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The Role of Jails in Engaging PLWHA in Care: From Jail to Community

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Abstract

HIV testing in jails has provided public health officials with the opportunity to not only identify new cases of HIV but to also reestablish contact with previously diagnosed individuals, many of whom never entered care following diagnosis or entered care but then dropped out. The presence of inmates throughout the HIV/AIDS continuum of care suggests that jails can play a strategic role in engaging persons living with HIV and AIDS in care. In order to be successful in structuring HIV/AIDS programs in jails, health care and correctional officials will be well-served to: (1) understand the HIV/AIDS continuum of care from the standpoint of engagement interventions that promote participation; (2) be aware of jail, community, and prison interventions that promote engagement in care; (3) anticipate and plan for the unique barriers jails provide in implementing engagement interventions; and, (4) be creative in designing engagement interventions suitable for both newly and previously diagnosed individuals.

Keywords

HIV; AIDS; Jail; Engagement; Linkage; Retention; Adherence; Continuum of care

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Introduction

HIV testing in jails has become an important source for identifying cases of HIV that might otherwise not be identified [1, 2]. Jail testing programs have also led to the re-identification of many more cases of HIV/AIDS. In the EnhanceLink Initiative, a Health Resources and Services Administration (HRSA) supported initiative to determine among other goals the feasibility of introducing rapid testing to jails, 822 individuals in 20 jails tested positive for the first time between July, 2008 and March, 2011 (Spaulding et al. contained in this special supplement). During the same period almost twenty-eight thousand (n = 27,827) inmates involved in EnhanceLink transitional services identified themselves as already HIV positive or having AIDS. Using findings from national surveillance data it is possible to estimate the treatment status of these inmates. The surveillance data estimates that 23 % of HIV positive individuals who are aware of their status had never linked with care and of those who did link 34 % were not retained in care [3]. This suggests that 6,400 inmates in the EnhanceLink sample had not linked before entering jail and among those who had linked slightly over 7,200 additional jail inmates had not been retained in care. It is possible that among high risk jail inmates these estimates of not linking and not staving involved in care may be even higher.

This paper will present four topics that are of importance to health care and correctional officials in developing and implementing interventions in jail settings that can be used to engage persons living with HIV and AIDS (PLWHA) regardless of their position on the continuum of care. First, the HIV/AIDS continuum of care will be viewed from the standpoint of engagement interventions that promote participation in care at each point on the continuum. Second, examples of engagement interventions implemented in jails will be discussed as will those implemented in community and prison settings. Third, the unique challenges and opportunities of implementing engagement interventions in jail settings will be discussed. Fourth, an example of how engagement interventions can be configured for jail settings will be presented.

HIV/AIDS Continuum of Care

Several representations of the continuum of care have been used to illustrate the importance of providing a seamless transition from the time an individual is diagnosed with HIV through their regular participation in antiretroviral therapy. HRSA describes a continuum that consists of five points that describe all possible levels of involvement in care, including: (1) lack of awareness of HIV status, (2) being aware of status but not participating in medical care, (3) having entered care but dropped out, (4) irregular participation and (5) full participation in care [4]. The five points are descriptive only and not anchored by specific quantitative criteria. Other examples of the care continuum include a conceptual framework that suggests how patient and environmental characteristics are associated with receiving care, moving through the continuum and achieving positive health outcomes [5–7].

One iteration of the care continuum—Mugavero's blueprint for HIV treatment success [8] describes broad categories of interventions that are potentially valuable in facilitating participation in care at each point on the continuum. These engagement interventions are

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different from purely medical and prevention interventions in that they do not treat HIV/ AIDS nor do they prevent the transmission of HIV. Rather, engagement interventions assist individuals in accessing needed care (linkage), facilitate continuing involvement in care (retention), promote compliance with medication regimens (medication adherence), and for individuals who drop out of care, encourage them to reenter care (reengagement).

