

Performance Standards, Barriers to Care and Innovative Program Models for HIV-Positive Substance Users: A Review of the Literature



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I. INTRODUCTION

Since the beginning of the HIV/AIDS epidemic in the United States, substance abuse, particularly injection drug use, has been linked to a significant number of the cumulative and annual AIDS cases reported to the Centers for Disease Control and Prevention (CDC). Because people living with HIV/AIDS (PLWH) who are also substance users need primary health care, substance abuse treatment, and support services, they require care delivery strategies that are comprehensive and innovative. Without such strategies, the reduction in mortality and morbidity seen in other populations of PLWH is unlikely to be duplicated (HRSA, 1999a). However, despite all of the epidemiologic evidence illustrating the strong association between substance use and HIV disease, and the data indicating that substance users are less likely to access outpatient HIV care (NIDA, 1999a; Eldred and Cheever, 1998; Selwyn, 1996; Battjes, 1994; Battjes, Sloboda and Grace, 1994; Inciardi, 1994; Hartel, 1994; Stephens and Alemagno, 1994), there has been little effort until recently to link HIV medical care with substance abuse treatment.

The Health Resources and Services Administration (HRSA), through the Ryan White CARE Act (CARE Act) and in collaboration with the Substance Abuse and Mental Health Services Administration (SAMHSA), has funded a number of projects that link health care, substance abuse treatment, and mental health services for PLWH. Through these projects, a number of innovative and successful methods of service provision have been created (HRSA, 1999a). HRSA now recognizes the need to conduct a comprehensive assessment of service delivery strategies to further advance knowledge in the field regarding services for this population. In order to conduct the assessment, HRSA formulated specific questions to be examined in current and future evaluation activities. These include:

1. What is the range of treatment, harm reduction, and other interventions provided to substance users who are HIV positive?
2. Do studies exist that indicate participation in substance abuse interventions increases HIV care?
3. What are the performance standards that can be used to describe CARE Act-funded interventions targeted to substance users?
4. Are different types of CARE Act-funded interventions associated with different types of substance abuse and/or with different target populations?
5. What types of CARE Act-funded substance abuse interventions and/or referrals do primary health care providers funded through the CARE Act commonly use?
6. To what extent are harm reduction or other pre-treatment activities supported?

7. What are the most common methods used by CARE Act grantees for sharing clinical and case management records between primary care, case managers, and substance abuse treatment or counseling programs?
8. How should innovative interventions be classified and described for use by other CARE Act grantees? (HRSA, 1999a).

This literature review is the first step in addressing the above questions. The literature review begins by describing the HIV/AIDS epidemiology among substance users in the United States. Second, we briefly describe the historical evolution of the service delivery systems for substance abuse and HIV medical care. Third, we examine existing performance standards for HIV/AIDS primary care, substance abuse treatment, and support services. This section also summarizes what is known to work and not work for PLWH and the on-going debate between abstinence-only and harm reduction substance abuse programs. The fourth section discusses the barriers to providing substance abuse treatment to PLWH. Finally, we describe innovative programs and interventions that link substance abuse treatment and HIV primary care.

II. EPIDEMIOLOGY

HRSA reports that the largest group of PLWH is current or recovering users of both injected and non-injected substances (HRSA, 1998a). The surveillance statistics on AIDS cases linked to substance abuse are limited, in that they only report those individuals who have tested positive and whose disease has progressed to AIDS, indicating some interaction, even if minimal, with the health care system. However, researchers believe that the majority of substance users are not in or seeking treatment (Amaro, 1999).

The actual number of out-of-treatment PLWH who are substance users is difficult to calculate. Holmberg studied the 96 largest US metropolitan statistical areas in the mid-1990s, and estimated that there were 1.5 million injection drug users (IDUs) and about 19,000 new HIV infections annually. Women had a higher risk of contracting AIDS, by a ratio of 4:1. Holmberg reported that the highest overall prevalence rates were in northeastern cities between Boston and Washington, D.C., Miami and San Juan, Puerto Rico (1996).

Behaviors associated directly and indirectly with substance abuse, especially injection drug use, are the single largest factor contributing to the spread of HIV in the United States (NIDA, 1999a). Research has shown increased risks of HIV infection for male heterosexual injection drug users (Stephens and Alemagno, 1994); male heterosexual crack cocaine users who exchange crack for sex (Inciardi, 1994); women who have multiple sexual partners who are injection drug users, or who are themselves IDUs (Hartel, 1994); gay or bisexual men who inject drugs (Battjes, 1994); gay or bisexual men who use non-injection drugs and alcohol (Ostrow, 1994); adolescents exploring both their burgeoning sexuality and drugs (Boyer and Ellen, 1994); and non-injection drug users who are involved in drug-using networks (Battjes, Sloboda, and Grace, 1994). AIDS case data indicate that men who have sex with men (MSM) and who also inject drugs face significantly higher risks than those who report either risk behavior alone (Battjes, 1994).

National surveillance statistics published by the CDC provide some information about HIV and substance abuse. However, these data do not include information about substance abuse other than injection drug use at the time of infection, nor are they an accurate reflection of current substance abuse among individuals with other risk factors. With these limitations in mind, the CDC report describing all cumulative AIDS cases through December, 2000 indicates that 25 percent of the 765,559 adult and adolescent AIDS cases reported in the United States are

linked directly to injection drug use (CDC, 2000a). Twenty-two percent of all AIDS cases among men and 44 percent of all AIDS cases among women reported injection drug use as the exposure category. Injection drug use or sex with an injection drug user remains the primary transmission mode for 36 percent of all AIDS cases in men and 57 percent of all AIDS cases diagnosed in women (CDC, 2000a).

Injection drug use is also an important factor in reported AIDS cases among adolescents and young adults. As of December 2000, 31,293 cumulative AIDS cases were reported among people between the ages of 13 and 24 years of age. Twenty-one percent of adolescent/young adult male AIDS cases and 38 percent of adolescent/young adult female AIDS cases are attributable to injection drug use or sex with an injection drug user (CDC, 2000a). HIV infection is disproportionately high for young women of color, partly due to injection drug use (Gipson and Frasier, 1998).

Several studies of lesbian/gay/bisexual/transgender youth have found that these populations are more likely to use substances. One study of young men who have sex with men found that 63 percent were at “extreme risk” for prior exposure to HIV through unprotected anal sex and/or use of injection drugs (Remafedi, 1994). Another study found lesbian/gay/bisexual/transgender youth to be twice as likely as straight youth to use alcohol, three times more likely to use marijuana, and eight times more likely to use either cocaine or crack (Telljohann et al., 1995). Young men who have sex with men may turn to alcohol and drug use as a way to deal with a homophobic society, thus increasing their risks for HIV infection (Roseman and Klindera, 1999).

As of December 2000, more than 8,000 pediatric AIDS cases had been reported to the CDC, with more than half identifying the exposure category as a mother with or at risk for HIV infection through injection drug use or sex with an injection drug user (CDC, 2000a).

Communities of Color

HIV/AIDS and substance abuse have significantly impacted communities of color, particularly African Americans and Hispanics. African American men account for 33 percent of all cumulative AIDS cases among men, with more than one-third of these individuals reporting injection drug use as their exposure category. Similarly, Latino men with AIDS account for 18 percent of all male AIDS cases reported to date, with 35 percent reporting injection drug use as

their exposure category (CDC, 2000a). Clearly, injection drug use is a significant HIV exposure category for these minority populations. In contrast, white men account for 47 percent of all cumulative AIDS cases, but just 9 percent of this group reports injection drug use as their exposure category. These data demonstrate that HIV positive African-American and Latino men report injection drug use much more frequently than white men.

Women with AIDS of all races and ethnicities are fewer in number than men, but have a much higher incidence of injection drug use as their exposure category across the board. Among African American women, injection drug use or sex with an injection drug user account for 55 percent of the cumulative AIDS cases. Sixty-one percent of the female Hispanic AIDS cases can be tied to injection drug use (CDC, 2000a). Again, the absolute numbers are staggering. African American women account for 58 percent of all cumulative AIDS cases among women compared to white women who constitute 22 percent of all female AIDS cases to date. More than 2 ½ times as many African American women have contracted AIDS as a result of injection drug use or sex with an injection drug user than white women. Hispanic women account for 20 percent of all female AIDS cases, yet the absolute numbers of Hispanic women with AIDS as a result of injection drug use are nearly identical to the numbers of white women (CDC, 2000a).

