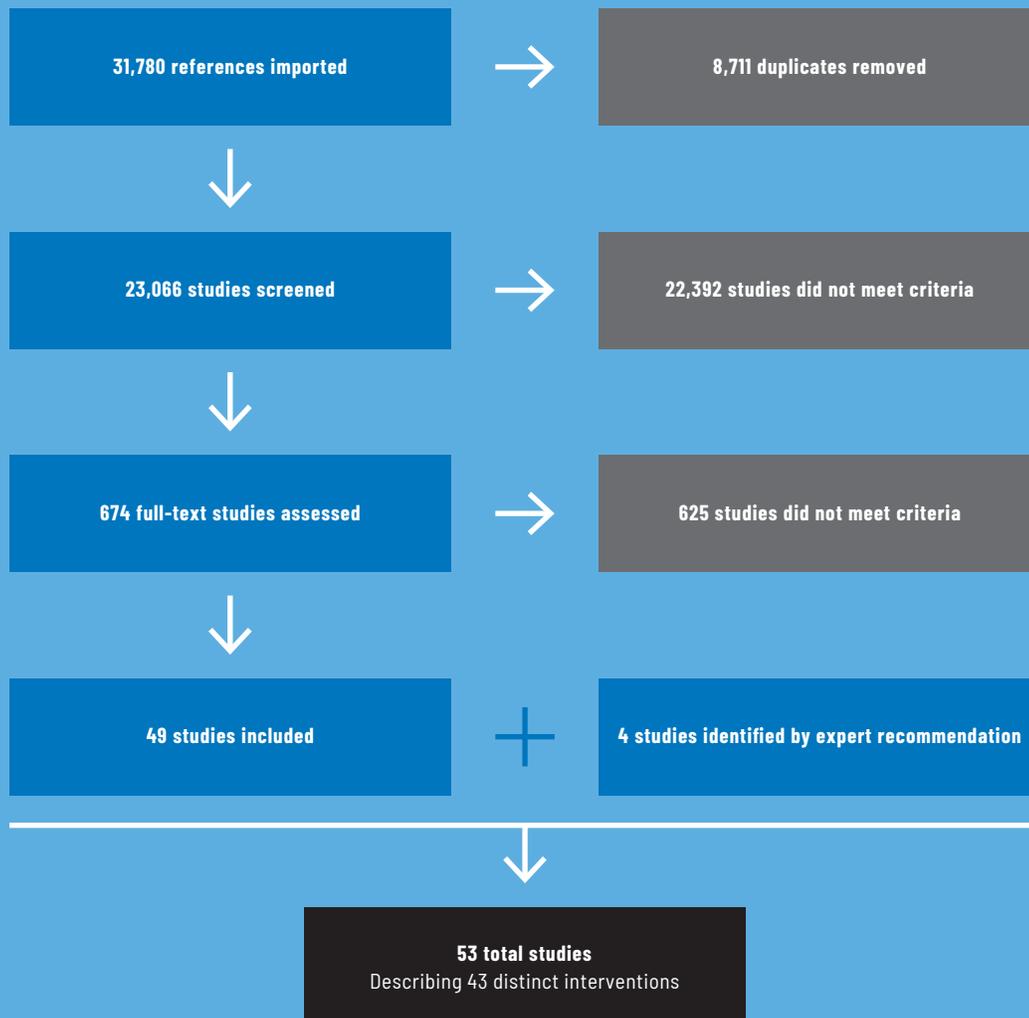


FIGURE 1

**PRISMA Flowchart: Scoping
Review Methodology.**

DOMAIN 1: EDUCATION

INCIDENT INCARCERATION

Early interventions which provide intensive resources consistently and effectively reduce criminal legal system involvement, particularly among low-income children.

Multiple studies (detailing four separate interventions) have employed well-designed experimental or quasi-experimental studies to test the efficacy of early childhood educational interventions on long-term criminal legal involvement (Schweinhart and Weikart 1997; Weikart 1998; Reynolds, Temple, Robertson, and Mann 2001; Dodge, Bierman, Coie, Greenberg, Lochman, McMahon, Pinderhughes, and Conduct Problems Prevention Group 2015; Giovanelli, Hayakawa, Englund, and Reynolds 2018). The interventions primarily provided services to low-income youth from infancy through four years old. Three of the four interventions showed significant reduction in criminal legal involvement in early adulthood; all three included a component of parental supports such as home visits and peer coaching. A fourth study, the Abecedarian project, which included no parental involvement, did not report significant differences in criminal convictions at age 30.

The High/Scope Perry project is perhaps the most well-known. It was implemented in the 1960s in Ypsilanti, Michigan, and the results, published in the 1990s, included decades of follow-up (Schweinhart and Weikart 1997; Weikart et al. 1998). The intervention in this randomized experiment consisted of three hours of “high-quality, active learning” preschool 5 days a week, plus a 1.5-hour home visit weekly, for 123 children of low socioeconomic status. At age 27, only 7 percent of intervention participants were found to have been arrested 5 times or more, compared to 35 percent of the control participants (Weikart et al. 1998). A secondary study including 68 children of the original 123 participants evaluated different preschool curricula, including the High/Scope Perry curriculum that emphasized child-initiated learning and focused on independent planning, conceptual development, and problem solving (Schweinhart and Weikart 1997). Compared to a “direct-instruction” model, which focused on learning academic skills measured by intelligence and achievement tests, children exposed to the High/Scope Perry curriculum experienced fewer number of lifetime arrests. A full 20 years after the intervention, children

exposed to the curriculum had experienced only 1/3 the number of arrests of direct-instruction students.

Two additional interventions included in our review reduced future criminal legal involvement– the Fast-Track Prevention program (implemented from 1991–1993) and the Children–Parent Center (implemented from 1983–1989, also known as the Chicago Longitudinal Study)(Dodge et al. 2015; Reynolds et al. 2001; Giovanelli et al. 2018). The Fast-Track program included social skills training, peer coaching for parents, and a social-emotional curriculum for 891 elementary school children screened for aggressive disruptive behavior in four communities: Durham, NC; Nashville, TN; rural Pennsylvania; and Seattle, WA (Dodge et al. 2015). The Fast-Track program found a 30 percent decrease in violent crime conviction and 35 percent decrease in drug conviction at 18-years-old for the

treatment group, as compared to the control group. There was no difference in property or public order conviction between the two groups. The Children–Parent Center provided wraparound services to 1,404 preschool-age Black, male children and their parents in Chicago and included support in the transition from preschool through third grade (Reynolds et al. 2001; Giovanelli et al. 2018). The program was in or near public elementary schools and emphasized “early intervention, parental involvement, a structured curriculum focusing on language and basic skills development, and continuity between preschool and early elementary school.” The Children–Parent Center reported an 8 percent reduction in arrest rates at 18-years-old compared to the control group (17 percent versus 25 percent). A follow-up study using path analysis to study mediating factors suggested that increased parental involvement was directly related to reduction in violent arrest.



AT AGE 27, ONLY 7 PERCENT OF [HIGH/SCOPE PERRY] INTERVENTION PARTICIPANTS WERE FOUND TO HAVE BEEN ARRESTED 5 TIMES OR MORE, COMPARED TO 35 PERCENT OF THE CONTROL PARTICIPANTS (WEIKART ET AL. 1998).

Additionally, improved third grade reading level led to decreased “acting out” behavior, which the analysis found also contributed to a reduction in violent crime arrest.

Only one early educational intervention study—the Abecedarian study—did not find significant improvement in criminal legal-related outcomes among youth in the treatment group (Campbell, Pungello, Burchinal, Kainz, Pan, Wasik, Barbarin, Sparling, and Ramey 2012). The Abecedarian intervention provided intensive educational activities to children as young as 6 weeks through 5 years who would otherwise be enrolled in full-time daycare. While there was no difference between the groups in likelihood of having any misdemeanor or felony conviction 30 years after the intervention, multiple benefits in cognitive development and academic achievement were documented.

Natural experiments reinforce the importance of high-quality public elementary through high school options as a crime-reducing investment.

Two studies—one Charlotte, NC, and another in Chicago, IL—studied the randomized lottery process for school choice in the public education system to examine

differences between those who received the opportunity to attend the public school of their choice, such as high performing magnet schools, compared to those who did not (Cullen, Jacob, and Levitt 2006; Deming 2011). Both studies found reduction in arrest and criminal activity among those who “won” the lottery. Deming found that those who won the lottery had fewer arrests, and that the effect was far greater among those deemed high-risk. Cullen et al. 2006 reported a nearly 60 percent relative reduction in arrest rates among those who won their lottery, despite no significant difference in traditional academic outcomes such as graduation rates or test scores. The authors separately hypothesize that peer influence may supersede other factors when it comes to behavior likely to lead to criminal legal involvement. In other words, such activity is a sort of “contagion”: those who socialize in circles with low levels of criminal behavior (or are less likely to be criminalized) are less likely to become involved in the criminal legal system. The results of the school lottery studies underscore the importance of studying community-wide interventions (i.e., substantial investments in improving the quality of public schools in under-resourced neighborhoods) in addition to individual-level interventions.

REDUCED RECIDIVISM

Providing post-secondary degrees in prison increases likelihood of employment and decreases risk for return to prison.

Two studies –both quasi-experimentally designed, using propensity score matching or quota sampling– examined the role of receiving educational degrees during incarceration (Kim and Clark 2013; Duwe and Clark 2014). A large study conducted from 2007–2008 looked at over 1,400 persons released from the Minnesota correctional system, comparing those who received their GED or a post-secondary degree during incarceration to those who did not (Duwe and Clark 2014). The results found the receipt of post-secondary degrees resulted in reduced rates of rearrest (by 14 percent), reconviction (by 16 percent),

and reincarceration for a new offense (by 24 percent). There was no difference in rates of technical violation. Additionally, those receiving a secondary degree reported significantly higher total wages during the three-year follow-up period. A similarly designed study was conducted in 2005–2008 and consisted of a sample of 680 people incarcerated in New York state. It found that those who received a post-secondary degree compared to matched controls were less likely to recidivate at three years (17.1 percent versus 9.4 percent)(Kim and Clark 2013).