A literature search was conducted to identify specific examples of engagement interventions. The key words HIV, AIDS, jail, prison, community, engagement, linkage, retention, adherence, and continuum of care were used to search (1) Web of Science (1951 — present) and (2) Cochrane Database of Systematic Reviews (1980–2012). The terms prison and community were included since our previous experience has shown that very few engagement interventions have been tested in jail settings. Prevention interventions designed to reduce the risk of transmission of HIV but not designed to facilitate engagement in care were not included. Because we anticipated that the potential pool of studies would be limited we included studies that used both qualitative and quantitative research methods.

Table 1 provides the results of the search. Only specific examples of engagement interventions (e.g., Project BRIGHT) were included along with key characteristics of the intervention, including its' role on the engagement continuum (e.g., improving linkage), the target population and a brief summary of the intervention's components. Only representative studies of medication adherence were included given the large number of those studies that were present in the literature.

Linkage to Care

Prompt linkage to care is a critical first step in successful navigation through the continuum of care [4]. Numerous measures—receiving results from a rapid test, having initial blood work conducted, full intake at a clinic, and actually meeting with a physician at a clinic [9–11]—have been used to define linkage in research studies. A more expansive view also includes the quality of a successful linkage, having a health care worker's presence at the post-testing counseling meeting, referral to a multidisciplinary agency that includes both medical and social services, an individualized match between individual and primary care provider, expedited care provided for substance abuse and psychiatric problems and frequent appointment reminders [11].

Case Management—Persons living with HIV and AIDS are frequently in need of a wide range of services that relate directly to their illness—health care, benefits—as well as numerous other challenges including homelessness, victimization and social instability that require extensive support from both social and health care services [12–15]. In response, case management has been included in most linkage-oriented interventions since early in the AIDS epidemic [16, 17]. The primary role of case management lies in helping individuals access and negotiate disconnected medical and social services, and in the case of inmates leaving incarceration, the correctional system as well [2, 18–20]. The core functions of case management—assessment, planning, linkage, monitoring and advocacy—have been adapted to fit specific settings and contexts [21, 22].

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Clinical trials of case management's role in improving linkage among HIV positive individuals not involved in the criminal justice system have produced disparate results. The Antiretrovirus Treatment Access Study (ARTAS) [23], sponsored by the Centers for Disease Control and Prevention, provided a five session intervention delivered over a maximum of 90 days to newly diagnosed HIV positive persons in four metropolitan areas-Los Angeles, Atlanta, Baltimore and Miami-compared to a comparison group that received usual care in the form of a paper referral. The intervention, ARTAS Linkage Case Management (ALCM), emphasized client strengths and client-driven goal-setting, adapted from a similar brief intervention that was successful in improving substance abusers' linkage with treatment [24, 25]. During the first 6 month period, 78 % of ARTAS case managed participants, compared to 60 % of non-case managed participants, were linked to care, an adjusted 37 % difference. Support for ALCM was strengthened when a follow-up implementation study achieved the same results as the clinical trial [26]. Substance-abusing patients with HIV/AIDS leaving a public general hospital received 12 months of case management from paraprofessional rather than professional case managers [27]. There was no significant difference in linkage between individuals in the paraprofessional case management and brief contact comparison condition.

Several notable differences between ALCM and para-professional case management may have led to the different results. ALCM services were delivered by case managers trained in a specific theoretical model compared to the services delivered by peer counselors. In addition, subjects in the ARTAS study were newly diagnosed in community settings while individuals in the peer study were hospitalized when diagnosed. Also, all subjects receiving paraprofessional case management were substance abusers, this was not the case in ALCM.

Controlled trials of case management within prisons have been limited and within jails are virtually nonexistent. Project BRIGHT, a randomized controlled trial of inmates leaving prison, called for case managers to establish a relationship with inmates for 3 months prior to release and to continue the relationship in the community for up to 6 months following release [28]. Although the primary linkage outcome—attending at least one medical appointment—favored the group receiving the Project BRIGHT intervention, the difference was not significantly better than with the standard of care group. In Rhode Island, the prison-based Project Bridge intervention provided intensive case management, co-located community services and an outreach worker to recently released HIV positive inmates to facilitate linkage with community services [29]. Fewer than five face-to-face contacts with an outreach worker over an 18 months period were associated with HIV treatment linkage rates of 95 % at 6 months and 96 % at 12 months.