A study focusing on the Latino/a population of Puerto Rican origin reported that HIV infection and substance abuse is a major problem for this group (Klevens et al., 1999). Other studies, concentrating on clients of drug treatment centers, have found that HIV is most prevalent amongst the Latino/a populations found in the Northeast and the Midwest (CDC, 1999). Among Asians, Pacific Islanders, and Native Americans, the number of injection drug use-related AIDS cases is low compared to other populations. However, HRSA recommends caution in interpreting these data due to inconsistency in reporting and the small numbers of cases (HRSA, 1999b).

Continued growth of injection drug use among people with HIV in certain communities of color suggests the interaction of three important factors: health disparities between economic classes; the nation's inability to deal with substance abuse other than in a criminal context; and the powerful intersection of substance abuse, HIV infection, and sexually transmitted diseases (CDC, 1998a).

Individuals who are Incarcerated

At mid-year 1998, more than 1.8 million people were in prisons and jails in the United States, and 6 million more were under some form of criminal justice supervision. Women make up only 7.7 percent of the incarcerated population; however, their numbers are increasing at a faster rate than the male population (NCASA, 1998). HIV infection and AIDS continue to be far more prevalent among inmates than in the total United States population (Maruschak, 1999), and this high prevalence generally reflects widespread drug use before incarceration (Altman, 1999).

Analysis of HIV in state and federal prisons in 1997 indicated that:

- AIDS-related deaths constituted 1 in 5 prison deaths. The rate of death due to AIDS was more than 3 times higher in the prison population than in the total United States population between the ages of 15 to 54.
- Prisons in the northeast held the largest number of HIV-infected inmates.
- The rate of HIV infection is higher among female inmates than male inmates in most states.
- HIV infection rates were higher in state than in federal prisons. Among state prisoners tested for HIV, African-American and Latino inmates were more likely to test HIV positive than white inmates.
- Inmates who reported injection drug use had higher rates of HIV than those who had never used drugs (Maruschak, 1999).

Individuals who are Homeless

A conservative estimate of the number of homeless people in the United States is 500,000 to 600,000 (National Coalition for the Homeless, 1999a), and substance abuse is widespread in this population (Swan, 1997). A CDC-sponsored study of homeless individuals conducted from 1989 to 1992 in fourteen cities found seroprevalence rates ranging from zero to 21.1 percent, with the median being 3.3 percent (Allen et al., 1994). The highest rates occurred in men who had sex with men and those who injected drugs. Heterosexual men were more likely to be HIV-positive, as were African Americans (Allen et al., 1994). Homeless youth and adolescents are at extremely high risk for becoming HIV infected through both unprotected sex and drug use (Athey, 1991). The CDC study found that HIV seroprevalence rates among homeless youth range from zero to 7.3 percent, with the median being 2.3 percent (Allen et al., 1994). HIV-infected homeless individuals are believed to be sicker, have higher rates and more serious cases of tuberculosis, and are more likely to die of AIDS than other HIV-infected populations (National Health Care for the Homeless Council, 1998).

III. EVOLUTION OF THE SERVICE DELIVERY SYSTEMS

The service delivery systems for HIV and substance abuse treatment have very separate histories. The systems of care that exist today are the products of different professional skills, treatment approaches, and internal philosophical debates. Furthermore, each of the systems has separate funding streams and regulatory constraints. Thus, when the systems interact, as is necessary in the delivery of services to HIV positive substance users, they often conflict.

Substance Abuse Treatment Delivery System

Over the past century, the substance treatment system has been shaped by the debate and tension between different treatment philosophies and approaches. The treatment approach debate centers around a medical, professional approach versus a peer-led approach. The philosophical debate revolves around the difference between abstinence and harm reduction/maintenance as the goal of care.

The substance abuse treatment system originated as a non-professional model of care. Prior to the mid 1930's there was little hope or recourse for those suffering from alcoholism (AA, 1984). The medical profession, in the form of psychoanalysts, had tried without success to cure the alcoholic (Wood, 1999). In 1935 William Wilson began Alcoholics Anonymous (AA) and the related Twelve Step programs. This volunteer, peer-lead, self-help model of care remained the dominant form of treatment through the 1970s, and in many respects it succeeded where psychoanalysis had failed (Lemere et al., 1965; Mindlin et al., 1965; Thimann et al., 1965; Williams et al., 1965; Krystal and Moore, 1963).

As AA expanded worldwide and success stories began to emerge, there was increased interest in addiction from a biological standpoint, and psychiatry again became an important part of the treatment debate (AA, 1984). The medical establishment became more aware of the need to provide safe detoxification from alcohol. Spurred by veterans returning from World War II with alcohol addiction, and then by Vietnam Veterans returning home with opiate addiction, the drive to expand treatment options began in earnest. The federal government began to fund research through the National Institute on Alcohol Abuse and Alcoholism and the National Institute on Drug Abuse (NIDA, 2001; NIAAA, 2001), and services through medical detoxification units and addiction treatment programs.

As a result, a schism developed between professionals and non-professionals. Non-professionals accused professionals of bringing dangerous psychoanalytic techniques to treatment and failing to understand the principles of successful treatment. Clinically trained professionals, on the other hand, portrayed substance abuse counselors as unsophisticated and ill-equipped to meet clinical standards and address the complexity of issues for today's drug users (Lemere et al., 1965; Mindlin et al., 1965; Thimann et al., 1965; Williams et al., 1965; Krystal and Moore, 1963). Today there remains no sound evidence about increased efficacy of one approach over the other (Lohnson et al., 1990; Aiken et al., 1985; Argerou et al., 1978).

A concurrent tension centered around the philosophy of treatment of individuals addicted to narcotics. At the heart of this debate was the tension between those who viewed abstinence as the only goal of treatment, and those who viewed maintenance and function (harm reduction) as reasonable goals. For many years the main manifestation of this debate was the federal government's unwillingness to allow physicians to prescribe narcotics for an addict (Payte, 1991).

The philosophical tension intensified with the introduction of methadone maintenance therapy for heroin addicts in the mid to late 1960's, and continues to this day. For example, despite evidence that methadone maintenance is safe and effective (Lewis, 1999; Zule and Desmond, 1998; Payte, 1991), it is under-financed and under-utilized (Lewis, 1999) and highly stigmatized (Zule, 1998; Bell et al., 1995; Payte, 1991). The substance abuse treatment community remains torn between the philosophy of cure and abstinence and the emphasis on social rehabilitation and long-term functioning of heroin addicts (Bell et al., 1995). Injected into this tension are the larger societal and political concerns of crime, the drug culture, and more recently, HIV transmission (Gerstein and Harwood, 1990).

The debate between abstinence and harm reduction continues to influence existing substance abuse treatment services. Many detoxification units or residential treatment programs refuse to accept methadone users. Few substance abuse treatment programs tolerate any form of relapse or harm reduction effort (Acuff et al., 1999; O'Neill, 1997).

Likewise, despite some acknowledgement of the complimentary nature of both treatment approaches, the debate between professional/medical models of care versus peer led models continues (Anderson et al., 1992). In fact, the debate is intensified by the increasing complexity of substance users with HIV who often present with polysubstance abuse, serious mental health

issues, and multiple medications for HIV and Hepatitis C who require professional care, in contrast with the value of peer educators/counselors who can relate to clients both culturally and from personal substance abuse experience, and provide tremendous support for recovery.

HIV Medical Care

The HIV medical care system, in contrast, has a much shorter history and, unlike the substance abuse treatment system, is unquestionably rooted in the medical/biological model (Ryan, 2000). The early days of HIV care were characterized by the absence of effective treatment for either HIV or most of its associated opportunistic infections (Acuff et al., 1999; Schore et al., 1998). Instead the health care system struggled to keep individuals alive, or as comfortable as possible as they died. However, the rapidly evolving treatments for HIV disease have gained respectability much more quickly than treatments for substance abuse such as methadone maintenance.

As the HIV epidemic has shifted, increasing numbers of drug users have been engaged in the HIV medical care system. As this has occurred, differences in the professional disciplines and treatment approaches of HIV medical providers and substance abuse treatment providers have become apparent (Herman et al., 1997). The clinical orientation of substance abuse treatment providers emphasizes limit setting and a contractual relationship with clients around their personal responsibilities (Selwyn, 1996). When limits are exceeded or contracts broken, substance abuse treatment providers may terminate treatment. This approach is reinforced by state and federal regulatory agencies that require programs to terminate patients who violate certain rules (Herman and Gourevitch et al., 1997).