THE RESULTS [OF DUWE AND CLARK 2014] FOUND THE RECEIPT OF POST-SECONDARY DEGREES RESULTED IN REDUCED RATES OF REARREST (BY 14 PERCENT), RECONVICTION (BY 16 PERCENT), AND REINCARCERATION FOR A NEW OFFENSE (BY 24 PERCENT).

WHAT DOESN'T WORK

Receiving only a GED while in prison, without access to higher education, does not impact the likelihood of recidivism.

A study evaluating a sample population of 403 persons released from New Jersey corrections in 1999–2000 six to seven years following release found that those who received a GED alone during their incarceration experienced no difference in number of rearrests or time to rearrest when compared with those who were eligible for, but did not receive, a GED (Zgoba, Haugebrook, and Jenkins 2008). The authors hypothesized that having GED alone is not enough to overcome the stigma of prior incarceration. While a post-secondary degree can create an opportunity for well-paying jobs, the jobs available to a person with a criminal record and a GED alone are unlikely to pay a living wage. A working paper by the economists Tyler and Kling supports this hypothesis, finding that the economic

impact of receiving a GED is modest, about \$200 per quarter, and completely attenuated by the second year after release (Tyler and Kling 2006). Such conclusions underscore the necessity of strong labor policy (including frequent renewal of the minimum wage to keep up with inflation) to complement a strong, well-resourced educational system in the community as a source of primary prevention. While the recent restoration of Pell grants for incarcerated students should improve access to higher education during incarceration, correctional policy makers must continue to invest resources into programming for continuing higher education.

RESEARCH FUNDING SOURCES (WHERE AVAILABLE)

- *High/Scope Perry Program*: Intervention and research funding provided by the Ford Foundation; US Administration for Children, Youth, and Families; and an anonymous donor.
- *Fast-Track Prevention Program*: Funding provided by the National Institute for Mental Health (6 grants), the Department of Education (1 grant) and National Institute on Drug Abuse (4 grants).
- *Children Parent Center*: Intervention funding through Title I of the Elementary and Secondary Education Act; research funding not stated.
- *Abecedarian Project*: Initial project funded by the Mental Retardation and Developmental Disabilities Branch of the National Institutes of Child Health and Human Development and the State of North Carolina. □

TABLE 1**Education**

Reference	RCT vs Quasi	Year(s) of Intervention	Intervention	Sample	Outcome (Follow-up)	Reduce CJI	Detailed CJI Findings
Detailed Description of Interventions Evaluating Incident Criminal Justice Involvement (CJI) Prevention							
Campbell et al. 2012	RCT	1972–1977	Early Childhood Intervention: Abecedarian Project: Intensive early childhood education, no parental component.	N=111 Youth	Felony/ Misdemeanor Conviction (30 years)	No	No observed difference between treatment groups in risk of criminal conviction.
Cullen et al. 2006	RCT	2000–2001	Attending school of choice in Chicago Public School lottery system.	N=19,520 Youth	Arrests	Yes	Arrest: 60% reduction for high-achieving school lottery winners relative to losing lottery (3.8% versus 8.9%)($p < 0.05$).
Deming 2011	RCT	2002	First-choice middle or high school enrollment by random lottery in Charlotte, NC (all male population).	N=44,028 Youth	Arrests, Incarcerations (7 years)	Yes	Arrest: 45% reduction (felony) & 70% reduction (drug felony) for high-risk HS winners. Incarceration: 50% shorter prison sentence length for high-risk lottery winners.

Reference	RCT vs Quasi	Year(s) of Intervention	Intervention	Sample	Outcome (Follow-up)	Reduce CJI	Detailed CJI Findings
Dodge et al. 2015	RCT	1991–1993	Early Childhood Intervention: Fast Track program: programming including parents & children for kindergartners deemed high-risk.	N=891 Youth	Conviction (20+ years)	Yes	Convictions (violent): 30.9% reduction (p=0.04); Convictions (drug): 34.7% reduction (p=0.03). No difference property/public order convictions.
Reynolds et al. 2001 Giovannelli et al. 2018	Quasi	1983–1989	Early Childhood Intervention: Children-Parent Center: preschool-third grade & wraparound services for students & parents.	N=677 Youth	Arrest (15+ years)	Yes	Arrest (any): 8% reduction (p<0.001); arrest (violent): 5.2% reduction (p<0.01).
Schweinhart and Weikart 1997	RCT	1967	Early Childhood Intervention: High Scope/Perry Preschool Curriculum.	N=68 Youth	Arrest (20 years)	Yes	Arrest (mean): 0.2 treatment group versus 0.9 control (p=0.04); arrests (property): 0.0 treatment group versus 0.9 control (p=0.01); no difference in violent crime arrests.
Weikart et al. 1998	RCT	1967	Early Childhood Intervention: High Scope/Perry Preschool: high quality preschool with focus on parental involvement.	N=123 Youth	Arrest (25 years)	Yes	Arrest (5+): 28% absolute reduction (p<0.05).

Reference	RCT vs Quasi	Year(s) of Intervention	Intervention	Sample	Outcome (Follow-up)	Reduce CJI	Detailed CJI Findings
Detailed Description of Interventions Evaluating Recidivism Prevention							
Duwe and Clark 2014	Quasi	2007-2008	Completion of secondary (GED/HS) or post-secondary degree.	N=1,386 Incarcerated Adults	Rearrest/ Reconviction/ Reincarceration/ Revocation (2-3 years)	Yes	Post-secondary Degree: Rearrest: 14% reduction; Reconviction: 16% reduction; Reincarceration: 24% reduction (p<0.01). Secondary degree alone: no difference in any measure.
Kim and Clark 2013	Quasi	2005-2008	Earning a 1-year certificate/ associates degree/ bachelor's degree in prison.	N=680 Incarcerated Adults	Rearrest (3 years)	Yes	Rearrest: 53% reduction at 3 years p<0.001.
Zgoba et al. 2008	Quasi	1999-2000	GED receipt while incarcerated.	N=403 Reentering Adults	Rearrests/ Reconvictions/ Reincarceration (6-7 years)	No	No difference between treatment groups in any measure.

DOMAIN 2: HOUSING

INCIDENT INCARCERATION

One large government-funded study supports housing relocation as a means for reducing an individual's risk of criminal legal involvement, with some caveats.

Our review found two peer-reviewed manuscripts analyzing one experimental intervention that explored the role mobility plays as a primary prevention of criminal legal involvement (Kling, Ludwig, and Katz 2005; Sciandra, Sanbonmatsu, Duncan, Gennetian, Katz, Kessler, Kling, and Ludwig 2013). The Moving to Opportunity (MTO) study was a large, well-designed randomized control trial funded by the Department of Housing and Urban Development, starting in 1994 in five large cities across the United States. The study involved families with young children randomized to three arms: 1) a housing voucher that could only be used within a low-poverty neighborhood, necessitating a family move; 2) a housing voucher that could be used anywhere, with which most stayed in their original neighborhood; or 3) a control group which received no housing voucher.

The two peer-reviewed studies included in our scoping review evaluated 4643 youth aged 15–25 at time of follow-up. The authors found that those who received a housing voucher to move to a low poverty

neighborhood experienced reduced violent arrests in the short term for both males and females; in the long term, effects were attenuated, particularly as more participants returned to their original communities. Moreover, males in this experimental group demonstrated an increase in property crime arrests (females experienced a decrease), which also attenuated over time. There were consistently documented benefits to physical and mental health, decreased rates of substance use disorders, and higher educational achievement among the group of individuals who moved to lower-poverty neighborhoods. Follow-up working papers have suggested that families with the youngest children (less than age 13 at the time of move) saw the greatest and longest lasting impact across multiple domains from arrests to future income, suggesting potential intergenerational benefit (Chetty, Hendren, and Katz 2016).

Virtually all MTO evaluations focus on the effect of moving to a lower poverty neighborhood, and not on the availability of housing itself. As such, they augment our understanding of the impact of mobility to a much greater degree than that of housing. Unfortunately, while these studies suggest that low-poverty neighborhoods lead to lower individual-level crime rates,

it does little to inform us how to support population-level decarceration. These analyses (and the design of the program) fail to address important structural questions which are crucial in the context of racial residential segregation. They do not address the interpersonal and structural racism that creates high-crime neighborhoods composed of predominantly minoritized populations. According to Geronimus and Thompson, writing in 2004 for the *Du Bois Review*, “the MTO program skirts the basic and fundamental political issue of persistent popular racism that thwarts elevating

desegregation programs to meaningful levels” (Geronimus and Thompson 2004:264). This argument posits that the diminution of the intervention’s effect on violent crime over time is less suggestive of the intervention failure, and more a reflection of the need for structural—not individual level—interventions. Other scholars find that forced serial displacement—the essence of MTO’s intervention—is in fact one of the leading contributors to racially segregated, chaotic and economically depressed urban environments which laid the foundation of mass incarceration (Fullilove and Wallace 2011).

REDUCED RECIDIVISM

Housing vouchers may be a safe and cost-effective alternative to incarceration, especially for those whose release is delayed due to housing instability.

We identified two studies evaluating housing vouchers as a means for reducing recidivism (Hamilton, Kigerl, and Hays 2015; Kirk, Barnes, Hyatt, and Kearley 2018). Neither study revealed a significant difference in recidivism rates, but both had noteworthy caveats. The first was a 2009 study examining the effects of a Washington state policy which resulted in the distribution of housing vouchers (covering three months of rent) to those whose release

from state prison was impeded by lack of housing (Hamilton et al. 2015). The vouchers were assigned to 1,586 returning adults in 2009 and outcomes were compared to 1,650 historical controls. The housing provided to the treatment group occurred when participants would have otherwise still been incarcerated due to lack of safe release plan. The quasi-experimental study found no difference in recidivism rates between those who received the voucher and those who did not. A cost-benefit analysis detected a substantial reduction in cost incurred for the treatment group, showing that those who did not receive a voucher incurred significantly more overall expense to society

(\$5,200/participant) due to number of days incarcerated, both at the beginning and throughout the one-year study period. This suggests a difference in re-incarceration rates or length of incarceration not picked up by a dichotomous variable of recidivism and that providing housing when needed upon release could decrease overall reliance on incarceration.