In the one example of a jail-based engagement intervention 20 HIV positive jail releases were interviewed about the benefits and short-comings of a jail-based linkage and retention project. The Community Partnerships and Supportive Services for HIV-Infected People Leaving Jail (COMPASS) Project, funded by HRSA, initiated contact with newly diagnosed inmates or previously diagnosed individuals while they were incarcerated [30]. Community outreach workers provided direct case management services to releases once they reentered the community. Although most individuals were receiving HIV treatment and care services upon enrollment, COMPASS enhanced linkage to medical care and follow-up visits for HIV

and other co-morbidities for most participants. Several participants were successfully linked to new medical services as a result of COMPASS, including one individual newly diagnosed with HIV and another who had been living with HIV for many years and was able to begin highly active antiretroviral therapy (HAART).

Other Linkage Interventions—Treatment advocacy is provided by community AIDS service organizations and primary care clinics to improve linkage, providing individuals a holistic approach to engaging in care [31]. Advocates provide numerous services including development of an individual service plan, education on all aspects of HIV/AIDS and HIV/AIDS treatment, referral to medical and social services and supportive counseling. Other linkage interventions such as Strength Through Youth Livin' Empowered (STYLE) have also included social marketing campaigns oriented to specific subpopulations such as young men who have sex with men (MSM) [32].

Retention in Care

Once releases have linked with community care, engagement interventions emphasize continued retention. As with linkage, retention has been variously defined as attending at least one clinic visit every 6 months [33, 34] or no more than a 4 months gap in services [35]. Clinically, retention has also been measured in terms of CD4 counts and viral loads [5].

Case Management—As well as improving linkage, ALCM also demonstrated improved retention outcomes among a community population that were not recent jail or prison releases [23, 26]. In the Project BRIGHT study inmates leaving prison demonstrated improved retention but improvements were not significantly better than in the control group [28].

Outreach/Peer—In the HRSA-funded Targeted HIV Outreach and Intervention Model Development Initiative (Outreach Initiative), seven of ten sites employed a service that they identified as outreach with the goal of retaining PLWHA in care [19]. Across the sites, an average of three outreach contacts per month was associated with a 50 % reduction in 4 month gaps in primary care compared to non-outreach sites [35, 36].

Also included in the Outreach Initiative, paraprofessionals and peers were trained in HIV System Peer Navigation, a specific approach to assist HIV positive individual's link with and stay in care [37]. Peer navigators' primary responsibilities were to help individuals learn about the health and social services systems, to ensure they attended appointments and to help make them more informed consumers of the services they received. When the activities of peer navigators were compared to outreach workers in the Outreach Initiative, peer navigation resulted in more contacts with clients, more out of office contacts and more activity in seven important areas, including making referrals and appointments, building a relationship and accompanying individuals to appointments [36].

In the peer driven intervention model (PDI) support for retention consisted of using HIV positive drug users as both peers and health advocates to one another for 6 months [38]. Participants conducted pill counts and calculated adherence scores for one another and

engaged in conversations about their own adherence. At the end of the study, participants reported a great deal of enthusiasm for the methods but the study sample size limited its ability to demonstrate clear retention in care outcomes. The role of lay persons serving as voluntary life coaches has also been explored as a connection between incarceration, linkage with care and community retention [39].

Re-engagement in Care

Persons living with HIV and AIDS who drop out of care present special challenges for health care providers. In addition to the personal barriers that interfere with linkage and retention individuals who have been in care but dropped out may be dissatisfied with care itself [40]. These individuals may have experienced medication side effects, a sense of failure over their inability to maintain adherence and/or less than optimal treatment by medical staff. Although there are few examples of interventions designed specifically to address re-engagement in HIV care, California's state-wide Bridge Project reported favorable results [40, 41]. In this project, peer staff was employed to make contact with out of treatment HIV positive individuals. Among individuals not in routine care, 58.1 % linked with a state-funded multidisciplinary program that offered medical care and other services [41].