Primary care providers, on the other hand, emphasize the continuity of the patient/provider relationship, and place a high premium on encouraging ongoing engagement in care (Herman and Gourevitch et al., 1997; Selwyn, 1996). Partial engagement in care is better than no engagement, and it is rare for primary care providers to terminate patient/provider relationships (Herman and Gourevitch et al., 1997). With the advent of antiretroviral therapy, and its life-saving potential, the HIV medical care system has moved much more quickly to embrace a variety of harm reduction approaches to serving HIV positive substance users. The goal is to keep people engaged in some form of care, and to support their adherence to medical treatment (HRSA, 11/1998).

Yet this medical approach conflicts with many conventional substance abuse treatment approaches such as behavioral contracts, strict rules, penalties and consequences, confrontation, and the denial of care to individuals who break the rules or contracts (Selwyn, 1996). Relapse tolerance is seen as “enabling,” and considered to be quite dangerous by many substance abuse professionals. Another factor that heightens this conflict between the delivery systems is the fact that many health care professionals do not have the training, skills, or expertise to assist HIV positive substance users in accessing treatment or maintaining sobriety (Herman and Gourevitch et al., 1997; Selwyn, 1996).

Another important difference in the development of the two delivery systems lies in the funding streams. Both systems of care are financed through a combination of government grants and insurance mechanisms. However, coverage of HIV related medical care is typically consistent across insurance payers, including Medicaid, Medicare, and private insurance. In contrast, coverage of substance abuse treatment is quite variable – some state Medicaid programs and some private insurance plans do not cover any form of treatment, while others fund very limited services (Batki and Sorensen, 1998). Thus, while HIV medical care is funded primarily through health insurance and Medicaid, and secondarily by grant funding from HRSA for the un- or under-insured (Ryan, 2000), substance abuse treatment is far more reliant upon federal block grants. As managed care becomes a prominent vehicle for health care financing (McKinney, 2000; HRSA, 1998b) both the medical care systems and the treatment systems are squeezed for resources, which only heightens the tension between the two systems.

Although there are major differences in philosophies and approaches between the substance abuse treatment community and the medical community, the convergence between substance abuse and HIV makes it critical that the two fields work together to minimize harm and maximize adherence to medical treatment. After 20 years of the HIV epidemic, the systems remain separate in many parts of the country, but the interaction has intensified and is reflected by increased collaboration at the national level (Quander, 2000; HRSA, 1998d) and at the state or local level (HRSA, 1998a; Herman and Gourevitch, 1997; Selwyn and Batki, 1995; Gabel and Peterson, 1993).

IV. PERFORMANCE STANDARDS

In order to evaluate the effectiveness of programs and improve performance, it is important to identify or establish performance standards that can be linked to successful outcomes. A review of the literature reveals few commonly accepted standards that address the delivery of care to substance users with HIV across clinical and treatment settings. However, there are standards or program recommendations that relate to separate components of the service delivery system.

In the following section, we present the literature on performance standards for the delivery of health care services for PLWH, substance abuse treatment, and social and support services. Within the literature review, we highlight performance standards that consider the interface between HIV and substance use. Some of the standards described in the literature take the form of evidence-based clinical guidelines or treatment protocols. These represent the consensus of clinical experts based on state-of-the art research. Other standards are more subjective, and represent the recommendations of clinicians and researchers based on their experience in serving specific populations. We include both types of standards in order to address the process of service delivery for substance users with HIV, as well as the clinical protocols.

Performance Standards: HIV Primary and Specialty Care

HIV primary care has long been important in prolonging life and preventing opportunistic infections for PLWH (Kirton, Ferri and Eleftherakis, 1999). The advent of highly active antiretroviral therapy (HAART) in 1996 ushered in a new era in HIV care, turning HIV into a treatable disease (Gallant, 2000; Acuff et al., 1999; Kunches et al., 1999) with the promise of marked improvements in health, longevity, and well being. At the same time, the delivery of HIV primary care has become increasingly complicated, requiring clinicians with experience and the ability to track the latest developments in prophylactic therapy and treatment (Holmes, 1997).

Despite the advances in clinical treatment, it is clear that state-of-the art care is more available to some individuals than others. In a national cohort study conducted by the HIV Cost and Services Utilization Consortium of 2,466 adults with HIV, researchers found that access to medical care, anti-retroviral therapy, and pneumocystis carinii pneumonia prophylaxis improved from 1996 to 1998. However, Blacks, Latinos, women, uninsured, and low-income populations

were less likely than other populations to receive optimal care (Shapiro, et al., 1999).

Historically, injection drug users have been less likely than others with HIV to access outpatient HIV care and anti-retroviral therapy (Eldred and Cheever, 1998; Selwyn, 1996).

There are many possible explanations for the under-utilization of primary care services by PLWH who are substance users, including access barriers, lack of insurance, provider discrimination, and lifestyle issues (Selwyn, 1996). At the same time, there is evidence that substance users with HIV have the same rate of progression from HIV to AIDS as non-users and can benefit from clinical treatments as well as the rest of the HIV positive population (O'Neill, 1997).

Studies are inconclusive about the relationship between substance abuse and adherence to treatment regimens (Eldred, 1997), yet it is a common perception that former and current drug users have difficulty adhering to complex treatment regimens (Stone, 1999). Reports from a conference sponsored by the NIH Office of AIDS Research in 1997 indicate that socio-demographic factors are not predictive of adherence, and that medical providers are often poor at predicting which patients will adhere to treatment (Eldred and Cheever, 1998).

The medical community encounters several clinical challenges in addressing the treatment needs of PLWH who are substance users. These include the ability to communicate effectively with this population and staying current in the knowledge of constantly evolving treatment standards. Experts in the field argue that it is essential for providers to be knowledgeable about the behavioral manifestations of substance abuse and interventions that can influence behavior change (Perlman et al., 1997; Sullivan and Fleming, 1997; AIDS Institute, 1995). However, there are few guidelines for medical providers in the use of communication and behavior management strategies to support medical providers in accomplishing the recommendations described above (Snyder, Kaempfer and Ries, 1996).

In addition, even before the advent of HAART, physicians in different practice settings varied widely in their knowledge and experience in prescribing state-of-the art HIV care (Holmes, 1997; Curtis et al., 1995; Gifford, McPhee and Fordham, 1994; Markson, Cosler and Turner, 1994; Schultz, Bindman and Cooke, 1994). Differences were found between the practices of physicians providing care in dedicated HIV or infectious disease clinics, and those providing care in general medical clinics and community-based primary care clinics (Markson et al., 1997, as quoted in Holmes, 1997). Other studies indicate that there is a relationship between

a clinician's experience in HIV/AIDS care and his or her knowledge of the most current treatment standards (Holmes, 1997).

Thus, performance standards for HIV primary care services need to encompass both clinical treatment guidelines and care delivery strategies that enhance access to care and treatment adherence for substance users. Performance standards need to include substance abuse screening, referral to treatment, and the tailoring of treatment to address both individual lifestyles (Eldred and Cheever, 1998) and HIV/substance abuse treatment interactions (O'Neill, 1997; AIDS Institute, 1995). In the following section we review the literature on existing and recommended performance standards for HIV medical care, standards specific to substance users and standards for process of service delivery.

Standards for HIV Medical Care

The CDC regularly prints recommendations about current HIV treatment guidelines developed by recognized national groups and/or federal agencies. Most of the guidelines for the management of HIV disease are developed by working groups of the United States Public Health Services (USPHS) and the Infectious Disease Society of America (IDSA). In the past several years, the following guidelines for the management of HIV disease and use of antiretroviral medications have been published:

- Post-exposure prophylaxis for non-occupational exposure to HIV (CDC, 1998b);
- Administration of antiretroviral medications to pregnant women and to reduce perinatal transmission (Perinatal Guidelines Working Group Members, 2001);
- Guidelines for the use of antiretroviral medications for children (Working Group on Antiretroviral Therapy and Medical Management of HIV-Infected Children, 2001);
- Guidelines for the use of antiretroviral agents in HIV-infected adults and adolescents (CDC, 2001); and
- Updated recommendations of the International AIDS Society for anti-retroviral therapy in adults (Carpenter et. al, 2000).