The second study was a small pilot study whose design was similar to the MTO study discussed above, but whose study population included only 30 men returning from the Maryland prison system (Kirk et al. 2018). This study was designed to show the feasibility, not the efficacy, of providing U.S. Department of Housing and Urban Development Fair Market Rent housing vouchers to individuals upon release from the Maryland State Prison System plus or minus relocation to geographic areas located a significant distance from their prior residence. In the one year of follow-up, there were two arrests among the 21 participants who received any sort of housing (with or without relocation), compared to nine arrests among the 21 participants who did not. The study contained too few participants to draw firm conclusions but suggested any housing reduced reincarceration. To date, a larger scale study to test the efficacy of this intervention has not been funded and therefore not implemented, despite multiple attempts by the study author to acquire such funding.



THE DIMINUTION OF THE [MTO] INTERVENTION'S EFFECT ON VIOLENT CRIME OVER TIME IS LESS SUGGESTIVE OF THE INTERVENTION FAILURE, AND MORE A REFLECTION OF THE NEED FOR STRUCTURAL—NOT INDIVIDUAL LEVEL—INTERVENTIONS.

WHAT DOESN'T WORK

Analyses of MTO—which revealed that adolescent boys and young men experienced increased legal system involvement as a result of their relocation—sheds light on structural barriers which may prevent some individuals from benefitting from such investments.

The MTO study found a significant increase in property crime arrests among males whose families received a voucher for housing in lower-poverty neighborhoods (Kling et al. 2005; Sciandra et al. 2013). Several theories have emerged for this finding: 1) the relative loss in social standing experienced by males moving from lower to higher affluence neighborhoods may cause disruptive behavior; 2) relatedly, perceived relative lower academic achievement may lead to an increased proclivity for engaging in property crime; or 3) Black and Latinx children in neighborhoods with higher proportions of white residents may experience increased rates of arrest compared to their counterparts in predominantly minority neighborhoods. These concerns highlight a flaw in the design of MTO: its design inherently overlooks the role of systemic racism in perpetuating blighted communities, and therefore cannot account for its root causes.

A significant finding in the Washington State house voucher natural experiment is that those in the voucher group had higher rates of technical violations (Hamilton et al. 2015). This may be because, as part of the intervention, receipt of the voucher required increased criminal legal system contact (“check-ins” with community supervision officers). This requirement likely undermined the effect of the intervention by creating additional incarcerations due to technical violations and may completely explain the study’s overall negative finding on likelihood of reincarceration. We posit that further research on both housing vouchers and the effects of increased contact with community corrections mechanisms should be pursued.

RESEARCH FUNDING SOURCES (WHERE AVAILABLE)

- *Moving To Opportunity*: Intervention funded by the Department of Housing and Urban Development; research funded the National Science Foundation, National Institute for Child Health and Human Development, Centers for Disease Control, National Institute of Mental Health, National Institute for Aging, the National Opinion Research Center's Population Research Center, University of Chicago's Center for Health Administration Studies, U.S. Department of Education, Institute of Education Sciences, Bill & Melinda Gates Foundation, John D. and Catherine T. MacArthur Foundation, Russell Sage Foundation, Smith Richardson Foundation, Spencer Foundation, Annie E. Casey Foundation, and Robert Wood Johnson Foundation.
- *Washington State Housing Vouchers*: Intervention funding provided by Washington State Department of Correction.
- *Maryland MOVE Reentry Housing Pilot*: Intervention funding provided by Institute of Child Health and Human Development. □

TABLE 2**Housing**

Reference	RCT vs Quasi	Year(s) of Intervention	Intervention	Sample	Outcome (Follow-up)	Reduce CJI	Detailed CJI Findings
Detailed Description of Interventions Evaluating Incident Criminal Justice Involvement (CJI) Prevention							
Kling et al. 2005	RCT	1994–1998	Moving to Opportunity: housing voucher	N=4643 Youth	Arrest (10 years)	Yes	Females: decreased arrests (property & violent).
Sciandra et al. 2013			+/- move to lower poverty neighborhood.				Males: decreased arrests (violent); increased arrests (property).
Detailed Description of Interventions Evaluating Recidivism Prevention							
Hamilton et al. 2015	Quasi	2009	3-month housing voucher.	N=3237 Reentering Adults	New charge/ Reincarceration/ Violation (1 year)	No	No statistically significant differences between rearrest or reincarceration rates.
Kirk et al. 2018	RCT	2015–2016	MOVE: 6-month housing assistance—Pilot Study.	N=30 Reentering Adults	Rearrest	No	No statistically significant differences between rearrest rates; study was not powered to detect differences.

DOMAIN 3: HEALTHCARE

INCIDENT INCARCERATION

Bringing nursing services into the homes of young pregnant women can serve as an important touchpoint for women and their families.

Two high-quality randomized controlled trials in two different regions of the United States examined the effect of a nurse-family partnership intervention and produced impressive results. The first intervention conducted in Elmira, NY, from 1978 to 1980, compared three arms: 1) a control intervention of transportation and screening with no home visitation; 2) a home nurse visit through pregnancy alone; 3) a home nurse visit through pregnancy and the first two years of the child's life (Olds, Eckenrode, Henderson, Kitzman, Powers, Cole, Sidora, Morris, Pettit, and Luckey 1997; Olds, Henderson, Cole, Eckenrode, Kitzman, Luckey, Pettit, Sidora, Morris, and Powers 1998; Eckenrode, Campa, Luckey, Henderson, Cole, Kitzman, Anson, Sidora-Arcoleo, Powers, and Olds 2010). This study recruited about 400 predominantly white women of mixed income backgrounds, all of whom were under age 18 and less than 25 weeks pregnant (with no previous live births) at study recruitment. Follow-up revealed significant impacts on the life course of both mother and child in the subset of low-income women. At 15-year follow-up, the mothers from the low-income

treatment group experienced fewer arrests, fewer convictions, and fewer days spent incarcerated; decreased drug and alcohol use; and decreased rates of being identified as a perpetrator of child abuse or neglect. Moreover, on average, women in this group had a longer interval between their incident and next pregnancies and a lower total number of children. At this same 15-year follow-up point, their children reported fewer arrests, fewer convictions and violations of probation, and decreased alcohol and drug use. Findings were strongest among mothers and children randomized to nurse follow-ups through two years. A follow-up with the children in this group at 19 years of age found decreased arrests and convictions (incident risk ratio 0.43; 95 percent CI 0.23–0.80); however, when stratified by sex, the findings persisted only among the female youth. A follow-up study explored mediators for another durable finding—decreased rates of child maltreatment (Eckenrode, Campa, Morris, Henderson, Bolger, Kitzman, and Olds 2017). The study found that enhanced family planning as well as increased financial stability provided by welfare support were the factors most strongly associated with positive outcomes among those in the treatment group.

The second nurse-family partnership study took place in Memphis, TN, from 1990 to 1991, which the authors documented as an effort to replicate the above findings in a different population. This study employed a very similar intervention with identical treatment arms (transportation alone, home nurse visits through pregnancy, home nurse visits through the infant's second birthday), recruiting over 700 low-income, predominantly Black and unmarried women in the first or second trimester of their first pregnancy with no previous live births (Kitzman, Olds, Knudtson, Cole, Anson, Smith, Fishbein, DiClemente, Wingood, Caliendo, Hopfer, Miller, and Conti 2019). The investigators followed the children through 18 years of age and found a trend toward decreased criminal convictions, but only among females (incident risk ratio 0.47, 95 percent CI 0.2-1.1). It is unclear why the intervention was more impactful for female

versus male children. Overall, both studies support a broad range of positive outcomes, including decreased criminal legal contact for both mom and child, attributed to the Nurse Family Partnership.

Another novel intervention, a hospital-based violence prevention model, targeted reduced incident incarceration and took place from 1998-1999. It was a randomized controlled trial and looked at intensive case management among victims of interpersonal violence seeking care in Chicago emergency departments (Zun, Downey, and Rosen 2006). Participants were recruited if they were young (10-24 years old) and presented for emergency care after experiencing a violent assault. The young people were randomly assigned to five months of intensive case management for local resource referrals based on assessment for school, social, and safety needs or to the control arm which



OVERALL, BOTH STUDIES [OLDS ET AL. 1997; OLDS ET AL. 1998; ECKENRODE ET AL. 2010; ECKENRODE ET AL. 2017; KITZMAN ET AL. 2019] SUPPORT THE FINDING OF PERSISTENT GAINS IN ACADEMIC ACHIEVEMENT AMONG THOSE IN THE NURSE FAMILY PARTNERSHIP TREATMENT GROUPS.

consisted of a brochure containing the same area resources. While the study showed no difference between treatment groups for criminal legal outcomes (self-reported arrests or state-reported incarcerations) during both the 6- and 12-month follow-up periods, criminal legal involvement in both groups was low. However, the study did not reach its recruitment goals due to

funding cuts, meaning it may have been simply underpowered to show a difference. Additionally, it was not without any positive effect; youth in the treatment group were less likely to experience repeat violent injury (8.1 percent treatment group versus 20.3 percent control; $p=0.05$).

REDUCED RECIDIVISM

The healthcare sector can have a stabilizing effect for people who have been involved in the legal system, potentially reducing risk of recidivism.

Our review of healthcare interventions to prevent recidivism revealed three different categories of interventions: 1) hospital-based violence prevention; 2) the Transitions Clinic Network, a primary care-based model with a peer community health worker (CHW) with a past history of incarceration; and 3) expedited Medicaid enrollment for those with serious mental illness. The results suggest that tailored healthcare-based interventions could provide stabilization for those involved in the criminal legal system but residing in the community.