Medication Adherence

Adherence to antiretroviral therapy (ART) and subsequent improvement in CD4 count and reduction in viral load represents the desired end-point of the care continuum for a majority of PLWHA [42–44]. Unlike the limited number of engagement interventions available to facilitate linkage, retention and re-engagement a wide variety of strategies have been designed to improve medication adherence. Medication adherence interventions, whether in the form of directly observed therapy (DOT) or directly administered antiretroviral therapy (DAART), vary along 2D, responsibility for monitoring adherence and location.

Self-monitored Adherence—Several curricula that teach HIV positive individuals to assess personal barriers to compliance and their own motivation about being compliant have been developed based on motivational interviewing techniques and cognitive behavioral strategies [45, 46]. Other medication adherence interventions rely primarily on teaching individuals practical skills such as setting and following schedules [47, 48]. In a meta-analysis of medication adherence interventions those that improved practical medication management skills were generally more effective than those that addressed motivation and cognitive skills [49].

Computer mediated interventions have been designed to improve the effectiveness of motivational interviewing and cognitive behavioral strategies. One of them, LifeWindows, guides individuals through a process of identifying barriers, offers them a range of promotion strategies to overcome relevant barriers and then helps them assess whether the strategies they used were successful [50]. Using intent to treat analysis there was no significant difference between individuals in the computerized intervention group and control group although individuals who actually participated had significantly improved adherence to ART.

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Medical Professional-Mediated Adherence—In the READY intervention nurses trained in a six session intervention helped patients with a history of noncompliance identify their lifestyle based barriers to medication adherence [51]. Patients ranked the barriers from least difficult to most difficult to resolve and then formulated strategies designed to remedy the least difficult barriers. The list of barriers was constantly reviewed and during the final READY session patients identified health related goals and strategies for accomplishing the goals. Results indicated that 50 % of participants became adherent and had suppressed viral loads at the 3-month post intervention follow-up and that of those who became adherent, 79 % remained adherent at the 12-month post intervention follow-up.

Paraprofessional and Peer-Mediated Adherence—Antiretroviral therapy adherence was assessed in 12 methadone clinics in California through the Supportive Treatment Adherence and Readiness (STAR) Program [52]. In STAR paraprofessional adherence counselors provided HIV-infected drug users with 6 semi structured adherence sessions that incorporated information provision, motivational interviewing and cognitive behavior skills training. Counselors also monitored self-reported medicine adherence. Results indicated that fewer patients receiving STAR missed any antiretroviral doses and that HIV viral load significantly decreased.

In North Carolina's Antiretroviral Adherence Training and Coordination (AATC) program case managers followed a structured care plan to help clients anticipate barriers to medication adherence and find resources that could be used to address the barriers [53]. While no empirical results from this study were available case managers believed it was feasible for them to monitor medication adherence given proper training and an increased knowledge about HIV/AIDS. In a controlled trial utilizing DAART and intensive case management there were no significant differences between intervention and control group on virology or immunological support [54].

Location of Medication Adherence Interventions—Most medication adherence interventions have been situated in community settings, either in primary care facilities, HIV clinics, health care vans (DAART+) [55] or methadone programs [56]. Of the relatively few situated in correctional facilities all have occurred in prisons. The feasibility and effectiveness of conducting DOT in prisons have been examined extensively, with findings suggesting that prison inmates are frequently able to achieve rates of compliance in excess of 90 % while incarcerated but that these gains are not continued after release [57–59]. High levels of adherence have been demonstrated for both women and men, as long as a therapeutic relationship has been established between patient and physician [60–62]. Positive living using safety (PLUS) was adapted so that it could be provided in an individual or group format, in either consecutive or weekly sessions. PLUS was also designed to be provided within the prison system and delivered just prior to release, or in a communitybased setting where it could be delivered immediately after release.

