An Integrated Approach to Recovery from Drug Addiction: Creating Linkages Between Drug Treatment and Employment Services in Baltimore

Emma Tsui, MPH
PhD Candidate
Johns Hopkins University
Bloomberg School of Public Health
Dep't of Health, Behavior & Society

and

Lainie Rukow, JD, MPH
PhD Candidate
Johns Hopkins University
Bloomberg School of Public Health
Dep't of Health Policy & Management

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Executive Summary

Declared “the most heroin-plagued city in the U.S.” by the federal Drug Enforcement Administration in 2000, Baltimore has grappled with how to effectively address the problem of drug addiction in the city for decades. Though the city’s drug treatment system has recently been improved through significant increases in drug treatment slots, enhanced monitoring of drug treatment providers, and the possibility of primary care distribution of buprenorphine to treat heroin addiction, the socioeconomic factors associated with drug use remain largely unaddressed.

Many kinds of treatment can reduce drug use, at least temporarily. In a large-scale Baltimore study published in 2001, methadone maintenance therapy and drug-free treatment were shown to be effective at reducing drug use, as well as a host of other drug-associated problems like crime and unemployment, over a one year period. In addition, health economics research indicates that methadone maintenance and other addiction therapies are generally cost-effective. However, the National Institute on Drug Abuse writes that, “Effective treatment attends to multiple needs of the individual, not just his or her drug use. To be effective, treatment must address the individual’s drug use and any associated medical, psychological, social, vocational, and legal problems.”

This paper focuses on the vocational needs of recovering addicts, which have been shown to be critical to long-term recovery from drug addiction. In the paper, we examine existing models that combine drug treatment and employment services, such as quick entry interventions, skill-building programs, and supported work programs. In addition, we consider Baltimore’s current response to the vocational needs of recovering addicts. We developed an understanding of the current situation in Baltimore, in part, by conducting interviews with key city officials,

including the Baltimore City Health Commissioner, the President and CEO of Baltimore Substance Abuse Systems, and the Assistant Director of the Mayor's Office of Employment Development.

We conclude that Baltimore would benefit from an integrated case management system for drug treatment and employment services. In light of this, we propose a period of program development in this area. The goals of this period would be to improve communication and coordination between relevant city agencies and to cultivate possible funding sources that would be used to finance a pilot project linking drug treatment and employment services. Our recommendations for approaches the city might take to create a pilot project in East Baltimore are informed by lessons learned from similar programs and interviews with Baltimore city officials.

I. Introduction

Since the 1950s, drug use and addiction have been considered substantial issues of public policy and public health throughout the United States.[1] With over 8% of the national population reporting illicit drug use in 2003,[2] government efforts to reduce addiction now focus on three national priorities: education and community action, increasing the availability of treatment, and dismantling drug markets.[3] The costs of drug use and addiction make a compelling case for these actions. The Office of National Drug Control Policy estimates that illegal drugs cost the United States over $150 billion per year via health care costs, productivity losses, and criminal justice and social welfare costs.[4] These figures show the cost of drug use to be comparable to the estimated annual costs of other major public health problems, like diabetes (at $132 billion)[5] and cancer (at $172 billion).[6]

The pressing nature of reducing drug use in the United States is further underscored by linkages between drug use and a host of health, psychosocial, and societal issues. For instance, drug use has been linked with heart disease and HIV/AIDS, with psychosocial issues like stress and violence, and with societal issues like homelessness and crime.[7] However, as the National Institute on Drug Abuse (NIDA) and the Institute of Medicine (IOM) highlight, the most critical effect of illicit drug use is addiction, which serves as an intermediate effect between the physical effects of drug use itself and the long-term negative individual and societal impacts cited above. Because addiction may result from the interplay of genetic predispositions and environmental factors, NIDA and the IOM encourage the characterization of addiction as a treatable chronic disease.[8,9] As with other chronic diseases, relapse rates after drug treatment are substantially predicted by socioeconomic status, levels of family support, and concurrent mental illness.[10]

The ability to successfully treat addiction is of particular significance in places like Baltimore City, which was declared "the most heroin-plagued city in the U.S." by the federal Drug Enforcement Administration in 2000.[11] Indicators of drug use and addiction in Baltimore City typically show the city to be well above national average levels of drug use. The most commonly used estimate suggests that there are approximately 60,000 drug addicts in the city.[12,a] Among Baltimore 8th and 10th graders, levels of marijuana, cocaine, and heroin use at the end of the 1990s were one-third to three times higher than national averages.[13] Similarly, drug-related emergency room visits in the latter half of the 1990s were almost three times higher in Baltimore than nationally.[14] Because of the illegal nature of this kind of drug use, estimates of the magnitude of addiction to specific drugs among adults are typically made through proxy indicators like drug treatment admissions, drug arrests, and overdose deaths. In Baltimore in 2003, the drugs mentioned most frequently upon admission to treatment programs were heroin (70%), cocaine (55%), and alcohol (35%).[15,b] Heroin and cocaine also dominated as reasons for drug-related arrests in Baltimore City, with arrests related to the sale and manufacturing of these substances comprising 77% of all drug-related arrests in 2005.[16] Finally, heroin was involved in 90% of drug abuse deaths in Baltimore City in the 1990s, and cocaine was involved in 29% of these deaths.[17]

These elevated rates of drug use, and particularly heroin use, impact Baltimore City residents in multiple ways. By some estimates, three-quarters of nonviolent property offenses in the city are associated with alcohol and drug abuse and 50 to 60% of the city's homicides are

[a] "The 60,000 estimate has been built on hazy projections and on misinterpretations of researchers' findings, a review of its sources shows. Those who produced it acknowledge its shakiness and say they're uneasy about the way the number is bandied about. Without a prohibitively costly survey, they say, there's no reliable way of keeping score in the fight against addiction." MacGillis A. Proportions of drug crisis incalculable. *Baltimore Sun* Aug. 7, 2005.