The emergency department-based randomized intervention, implemented from 1999 to 2001 in Baltimore, MD, was similar to the intervention described above in Chicago except that it recruited patients who were treated for a violent assault while on probation or parole (Cooper, Eslinger, and Stolley 2006). For those in the intervention group, the violence prevention program included an intensive social worker and an individualized treatment plan which could include addiction treatment, employment or education referrals, conflict resolution training, and family outreach. After participants were discharged from the hospital, social workers attended home visits and participated in an interdisciplinary meeting bearing resemblance to a “tumor board”—a standard-of-care approach in oncologic treatment by which members from multiple disciplines (medical, surgical, radiation oncology, as well as nursing, social workers, research staff, and others) convene



THE TRANSITIONS CLINIC NETWORK IS A GROWING NETWORK OF PRIMARY CARE CLINICS PROVIDING CARE TAILORED TO THOSE RETURNING TO THE COMMUNITY FROM INCARCERATION.

to determine the best treatment approach for individual cases. Notably, the patient's probation or parole officer was involved in the planning process, but the study does not describe to what capacity. The results of this study found no difference in overall arrests but significant reduction in arrest for violent crime, any crime conviction, and conviction for a violent crime. The study authors calculated that "after the study period, the non-intervention group was sentenced to spend 50 more years in jail than the intervention group." A notable limitation of this manuscript is that while the authors provided p-values, statistical methods were not described.

The Transitions Clinic Network (TCN) is a growing network of primary care clinics providing care tailored to those returning to the community from incarceration. Importantly, it is centered on the role of a previously incarcerated community health worker, who serves as an advocate for the patients and a liaison between often weary patients and the healthcare system. Two experimental studies have examined the TCN model. The first, a randomized control trial based in San Francisco, CA, from 2007 to 2009, involved 200 participants recruited at weekly parole meetings; it compared the TCN treatment group to those referred to

a traditional safety-net primary care center (Wang, Hong, Shavit, Sanders, Kessell, and Kushel 2012). The study analyzed a dichotomous "any incarceration" variable and also performed a survival analysis. It found no difference in jail stays at 12 months; however, the treatment group did have significantly reduced emergency department visits. A second study, from 2013 to 2016, was a propensity-score matched analysis of 188 Transitions Clinic participants in New Haven, CT, compared to those released to a similar urban area in the state without a Transitions Clinic (Wang, Lin, Aminawung, Busch, Gallagher, Maurer, Puglisi, Shavit, and Frisman 2019). While there was no difference in the dichotomous reincarceration variable, those in the Transitions Clinic had fewer total days reincarcerated (101 versus 187 days; $p < 0.001$) and fewer violations of probation or parole (17 percent versus 33 percent, $p < 0.05$).

WHAT DOESN'T WORK

An intervention which successfully increased access to mental health care had the unexpected effect of increasing criminal legal involvement, possibly due to increased contact with the criminal legal system.

The final healthcare intervention type was a natural experiment, exploiting the implementation of a new Washington State policy to expedite Medicaid referrals for persons with serious mental illness as they were preparing to leave incarceration, as well as provide them with a scheduled mental health appointment and pre-filled anti-psychotropic medication during reentry (Grabert, Gertner, Domino, Cuddeback, and Morrissey 2017; Domino, Gertner, Grabert, Cuddeback, Childers, and Morrissey 2019). The treatment group consisted of 3086 persons released from Washington state facilities between 2005-2006. This negative study found that participants in expedited referral experienced increased mental health treatment service use but no reduction in total reincarceration rates and an increase in total days incarcerated at up to three years of follow-up. A follow-up study

looked specifically at those who actually received a timely mental health service appointment as a result of the expedited Medicaid referral, which confirmed that the receipt of services was leading to increased risk of incarceration for a technical violation.

That these studies demonstrated harmful effect despite leading to higher mental healthcare utilization demands additional scrutiny; this may represent an important example of a well-meaning public policy intervention which incurred unintended harmful effects. A plausible mechanism for these results is that this intervention fostered increased criminal legal system interaction by referral from mental health providers; supporting this hypothesis is the finding that treatment groups had higher likelihood of technical violations alone. It highlights the importance of severing ties between the healthcare sector and the criminal legal system to ensure the prioritization of patient health.

RESEARCH FUNDING SOURCES (WHERE AVAILABLE)

- *Nurse-Family Partnership—Elmira:* Funded by The Smith Richardson Foundation; the Prevention Research and Behavioral Medicine Branch of National Institute for Mental Health; the Robert J. Woods Foundation; the William T. Grant Foundation; the Ford Foundation; and the Commonwealth Fund. Intervention versus research funding not specified.
- *Nurse-Family Partnership—Memphis:* Intervention funded by the National Institute for Drug Abuse.
- *ED-based Violence Intervention—Chicago:* Funded by the Joyce Foundation; the Woods Fund of Chicago; the Michael Reese Health Trust; the Center on Crime, Communities, and Culture at the Open Society Institute; and Baxter International. Intervention versus research funding not specified.
- *Transitions Clinic:* Funded by the California Endowment, California Wellness Foundation, California Policy Research Center, the Centers for Medicare and Medicaid Services, and the Bureau of Justice Assistance. □

TABLE 3**Healthcare**

Reference	RCT vs Quasi	Year(s) of Intervention	Intervention	Sample	Outcome (Follow-up)	Reduce CJI	Detailed CJI Findings
Detailed Description of Interventions Evaluating Incident Criminal Justice Involvement (CJI) Prevention							
Kitzman et al. 2019	RCT	1990–1991	Nurse Family Partnership: Prenatal Care via Home Nurse.	N=742 Infant	Arrest/ Conviction (18 years)	Yes	Arrests (girls): no differences detected. Convictions (girls): 53% reduction among female participants (p=0.08). No detectable differences among boys.
Olds et al. 1997 Olds et al. 1998 Eckenrode et al. 2010	RCT	1978–1980	Nurse Family Partnership: Prenatal/ Infant Care via Home Nurse.	N=400 Infant	Arrest/ Conviction (19 years)	Yes	Arrests (girls): 77% reduction (p<0.05). Convictions (girls): 80% reduction (p<0.05). No detectable differences among boys. Mothers also found to have significantly fewer arrests & convictions (p<0.10).
Zun et al. 2006	RCT	1998–1999	Hospital-based violence prevention: intensive case management.	N=188 Youth	Incarceration/ Arrest (12 months)	No	No detectable differences between the treatment groups.

Reference	RCT vs Quasi	Year(s) of Intervention	Intervention	Sample	Outcome (Follow-up)	Reduce CJI	Detailed CJI Findings
Detailed Description of Interventions Evaluating Recidivism Prevention							
Cooper et al. 2006	RCT	1999–2001	Hospital-based violence prevention: social worker & individualized service plan.	N=100 Adults on Supervision	Rearrest/ Reconviction (1–2 years)	Yes	Rearrest (violent crime): 39% reduction; conviction (violent crime): 40% reduction; conviction (any): 43% reduction p<0.001.
Grabert et al. 2017 Domino et al. 2019	Quasi	2005–2006	Grabert: expedited Medicaid. Domino: treatment group plus timely mental health appointment & filled anti-psychotropic medication.	N=3086 Reentering Adults—SMI	Rearrest/ Reincarceration (3 years)	No	No statistically significant differences between rearrest or reincarceration rates.
Wang et al. 2012	RCT	2007–2009	Transitions Clinic Network: Primary care & case management by a formerly incarcerated community health worker.	N=200 Adults with Chronic Health conditions or age>50 years old	Arrests (12 months)	No	No statistically significant differences between reincarceration rates.
Wang et al. 2019	Quasi	2013–2016	Transitions Clinic Network: Primary care & case management by a formerly incarcerated community health worker.	N=188 Adults with Chronic Health conditions or age>50 years old	Rearrest/ Reincarceration/ Revocation/Days incarcerated (12 months)	Yes	No difference in rearrest or new conviction. Violation: 16% reduction (p<0.05); Days incarcerated: 86 day reduction (p<0.001).

DOMAIN 4: EMPLOYMENT

INCIDENT INCARCERATION

A trial of summer employment for youth found durable reductions in arrest for violent crime.

A single randomized controlled trial analyzed the effects of an 8-week summer program for 1634 8th- to 12th-grade students enrolled in 13 high-violence Chicago schools (Heller 2014). The program, called One Summer Plus (OSP), placed students in part-time, minimum wage jobs with local community organizations, including placements as community gardeners, camp counselors, or administrative assistants (Heller 2014). Half of those students participating in OSP also received socio-emotional learning (SEL), or soft skills training founded upon cognitive-behavioral therapy principles.

Researchers found that in a 16-month follow-up period, 43 percent fewer arrests for violent crime occurred within the OSP group versus the control group. In absolute terms, there were four fewer arrests per 100 youth for those who received OSP than those who did not. There was no significant difference between the decline in violent-crime arrest for those who participated only in OSP versus those who also received SEL. The researchers noted that the effects persisted well beyond the intervention period—meaning the effect of the program extended beyond simply participants’ reduced capacity due to program participation obligations.

REDUCED RECIDIVISM

Intensive job support and vocational training which begins well before release and bridges through reentry increases the likelihood an individual stays in the community after release.

Our review yielded seven secondary intervention studies in the employment domain, with mixed results depending on the nature of the employment program.

Two interventions with statistically significant reductions in recidivism implemented rigorous career training, guidance, and placement assistance throughout the job application process (Duwe 2015). Minnesota’s EMPLOY program (note, not an acronym), which took place from 2006 to 2008, was available to incarcerated individuals within five years of sentence completion and with six or more



SUCCESSFUL REENTRY REQUIRES RIGOROUS VOCATIONAL TRAINING OR POST-INCARCERATION JOB SEARCH ASSISTANCE THAT PROVIDES MEANINGFUL CAREER DEVELOPMENT OPPORTUNITIES AND INCREASES THE LIKELIHOOD OF ATTAINING A LIVABLE WAGE.

months of successful work history while incarcerated. It included pairing participants with a job development specialist who served as a liaison to available community jobs. Post-release, EMPLOY gave participants paper copies of resumes and certifications, bus fare, and interview clothing to support success during the interviewing process. The quasi-experimental analysis of EMPLOY's 464 participants found that rearrest (aHR:0.65, $p < 0.01$), reconviction (aHR:0.68, $p < .005$), reincarceration (aHR:0.45, $p < .01$), and revocation (aHR:0.37, $p < .01$) were all substantially lower for the experimental group in the 2- to 4-year follow-up.