These guidelines are extensive, and address identifying infection, CD4 and viral load testing, testing for drug resistance, considerations for initiating antiretroviral therapy at different stages of illness, and criteria for interrupting or changing therapy. Some of the guidelines also address managing drug reactions, specific issues of adherence for different age groups, and monitoring guidelines.

A second group of treatment guidelines, also published by the CDC, covers HIV-related conditions such as opportunistic infections or common co-morbid conditions. These include:

- The prevention of opportunistic infections (IDSA, 1999b);
- Recommendations for the prevention and control of Hepatitis C (HCV) and HCV-related chronic disease (CDC, 1998d);
- Guidelines for the treatment of sexually transmitted diseases (CDC, 1998e); and
- The prevention and treatment of tuberculosis among patients infected with HIV (CDC, 1998f). The tuberculosis guidelines are currently undergoing revision, and a new version will be published later this year.

These guidelines contain little mention of behavioral strategies to reduce the transmission of other blood-borne infectious diseases or complications of drug use such as skin and soft tissue infections and bacterial endocarditis. These issues were raised when the guidelines were first published in 1997 (Perlman et al., 1997), but have not been addressed.

In addition to the federal guidelines and recommendations, the New York AIDS Institute has published guidelines for providing medical care to HIV infected individuals with Hepatitis C and promoting adherence to antiretroviral therapy (NY AIDS Institute, 2001a, 2000). National professional groups have also published guidelines, often targeting specific populations or types of providers such as physicians, nurses, and nurse practitioners (Gallant, 2000; Kirton, Ferri and Eleftherakis, 1999; Myers, 1998; Kocurek, 1996). These guidelines address many of the topics covered in the CDC recommendations, and also address issues related to the screening, diagnosis and treatment, or referral to treatment, of substance abuse and psychiatric illness.

Several articles and guides have been published detailing clinical practice guidelines for HIV positive women. The Community Research Initiative on AIDS published reports prepared for the 1999 Conference on Women and HIV/AIDS that describe common gynecologic conditions associated with HIV infection and provide treatment recommendations (Monroe, 2000). One volume contains detailed information on the manifestations of HIV disease in women, the use and toxicity of antiretroviral agents in women, gynecologic issues, menstrual abnormalities, prognosis and survival in women, and HIV-related conditions in women (Levine, 1999). HRSA has also published articles on HIV care for women (Anderson, 1998).

The Johns Hopkins AIDS program published a book entitled, “The Medical Management of HIV Infection.” This book serves as the standard of care for both the AIDS program at Johns Hopkins and for the Maryland Medicaid program. The chapter on psychiatric disorders has a subsection on substance abuse with recommendations for detoxification,

treatment of co-morbid mental health conditions, maintenance treatment, and relapse prevention (Bartlett and Gallant, 2001).

In addition, the Forum for Collaborative HIV Research at George Washington University Medical Center has published a large document on Dissemination and Evaluation of Clinical Practice Guidelines for HIV Disease (FCHR, 1998). This document includes a summary of current clinical practice guidelines, different target audiences for information, and methods for disseminating guidelines to the appropriate target audiences.

HIV Primary Care Standards Specific to Substance Users

Two of the strongest recommendations in the HIV primary care literature are that physicians who treat HIV positive substance users need to be knowledgeable about treatment options in their community and trained to use substance abuse screening tools (Bartlett and Gallant, 2001; Gallant, 2000; Kirton, Ferri and Eleftherakis, 1999; O'Neill, 1997; Perlman et al., 1997; Kocurek, 1996; O'Connor et al., 1996; NY AIDS Institute, 1995). These authors recommend that patients be screened for substance use habits at the point of entry to medical care as part of the initial assessment. Most of the substance abuse screening tools available through the published literature screen only for alcohol abuse (Sullivan and Fleming, 1997), but CSAT and the AIDS Institute offer examples of screening tools, such as CAGE and MAST, that can be used or modified for the abuse of other drugs (Sullivan and Fleming, 1997; NY AIDS Institute, 1995). The Addiction Severity Index (ASI) is the best known, and possibly most comprehensive, tool for full addiction screening (McLellan et al., 1992).

Substance abuse can have serious health consequences, particularly when the immune system is compromised as it is with HIV disease. There are guidelines in the literature for the clinical evaluation of diagnoses and symptoms that may stem from the interaction between substance abuse and HIV (Stone, 1999; Kirton, Ferri and Eleftherakis, 1999; O'Neill, 1997; NY AIDS Institute, 1995). Stone (1999) describes in some detail the interaction between methadone and antiretrovirals, including the impact of specific antiretrovirals on decreasing the effectiveness of methadone, and the effect of methadone on increasing or decreasing the impact of antiretrovirals. This author also recommends that HIV therapeutic regimens be tailored to address these interactions, and in some cases be limited to as few medications as possible, taken twice daily (Stone, 1999).

The AIDS Institute reports that substance abuse influences the manifestation of HIV and needs to be considered when evaluating weight loss, abdominal pain, bronchospasms, lymphadenopathy, chest pain, neurologic symptoms, and dermatologic symptoms (NY AIDS Institute, 1995). The Institute provides a chart of symptoms and the potential etiology of substance abuse-related conditions (NY AIDS Institute, 1995), and in a more recent publication details the interactions between methadone and HIV-related medications (NY AIDS Institute, 2001b). In addition, the use of needles to inject drugs opens the door to other medical complications such as hepatitis B and C, delta viruses, and soft-tissue infections such as cellulitis, abscesses, chronic ulcerations, septic phlebitis, and necrotizing fasciitis (Stone, 1999; O'Neill, 1997; Perlman et al., 1997;). Therefore, clinicians need to screen for these conditions and, if they present at a later date, consider the possible origins.

Finally, a number of authors stress the close links between psychiatric illness and substance abuse, and the need to screen for psychiatric issues in addition to drug use habits (O'Neill, 1997; NY AIDS Institute, 2001c; Kocurek, 1996). The coordination of mental health, substance abuse, and primary care services is cited as an important strategy in serving HIV positive substance users (Bartlett and Gallant, 2001; NY AIDS Institute, 2001c; Kirton, Ferri and Eleftherakis, 1999; Kocurek, 1996). When making referrals, it is important to find the appropriate treatment programs because they differ in their capacity to handle psychiatric issues; in fact, some oppose psychotropic medication altogether (O'Neill, 1997).

Recommendations for the Process of Care

For the purpose of this review, the process of care refers to both the interaction between provider and patient and the interactions between different components of the health care system. The literature regarding the process of care consists of recommendations based on experience or research, rather than explicit performance standards. However, these recommendations may be very useful in defining performance standards in the future.

One of the strongest recommendations in the published literature is the importance of establishing a trusting relationship with the HIV positive substance user as the foundation for ongoing engagement in care (Kirton, Ferri and Eleftherakis, 1999; FCHR, 1998; O'Neill, 1997; AIDS Institute, 1995). This requires that the physician or other health care provider have a non-judgmental attitude, treat the individual with respect, and involve the patient in decision making

about important treatment options. Closely linked with the issue of trust is maintaining patient confidentiality (Kirton, Ferri and Eleftherakis, 1999; Stone, 1999; FCHR, 1998, Kocurek, 1996; AIDS Institute, 1995). A third important component in the provider/patient relationship is ongoing patient education, both about the disease and complications, and prevention (Kirton, Ferri and Eleftherakis, 1999; Kocurek, 1996).

The care of HIV positive substance users often requires the skills of many health professionals (O'Neill, 1997). Several articles stress the importance of a multidisciplinary team approach to care in the medical setting, including the patient, physician, nurse/nurse practitioner, social worker, nutritionist, and case manager (Kirton, Ferri and Eleftherakis, 1999; Kocurek, 1996; AIDS Institute, 1995). Substance abuse and mental health clinicians or consultants are also important team members (Gallant, 2000; Kirton, Ferri and Eleftherakis, 1999; Herman and Gourevitch, 1997; Kocurek, 1996). Team meetings and case conferences are viewed as important components of successful care delivery models (Kocurek, 1996).

Linkages with other community-based providers such as home health agencies, substance abuse treatment providers, AIDS service organizations, and concrete service providers such as housing programs, child care, transportation, and food assistance are reported to be essential in successful service delivery models for HIV positive substance users (Stone, 1999; Kirton, Ferri and Eleftherakis, 1999; Kocurek, 1996).