[b] For additional information about drug treatment admissions in Baltimore from 1999 to 2003, see Appendix A.

associated with drug trafficking and sales.[18] The impact of drug use in Baltimore comes further into focus when local reductions in crime and unemployment are shown to result from effective drug treatment. In 2002, the city's drug treatment agency published the results of "the largest and most rigorously conducted drug treatment outcomes study that focuses on a single city."[19] The study showed an almost 70% decrease in the amount of illegal income received by participants over twelve months of methadone maintenance or drug-free treatment. Study participants also increased their employment and earnings during the treatment period, working 52% more and earning 67% more money after program participation as compared with before.[20]

As this study makes clear, there is a strong relationship between drug use and employment. However, rather than holding clear and unidirectional causal relationships with one another, these factors may mutually influence one another throughout an individual's life. While drug use itself may hinder successful employment, an addict's involvement in and proximity to the city's thriving drug economy may also render illegal employment opportunities more accessible than legal employment. Additionally, recovering addicts who encounter challenges in finding legal employment may be more likely to return to participation in the drug economy and drug use. Successfully treating drug addiction thus necessitates paying close attention to the job-related skills and aspirations of a recovering addict, as well as to the kind of employment opportunities available to him or her.

This paper will first examine the determinants that contribute to drug addiction and recovery. Next, the paper will describe different types of drug treatments, their effects, and costs. It will then explain how employment services can be integrated into drug treatment programs and what forms these services may take. Finally, this paper will explore current efforts to coordinate drug treatment and employment services in Baltimore. The paper concludes with a

set of policy recommendations designed to further the development and implementation of linkages between drug treatment and employment services in Baltimore.

II. Conceptual Model of the Drug Use and Recovery Cycle in Baltimore

Several sets of factors contribute to an individual's path toward drug addiction in Baltimore. Some of these factors can be traced back many decades, and are unique to the development of Baltimore's heroin trade. Other factors reflect the fallout of a drug epidemic that has gripped the city for over half a century.[c] Taken together, these socioeconomic and personal factors elucidate the elements that may lead an individual to become involved in a cycle of drug use and recovery in Baltimore in 2007.

A. *Socioeconomic Factors*

By the end of the twentieth century, many of Baltimore's neighborhoods had been devastated by poverty, due to a combination of factories closing or relocating, technology replacing manual labor, and the long-term results of an active heroin trade.[21] With legitimate job prospects difficult to discern, mounting monetary obligations, or simply facing the desire to have cash on hand, many young people living in these neighborhoods turn to some aspect of dealing drugs. They know that their services will be compensated in cash, which may be the only obvious way for them to acquire money.

Addicts know this as well. On average, an addict will need at least $50 a day to support his or her habit.[22] Between getting high and searching for drugs for their next high, addicts have great difficulty maintaining legitimate jobs. And, when an addict does attempt to acquire legitimate employment, he or she may face multiple barriers, including employers who discriminate against recovering addicts, lack of transportation, child care issues, and a dearth of marketable skills.[23] In addition, the health issues associated with continued heroin use may

[c] For further description of the development of Baltimore's drug economy and epidemic, see Appendix B.

present obstacles to finding licit employment.[24] As a result, drug addicts become dependent on participating in the "street-level drug economy" to support their addiction.[25] This fosters a cycle in which the addict helps to facilitate the very market that feeds his or her addiction.

Many addicts who engage daily in the street-level drug trade live near the neighborhood in which they acquire and use drugs.[26] For some addicts, most of their daily contact is with other people who have "favorable attitudes toward drug use."[27] They receive few outside incentives to question their behavior or to seek treatment. In fact, some addicts have social contacts almost exclusively with other addicts and dealers,[28] which can ingrain drug use as a social norm and reinforce favorable attitudes toward drugs.

For those addicts who find the motivation to seek treatment, difficulties arise in terms of clinic location, lack of social support, and lack of commitment on the part of a program to long-term recovery.[29] Some addicts surmount these community-level barriers and overcome their addiction, at least temporarily. Unfortunately, for many addicts, successful completion of a drug treatment program does not preclude a relapse, since drug addiction, particularly to heroin, can be "a chronic relapsing disorder."[30]

B. *Personal Factors*

As the above socioeconomic factors suggest, an addict is not born an addict. While recent research suggests that some persons may be genetically predisposed toward drug addiction,[31] additional factors at the personal level play an important role in an individual's propensity to use, and become addicted to, narcotics. An individual's home environment, particularly a parent's presence and attitude toward drug use, can influence a child's decision to initially try drugs.[32] On the other hand, a parent's absence, especially in a neighborhood where drugs are easy to acquire, can leave a child free to explore and experiment.