Despite the potential for establishing DOT in prison, treatment interruptions can still occur particularly at intake into the correctional system and at the point of release from custody [63]. Formative research in adherence interventions has been conducted to address the critical period for compliance when HIV-infected prisoners are transitioned from prison to

the community [64]. It appears that non-compliance begins quickly following release, as evidenced by HIV positive prisoners leaving the state prison system in Texas [57]. Prisoners received a 10 days supply of medications and instructions on how to secure an additional 30 day supply of ART under the AIDS Drug Assistance Program but only 30 % of inmates filled an ART prescription within 60 days.

Barriers to Implementing Engagement Interventions in Jails

The implementation of engagement interventions in jails is made difficult given a range of multifaceted barriers [1, 65, 66]. The differing missions of the public health and correctional systems serve as the basis for many of the barriers [2, 67]. Senior and line correctional staff may believe that it is not their obligation to provide health care services. Numerous practical barriers also exist, including the length of time inmates spend in jails before being bonded out or otherwise released [66]. During the generally brief period of incarceration inmates are not always available for programming as they are subject to mandatory inmate counts each day and to the availability of correctional officers to transport them to programming sites in the jail. Even if programming can be implemented in a housing unit where inmates are located officers must maintain line-of-sight contact with inmates who are meeting with health care professionals.

Adding to these challenges, jails are not typically built with a large amount of discretionary space, such as meeting rooms, and demands on medical unit facilities, logical locations for HIV services, are generally intense. Interviews with correctional staff, health care and social service providers revealed a list of barriers that emphasized communications, physical space, contracted medical providers and the relationship between health care and correctional [1]. The issue of confidentiality highlights the discordant worldview of health care and correctional professionals. While confidentiality is a sacrosanct concept to health care professionals, correctional staff may see confidentiality as a nuisance and direct challenge to their ability to maintain a secure environment [66].

Discussion

The increasing presence of HIV testing in jails has provided health care professionals with the opportunity to not only engage newly diagnosed HIV positive individuals but also other PLWHA, many of whom are not in care. It is unfortunate that jails serve a strategic function in identifying persons with serious health problems. The tragedy is compounded when little or no efforts are made to do something constructive with the opportunity. Hopefully, some of the issues raised in this paper will better prepare health care and correctional officials to begin the process of designing and implementing engagement interventions in jail settings.

Care Continuum

It is useful for health care and correctional professionals to view jails as part of the overall continuum of care, rather than as a location that exists independently, outside of what transpires in the community at large. Viewing jails as part of the continuum of care through which PLWHA pass should serve to encourage strategic planning between jails and community health providers. PLWHA who spend intermittent periods of time in jails,

particularly when incarceration lasts only days or weeks, would be particular beneficiaries of an integrated community-jail continuum. Offering medication adherence interventions to these individuals while they are incarcerated might have the benefit of improving adherence once they return to the community. This approach assumes that appropriate programs are available in the community.

Engagement Interventions

Findings from the EnhanceLink Initiative presented in this special supplement point to the need for effective interventions that promote linkage and re-engagement in care. As the preceding examples in this paper demonstrate only a few engagement interventions have been subjected to rigorous testing through controlled clinical trials, with the possible exception of medication adherence interventions. Lacking evidence-based examples health care providers and correctional officials will, for the present, need to choose from interventions that can be readily adapted to accommodate the unique structure of jails, without losing the essential ingredients of the interventions.

Barriers to Implementing Engagement Interventions

Jails undoubtedly present unique barriers to implementing engagement interventions. It is important to remember that barriers are also present in other settings, community and prisons alike. Initial reviews of interventions that were part of the EnhanceLink Initiative suggest that it is possible to implement engagement interventions in jail settings [2, 30]. It is the presence of barriers that frequently lead to the need to adapt interventions.