Performance Standards: Substance Abuse Treatment

Almost 30 years of scientific research and clinical practice have demonstrated that treatment for substance abuse can be successful (Leshner, 1999; NIDA, 1999b; Metzger, Navaline and Woody, 1998; McLellan et al., 1997). Substance use treatment includes a wide range of methods and interventions, but all treatment programs share common goals of reducing substance use or achieving abstinence, maximizing life functioning, and preventing or reducing the frequency and severity of relapse (Sullivan and Fleming, 1997). In this section we examine the literature pertaining to substance abuse treatment philosophies and modalities, the effectiveness of different types of treatment in addressing the needs of PLWH, and performance standards that have been developed for substance abuse treatment.

Philosophies of Substance Abuse Treatment and their Impact on PLWH

There are two major philosophies of substance abuse treatment: the abstinence model and the harm reduction model. Within each of these treatment philosophies there are numerous treatment modalities and interventions.

Abstinence

There is strong debate in the field of substance use concerning the most appropriate philosophy of substance abuse treatment both in general and for PLWH. For many years, abstinence, or complete restriction from substance use, was the only philosophy employed by substance abuse treatment programs, and the only desired treatment outcome.

Although many substance abuse treatment programs emphasize abstinence, the most common are self-help programs such as Alcoholics Anonymous, Narcotics Anonymous and Self-Management and Recovery Training (SMART), formerly known as “Rational Recovery” (Tate and Fox, 2000). Another abstinence-based intervention is drug detoxification, which includes hospital-based, free-standing community-based or outpatient acupuncture detoxification programs. Detoxification usually includes a pharmacologic component, using medications to ease the symptoms of withdrawal in the early stages (Sullivan and Fleming, 1997). Pharmacologic treatments are typically useful only in tandem with other treatment and may be helpful motivators that prevent relapse (Sullivan and Fleming, 1997). A newer, abstinence-based model of care is the community reinforcement approach (CRA), an intensive outpatient treatment for cocaine addiction that provides vouchers in exchange for cocaine-negative urine samples (NIDA, 1999c). Finally, many residential substance abuse programs require abstinence for admission and retention.

Harm Reduction

Over the years, numerous concerns have been raised about the effectiveness of the abstinence approach. As a result, a new model of substance abuse treatment, harm reduction, emerged. Harm reduction recognizes that substance abuse treatment should be an option for those who cannot or will not choose complete abstinence, as complete lifetime abstinence is not a reality for many addicts (National Coalition for the Homeless, 1999b; AIDS Institute, 1995). Harm reduction models emphasize health and well being rather than total abstinence from drugs

(Acuff et al., 1999). Harm reduction approaches allow more individuals to engage in treatment, provide a range of services to active users, and encourage users to switch to safer forms of drug use (Des Jarlais, 1995). Individuals are often referred to harm reduction programs after failing in an abstinence-based program (Acuff et al., 1999).

The most common example of the harm reduction approach is maintenance, either substituting methadone or levo-alpha-acetyl-methadol (LAAM) for heroin. Maintenance has been proposed as the preferred method of treatment for the HIV-infected opiate user because daily attendance at a clinic offers access to other needed services including medical care, psychiatric consultation and treatment, neuropsychological evaluation and social services (NIDA 1999b; Selwyn and Batki, 1995). Patients stabilized through maintenance have demonstrated an ability to engage more readily in counseling and other types of behavioral interventions that are essential to recovery and rehabilitation (NIDA, 1999b).

Mixed Models

Other interventions combine the harm reduction and abstinence philosophies of care, using more than one type of treatment or intervention to achieve desired results. Almost any type of substance abuse treatment modality, including outpatient therapy, intensive outpatient programs or residential programs, can combine abstinence and harm reduction approaches. Although the majority of these programs are abstinence-based, some tolerate a level of substance use and relapse, and accept active users into care.

A newer type of care for PLWH that does not appear to fit any specific modality is the faith based model of care. Faith based programs address all aspects of HIV disease and provide many different types of AIDS-related programs and services. What makes these models different is their focus within individual faith communities or interfaith coalitions, and the pastoral and social justice commitment based on universal religious and moral imperatives (Blumenfeld and Alexander, 1991). Currently there is little information in the literature regarding faith based substance abuse treatment programs.

Relationship Between Substance Abuse Treatment and Medical Care

With the growth in the epidemic of substance abuse among PLWH, it is important to consider all possible options for substance abuse treatment to support access to HIV medical

care. The negative effects of not receiving HIV treatment far outweigh the benefits of remaining wed to any single philosophy of care. For example, alcohol abuse is the primary predictor of lack of adherence to HIV medical treatment regimens and is also likely to complicate medical care because of its damaging impact on the liver (Stone, 1999). However, studies have shown that once alcohol abuse ends, people are as likely to adhere to treatment as any other group of PLWH (Stone, 1999).

For these reasons, some treatment programs now use mixed models to engage clients in care and to obtain full advantage of treatment efficacy. For example, it is not uncommon for an individual to arrive for his or her daily dose of methadone at a clinic, and then go directly to an intensive outpatient program, or for a person in Narcotics Anonymous to take psychiatric or pain medication that has been prescribed by a physician.

Treatment Effectiveness for PLWH

Although abstinence-based models have strengths, this approach is not always optimal for PLWH. For example, while self-help groups can provide important support for sobriety, they cannot offer the type of intensive treatment that is often needed to stop or reduce needle use for most injection drug users. In addition, abstinence-based models of substance abuse treatment are extremely proscriptive and many addicts reject treatment under this model, or are not allowed to enter or remain in care unless they stay drug-free (Stone, 1999; Finkelstein and Vogel, undated).

Abstinence programs are most appropriate for individuals who self-identify as addicted, are highly motivated, and want to abstain regardless of their diagnosis (Acuff et al., 1999; NIDA, 1999b). Some abstinence models do not support or allow the use of any medications, including psychiatric or pain medication, which may be required by PLWH (Acuff et al., 1999; O'Neill, 1997). Although this has begun to change over the years, it is a common criticism of the self-help programs. Finally, the focus on abstinence has created a barrier to the development of relapse-tolerant programs, ignoring the reality of relapse and the life of the addict. Abstinence-based programs do not recognize the importance of any outcomes of substance abuse treatment participation other than abstinence, such as improved overall health (National Coalition for the Homeless, 1999b).

Much of the literature suggests that harm reduction is much more effective than abstinence as a method of substance abuse treatment for PLWH. Reasons cited include the lack

of success of abstinence models with this population, and that some people will not or do not need to abstain from all substance abuse (Acuff et al., 1999; Finkelstein and Vogel, undated).

Despite the demonstrated benefits of harm reduction models, there is extreme divergence of opinion among treatment providers, policy makers, and the public about these methods and their intent. Many question the benefits of using maintenance therapy, in spite of research that has consistently demonstrated the ability of this treatment modality to stabilize lives to the point that people can hold jobs and reduce drug use, health complications, and crime (Drucker et al., 1998; Hartel and Schoenbaum, 1998; Mathias, 1997). In fact, in 1997 a National Institute of Health expert panel called for an expansion of methadone treatment and changes in law that create barriers to its availability (Mathias, 1997), while others propose it as the preferred method of treatment for substance using PLWH (Cooper, 1989; Ball et al., 1988; Batki, 1988). The primary criticisms are that the use of methadone or LAAM is a simple substitution of one drug for another; maintenance on a drug runs contrary to the treatment goal of abstinence; and that people in methadone maintenance programs sell their doses on the street, using their proceeds to buy illegal drugs (Gerstein and Harwood, 1990). The open-ended aspect of maintenance is also considered problematic. Finally, patients stabilized on methadone may continue to use other substances like alcohol and cocaine.

Mixed models may prove effective as long as they allow people to engage in treatment without mandating abstinence at entry. For example, residential substance abuse treatment has been proven successful for PLWH in some circumstances. Although the drop-out rate in residential programs may be nearly 80 percent (Poulopoulos and Tsiboukli, 1999; De Leon and Schwartz, 1984), studies have shown that PLWH are no less likely to complete these programs than those who are not HIV positive, if provided with supports and on-site medical care (Kingree et al., 1997). More recently, therapeutic communities have begun to organize themselves to develop specialized programs for HIV positive substance users (De Leon, 1996). These specialized programs are more likely to have the expertise and experience to serve this population appropriately.