A child's attitude toward school can also deter or invite drug use. Children who feel a strong attachment to school and achieve academic success are less likely to use drugs than their counterparts who find little value in the school curriculum.[33] For many adolescents growing up in areas of east or west Baltimore, the lessons they learn in school have little relevance to their lives at home and in their communities. This can lead students to drop out of school and participate in the drug trade or use drugs.[34]

For some individuals, this choice may ultimately lead to social isolation that is dominated by a drug addiction. For others, this will lead to the development of a social network in which drug use and addiction are accepted or even encouraged.[35] Some addicts manage to escape from their social network to seek treatment and legitimate employment. However, without well-developed coping mechanisms, the stress and anxiety associated with treatment can be exacerbated for an individual. And, if a recovering addict is fortunate enough to find legitimate employment, a lack of experience with a traditional work setting coupled with mounting stress can ultimately result in job loss, which has been "clearly associated with relapse."[36]

III. Facilitating Recovery

The complex dynamics involved in addiction and recovery in Baltimore speak to the varied approaches required to effectively meet the treatment needs of individual addicts. This section will review the most common treatment approaches used in Baltimore, the effects of treatment, and cost considerations associated with treatment. Because heroin addiction is so common in Baltimore, where possible, this review will focus on treatment for heroin addiction.

A. *Treatment for Heroin Addiction*

Treatment for heroin addiction typically falls into two phases: detoxification and longer-term treatment. Detoxification can be accomplished on an inpatient or outpatient basis, and is

intended to minimize the symptoms of withdrawal while the patient becomes accustomed to an absence of heroin in the body. Because detoxification programs attend only to the physiological aspects of addiction and do not address the psychological, social, and behavioral correlates of heroin addiction, it is extremely rare that detoxification alone leads to full recovery from addiction.[37]

Treatment for heroin addiction, following successful detoxification, can be accomplished in residential or outpatient settings, and with or without pharmaceuticals. Methadone treatment is one of the better-known approaches to long-term pharmaceutical management of heroin addiction. Common as a treatment for heroin addiction since the 1960s, methadone maintenance programs require recovering addicts to visit methadone clinics daily to receive an oral dose of methadone that will suppress withdrawal for 24 to 36 hours. Methadone alleviates heroin cravings,[38] but, like heroin, is physically addictive.[39]

There is also an array of non-addictive pharmaceutical treatments for heroin addiction, like naltrexone and the newly emerging drug buprenorphine. Naltrexone works by blocking opioid receptors, thus inhibiting the euphoric effects of heroin.[40] Because dulling the potential effects of heroin alone may not be sufficient to help addicts discontinue use, naltrexone tends to have high rates of non-compliance leading to relapse and is said to have the highest success rates when used with patients who have a strong external motivator (such as a professional job) to be completely abstinent from opioids.[41,42] Buprenorphine, on the other hand, partially activates opioid receptors, creating a mild sense of euphoria to reduce heroin craving, but with a low maximum effect. [43]

Drug-free outpatient treatment following detoxification offers services that range from drug education to twelve-step programs to intensive counseling and individualized services.[44]

Drug-free residential treatment may include services that are similar to these more intensive forms of drug-free outpatient treatment, but also provides consistent care and housing for periods typically ranging from six to twelve months.[45] It should be noted that the importance of a wide range of support services for those recovering from drug addiction is as great for those engaging in pharmaceutical treatment for addiction as for those in drug-free treatment. As agencies like the National Institute on Drug Abuse repeatedly stress, successful recovery depends on the availability of medical, psychiatric, and social services in conjunction with drug treatment.[46]

B. ***Effects of Treatment for Heroin Addiction***

Treatment effects for heroin addiction vary as a result of individuals' personal constellations of resources and constraints, as well as in accordance with the treatment modality itself and the appropriateness of treatment. However, the generally positive effects of treatment in Baltimore City are clear. In the city drug treatment agency's 2002 report mentioned earlier in this paper, authors analyzed external measures like urine drug tests and data from arrest and imprisonment records, as well as measures of self-reported behavior at baseline, one, six, and twelve months of treatment.[47] Overall, they found an overwhelmingly positive effect of both methadone and drug-free treatment for a range of participants on most of the indicators studied.[d]

Examples of these positive effects are as follows. Heroin use that was diminished by approximately 70% was sustained between the one- and twelve-month follow-up points by participants in both programs. Additionally, methadone participants saw a greater decline in heroin use at all points of follow-up as compared with drug-free treatment participants, though methadone participants used heroin more frequently than participants in drug-free programs prior

[d] It is important to note that there are limitations to these results. For example, this study only followed participants for a maximum of twelve months, so little is known about long-term effects. The results reported in the study are based on pre/post comparisons, made at one, six, and twelve months from baseline. While there are weaknesses in this study design, statistical analyses of the results revealed that many of the study's findings were, in fact, statistically significant.

to enrollment. Program participation was also associated with declines in crime. At one-month follow-up, the amount of illegal income received by participants had dropped by 77%, an effect that was sustained at twelve months of follow-up, at which point illegal income was still reduced by 69% from baseline. As with the reductions in drug use, methadone participants had higher levels of illegal income prior to study enrollment and saw greater reductions in illegal income than drug-free treatment participants.

One of the report's more remarkable findings is that employment and earnings increased significantly during the treatment period. Comparing the thirty days prior to enrollment in the study with the thirty days prior to twelve-month follow-up, participants worked 52% more and earned 67% more money after program participation as compared with before. These increases were significantly greater for participants who were in drug-free treatment as compared with those who were receiving methadone maintenance. The desire and need for employment-related counseling services also declined significantly over the period of treatment.[48]

C. *Costs of Treatment*

In places like Baltimore City, which have high levels of heroin use and treatment need, an understanding of treatment effectiveness must be balanced with estimates of the cost-effectiveness of various treatment approaches. Variations in cost may be rooted in the mode of treatment delivery, the frequency of treatment, and the price of the treatment itself.