Engagement Interventions in Jails: A Brief Example

Despite challenging barriers to implementing engagement interventions it is possible to construct a continuum of care that begins in jails and continues into the community. The continuum of care would ideally begin at the point jail inmates learned they were seropositive or a previously diagnosed individual identified themselves. Initial contact would be provided immediately by case managers or other health care workers who would inform seropositive inmates about interventions such as Project BRIGHT that begins within 3 months of contact prior to release, or with Project Bridge that provides services 30–90 days prior to release. The pre-release contact should, at a minimum, provide the inmate with a personal plan that they can use after they are released [68]. Staff time and inmates' limited availability could be made more efficient by conducting some activities in groups. Programs such as PLUS would allow individuals needing ART to anticipate barriers to medication compliance before they actually leave incarceration. PLUS is structured so that it can be delivered in groups or individually, just prior to or following release. Other medication adherence regimens such as those relying on technology may also be feasible prior to release.

Providing continuity between jail and community is essential. Ideally, the same health care professional who makes contact in the jail would follow-up with seropositive individuals within days after they enter the community. Programs such as Project BRIGHT and Project Bridge provide case managers to accomplish this continuity. Project Bridge adds multiple services to intensive case management, including motivational interviewing and eco-

behaviorism, a skill-building technique where inmates learn how to effectively seek help in the community. Other engagement interventions are available to facilitate the community aspects of the jail-initiated continuum. For example, ALCM is an intensive brief intervention that focuses on linking newly diagnosed individuals with medical care [23, 26]. The ALCM assessment is guided by a total emphasis on client strengths, assets and skills and goal-planning is led by clients' identification of their own needs [69].

Health care professionals have numerous interventions to select from when encouraging HIV positive releases to adhere to ART. DOT and HAART models use techniques that range from professionals witnessing medication ingestion in HIV and methadone clinics to peer facilitated methods for teaching adherence skills. Engagement interventions can serve dual purposes as illustrated by studies that combined case management with teaching medication adherence skills [53, 54].

Recommendations

Despite the barriers to care presented by jails they do offer a strategic point at which to initiate engagement interventions that facilitate participation in services both while incarcerated and in the community. Development of a comprehensive research plan is of paramount importance at this juncture in the development of effective jail engagement interventions. Such a strategy would identify promising community and prison interventions that are associated with each point on the continuum of care. Methodologies would need to be identified that serve the dual purpose of advancing knowledge and at the same addressing human subject concerns related to incarcerated populations. Without a comprehensive plan for identifying effective engagement interventions jails will continue to be merely a place where PLWHA pass through, further interrupting their participation in care.

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	Location	ı on engage	ment continuum		Selected features of engage	ment inter	ventions		
Name/selected citations	Link to medical care	Retain in medical care	Medication adherence	Reengagement	Specific HIV+ population	Setting (J, P, C)	Primary activities	Manual, specific curriculum or protocol	# of contacts, duration
Adherence to Drugs for HIV, an Experimental Randomized Enhancement ADHERE) [48]			х		Alcohol problems	υ	Assessment of alcohol use; medication	Yes	4 Contacts over 3 months
Antiretroviral Adherence Training& Coordination Program (AATC) [53]			Х		РГ МНА	C	Case management	Yes	6 Sessions
ARTAS Linkage Case Management (ALCM) [23, 26]	X	×		X	Newly diagnosed	C	Case management	Yes	5 Sessions in 90 days
H. California Bridge Project [40, 41]	Х			X	Out of care persons of color; IDUs	C	Assessment, referral, outreach, case management	NR	NR
Cognitive behavioral adherence intervention [46]			×		HIV+ individuals	C	Education on adherence; personal assessment & planning	Yes	5 Sessions
Community Partnerships and Supportive Services for HIV-Infected People Leaving Jail (COMPASS) [30]	×	×		×	Newly diagnosed or not engaged in care	J, C	Case management	NR	Case management in jail and 6 months after release
80 DAART+ [55]			Х		Heroin, cocaine drug users	C	Outreach worker observed ART in mobile health vans	Yes	Daily
Directly Administered Antiretroviral Therapy Program and Intensive Adherence Case Management (DAART/ IACM) [54]			×		IDUs	U	Case manager observed ART	Yes	Daily/weekly
Information-motivation- behavioral skills model [45]			х		HIV+ clinical population	C	Education, motivation assessment, skills building	Yes	Variable
Life coaches [39]				x	HIV+ offenders	J, P, C	Peer mentoring	NR	Variable
LifeWindows [50]			Х		PLWHA	С	Computer-assisted curriculum	Yes	NR; each contact 26