Some outpatient treatments, such as family and group therapy, are using the mixed model approach to make substance abuse treatment effective for PLWH (Sullivan and Fleming, 1997). The benefit of these therapies is that the involvement of a spouse, family members or other individuals can provide a more appropriate and supportive environment for the person in

recovery and improve treatment outcomes for the patient (Sullivan and Fleming, 1997). The inclusion of family members in therapy and the use of urinalysis to confirm abstinence are important elements of this cognitive-behavioral outpatient treatment (NIDA, 1999b).

Finally, some intensive outpatient programs employ a mixed model approach. The strengths of this modality include the ability to provide multiple treatment interventions in one location. This allows for flexibility in the philosophy of care and a level of tolerance for substance use. Intensive outpatient programs can help people make connections through group interaction to create a new circle of peers and friends who abstain from substance use (Selwyn and Batki, 1995).

Other Important Elements of Effectiveness

In any treatment program, relapse prevention is critical to success. In relapse prevention clients are helped to identify the high-risk situations and emotional “triggers” that have led to prior substance use and then develop substitute responses to the craving. New coping strategies are also taught. Relapse may be more likely for individuals with certain co-morbid disorders. For example, research has shown that people with depression may experience extreme difficulties in resisting environmental cues that were associated with previous substance abuse (NIDA Notes, 1999). Relapse prevention is particularly essential for PLWH, because HIV is frequently associated with other high-risk behaviors (Acuff et al., 1999).

A second important element of successful substance abuse treatment intervention is outreach. Many PLWH who use drugs may not be willing or able to access services through traditional methods, such as going to or calling a clinic for an appointment. Thus, programs should include some form of outreach as a key activity. Some forms of outreach activities that have proven successful in engaging PLWH in substance abuse treatment include going to the places where clients use substances, providing tangible items as incentives to potential clients, using peers as part of the outreach effort, and continued persistence and multiple outreach contacts (Acuff et al., 1999).

The final important ingredient for success is to provide a range of services that are tailored to address differences in drug choice, age, race, culture, sexual orientation, gender, employment, or other important characteristics (NIDA, 1999b). Studies have shown that treatment matching is central to the success of treatment (Leshner, 1997; McLellan et al., 1997).

Guidelines and Standards of Care

At this time, there are few substance abuse treatment guidelines specifically for PLWH. The Center for Substance Abuse Treatment (CSAT), a division of SAMHSA identified a set of treatment components that should be shared by all substance abuse programs, regardless of setting, treatment modalities employed, or populations targeted. These components include:

- Assessment, including a comprehensive medical exam, drug use history, psychosocial evaluation, and, if needed, a psychiatric evaluation;
- Same-day intake;
- Providing HIV prevention and primary medical care onsite;
- Testing and treatment for infectious diseases (tuberculosis, HIV/AIDS, sexually transmitted diseases, hepatitis, and retroviruses) on a regular basis;
- Medications for conditions such as mental health disorders and HIV/AIDS;
- Practical life skills counseling such as vocational and educational counseling;
- General health education, including nutrition, family planning, sex and HIV/AIDS risk-reduction counseling;
- Liaison services with immigration, legal aid, and the criminal justice system;
- Social and athletic activities to provide patients with new interests and perceptions of social interactions; and
- Relapse prevention planning to identify, stabilize, and control the stressors in patients' lives, which may trigger and promote relapse to substance use (Selwyn and Batki, 1995).

While CSAT and SAMHSA have not labeled these as a set of minimum performance standards, the components form a strong basis for the development of future performance standards for substance users with HIV. More recently CSAT published a Treatment Improvement Protocol (TIP) on substance abuse treatment for people with HIV (CSAT, 2000). This document contains new information on the epidemiology of HIV disease and current trends, as well as information on the assessment and treatment of HIV including adherence to medications. Chapters are dedicated to mental health issues, case management and resource advocacy, ethical and legal issues (CSAT, 2000).

A second set of guidelines has been developed by the American Society of Addiction Medicine (ASAM) and is intended to provide a broad overview of issues in treating HIV-positive substance abusing patients and their families (HIV/AIDS Committee of ASAM, 1998). As well as providing general information on medical issues and HIV testing, the ASAM guidelines discuss ways to integrate HIV-positive patients into substance abuse treatment. ASAM addresses many of the medical performance standards discussed above in the section on HIV primary care. The guidelines also cover:

- Providing linkages and advocacy with the HIV care providers and the health care system in order to facilitate adherence to treatment;
- Ensuring appropriate follow-up for the patient once he or she has left the primary substance abuse treatment setting;
- Assessing and monitoring the use of potentially problematic treatments;
- Training substance abuse providers in all aspects of HIV infection;
- Training providers about HIV medications to assist patients with adherence;
- Training providers about the important interactions between HIV medications and other medications, especially those used for mental health disorders;
- Conducting a full review of all medications to determine whether other alternatives to current psychotropic medications may be more appropriate;
- Preparing and supervising the substance abuse treatment staff to meet the other needs of HIV positive individuals such as feelings around stigma, shame, and grief;
- Processing with the client about if, how, and when to disclose his or her HIV status;
- Using consultants experienced in HIV and substance abuse to work with patients and staff as needed;
- Ensuring that the educational component of the substance abuse programs provides accurate information about HIV disease; and
- Training staff to understand the link between substance abuse, HIV disease and mental health disorders (HIV/AIDS Committee of ASAM, 1998).

The Standards of Care Committee of the Los Angeles County Commission on HIV Health Services has also developed guidelines on substance abuse treatment. The purpose of these standards is to establish an acceptable minimum level of service quality for substance abuse treatment. These standards address the following areas:

- Inclusion of harm reduction education in programs;
- Staff requirements and training;
- Assessment and screening that includes all aspects of physical and emotional health, and determines support needs;
- Priority admission to substance abuse treatment programs;
- Making referrals;
- Discharge planning;
- Specifications for different treatment interventions; and
- Legal and ethical issues (Los Angeles County Commission on HIV Health Services, 1999).

Awareness of pharmacological interactions, particularly the impact of antiretrovirals on methadone, and the importance of being able to adjust the methadone dosage appropriately are other important considerations in developing performance standards (Stone, 1999). The guidelines described above, in conjunction with the primary care standards and guidelines

described in the previous section, provide opportunities for development of a strong set of performance standards for programs serving HIV positive substance users.

Performance Standards: Support Services

The literature on HIV and substance abuse is nearly universal in describing the importance of support services for PLWH, including housing, food, transportation, child care, interpreter services, legal assistance, immigration assistance, employment, and case management (Kirton, Ferri and Eleftherakis, 1999; Stone, 1999; Kocurek, 1996; Selwyn and Batki, 1995; HRSA, 1994a; Caudle, 1993). For many HIV positive substance users, HIV is the least of their concerns because of daily survival issues. Some substance users are not accustomed to seeking services outside of the community of substance abuse treatment providers (Selwyn and Batki, 1995) and may be unsure about how to access needed supports. Below we examine the performance standards that have been developed for support services for substance using PLWH.

The Ryan White CARE Act is the primary source of funding for support services for PLWH, as support services are often viewed as ancillary to the provision of core medical and substance abuse treatment services paid for by more traditional funding sources such as health insurance. Despite the importance of supports for substance users living with HIV, the review of the literature indicates a dearth of information regarding performance standards or formal guidelines for the provision of these services to this population. Additionally, there are few standards for any support services other than case management.

The single publication in the literature that offers informal recommendations and general information for providing support services to PLWH who are also substance users is the SAMHSA Treatment Improvement Protocol (TIP) publication, "Treatment for HIV-Infected Alcohol and Other Drug Abusers." It is important to note that this publication is not a set of formal standards. Rather it offers general recommendations in four support service areas: housing, family support, case management, and outreach. The recommendations include the following:

- Housing, including supportive housing programs, home healthcare, homeless shelters, and hospice care:
 - Comprehensive services must be available to all, regardless of disease stage or substance use behaviors.
 - Residential programs must provide a continuum of care because clients' needs vary at different stages of substance use or HIV treatment.