A 2008–2012 study evaluated the efficacy of Florida's Workplace and Community Transition Training for Incarcerated Individuals (WCTTII), which provided 300 hours of vocational training in fields like construction, plumbing, landscape irrigation, culinary arts, and web design through nearby community or technical colleges (Hill, Scaggs, and Bales 2017). Upon completion of this training and 100 hours of employability training, participants received a vocational certificate. Participants also attended reentry seminars, where they interacted with employers looking to recruit. The propensity-matched sample compared those who received the training to those who did not among a population of 3,792 men less than 35 years of age who held a high school

degree or GED. The study found significant decreases in all outcome measures for those in the program (66.1 percent versus 76.9 percent for any rearrest; 30.1 percent versus 43.5 percent for reconviction; and 29.6 percent versus 40.5 percent for reimprisonment; $p < 0.01$ for all) at three years of follow-up.

The oldest intervention was a federally funded program called the National Supported Work Demonstration, which was active from 1975 to 1978 and provided minimum wage jobs in the construction industry (clarification is warranted that minimum wage was much closer to a living wage during this time; Uggen 2000). There was a significant reduction in rearrest rates at three years; but when stratified by age, the effect was only seen for those older than 26 at the time of release.

Several studies evaluating employment interventions to reduce recidivism were negative or inconclusive. Two negative studies analyzed adult employment programs that provided services that were less focused on career-building, sustained employment, and provision of a livable wage, while a third analyzed similar programming for a sample population of adolescents. A Minnesota study (1998–2005) used retrospective propensity-score matching to study the effects of a construction work program for incarcerated men

(Northcutt Bohmert and Duwe 2012). About two hundred physically able adult men in a minimum-security correctional setting were paid an hourly wage of \$1.00 to \$1.50 an hour for four 10-hour days per week. The construction projects consisted of building housing for low-income families through the Affordable Homes Program. A 3- to 10-year follow-up found no significant differences in rearrests, felony convictions, or returns to prison for a new crime for those who participated in the study versus those who did not. A second study with no significant intervention was a natural experiment from 2008 to 2010 in Southern California (Farabee, Zhang, and Wright 2014). The intervention arm consisted of a reentry employment program model called “STRIVE,” consisting of 120–160 hours of employment readiness training during the six months immediately preceding release. There was no difference between those who were in the STRIVE program and those who were not (a sample population of 217 adults) during the 2-year follow-up in terms of self-reported arrest, administrative arrest or reincarceration. Lastly, a study of a vocational training program for high-risk, justice-involved youth in the construction industry, called Community Restitution Apprenticeship-Focused

Training, or “CRAFT,” had no effect on employment longevity or future criminality (Schaeffer, Henggeler, Ford, Mann, Chang, and Chapman 2014).

The final study of an intervention known as Individual Placement and Support (IPS) contained too few participants to draw final conclusions (Bond, Kim, Becker, Swanson, Drake, Krzos, Fraser, O’Neill, and Frounfelker 2015). It was conducted from 2011–2012 in several therapeutic settings through the Chicago area. The study included a smaller sample population (87 persons) and consisted only of people with severe mental illness. IPS is the best-known model of supported employment for those with severe mental illness and consists of assignment to a full-time employment specialist, job search assistance based on client preference, vocational assessment followed by a rapid job search, and support in interviews from trained specialists. The study found non-significant differences in arrests, convictions, and incarcerations after one year.

WHAT DOESN'T WORK

Without tangible social supports and employment assistance that leads to living wage, efforts in the employment sector to reduce criminal legal involvement appear to be ineffective.

This review is supported by other which have found mixed evidence for employment support programs upon release from incarceration (Western 2008; Doleac 2018). Our analysis suggests common themes amongst the successful interventions. Successful reentry requires rigorous vocational training or post-incarceration job search assistance that provides meaningful career development opportunities and increases the likelihood of attaining a livable wage. First, formalized training and support starts well before release from incarceration. Secondly, well-resourced

support services bridge individuals into the community during reentry to connect them to community resources and social support. Finally, and perhaps most importantly, the intervention must provide opportunities to living wage work and career opportunities. As of 2021, American minimum wage policy leaves many working people living well below the poverty line; if the federal minimum wage had kept up with inflation, today it would be over \$20 instead of \$7.25. Economists have predicted that a modest increase in the minimum wage to a \$12 an hour would significantly reduce crime rates (The White House 2016). A reconsideration of this policy must be a part of any meaningful policies which support decarceration.

RESEARCH FUNDING SOURCES (WHERE AVAILABLE)

- *STRIVE-Southern California*: Research funded by the Smith-Richardson Foundation Program.
- *Florida's Workplace and Community Transition Training for Incarcerated Individuals*: Intervention funded by a federal Specter grant.
- *Individual Placement and Support*: National Institute of Disability and Rehabilitation Research. □

TABLE 4**Employment**

Reference	RCT vs Quasi	Year(s) of Intervention	Intervention	Sample	Outcome (Follow-up)	Reduce CJI	Detailed CJI Findings
Detailed Description of Interventions Evaluating Incident Criminal Justice Involvement (CJI) Prevention							
Heller 2016	RCT	2012	One Summer Plus: 8-week, part-time employment & mentorship.	N=1634 Youth	Arrest (16 months)	Yes	Crime (violent): 43% relative reduction.
Detailed Description of Interventions Evaluating Recidivism Prevention							
Bond et al. 2015	RCT	2011-2012	"Individual Placement & Support": specialized, intensive employment assistance.	N=87 Reentering Adults with SMI	Rearrest/ Reconviction/ Reincarceration (1 year)	No	No statistically significant differences between groups.
Duwe 2015	Quasi	2006-2008	Pre-release specialist helps to find work based on interest & skills & frequent follow-up after release.	N=464 Incarcerated Adults	Rearrest/ Reconviction/ Reincarceration/ Revocation (2-4 yrs)	Yes	Adjusted hazard ratio: Rearrest: 0.65; Reconviction: 0.68; Reincarceration: 0.45; Revocation: 0.37; p<0.05 for all.
Farabee et al. 2014	RCT	2008-2010	STRIVE model: soft-skills "employment readiness" training & access to computer lab.	N=217 Reentering Adults	Rearrest/ Reincarceration (2 years)	No	No statistically significant differences between groups for rearrest or reincarceration rates.

Reference	RCT vs Quasi	Year(s) of Intervention	Intervention	Sample	Outcome (Follow-up)	Reduce CJI	Detailed CJI Findings
Hill et al. 2017	Quasi	2008–2012	300 hrs of vocational training, transition program, access to recruitment seminars, & earned certificate.	N=3792 Incarcerated Adults	Rearrest/ Reconviction/ Reincarceration (3 years)	Yes	Rearrest: 10.8% reduction; Reconviction: 13.4% reduction; Reincarceration: 10.9% reduction. P<0.01 for all.
Northcutt et al. 2012	Quasi	1998–2005	Construction trade jobs during incarceration—paid small hourly wage, full-time work.	N=448 Incarcerated Adults	Rearrest/ Reconviction/ Reincarceration (3–10 years)	No	No statistically significant differences between groups for any outcome.
Schaeffer et al. 2014	RCT	2007–2009	Community Restitution Apprentice-Focused Training; training/ placement in construction industry.	N=97 Youth- SUD & criminal record	Rearrest (30 months)	No	No statistically significant differences between groups for rearrest rates.
Uggen 2000	RCT	1975–77	National Support Work Demonstration: supervised employment in construction sector.	N = 3,758 Youth & adults with recent incarceration	Rearrest (3 years)	Yes*	Arrest: 12% reduction in self-reported arrest (p<.05) for sample older than 26; Illegal earnings: significant age x participation interaction in joint models.

* indicates soft positive findings, meaning that the intervention reduced CJI only for specific sub-samples.

DOMAIN 5: SOCIAL SUPPORT PROGRAMS

INCIDENT INCARCERATION

Intensive family- and community-based supports did not result in significant reductions in primary arrests for a non-court-referred adolescent population; however, intensively supported guardianship for those with serious mental illness may promote safety and health for both guardians and patients.

Overall, there were very few studies of experiment design examining the effect of social support programs on prevention of incident incarceration. Multisystemic therapy (MST) is an intensive family- and community-based intervention for young people under 18 years old involved in the criminal legal system. While we generally excluded behavioral health models from our review, we included MST due to the extensive social supports included in this intervention. As outlined below, MST is well-studied and proven effective at reducing future legal involvement in system-involved youth.

However, the only study of a sample of high-risk (but not yet system-involved) youth was negative (Weiss, Han, Harris, Catron, Ngo, Caron, Gallop, and Guth 2013). This small, randomized controlled trial found no differences in arrests in 2.5-years of follow-up.

A second study looked at intensive support for those with serious mental illness requiring guardianship (Levine, Jett, Johnson, and Connors 2020). In this intervention, the guardians, who were court appointed, were also provided with intensive case management support. The study found that intensive case management involving both patient and guardian reduced number of arrests and costs of incarceration, but not total days incarcerated. The study also reported reduced frequency of psychiatric hospitalization.

REDUCED RECIDIVISM

Multisystemic therapy for system-involved youth reduces rates of future criminal legal contact. Intensive case management for adults transitioning home from incarceration shows promise for reducing recidivism.

MST has been evaluated in several different populations of juveniles with prior legal system involvement with largely positive results. One study found that MST youth four years after participation had a 22.1 percent recidivism rate compared to 71.4 percent of those randomized to individual therapy (Borduin, Mann, Cone, and Henggeler 1995; Sawyer and Borduin 2011). Similarly, another study found that MST participants had 83 percent fewer arrests for sexual crimes and 70 percent fewer arrests for other crimes than their non-participating counterparts (Borduin, Schaeffer, and

Heiblum 2009). One study did find significant differences between participants and their counterparts, but to a smaller magnitude—participants had a 66 percent recidivism rate compared to 86.7 percent for the control group (Timmons-Mitchell, Bender, Kishna, and Mitchell 2006). The last study did not find a significant decline in recidivism for the treatment group; however, the treatment group self-reported less criminal behavior than the control group (Letourneau, Henggeler, Borduin, Schewe, McCart, and Chapman 2009; Letourneau, Henggeler, McCart, Borduin, Schewe, and Armstrong 2013).