Because of its relatively lengthy history, popularity, and sometimes controversial nature, among treatment modalities, methadone treatment has received the most attention from cost-effectiveness analysts. The results of these and other studies of drug treatment have shown strong favorable cost-benefit effects. Due largely to its ability to prevent the spread of HIV, one analysis found that even if methadone were twice as costly and half as effective, it would still be

considered cost-effective.[49] Despite the daily delivery procedures involved, at approximately $13 per day, methadone treatment also has been shown to be cost-effective when compared with the costs of incarceration.[50]

Many studies analyze treatment programs for heroin addiction in conjunction with those for other commonly abused drugs. For instance, a California study showed that treating people for alcohol and drug abuse using residential, outpatient, and outpatient methadone programs saved taxpayers seven times the cost of treatment, primarily due to reductions in crime.[51] Cost-benefit analyses of drug treatment programs are difficult to compare as a result of vast methodological variations and approaches, some of which may produce more valid results than others. Despite this, one health economist writes that "the benefits of drug abuse treatment are so robust that it appears that the conclusion of positive economic returns to society will stand as better studies are implemented."[52]

D. *Importance of Wraparound Services*

As the National Institute on Drug Abuse writes in its Principles of Drug Addiction Treatment report, "Effective treatment attends to multiple needs of the individual, not just his or her drug use. To be effective, treatment must address the individual's drug use and any associated medical, psychological, social, vocational, and legal problems."[53] Furthermore, the Institute notes that treatment effectiveness may be substantially enhanced by external motivators like family, friends, and employers. The next section will discuss the role that job training and job placement, in particular, may play in the treatment trajectories of recovering addicts.

IV. Job Training as a Facilitator of Recovery

For many people, drug addiction and unemployment have a synergistic relationship. The lack of education and job skills that may have initially contributed to an individual's descent into

drug addiction also prevents that person from identifying and securing desired employment.[54] Yet, for some drug treatment providers, a recovering addict's search for employment is perceived as a barrier to effective drug treatment.[55] These providers may fear that the individual will leave the program upon finding a job, before treatment can have any long-lasting effect. In addition, some providers feel ill-equipped, due to want of funding or staff expertise, to provide vocational rehabilitation services in addition to drug treatment services.

Despite these concerns, studies have repeatedly found a positive association between employment and the effectiveness of drug treatment, particularly in terms of reduced episodes of relapse and decreased criminal activity.[56] Many have argued that a recovering addict's sustained employment should be "viewed as a principal indicator of successful [drug treatment]."[57] Some have even suggested that securing employment should be an element of comprehensive drug treatment: "by holding a job, the [recovering addict] not only establishes a legal source of income but improves his or her self-esteem, which in turn may reduce use of illicit drugs . . . . Employment may also serve as a means of (re)socialization, allowing for integration into the 'straight world.'"[58]

A. *Types of Programs*

During the last few decades, several models of vocational rehabilitation have evolved. Some theories suggest that it is important for recovering addicts to locate jobs as quickly as possible, so they can develop a steady source of income and return to mainstream society. Other theories advocate for a more holistic approach to employment, including "assessment of individual vocational needs, counseling, skills training, and job placement."[59] This section will explore the prevailing models for vocational rehabilitation within a drug treatment context.

1. *Quick Entry Interventions*

As part of a quick entry intervention, a drug treatment provider will encourage and possibly facilitate the identification of a job for a recovering addict as soon as possible. The provider will not necessarily determine what the individual's career interests are; the immediate goal is job placement, not job satisfaction. Once the recovering addict begins work, additional drug treatment services may or may not be provided.

The long-term success of this model has been frequently questioned. Some argue that this type of intervention may not lead to long-term employment: "simply providing individuals with histories of drug abuse and chronic unemployment a job and an opportunity to earn a decent wage may not be sufficient to sustain acceptable work performance."[60] In other words, without accompanying support services, an individual who has not recently or has never held a job may quickly become overwhelmed by the demands of life, such as child support payments and other monetary obligations.[61] This individual may then relapse into drug use rather than address the mounting stresses that come with licit employment.

Other critics worry that recovering addicts who remain employed have no chance to advance. If they never earned a high school diploma or a GED and entered drug treatment with no identifiable job skills,[62] then some recovering addicts may never acquire the skills necessary to advance from an entry-level position. This can lead to long-term frustration and disappointment with the decision to pursue legitimate employment, which may also lead to a relapse in drug use.

2. *Skill-Building Programs*

Some drug treatment providers believe that many recovering addicts will not maintain long-term employment unless they first develop marketable job skills.[63] This type of skill development model may be especially appropriate when used in conjunction with software that can help recovering addicts to identify the type of career that would most interest them. For example, an individual who hopes to work in an office setting will need to acquire relevant skills, such as typing, before beginning a job search.

If a drug treatment provider offers a skill-building program, then recovering addicts have the chance to develop job skills during the course of their treatment.[64] They may attend GED classes during the day, with the goal of obtaining a high school equivalency diploma before beginning a job search. Providers hope that, with this type of career goal tied to a drug treatment program, a recovering addict will be more likely to continue with treatment.

Evaluations of skill building programs have concluded that, depending on the nature of the program, some recovering addicts can "gain marketable job skills that may improve their employability and earning potential."[65]

3. *Supported Work Programs*

Supported work programs, which refer to "employment characterized by intensive, ongoing support [services],"[66] offer the best elements of quick entry interventions and skill-building programs. In these programs, recovering addicts work in a real-world setting, but receive "job-site training, ongoing assessment, and, frequently, job-site intervention."[67] For individuals with limited work experience and few marketable job skills, this situation can be ideal. The recovering addict receives wages commensurate with other employees, but also has a number of support services readily available. In some cases, supported work programs even

provide job skills training on site, which can allow an individual to develop skills while successfully maintaining employment.