- Referral mechanisms, collaborations, and internal policies and procedures must be established to provide a continuum of care.
- Residential programs and facilities should provide staff training in both substance abuse and HIV disease, including education about opioid therapy.
- Substance abuse treatment providers should make efforts to develop linkages with homeless shelters in order to overcome barriers to care experienced by PLWH.
- Family support (including child custody):
 - Family should be defined broadly and all family members should be encouraged to actively participate in treatment planning and medical care decisions regarding clients' substance abuse problems and HIV disease.
 - Program staff must be educated about the foster care and adoption systems in their states.
 - Special training must be provided to staff of substance abuse programs on substance abuse, HIV, and children.
 - Legal, financial, and emotional support must be given to prospective foster and adoptive parents of HIV-infected children.
- Case management:
 - Case managers should ensure that HIV-infected substance users gain access to entitlement benefits, such as food stamps, Medicare and Medicaid, and supplementary income.
 - Providers must revise their expectations regarding caseload size and frequency and length of client contact.
 - Formal linkages between agencies and providers should be established to provide a full spectrum of services.
 - Linkages between numerous service agencies and providers should be formally established so that responsibilities are clearly defined.
- Outreach services:
 - Outreach workers should be included in staff planning meetings and case conferences as active members of the program's interdisciplinary team.
 - Important services provided by outreach workers include case finding, crisis counseling, assistance with transportation and childcare, consultation to and coordination with other providers, and home or street visits.
 - Outreach workers should be familiar with the community in which they work.
 - Outreach workers who are in recovery for substance use have special needs that should be addressed in support groups (Selwyn and Batki, 1995).

The National Association of Social Workers (NASW) has published a set of formal practice standards, including guidelines for social work case management (Case Management Standards Workgroup, NASW, 1992). These are general standards for the provision of case management and do not specifically address the delivery of support services to PLWH or to substance users. Organized into three areas: the client, the system, and the social work case manager, the guidelines address the following areas:

- Staff qualifications and professional conduct

- Ethics and confidentiality
- Knowledge and understanding of clients and systems
- Advocacy
- Supervision, professional development and continuing education
- Caseload size
- Collaboration with other agencies

The NASW guidelines have been used as the basis for many of the standards developed by state and local agencies providing HIV services, which then tailored them to meet their own needs. The New York State Department of Health AIDS Institute, the Riverside/San Bernardino, California EMA, Orange County in California, the State of Michigan, the Massachusetts Department of Public Health/AIDS Bureau, and the Los Angeles County Commission on HIV Health Services are examples of organizations that have developed standards for delivering case management service to PLWH (Case Management Working Group Planning and Evaluation Committee, Inland Empire HIV Planning Council, 1998; Bureau of Community Based Services, New York State Department of Health AIDS Institute, 1997; Los Angeles County Commission on HIV Health Services 1997; HIV Planning Advisory Council, Program Development Committee, Case Management Subcommittee, 1996; Boston Public Health Commission AIDS Services, Massachusetts Department of Public Health AIDS Bureau, 1996; Standards of Care Workgroup, 1995). Few, if any, of these organizations specified their standards for substance users. Fundamental components across these different sets of standards include process and program oriented standards for:

- Intake: Proper screening and evaluation should be conducted to determine eligibility for services. Demographics, financial, medical, and support system needs information should be collected.
- Service plan development: A work plan mutually agreed upon between case manager and client should be developed. Major components should include identification of agreed-upon client needs, service goals, and quantified time-specific objectives and action steps.
- Monitoring, evaluation and reassessment: Ongoing client contact ensures that services being delivered are consistent with the service plan and the agreed upon goals and action steps.
- Discharge: As clients become more self-sufficient, case managers should reduce their level of direct involvement. Formal discharge planning should be conducted through a systemic process.

Overall, there are few standards that address the special needs and challenges of serving HIV positive substance users. Perhaps this absence is due to the difficulty in measuring the effectiveness of case management in the substance abusing population (HRSA, 1992a). Because of the importance of these services, there is a clear need for a comprehensive set of standards for support services that address the needs of substance users with HIV.

V. BARRIERS TO CARE

As the sections above describe, PLWH who are substance users are less likely to access HIV primary care services than other HIV positive populations. They also face barriers in accessing substance abuse treatment programs. In this section we review the literature that addresses barriers to care for HIV positive substance users in four broad categories:

- Systemic barriers;
- Programmatic barriers, both within drug treatment programs and within HIV medical care programs;
- Other barriers experienced by HIV positive substance users; and
- Barriers specific to special populations.

Systemic Barriers

The most frequently reported barrier to care in the literature is the lack of funding for services, which impacts access to care. This includes insufficient funding for substance abuse treatment slots and programs, funding that is limited to specific types of treatment, lack of insurance coverage for substance abuse treatment or medical care, and inadequate funding to provide support services in conjunction with substance abuse treatment or HIV medical care.

A HRSA/NIDA study of 115 service providers in five cities cited a lack of adequate funding as the main barrier to expanding services for PLWH who are substance abusers (Weissman et al., 1995). Resources for substance abuse treatment are lacking in many communities, even for those actively seeking help (Gallant, 2000). It is estimated that approximately 75 percent of the 5.3 million individuals in severe need of substance abuse treatment do not receive appropriate care (Amaro, 1999).

Recent trends in insurance coverage have led to fewer treatment programs, and within these programs, fewer services (Metzger, Navaline and Woody, 1998). Detoxification lengths of stay are now limited to a few days and residential programs have been curtailed (Acuff et al., 1999; Etherridge et al., as quoted in Metzger, Navaline and Woody, 1998).

One of the greatest barriers to care is lack of health insurance coverage (Shapiro, et al., 1999; Stone, 1999; Selwyn, 1996 and Dow, Knox and Cotton, 1989). Health service utilization is linked to insurance status (Stone, 1999; Shapiro, et al., 1999; Solomon et al., 1991, as quoted in Selwyn, 1996). Insurance-related barriers to care are particularly pronounced for low income women of color, Latinos, recent immigrants, and people who are homeless (HRSA, 1999b;

HRSA, 1999c; Heath Care for the Homeless Council, 1998; Maldonado, 1998; Zevin, 1998; HRSA, 1998b; Weissman et al., 1995).

Furthermore, substance abuse treatment programs face funding barriers in providing medical care, and on-site psychiatric, social and support services. A well-known HIV primary care program at the Montefiore Medical Center's substance abuse treatment center was unable to access Medicaid reimbursement for several years, even though the services provided were Medicaid-reimbursable at other sites (Selwyn, 1996). Methadone maintenance programs face barriers in accessing reimbursement for medical, psychiatric, and social services (Batki and Sorenson, 1994), making it difficult to provide comprehensive one-stop-shopping services for HIV positive substance users.

Other systemic barriers require leadership on the part of governmental policymakers and program administrators. Treatment providers and public policymakers need to address the regulatory changes required to facilitate the development of co-located services (Selwyn, 1996). A call to leadership has been recommended to coordinate, develop, and distribute clinical practice guidelines for HIV disease in order to ensure consistent and reliable utilization of future guidelines (FCHR, 1998). Finally, a major barrier for providers and consumers stems from the "bureaucratic red tape" that creates cumbersome application processes for benefits and prevents quick responses to problems (Acuff et al., 1999).

The role of managed care in creating barriers to care is common in anecdotal discussion, but more difficult to assess from the literature. The reduction in lengths of stay for detoxification and residential treatment noted above may be the result of managed care influences. Several articles report that managed care systems may not include providers experienced in serving HIV positive substance users (HRSA, 1998b; Holmes, 1997). However, a study conducted by the national HIV Cost and Services Utilization Consortium of 2,466 adults with HIV demonstrated that managed care enrollees had better access to pneumocystis carinii pneumonia prophylaxis than many other study participants (Shapiro, et al., 1999). It is clear that more research is needed in this area to identify barriers and enhancements.

Programmatic Barriers

Programmatic barriers exist both within the medical care system and within the substance abuse treatment system. These barriers include judgmental or negative attitudes, the conflict

between the different clinical approaches employed by substance abuse treatment clinicians and medical providers, staffing and staff training issues, and program design issues.

Substance users are often not welcome in primary care settings, and people with HIV are often not welcome in substance abuse treatment programs. Several authors report that the stigma of substance abuse is a barrier to medical care (Stone, 1999; Herman and Gourevitch et al., 1997). There is widespread perception, unsupported by research, that active substance users, people of color and poor women are less likely to adhere to treatment protocols (Stone, 1999). At the same time, some substance abuse treatment providers do not want to address the issue of HIV infection among their clients. In addition, as noted above in the section on Substance Abuse Treatment, active drug users are often barred from programs that are abstinence-based.