Table 1

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Name/selected citations Link to medical acree Retration adherence Reengagement Specific HI Paraprofessional case X Substance at management [27] Substance at HIV+ inject Substance at HIV+ inject Substance at HIV+ inject Substance at HIV+ inject HIV+ inject HIV system peer X X X HIV+ inject HIV+ inject HORT [56] X X X HIV+ inject HIV+ inject Outreach Initiative [35, 37] X X HIV+ inject HIV+ inject Outreach Initiative [35, 37] X X HIV+ inject HIV+ inject Outreach Initiative [35, 37] X X HIV+ inject HIV+ inject Outreach Initiative [35, 37] X X HIV+ inject HIV+ inject Perfore Living Using X X N HIV+ inject Perfore Living Using X X Substance at Safety (PUUS) [64] X X Prison inmat Project Bridge [29] X X Prison inmat Project Bridge [29] </th <th>ion on engagement con</th> <th>ıtinuum</th> <th></th> <th>Selected features of engage</th> <th>nent interv</th> <th>entions</th> <th></th> <th></th>	ion on engagement con	ıtinuum		Selected features of engage	nent interv	entions		
Paraprofessional caseXSubstance atHIV system peerXXHIV + inmateHIV system peerXXHIV + injectMethadone clinic-basedXYHIV + injectMethadone clinic-basedXXHIV + injectMethadone clinic-basedXXHIV + injectMethadone clinic-basedXXHIV + injectMethadone clinic-basedXXHIV + injectMethadone clinic-basedXXXDureach Initiative [35,XXSubstance atModel (PDI) [38]XXXPeer Driven InterventionXXSubstance atModel (PDI) [38]XXYPeer Driven InterventionXXPubliciance atPeer Driven InterventionXXYPeer Driven InterventionXXPubliciance atPeer Driven InterventionXXYProject BRIGHT [28]XXPrison inmatProject BRIGHT [28]XXYProject BRIGHT [28]XXPrison inmatProject BRIGHT [28]XXYProject BRIGHT [28]XXPrison inmatProject BRIGHT [28]XXYProject BRIGHT [28]XXYProject BRIGHT [28]XXYProject BRIGHT [28]XXYProject BRIGHT [23]XXYProject BRIGHT [23] <t< th=""><th>o Retain Medic: al in medical care</th><th>ation adherence</th><th>Reengagement</th><th>Specific HIV+ population</th><th>Setting (J, P, C)</th><th>Primary activities</th><th>Manual, specific curriculum or protocol</th><th># of contacts, duration duration</th></t<>	o Retain Medic: al in medical care	ation adherence	Reengagement	Specific HIV+ population	Setting (J, P, C)	Primary activities	Manual, specific curriculum or protocol	# of contacts, duration duration
HIV system peer navigation [33, 37]XHIV+ immat HV immat HV imperationMethadone clinic-based HAART [56]XXHIV+ injecta HIV+ injectaMethadone clinic-based HAART [56]XXHIV+ injecta HIV+ injectaOutreach Initiative [35, XXXPLWHAOutreach Initiative [35, XXXPLWHADureach Initiative [35, XXXPLWHAPer Driven InterventionXXXPeer Driven InterventionXXNot endPeer Driven InterventionXXXPer Driven InterventionXXNot endPeer Driven InterventionXXNot endPoistive Living Using Safety (PLUS) [64]XXPrison inmatProject Bridge [29]XXXPrison inmatProject Bridge [29]XXYPrison inmatProject Bridge [29]XXXPrison inmatProject Bridge [29]XXYPrison inmatProject Bridge [29]XXYPrison inmatProject Bridge [29]XXYPrison inmatProject Bridge [29]XXYPrison inmatProjec				Substance abusers	C	Case management	NR	Variable