Critics of this model express concern about the long-term sustainability of this type of employment. For example, if the goal is for a recovering addict to eventually work in a setting that does not provide on-site support services, will he or she be prepared to transition away from a supported work program? The answer to this question is uncertain. Because most research in this area has examined the early stages of an individual's employment, "little is known about how [recovering addicts] function on-the-job after they obtain employment."[68]

In recent years, however, the long-term effects of one supported work program, the Therapeutic Workplace, have been extensively evaluated. The program, which is based in Baltimore, seeks to promote drug abstinence by training and then hiring individuals in drug treatment to perform data entry work. Participants are tested for drug use through urinalysis. If they remain drug-free, then they can receive salary increases; if they relapse, then they cannot work and earn a salary through the program.[69,70] Those who developed the program suggest that, "to the extent that the Therapeutic Workplace business is financially successful, employment and the associated salary-based abstinence reinforcement can be maintained indefinitely at little or no cost."[71]

Recent evaluations of this program have reached mixed conclusions. One study found that participation in the Therapeutic Workplace "appeared to produce increases in cocaine and heroin abstinence that were maintained for 3 years."[72] On the other hand, many participants "displayed highly unprofessional behavior that most certainly would have led to termination in most community workplaces, and productivity was poor in some participants."[73] This finding reinforces the concerns mentioned above, about individuals' ability to eventually transition away

from this type of program and into a more traditional work setting. In addition, it is difficult to know how Therapeutic Workplace participants would function if their salary were not tied to negative urinalysis tests.

V. Drug Treatment and Job Training in Baltimore

In light of the promising research on vocational rehabilitation for recovering addicts, blended programs that provide both drug treatment and employment-related services may be a strategic move for improving drug treatment outcomes in Baltimore City. Because of the multiple ways in which jobs and job training have been used as a facilitator of recovery, it is important to understand the city's current efforts in drug treatment and employment services before an effective policy to combine the two can be proposed. This section of the paper will describe the structure and activities of the city's drug treatment agency, Baltimore Substance Abuse Systems, as well as those of the Mayor's Office of Employment Development, the city agency most involved in job training and placement activities.

A. *Baltimore Substance Abuse Systems*

In 1990, the federal Center for Substance Abuse Treatment awarded Baltimore a Target Cities grant "to improve the quality and effectiveness of Baltimore's substance abuse treatment system."[74] That year, the Baltimore City Department of Health created Baltimore Substance Abuse Systems (BSAS), a quasi-public, non-profit entity, to administer the grant.[75] BSAS's administration of the Target Cities grant led to the establishment of primary health care centers at five drug treatment clinics, an addiction education program for physicians, and an intake database that provided a snapshot of the city's drug treatment needs.[76] In 1995, BSAS took over the responsibilities of the Health Department's Substance Abuse Bureau. This transfer of power established BSAS as "the substance abuse authority for the City."[77]

Today BSAS's mission is "to prevent and reduce alcohol and drug dependency and its adverse health and social consequences in the City of Baltimore . . . by ensuring that Baltimore residents have access to high quality and comprehensive services proven to reduce substance abuse."[78] With an annual budget of about $50 million, BSAS "administers funding, monitors treatment programs, collects client demographic and treatment data, works in collaboration with other agencies to improve services, and plans for the development of new services."[79] BSAS oversees programs ranging from case management services for persons receiving Temporary Cash Assistance who are in need of drug treatment to the Mayor's Initiative, which created new drug treatment slots in the city. Estimates suggest that there are approximately 7,000 drug treatment slots available in Baltimore,[80] and that these slots are always filled[81] as there is currently greater demand than treatment available on any given day.

The range of these programs speaks to the diverse and complex needs of the population that BSAS serves. As BSAS President and CEO Adam Brickner notes, members of the addicted population with whom the agency works often have had experiences with the criminal justice system, and may suffer from various forms of mental illness that illicit substances were used to treat or that developed in conjunction with addiction. These unique assemblages of experience not only influence the kinds of drug treatment plans that will be most effective with a given addict, but should also inform plans to prepare the same recovering addict for employment.[82]

B. ***The Mayor's Office of Employment Development***

Rising to prominence under former Mayor Martin O'Malley, the Mayor's Office of Employment Development (MOED) "coordinates and directs workforce development initiatives responsive to the needs of Baltimore City employers and job seekers in order to enhance and promote the local economy."[83] The office accomplishes the portion of the mission aimed at job

seekers primarily through the operation of One-Stop Career Centers for Baltimore City's adult residents, which have been funded since 2000 by the federal Workforce Investment Act.[84] MOED manages three such job centers in the city: one on the city's east side, one in the northwestern part of the city, and a third that is located just northwest of the city's downtown area. All three centers provide computer, internet, telephone, and job bank access, access to relevant classes and services, as well as case management services for job seekers with unique needs like those returning to work after prison.[85,86]

Based on an initial needs assessment, job seekers, or "customers," who come to the MOED's One-Stop Centers, are offered self-serve or staff-assisted core services (like those listed above) or more intensive services managed by a career development facilitator.[87] The various categories of services function as a series of tiers along a continuum of assistance. In a snapshot study done in 2001, 81% of customers were receiving self-serve core services, 7% were receiving staff-assisted core services, 10% were receiving intensive services, and 3% were receiving training services for particular job types and employers.[88]