In both adult and youth settings, studies report positive outcomes for similar forms of intensive case-management that bridge an individual's transition from incarceration into the community. Many were funded by a federally sponsored programs called the Serious Violent Offender Reentry Initiative (SVORI). In this review, we only included studies which implemented programs outside of the Department of Corrections. The Boston Reentry Initiative (BRI), an interagency initiative supported by SVORI funding, developed individualized plans designed to help those who have committed serious violent crimes to reenter society successfully (Braga, Piehl, and Hureau 2009).



MST HAS BEEN EVALUATED IN SEVERAL DIFFERENT POPULATIONS OF JUVENILES WITH PRIOR LEGAL SYSTEM INVOLVEMENT WITH LARGELY POSITIVE RESULTS.

Among the services provided through BRI, participants reentering the community were paired with mentors and caseworkers who act as mediators between their clients and other social services and vocational treatment. Results show BRI participants had 30 percent lower rates of recidivism. The Minnesota Comprehensive Offender Reentry Program (MCORP), a program very similar in nature to BRI, also led to reductions in rearrest, reconviction, and reincarceration for its participants (Duwe 2012). An additional study examined the impacts of an unidentified SVORI program, and concluded that SVORI participants were about half as likely as the control group to have a reconviction during the follow-up period (Veeh, Severson, and Lee 2017). Two studies of SVORI-funded programs included a component of subsidized employment in addition to intensive mentor and caseworker support, which seemed to enhance employability and wages in the post-incarceration period in addition to reducing recidivism rates (Clark 2015; Cook, Kang, Braga, Ludwig, and O'Brien 2015). Lastly, one study randomized participation in Orange County, California's Repeat Offender Prevention Project (ROPP) for a group of 327 young people under probation. ROPP, which was carried out by a community-based organization, provided services to these youth and their families through a collaboration of 13 community-based agencies. A six-month follow-up

period showed that youth participating in ROPP were significantly less likely to commit new criminal offenses than their counterparts, but the effects attenuated after a year. There were no differences in technical violations of probation (Zhang and Zhang 2005).

We note that while the included peer-reviewed experimental analyses that examined the impact of SVORI-funded interventions were consistently positive, one multisite evaluation included in our review, as well as other government reports of such programs, revealed more variable results (Lattimore and Visser 2013; National Institute of Justice 2013). We considered two explanations for this. It is possible, even likely, that publication bias resulted in publication of only positive findings in peer-reviewed papers. An additional explanation is that the published studies contained components of interventions which enabled them to be successful. Notable components found in successful interventions included case management with manageable caseload (20–30 clients per full-time employee), a focus on a broad range of social needs, efforts beginning during incarceration at least six months prior to release and continuing into the community, and the avoidance of sanction-based components to encourage participation.

WHAT DOESN'T WORK

A federal ban which barred access to income and food supports to those with drug felonies did not reduce future criminal behavior.

A large quasi-experimentally designed study differed from other social services studies in that it utilized a natural experiment to see how the 1996 Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA), which banned access to TANF (income supports) or SNAP (food stamp benefits) for those convicted of a drug felony, changed recidivism outcomes. The study found no differences pre- and post- enactment of PRWORA for those convicted of a drug felony, suggesting the ban did not generate its intended consequences of disincentivizing criminal behavior (Luallen, Edgerton, and Rabideau 2018).

We note a final study which found that youth wraparound services, which are defined by a "comprehensive model, which joins the efforts of significant individuals in the youth's life with the community... to build on the strengths of the youth and the family..." did not reduce future criminal offenses (Carney and Buttell 2003:558). However, it did show that youth who received wraparound services were less likely to be expelled, suspended, or get picked up by police. There is little detail written about the components of the wraparound services used in this study, so it is difficult to scrutinize which components of the intervention were unsuccessful and why. □

TABLE 5**Social Support Programs**

Reference	RCT vs Quasi	Year(s) of Intervention	Intervention	Sample	Outcome (Follow-up)	Reduce CJJ	Detailed CJI Findings
Detailed Description of Interventions Evaluating Incident Criminal Justice Involvement (CJI) Prevention							
Levine et al. 2019	Quasi	(2001)	Guardian Model: intensive care coordination for client with severe mental illness (SMI) & guardian.	N=217 Adults with SMI	Incarceration/ Arrest (3 years)	Yes	Arrests: 0.25 reduction in arrests (p<.001).
Weiss et al. 2013	RCT	(-)	Multisystemic Therapy (MST)—cognitive behavioral therapy & family & school support.	N=164 Youth	Arrest (2.5 years)	No	No detectable differences between the treatment groups.
Detailed Description of Interventions Evaluating Recidivism Prevention							
Borduin et al. 1995 Sawyer and Borduin 2011	RCT	(-)	Multisystemic therapy - cognitive behavioral therapy & family & school support.	N=176 Youth with criminal record	Rearrest/ Reincarceration (20+ years)	Yes	4 yr fu: MST group had fewer arrests (M=1.57) than individual therapy (IT) group (M=4.41, p < .002); rearrest for MST group was significantly lower than IT at 14 yr fu (50% versus 81%, p < .01) & 22 yr fu (35% versus 55%, p=.01).

Reference	RCT vs Quasi	Year(s) of Intervention	Intervention	Sample	Outcome (Follow-up)	Reduce CJI	Detailed CJI Findings
Borduin et al. 2009	RCT	1990	Multisystemic therapy - cognitive behavioral therapy & family & school support.	N=48 Youth convicted of sex offense	Rearrest/ Reincarceration	Yes	9 yr fu: MST participants had 83% fewer arrests for sexual crimes & 70% fewer for other crimes than usual community services control group (UCS)(p < .001); MST spent less time incarcerated than UCS (1,942.5 days versus 3,121.04, p < .01).
Braga et al. 2009	Quasi	2002	Boston Reentry Initiative: Intensive caseworker & mentor from faith-based org while in jail.	N=417 Incarcerated Adults	Rearrest, Violent Rearrest (3 years)	Yes	Rearrest: 31.1% reduction (p=0.003); Violent re-arrest 33.8% reduction (p=0.04).
Carney and Buttell 2003	RCT	(-)	Wraparound services teams provide individualized assessment.	N=141 Youth - criminal record	Rearrest/ Reincarceration (18 months)	No	No statistically significant differences between groups for rearrest or reincarceration rates.
Clark 2015	RCT	2011-2012	Case management with increased attention to social service delivery.	N=239 Incarcerated Adults	Rearrest/ Reconviction/ Reincarceration/ Revocation (1-2years)	Yes	Revocation: 28.5% reduction; Reconviction: 42% reduction (p<0.05 for both). No difference in rearrest, reincarceration rates.
Cook et al. 2015	RCT	2007	6 months programming w/ community coordinator at end of sentence.	N=236 Incarcerated Adults	Rearrest/ Reincarceration (1 year)	Yes	Rearrest: 30% reduction (p<0.01); Reincarceration: no difference.

Reference	RCT vs Quasi	Year(s) of Intervention	Intervention	Sample	Outcome (Follow-up)	Reduce CJI	Detailed CJI Findings
Duwe 2012	RCT	2008	Minnesota Comprehensive Offender Reentry Plan: Case-management focused on connecting to already-existing services.	N=269 Reentering Adult	Rearrest/ Reconviction/ Reincarceration/ Violation (10–21 months)	Yes	Rearrest: 37% reduction; Reconviction: 43% reduction; Reincarceration: 57% reduction p<0.05 for all.
Lattimore and Visser 2013	Quasi	2004–2005	12 SVORI-funded programs.	N=1697 Reentering Adults	Rearrest/ Reincarceration (3 years)	Yes*	Self-reported criminal behavior: 8.14% reduction (p=0.04). No difference in administrative outcomes.
Letourneau et al. 2009 Letourneau et al. 2013	RCT	2004–2007	Multisystemic therapy – cognitive behavioral therapy & family & school support.	N=124 Youth – sex offense	Rearrest (2 years)	No	No significant effect on arrest likelihood versus TAU.
Luallen et al. 2017	Quasi	1996	Ban on provision of SNAP or TANF benefits after drug felony conviction.	–	Reincarceration	No	The ban did not impact recidivism rates.
Timmons-Mitchell et al. 2010	RCT	1998–2001	Multisystemic therapy – cognitive behavioral therapy & family & school support.	Multisystemic therapy – cognitive behavioral therapy & family & school support	Rearrest (18 months)	Yes	Rearrest in the treatment group 66% versus 86.7% in the control (p<0.05).

Reference	RCT vs Quasi	Year(s) of Intervention	Intervention	Sample	Outcome (Follow-up)	Reduce CJJ	Detailed CJI Findings
Veeh et al. 2017	Quasi	2006–2010	SVORI programs: in-prison programing & case management post-release.	N=934 Incarcerated Adult	Reconviction/ Reincarceration	Yes	Reconviction: 55% reduction (p<0.001); No difference in any return to prison.
Zhang and Zhang 2005	RCT	1999–2001	Repeat Offender Prevention Project – soft skills building & mental health/ substance abuse programs.	Youth	Rerrest/ Violation (2 years)	Yes	Rearrest: 9.8% reduction at 6 months, but not significant at 18 months (p<0.05). No difference between group in rate of violations.

* indicates soft positive findings, meaning that the intervention reduced CJI only for specific sub-samples.