Methadone clinic-basedXHIV+ injectsHAART [56]Outreach Initiative [35,XPLWHAOutreach Initiative [35,XXPLWHA $36]$ Outreach Initiative [35,XNodel (PDI) [38]Per Driven InterventionXXXPer Driven InterventionXXSubstance at the prison at the prison at the prison of the prison of the prison of the prison of the prison interventionNoProject Bridge [29]XXXPrison interventionProject B	Х			HIV+ inmates 18 or older	U	Contacts with peers to identify resources	NR	Open-ended
Outreach Initative [35, 36]XYPLWHA36]Per Driven InterventionXXSubstance at Nodel (PDI) [38]Per Driven InterventionXXXHIV+ prisonModel (PDI) [38]XXYHIV+ prisonPositive Living UsingXXXHIV+ prisonProject Bridge [29]XXYPrison inmatProject Bridge [29]XXXPrison inmatProgram [52]XXXYSTYLE [32]XXXYProtect [34]XXXProvent	Х			HIV+ injectable drug users	U	Medical personnel observation	NR	Daily
Peer Driven Intervention X X Substance at Model (PDI) [38] Model (PDI) [38] Positive Living Using X HIV+ prison Positive Living Using X X HIV+ prison Project Bridge [29] X Y Prison inmat Project Bridge [29] X X Prison inmat Project Bridge [29] X X Prison inmat STAR program [52] X X Prison inmat STAR program [52] X X Brigible for 1 STAR program [52] X X Brigible for 1 STYLE [32] X X Prison inmat Treatment advocacy [34] X X Young black	Х			PLWHA	U	Outreach workers	NR	Varied from site to site
Positive Living Using X HIV+ prison Safety (PLUS) [64] X Prison innat Project Bridge [29] X Prison innat Project BrIGHT [28] X X Project BrIGHT [28] X Y STAR program [52] X X STYLE [32] X X Treatment advocacy [34] X X Project [31] X X Project BrIGHT [28] X Young black	X X		X	Substance abusers	C	Peer support, education, rewards	Yes	3 Meetings/week
Project Bridge [29] X Prison inmat Project BRIGHT [28] X X Prison inmat READY [51] X X Previous trest STAR program [52] X X Previous trest STAR program [52] X X Previous trest STAR program [52] X X Previous trest Treatment advocacy [34] X X X PUWHA	×			HIV+ prisoners	P,C	Information, skills, motivation	Yes	Four, consecutive days or weekly; group or one-one
Project BRIGHT [28] X X Prison inmat READY [51] X X Previous tres STAR program [52] X X Previous tres STAR program [52] X X Previous tres STAR program [52] X X Eligible for 1 STYLE [32] X X Young black Treatment advocacy [34] X X X PLWHA				Prison inmates	P,C	Case management, eco- behaviorism, motivational interviewing	Yes	1–3 months prior to release; 18 months post-release
READY [51] X X Previous treaters STAR program [52] X X Eligible for 1 substance ab substance ab substance ab substance ab transmers STYLE [32] X X Young black MSM Treatment advocacy [34] X X X PLWHA	x			Prison inmates	P, C	Strengths-based case management	Yes	48 weeks post-release
STAR program [52] X Eligible for 1 substance ab STYLE [32] X X Treatment advocacy [34] X X	х		Х	Previous treatment failures	C	Wellness motivation	Yes	6 Sessions
STYLE [32] X Young black STYLE [32] X X MSM MSM Treatment advocacy [34] X X X	Х			Eligible for HAART; substance abusers	C	Motivational interviewing; cognitive behavioral skills	Yes	6 Sessions
Treatment advocacy [34] X X X X X X PLWHA	Х			Young black and latino MSM	U	Social marketing; outreach; medical-social support network	NR	Variable
	x		x	PLWHA	U	Multiple services to aid in linkage, retention, goal identification	NR	As needed

NR none reported