Analyses of workforce development in the city and the region have recommended the removal of barriers for low-income workers (like literacy and criminal records)[89] and the improvement of linkages across public agencies and other workforce-related players.[90,91] These recommendations, however, largely ignore drug treatment in the picture of coordination that they paint. Reflecting this, the MOED has many partners throughout the city in workforce development (including the Baltimore City Public Schools, the Baltimore City Housing Authority, and the Division of Rehabilitation Services),[92] but BSAS and the drug treatment organizations with which it works are not currently part of this system.[93]

C. *Current Interactions*

Though BSAS and the MOED do not have a history of collaboration, the logic of providing vocational rehabilitation for recovering addicts has motivated the agencies to take some initial steps towards mapping out a formal partnership. In doing this, representatives from both agencies are primarily concerned with gaining the support of the city's drug treatment providers, who may prefer to focus on implementing drug treatment in a way that is more narrowly defined, rather than expanding their services using already stretched funds.[94] Acquiring a dedicated source of funding to support such an initiative is thus necessary, though that alone will not be sufficient. Ensuring that providers understand the value of employment-related activities within drug treatment would also be critical, notes Adam Brickner, President and CEO of BSAS.[95]

Of these two hurdles, attitudes and funding, BSAS and the MOED have decided to tackle attitudes first. In January 2007, BSAS invited representatives from the MOED to speak at a BSAS meeting for the directors of local drug treatment organizations in order to explain the work of the MOED. Providers seemed open to the idea of coordinating their work with employment activities if the results of a pilot program were positive. As such, the two agencies have been in talks to discuss developing a partnership between a large drug treatment program in East Baltimore and the Eastside Career Center.[96]

The funding side of the equation is unfolding more slowly. Though the drug treatment and employment-related services that would be blended in the pilot program already exist, funding for developing coordination protocols, identifying good candidates for the program, and developing tracking and evaluation systems is necessary. Because the pilot program would focus on a particular subpopulation (recovering addicts), the MOED's diminishing federal funding

could not be used to cover it. Mary Sloat, Assistant Director of the MOED, suggests that it may be possible to pursue grants from local foundations to pay for these activities, or at least for a planning phase, but also notes that the two agencies would need to better understand one another's missions and structure before this could be done.[97]

D. *Current Challenges*

When interviewed about the need for formal linkages between drug treatment and employment services in Baltimore, Adam Brickner, President and CEO of BSAS, Mary Sloat, Assistant Director of the MOED, and Joshua Sharfstein, Commissioner of the Baltimore City Department of Health, all agreed that this is an important area in need of policy reform.[98,99,100] After synthesizing these interviews, the following paradigm emerged: recovering addicts in Baltimore require a different, more tailored set of employment-related services than what the city currently offers.

Interviews with these key stakeholders also revealed that they all recognize the long-term benefits of creating linkages between drug treatment and employment services. In addition to acknowledging that these linkages would decrease the likelihood of relapse for individuals, Brickner, Sloat, and Sharfstein suggested that the linkages discussed in this paper could ultimately improve Baltimore's workforce and individuals' job satisfaction.[101,102,103] As more recovering addicts enter the city's legitimate workforce, employers will be presented with increased opportunities to hire local workers as opposed to tapping into other cities' labor pools.[104]

Coordination between the MOED and drug treatment providers can improve employment outcomes for recovering addicts. For example, recovering addicts who take methadone may not be able to pass an employer's toxicology screening. When the MOED job placement counselors

are aware of a recovering addict's methadone treatment, they can anticipate this type of issue and work with the addict and/or prospective employer.[105] However, most recovering addicts in the city suffer from the lack of formal linkages between drug treatment and employment services in Baltimore and must face these frustrating issues without suitable guidance.

Drug treatment and employment services are currently most closely coordinated for ex-offenders who are former substance users. Because of the frequent employment challenges they experience as a result of their past criminal records, ex-offenders receive special attention from the MOED. Felix Mata, Director of the MOED's Re-entry Center (ReC), which provides targeted employment services for ex-offenders, says that though his center is currently able to manage all of the requests it receives from drug treatment organizations to provide job services to their clients, the system is one of informal referrals. A more formal system, he says, may quickly overload his center.[106] Thus, even for a population receiving targeted "one-stop" employment services, a coordinated approach to addressing the multiple needs of low-income job seekers in the city is available only to some.

VI. Recommendations

A. *Planning*

Because representatives from both BSAS and the MOED have expressed the desire to create formal linkages between drug treatment and job training programs in Baltimore,[107,108] we recommend the establishment of a liaison position to facilitate this process. This individual would ideally be familiar with both drug treatment and employment services, and would initially be tasked with determining how the city could construct a pilot program to link BSAS and the MOED. This would include a survey of funding sources, awareness-raising among drug treatment providers, and an exploration of where the potential already exists in the city to create

linkages between drug treatment and employment services. City agencies, such as the Baltimore City Department of Health, have successfully adopted a similar approach to provide support for new city-wide programs, such as the Buprenorphine Initiative.[109]

1. *Funding*

Unlike many major cities, Baltimore is an independent city, unaffiliated with a larger county. This means that the city relies heavily on the State of Maryland to help fund many of its efforts, including drug treatment services.[110] During the last few years, Baltimore has been fortunate to receive unprecedented support for drug treatment from the State of Maryland. For example, in 2000, in response to then-Mayor Martin O'Malley's request for more funds to support drug treatment, the Maryland General Assembly allocated $8 million to Baltimore. This was "Baltimore's largest single-year [drug] treatment funding increase from Maryland's Alcohol and Drug Abuse Administration since ADAA was created in 1989."[111] This type of state-level funding has been crucial to increasing the city's drug treatment funding "from $17.7 million in 1996 to nearly $53 million in 2005."[112]

Federal funds are available to support certain types of outreach programs in Baltimore, including some of the MOED's job training services. However, while the MOED has received significant support from the federal government, this support has decreased by 45% since 2000, and cannot be used for drug treatment activities.