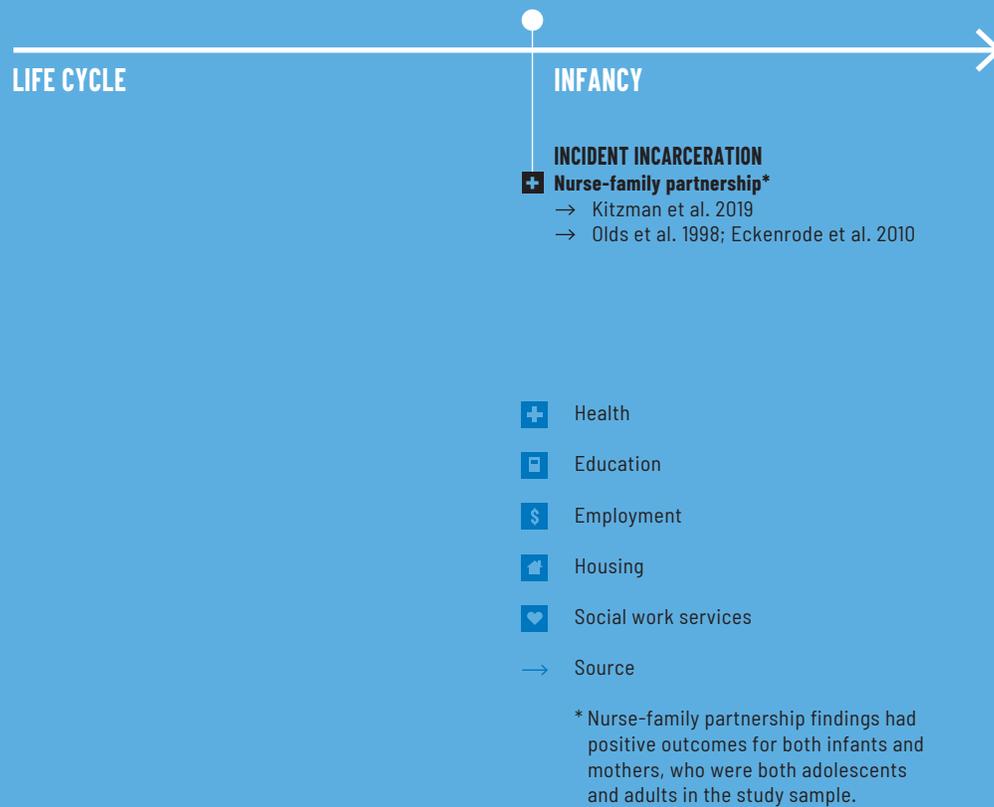
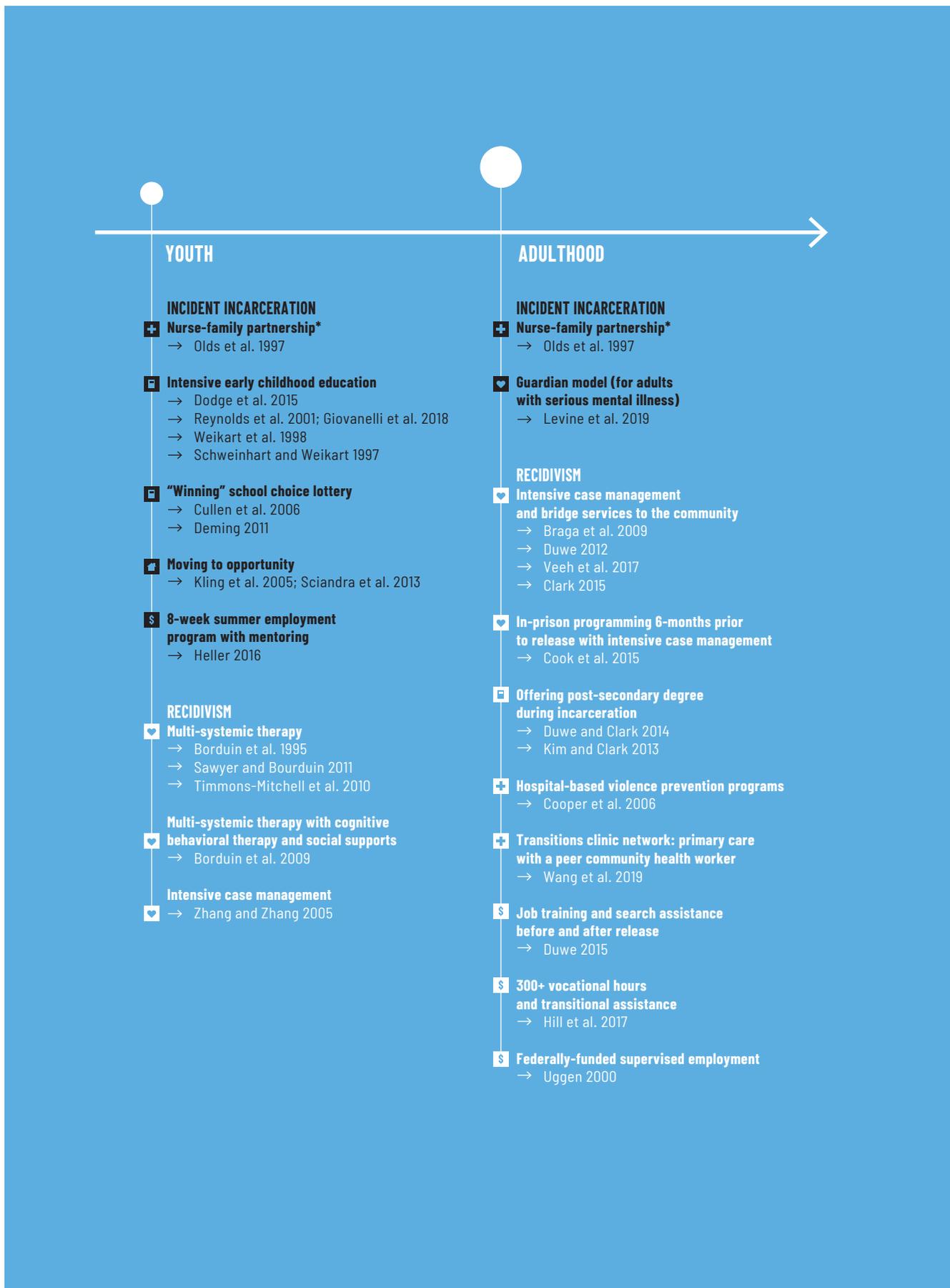


FIGURE 2

**Interventions that reduced
criminal justice involvement:
a life cycle**



OVERARCHING THEMES AND TAKE-AWAYS

As a nation, we have collectively struggled to imagine alternative solutions to crime or interpersonal harm other than correctional punishment (Davis 2005).

As the prison populations continue to decline, we hope this review contributes to an important discourse about the relationship between our societal responsibility to undo the harms of mass incarceration and builds support for effective community investments, even more so for bolstering the imagination for societal programs not yet implemented. As the public health and medical community and general public has come together

in the past few decades to transform prevention and treatment of heart disease with great success, investigators and policy makers must reevaluate our efforts for innovative and imaginative societal programs, paving a new approach to sustainable decarceration. Here, we outline seven take-home points to inform future efforts.

WHAT WORKS

1. INTERVENTIONS WITH INTERGENERATIONAL IMPACT SUPPORT DECARCERATION.

The impacts of community investment may span generations, creating a reinforcing cycle that contributes to a safe and thriving community. This hypothesis is most strongly supported by the Nurse Family Partnership, from which benefits

to children were documented almost two decades after birth, although the intervention did not last beyond the first two years of life. Formal statistical mediation analyses suggest that the intervention was successful in that it empowered mothers



THE SUCCESSFUL PROGRAMS IDENTIFIED IN THIS REVIEW CONSISTENTLY PROVIDED A VERY HIGH LEVEL OF MATERIAL WELL-BEING.

by way of family planning and economic relief, which could benefit children by bolstering stability during their most formative years (Eckenrode et al. 2017). The path analysis of Children-Parent Center intervention—which provided intensive services to preschool-aged children and their parents—additionally found that reduced arrest rates in the treatment group were attributable to increased parental involvement (Reynolds et al. 2001;

Giovanelli et al. 2018). Other studies have suggested that investment in early childhood have effects on families including the following generation. The findings of these studies demand additional research into their potential broad-scale implementation, as well as the potential of enhancing parental support in other sectors.

2. INTERVENTIONS WHICH PROMOTE INCOME STABILITY LEAD TO DECARCERATION AND, WHEN STUDIED, ARE ESSENTIALLY ALWAYS COST-SAVING.

While no interventions directly targeted multiple domains (i.e., education and employment or social support and housing), several successful approaches promoted income stability, which may have allowed individuals to thrive across domains. We are particularly struck by the durable successes of investments in healthcare and education, which enable stability and promote educational development for children and young mothers, as seen in the evaluations of early education interventions and the Nurse-Family Partnership. A similar theme rang true for older adults involved in the criminal legal system, as evidenced by evaluations of post-secondary education and vocational training with employment

support: pathways offering potential for financial stability, employment opportunity, and educational development were most likely to generate successful interventions and reduce returns to incarceration. Since the initiation of this project, Congress has passed the American Families Act—which functions as a universal income for families with children with minimal means-testing or administrative barriers. Among the many benefits of this program, researchers should consider longer-term impacts.

3. DOSE MATTERS: HIGHER IMPACT INTERVENTIONS ARE CONSISTENTLY MORE EFFECTIVE.

The successful programs identified in this review consistently provided a very high level of material well-being. Employment interventions served as a prime example: minimum-wage employment programs have generally proven ineffective, while programs which open doors to a middle-class level of well-being through career jobs, good health care and lifestyle stability were substantially more successful. Similarly, the “lower-dose” educational interventions (high school equivalency programs) did not change recidivism outcomes, while secondary education

programs did. Importantly, while the data support “big dose” programs, the scale of these programs is often tiny compared to the cost of correctional operations. The results of this review suggest the need to study and implement larger, more sophisticated, and perhaps costlier interventions, potentially rivaling the national \$50 billion annual budget for incarceration.

WHAT’S MISSING

1. TOO FEW STUDIES HAVE FOCUSED ON DECARCERATION.

We identified only 43 experiments focused on decarceration outcomes—standing in sharp contrast to the tens of thousands of trials on cardiovascular disease outcomes, or even to the hundreds of cluster-randomized community-based trials for reducing heart disease. The conspicuous lack of well-researched solutions for achieving decarceration may be due in part to innate biases regarding research of this

nature. As Berkowitz and Kangovi argue, the “social movement should not leave science behind” (Berkowitz and Kangovi 2020). The deep inhumanity of the criminal legal system, combined with powerful cognitive biases such as the sense that the best way to decarcerate is to just let people out of prison, create a natural and appropriate sense of moral urgency. This may result in a rush to implement policy

without studying it. Berkowitz and Kangovi go on to argue that familiarity bias might also be at play—while decision makers will yield to experts when considering new medications or gene therapy, they overestimate their own knowledge in everyday issues, such as food, housing, or the criminal legal system (Berkowitz and Kangovi 2020). Even though it doesn't take a clinical trial to reduce the size of the prison population, it may take one (or many) to work out the details of how best to do so.