Non-governmental organizations (NGOs) present another funding option for a drug treatment/job training pilot program. NGOs have played a major role in increasing Baltimore's drug treatment resources. In 1997, through the Open Society Institute, George Soros pledged $25 million to support drug treatment and related services in Baltimore.[113] Last year, in light of the city's commitment to drug treatment, Soros announced that he will donate an additional $10

million to support Baltimore's continuing endeavors in this area.[114] In recent years, other non-profit entities, including the Abell Foundation, the United Way of Central Maryland, and the Harry and Jeanette Weinberg Foundation, have made grants of over $8.5 million to support the city's drug treatment programs.[115] Many of these foundations have also provided funding for job training programs in Baltimore.[116,117]

Finally, both BSAS's Adam Brickner and the MOED's Mary Sloat suggested that they would be interested in exploring partnerships with local businesses, such as the restaurant and banking industries, to facilitate the development of the linkages discussed in this paper.[118,119] For example, the MOED currently offers some employers incentives to hire Baltimore residents by splitting the costs of customized job training with the employer.[120] This is a model that could easily be adapted to apply to the recovering addict population. In some cases, foundations have partnered with industry to develop job training programs in Baltimore. The BioTechnical Institute of Maryland, which is supported by numerous foundations including the Abell Foundation and the Open Society Institute as well as companies such as the Invitrogen Corporation, was established "to fill a need for specialty scientific training of entry-level biotechnicians for employment in Maryland's rapidly expanding biotechnology industry."[121] This type of jointly funded job training program could be expanded to incorporate a linkage that would include the recovering addict population.

B. *Implementation*

1. *Program Mechanics*

As shown in this paper, programs that combine drug treatment and employment-related activities can take many forms. However, those that successfully improve drug treatment and employment outcomes tend to coordinate across services and agencies, often through the use of a

case manager. These programs also typically involve individualized, integrated plans for drug treatment and employment, which recognize that intertwined recovery and training trajectories may dictate the need for a wide range of available services and resources.

In Baltimore City, many of these services and resources already exist, but they lack coordination. For instance, though job seekers are screened when accessing the MOED's services, customers decide the degree to which their drug and mental health histories are disclosed.[122] Operationally, this means that MOED staff often lack this information when assisting job seekers. Incorporation of this information into a training plan may vastly improve a recovering addict's future employment success and satisfaction. However, confidentiality must be maintained and the job seeker's comfort with disclosing past experiences must be maximized.

Achieving confidentiality and comfort may necessitate an enhanced set of screening procedures at MOED centers, including private and counseling-style screening processes (as opposed to needs assessment via a written form). Likewise, drug treatment providers could make employment planning an integral part of recovery services. The point in the course of treatment at which employment planning would be introduced should vary based on the individual's progress in recovery. Drug treatment providers could be trained to recognize these points and to connect their clients to services via the MOED. The MOED could then assess these individuals and link them with skill-building services or supported work programs according to each individual's desires and skills.

2. *Lessons from Similar Programs*

Programs that attempt to synchronize drug treatment and employment services in the way this paper proposes are relatively rare. One national demonstration project, however, offers insights into effective program components and potential outcomes. Jointly funded by the U.S.

Department of Health and Human Services, the City of New York, and the Annie E. Casey and Robert Wood Johnson Foundations, the CASAWORKS program provides "drug and alcohol treatment, literacy and job training, parenting and social skills, family violence prevention and health care" to mothers receiving Temporary Assistance for Needy Families (TANF).[123] This is done through a centrally managed set of core services, which includes screening and assessment for drug treatment and employment services, training and treatment plans, and case managers to guide program progress.[e]

Most other programs that have been developed to address both substance abuse and employment target ex-offenders, who have high rates of substance abuse and employment challenges.[124] These programs, like those in Baltimore, tend to link services only through referrals and not through more extensive monitoring and coordination of services.[125] Other programs that attempt to strengthen the relationship between drug treatment programs and TANF for women have found that focusing on referral to drug treatment alone, without case management services, does little to benefit employment outcomes.[126]

C. *Evaluation*

Because few city-level programs that blend drug treatment and employment services exist, there is an urgent need not only for outcomes data, but also for detailed descriptions of how these programs are implemented and monitored. With multiple large educational institutions in Baltimore City that have expertise in public health research, capacity is available to conduct a rigorous and comprehensive evaluation of the proposed pilot program. The city's well-regarded DrugStat system may be helpful in this endeavor. The system already collects data for a "percent gain in employment" outcome measure.[127] If it is possible to add process indicator data (for instance, the number of drug treatment participants who are connected to

[e] For information about the outcomes of a preliminary CASAWORKS evaluation, see Appendix C.

different types of employment services), then it may be possible to leverage the existing online system even further.[128]

VII. Conclusion

With significant increases in drug treatment slots, improved monitoring of drug treatment providers, and the possibility of primary care distribution of treatment for heroin addiction, Baltimore's drug treatment system has undergone dramatic improvements in the last decade. To continue this trend, enhancing the effectiveness of treatment for the city's substantial population of people who are both unemployed and recovering from addiction will be critical. This paper has provided an overview of the problem and the context in which solutions must be proposed.

The pilot program in East Baltimore that has been the subject of informal discussions between city agencies holds much promise. However, to translate this program from an idea into a reality, BSAS and the MOED must establish a formal partnership. This paper outlines an initial strategy for planning and funding such a partnership. Lessons learned from similar programs in other cities can further the conceptualization of the proposed pilot program. Interviews with high-level Baltimore City officials have confirmed the desire and motivation to create an integrated program that encompasses drug treatment and employment services. This city has made great strides in revamping its once-failing drug treatment system. As this paper suggests, the time has arrived for the city to take a definitive step towards facilitating the entry of recovering addicts into mainstream society through job placement and career development.

Appendix A

Substance Abuse Treatment Rates and Percentage of Treatment Admissions with Abuse of Specific Substances, Baltimore City, Fiscal Years 1999-2003

Total Population					
	1999	**2000**	**2001**	**2002**	**2003**
Substance Abuse Treatment Rates					
2000 Census Population	651,154				
Rate per 100,000 population	2,774.2	2,872.4	2,983.5	3,356.0	3,803.2
Percentage of Treatment Admissions with Abuse of Specific Substances					
Heroin	66.7%	69.5%	69.1%	69.5%	69.9%
Non-Prescription Methadone	0.7%	0.7%	0.4%	0.5%	0.5%
Other Opiates	1.0%	1.1%	1.4%	1.8%	1.7%
Alcohol	32.8%	32.3%	32.7%	35.9%	35.4%
Barbiturates	0.2%	0.2%	0.1%	0.2%	0.1%
Other Sedatives or Hypnotics	0.3%	0.2%	0.3%	0.3%	0.4%
Hallucinogens	0.1%	0.2%	0.3%	0.3%	0.5%
Cocaine/Crack	52.2%	51.0%	49.6%	53.1%	55.2%
Marijuana/Hash	16.3%	16.4%	17.8%	18.1%	18.5%
Methamphetamine	0.0%	0.0%	0.0%	0.1%	0.2%
Other Amphetamines	0.0%	0.1%	0.1%	0.1%	0.1%
Inhalants	0.2%	0.1%	0.1%	0.1%	0.1%
PCP	0.1%	0.1%	0.1%	0.2%	0.1%
Other Stimulants	0.0%	0.0%	0.0%	0.1%	0.1%
Benzodiazepines	0.7%	0.7%	0.7%	0.9%	0.8%
Other Tranquilizers	0.1%	0.0%	0.1%	0.1%	0.0%
Over the Counter	0.0%	0.0%	0.0%	0.0%	0.0%
Steroids	0.3%	0.1%	0.0%	0.1%	0.2%
Other	0.1%	0.0%	0.0%	0.1%	0.1%

Source: Adapted by CESAR from data from the Substance Abuse Management Information System (SAMIS), Maryland Alcohol and Drug Abuse Administration (ADAA), Department of Health and Mental Hygiene (DHMH) and U.S. Census Bureau.

Appendix B

A Brief History of Baltimore's Drug Trade

The evolution of Baltimore's heroin trade reflects the experience of many urban areas in the United States in the decades following World War II. In the first half of the twentieth century, heroin had no clear path to the United States. However, by the 1950s, an international heroin syndicate had developed, and Turkish heroin was making its way through France and into the United States.[129] Mafia wholesalers controlled the flow of heroin into New York, while heroin trickled into smaller cities like Baltimore through the jazz scene.[130]

In those days, the baby-boomer children of the city's African American residents frequented the clubs along Baltimore's Pennsylvania Avenue to see popular jazz musicians. Some of these musicians dabbled in heroin, and, when they left town, a number of their fans picked up the habit. At that point, though, the heroin trade in Baltimore was controlled by "[d]ealers [who] were usually also addicts, and everyone was known by everyone else."[131] But, heroin slowly seeped out into the general population, and, given the drug's notorious purity in Baltimore, a crop of addicts emerged.

By the 1960s, Baltimore's heroin trade had exploded, with so-called "profiteers" dominating the market. Unlike their addict/dealer predecessors, the profiteers dealt heroin solely to make money, and they brought big city organizational structure to Baltimore's burgeoning drug culture.[132] Neighborhoods in economic decline, where the profiteers could make quick connections, were hardest hit, and the majority of these were African American. The distribution system became entrenched, and heroin addiction made a generational leap. By the 1980s, heroin dealers could be seen on corners throughout some Baltimore neighborhoods, essentially selling the drug in plain sight.[133] And, depending on what neighborhood their families had settled in,

the children and grandchildren of Baltimore's baby-boomers grew up viewing the consequences of heroin use and addiction as a part of daily life.

In the early 1990s, Baltimore experienced an influx of cocaine, mostly in the form of crack. This "drew a younger crowd of users and dealers, and violent crime associated with drug sales escalated."[134] Some heroin addicts began using cocaine in its powder or crack form as well, which added another layer of multiple addictions to the city's drug epidemic.

Appendix C

Outcomes of a Preliminary CASAWORKS Evaluation

In a preliminary evaluation of the ten CASAWORKS sites, alcohol, marijuana, and cocaine use among participants was statistically significantly reduced over twelve months (by 60%, 20%, and 34% respectively). Additionally, those participants who were not completely abstinent used alcohol, marijuana, and cocaine on fewer days per month at twelve months of follow-up. Employment levels were also significantly increased, from 18% of participants employed at baseline to 42% employed at twelve months of program participation. Among participants who had been employed throughout the twelve months of the program, incomes swelled from an average of $105/month at baseline to an average of $547/month one year into the program.

Source: National Center on Addiction and Substance Abuse. CASAWORKS for families: a promising approach to welfare reform and substance-abusing women. May 2001.

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