High quality trials can also be conducted to study community interventions focused on decarceration thanks to the growing field of new sorts of trials: pragmatic

trials, cross-over designs, stepped wedge designs, and rapid cycle, randomized quality improvement trials. These can generate high-quality information for decision makers while respecting important ethical and practical considerations, including the need to release more people from correctional systems, thus better enabling community leaders to lead and make important decisions on how best to decarcerate. These studies can also provide important details about how best to implement decarceration and cost-benefit analysis.

2. INTERVENTIONS WHICH EVEN INADVERTENTLY INCREASE CONTACT WITH COMMUNITY CORRECTIONS MAY PERPETUATE THE CYCLE OF RECIDIVISM.

By definition, our review does not include interventions based in correctional programming; however, some interventions inadvertently or unexpectedly increased exposure to community correctional systems. When this occurred, assignment to the intervention was consistently associated with increased risk of return to the criminal legal system. Domino et al., who found that the receipt of mental health services after release from prison resulted in increased

risk of reincarceration for a technical violation (and not a new conviction), posited their findings suggest that “mental health treatment can function as a form of monitoring that increased likelihood of technical violations, particularly for individuals in parole or probation.” Another example was the Washington State housing voucher study, which found no difference in recidivism between those in the voucher program versus historical controls, but

those who received housing vouchers were subject to increased supervision requirements. The bulk of recidivism in this group was attributed to technical violations. Our review supports the assertion of many community activists that involvement of correctional agencies

in community-supported decarceration efforts may, in fact, augment one's risk of returning back to the correctional system. Diligent efforts should be taken to avoid unintended contact.

3. FUNDING STRUCTURES DO NOT SUPPORT LONG-TERM STUDIES OF DECARCERATION.

Our synthesis of the studies' financing highlights another contributing explanation for the inadequate research information on decarceration: a dearth of durable funding sources. The most provocative studies in this review were implemented four to six decades ago, funded by government agencies. The current NIH and NIJ-funding mechanisms employ two-to-five-year research cycles. As is notable in our review, significantly more time is required—well over a decade—to prove transformative results. The nature of the short grant cycles allows only for small scale interventions that may not be capable of producing meaningful change. Philanthropic organizations may often be willing to fund the evaluation component

of large interventional studies, but they are reluctant or unable to provide the resources needed for the interventions themselves. Significant and durable investment from government organizations such as the Departments of Education, Justice, Health and Human Services, and Housing and Urban Development (which funded the Moving to Opportunity intervention) will be required to create a robust body of research informing decarceration efforts and community investments.

4. EFFICACIOUS INTERVENTIONS HAVE NOT BEEN IMPLEMENTED AT SCALE.

Even among these 43 studied interventions, few have been scaled nationally. Our review identified several superior “treatments” that have faltered in broad implementation efforts. For example, studies have established the long-lasting benefits of the Nurse-Family Partnership for pregnant women and their children—of which reduced criminal legal involvement is among many. It is therefore surprising that there has been no wide-reaching effort to make this intervention the standard of care. Moreover, a RAND corporation analysis found a \$5.70 return for every dollar spent on intervention services for high-risk mothers (Karoly, Kilburn, and Cannon 2005). The national network of NFP organizations reports providing care to 330,000 women (Nurse-Family Partnership 2021). While this is a large number, given that hundreds of thousands

of live births to low-income women occur annually in the United States, it is clear that far more women and children can and should be reached. To our knowledge, one state—Michigan—provides similar services to pregnant low-income women under its Medicaid services. In contrast, coverage for lactation services and breastfeeding supplies—which are recommended by the U.S. Preventive Services Task Force—is federally mandated under Medicaid expansion. Such a mandate for home nursing services could have transformative effects (Ranji, Gomez, and Salganicoff 2021).



WHAT WOULD THESE STUDIES HAVE LOOKED LIKE IF PEOPLE WHO HAD BEEN INCARCERATED OR COMMUNITIES IMPACTED BY MASS INCARCERATION HAD BEEN INVOLVED IN STUDY DESIGN, IMPLEMENTATION, AND ANALYSIS FROM THE BEGINNING?

5. STAKEHOLDERS, PARTICULARLY SYSTEM-IMPACTED PEOPLE, HAVE NOT BEEN INCLUDED IN EITHER RESEARCH DESIGN CREATION OR FUNDING DECISION-MAKING FOR STUDIES.

Importantly, key stakeholders, especially those who have been incarcerated and their families, have often been omitted from the process of research question development, study execution, and data analysis and dissemination. This is true of both studies of incident incarceration and recidivism. What would these studies have looked like if people who had been incarcerated or communities impacted by mass incarceration had been involved in study design, implementation, and analysis from the beginning? For instance, if affected community members had a say in designing the Moving to Opportunity study, would there have been less emphasis placed on “moving” and more on place-based revitalization? Many participants who moved reported decreased access to transportation and social isolation after they were provided housing in a new location. It is possible that community revitalization efforts may

be preferred over interventions requiring subjects to leave their own communities. Such questions cannot be asked without inviting the people most impacted by the findings into the study design process. System-involved stakeholders have been key to developing a handful of reentry initiatives, including the Transitions Clinic Network programs, studied in our review. But more needs to be done. Centering interventions around those with lived experience adds crucial insight into what works and what does not, creates opportunities for meaningful work for those with direct experience, and may build trust in communities where generations of neglect and harmful actions have built a foundation of earned distrust (Israel, Schulz, Parker, and Becker 2008).

LIMITATIONS OF THIS REVIEW

The framing of this review—analyzing interventions outside of correctional operation—inherently omits a substantial amount of research examining corrections programming. We chose to study only those interventions operating outside of the criminal legal systems because prior research suggests that programs that run within this system function largely as a net-widening effect, increasingly likelihood of incarceration or community surveillance with little benefit to public safety (Butts and Schiraldi 2018, Aos, Miller, and Drake 2006). However, we acknowledge an extensive amount of research—indeed an entire field of study—has been devoted to studying the most effective ways to leverage correctional programming aimed at “rehabilitation” to reduce recidivism rates. In the 1990s, a team of psychologists identified the *risk-needs-responsivity* framework for correctional programming, which was designed to be adaptable to the criminogenic profile of the individual in an effort to optimize the rehabilitative benefit of the program

(Taxman and Marlowe 2006). The goal of such programs is to improve an individual’s employability and social functioning upon returning to society, presuming that this will thereby reduce the likelihood that he or she will commit another crime. To this day, the model is considered the gold standard for correctional programming.

We additionally acknowledge several important experimental studies which could not be included here because they did not undergo peer-review. One example is the Center for Employment Opportunities, which provides jobs and other services to improve labor market potential for people on return home from prison, which has been shown to reduce incarceration by about 20 percent. CEO was evaluated experimentally, but results were never published using the peer-review process (Redcross, Millenky, Rudd, and Levshin 2012). This and other studies using different inclusion criteria than our review have identified mixed evidence about the effectiveness of various forms of transitional employment programs (Western 2008; Doleac 2018). Recidivism outcomes are particularly mixed; however, this does not bar the possibility of extracting useful details. The studies noted here all support our takeaway that dose matters: interventions which support participants to

greater levels of material stability are more effective. Additional working papers in the field of economics support our take-away that programs which enhance income stability reduce incarceration. Two federal policies, the Earned Income Tax Credit and the expansion of Medicaid as part of the Affordable Care Act, have been causally linked to reduced crime (Vogler 2017; He and Barkowski 2020; Lenhart 2021).

Further, because we only studied individual criminal legal involvement, we did not include several promising studies of interventions which reduced neighborhood-level crime rates, which may be important complements to our findings. Two recent reviews have nicely summed up such work, which includes neighborhood greening of vacant lots (shown to reduce violence and crime), as well as the violence interruption model, which targets the social fabric, employing community members to deescalate tension prior to violent acts (Butts, Gouvis Roman, Bostwick, and

Porter 2015; Kondo, Andreyeva, South, MacDonald, and Branas 2018). Finally, a recently reviewed quasi-experimentally designed study showed that housing repairs for low-income homeowner in Philadelphia reduced neighborhood crime (South, MacDonald, and Reina 2021). We highlight this important work as initiatives which are likely crucial complements to sustainable decarceration efforts. □

CONCLUSION

To understand how to achieve permanent decarceration, we must ask the right questions and seek evidence-based answers. With this review, we hope to contribute to the existing academic framework for societal interventions that might complement urgently needed policy reform, allowing the United States to drastically reduce its carceral state. We identified promising interventions across multiple societal domains: investment in early education programs has strong experimental support, as does providing a college education to incarcerated students. The role of providing housing has been woefully understudied, but relocation to a safe neighborhood has long-lasting effects, and housing those who would otherwise be homeless upon release may be a safe and cost-effective strategy. Leveraging high touch-point areas of healthcare, such as primary care and the emergency department, to offer additional services or provide peer support is likely to help recently released persons stay in the community. Employment interventions—when they open opportunities to meaningful careers and a livable wage—have strong experimental support. And finally, the use of social services care coordination, bridging from the carceral setting to the community,

as well as multisystemic therapy have a robust amount of literature supporting their role in the movement to decarcerate.

We emphasize that this compilation of research is only one part of what is needed to fully visualize the scope of a sustainable decarceration effort, detached entirely from the correctional control system and supported by thriving communities. Sustained commitment to funding, research, and political organizing will be required for their shape to fully materialize. Application of different scientific methodologies, including implementation science, systems science, and cluster randomized community-level interventions, will be needed. The scaffolding for decarceration has begun to take form, but careful additional attention and investment must be paid to complete its structure. □

ENDNOTES

1 See pubmed.gov and refine keyword “statin” search to RCTs only.

2 Patients can determine likely statin benefits through online tools like <https://tools.acc.org/ASCVD-Risk-Estimator-Plus/#!/calculate/estimate>.

3 Due to the nature of the paper content—a discussion of a large swath of research literature—we do not continually cite references when they are discussed throughout a paragraph, but include parentheticals upon their first mention.

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