A second programmatic barrier results from the conflicting clinical paradigms of substance abuse treatment and HIV medical care described above. These conflicting views are especially problematic in programs where substance abuse treatment and HIV primary care are co-located. The literature stresses the importance of cross-training programs, multidisciplinary team meetings and case conferencing to work through these issues (Herman, Gourevitch et al., 1997; Selwyn, 1996).

Another programmatic barrier is the ability to find and train staff who are knowledgeable about both HIV and substance abuse, and who are willing to work in difficult environments. Research has correlated physician experience treating HIV/AIDS to longer survival rates for patients (Kitahara et al., 1996). However, it can be a challenge for substance abuse programs to find adequately trained and experienced medical providers to administer services on-site at substance abuse treatment programs (Selwyn, 1996). In addition, Peters-Rivera, Martinez, and Drone report that PLWH may require more staff time and agency resources for the following reasons:

- The greater magnitude of their problems and basic needs that often must be met before care can be provided;
- Extra staff time and effort may be needed to develop trust;
- Substance users may be hard to locate, as many are homeless, move frequently, or lack a phone or mailing address;
- If actively using substances, individuals may be prone to lying, become hostile, miss appointments, or disappear for long periods of time, making treatment and follow-up difficult or impossible (1995).

High rates of staff turnover and stressful working environments can be barriers, as reported in a study of eleven demonstration projects linking mental health and HIV/AIDS services (Acuff et al., 1999). Continual turnover among staff and frequent program changes or closures makes it difficult to know where to refer clients for additional services. Ongoing training and support is needed for all staff to address professional boundaries, ethical issues related to disclosure, discrimination, and cultural sensitivity (Acuff et al., 1999).

The design of certain programs may also create barriers to care. For example, most substance abuse treatment programs focus on the individual and removing the individual from his or her immediate surroundings (Selwyn, 1996). This can be a significant barrier for women with children who are reluctant to leave their children in the care of others in order to enter treatment. To cite another example, few people are motivated to seek admission to demanding residential programs lasting six months or more (Batki and Sorenson, 1998). Furthermore, most residential programs are not equipped to address the ongoing medical aspects of HIV disease (Batki and Sorenson, 1998).

Drug treatment programs may have difficulty providing medical services on site, due to the need for strict infection control measures, especially concerning the disposal of biological waste and controlling the spread of tuberculosis. Facilities may find it cost-prohibitive or structurally impossible to install necessary ventilation and exhaust systems to meet federal guidelines (CDC, 1994 as quoted in Selwyn, 1996). When services are not co-located, major challenges include patient follow-up, communication of information between medical providers and substance abuse treatment providers, and staff-splitting (Selwyn, 1996). In addition, substance abuse treatment programs often lack explicit referral arrangements with off-site service providers such as hospitals or medical specialists (Selwyn, 1996).

Within HIV primary care settings, the way services are offered can create barriers to care for substance users. Primary care settings need to be able to respond to unscheduled needs and problems, which has implications for staff availability, scheduling, and appointments versus walk-in hours (Selwyn, 1996).

Finally, the need for substance abuse treatment and HIV primary care often co-exists with needs for mental health and support services, making it difficult to address the former without addressing the latter (Piette et al., 1993 as quoted in Selwyn, 1996). Lack of employment, adequate housing, food, transportation, and childcare during appointments are significant barriers

for many HIV positive substance users (Acuff et al., 1999; Stone, 1999; Marconi et al., 1995; Weissman et al., 1995). The HRSA/NIDA study of service providers found that a lack of sufficient support services was a moderately important barrier to service expansion, as was the need to improve linkages between clinical trials and drug abuse treatment programs (Weissman, et al., 1995).

Other Barriers to Care

Key informants described how negative attitudes and beliefs in the general community about HIV and substance use can create barriers to care. Stereotypes, misconceptions, and unjustified stigma may prompt individuals to hide their condition or stay away from treatment or care. One informant described community resistance towards drug-using migrant workers, and another noted how methadone maintenance programs are located in the worst parts of a community because they are perceived as being a threat to the nicer neighborhoods. Methadone maintenance clinics are viewed as an “assault” on the well-being of the communities in which they are located, rather than as a therapeutic response to problems caused by the use of opiates (Gerstein and Harwood, 1990).

In addition, some PLWH are reluctant to access the health care system due to lack of trust, previous negative experiences, or fear of confidentiality violations (Acuff et al., 1999; Stone, 1999). Other individuals may avoid substance abuse treatment programs because they are seen as part of the legal system based on their experiences with court-ordered treatment (Acuff et al., 1999). Finally, high levels of psychological distress, such as depression and suicidality, can pose barriers to treatment (Batki and Sorenson, 1998).

Barriers for Specific Populations

In addition to the barriers cited above, specific populations face additional barriers due to race, ethnicity, language, gender, homelessness, sexual orientation, or geographic location. Many of these individuals are disproportionately affected by the major barrier to care, lack of insurance coverage (HRSA, 1999b; HRSA, 1999c; National Health Care for the Homeless Council, 1998; Maldonado, 1998; Zevin, 1998; HRSA, 1998b; Weissman et al., 1995).

People of Color

African Americans, Latinos, Asian and Pacific Islanders, American Indians and Alaskan Natives, and other people of color face additional barriers to HIV care and substance abuse treatment. Recent research by Turner and colleagues using data from the HIV Cost and Service Utilization Study reveals that Latinos and African Americans are more likely than whites to delay entry into HIV care following a positive HIV test (Turner et al., 2000). Some of the barriers to care faced by people of color include:

- Racism on an institutional or individual level (CSAT, 1999, HRSA, 1999b, Washington, 1996);
- The need for many other ancillary services, including food, housing and employment, as part of addressing addiction or HIV status (CSAT, 1999; HRSA, 1994a; HRSA, 1994b; Caudle, 1993); and
- Lack of access to culturally competent services (Brach and Fraser, 2000).

Racism constitutes a significant barrier to the delivery of services for minorities (Washington, 1996), and several studies have demonstrated an association between discrimination and adverse health outcomes for African Americans (Feldman and Fulwood, 1998). Institutional racism impacts all aspects of substance abuse treatment, including access to services, the ability to complete treatment and the benefits that can be expected from treatment (CSAT, 1999). Race and culture also affect a person's ability to establish effective therapeutic relationships in substance abuse treatment programs (HRSA, 1999b).

In many communities of color, there are important and often competing priorities for housing, employment, food, and some of the other basic necessities of life. These other priorities often supercede the need for HIV care (Quimby, 1993). Several studies have documented the importance of community-based support services in addressing the holistic needs of low-income people of color (CSAT, 1999; Freudenberg et al., 1994; HRSA, 1994a; HRSA, 1994b; Caudle, 1993). Many community-based organizations have a strong knowledge of cultural values, familiarity with community members, access to avenues of communication, and an established history in addressing community issues (Freudenberg et al., 1994). At the same time, the mainstream health care and substance abuse treatment systems are not always well linked with these organizations and services.

The absence of culturally competent medical and substance abuse treatment services is another important barrier to care for many people of color. Cultural competence has numerous

definitions, but most experts agree that it includes a set of skills that allow provider organizations and individual providers to increase their understanding and appreciation of cultural differences within and between groups (Woll, 1996 as quoted in CSAT, 1999). Cultural competence requires both institutional and individual commitment to practices and policies that address the needs of diverse populations (Denboba et al., 1998). It allows providers to develop trust and acknowledge an individual patient's cultural strengths and values, while encouraging behavioral change (CSAT, 1999). Components of culturally competent care include but are not limited to:

- Staff knowledge of the native language of the patient,
- Staff who are sensitive to the cultural nuances of the patient population,
- Recruitment and retention of staff who are representative of the patient population,
- Treatment modalities that reflect the cultural values and treatment needs of the patient population,
- Use of community health workers or peer educators;
- Inclusion of family and/or community members in health care decision-making as appropriate; and
- Representation of the patient population in decision-making and program implementation (Brach and Fraser, 2000; CSAT, 1999).

Too often these components of cultural competence are not included, or even recognized, in treatment programs or HIV primary care settings. The U.S. Department of Health and Human Services Office of Minority Health has recently released recommendations for national standards to address cultural competence in health care settings (HHS, 2000).

African Americans

African Americans confront numerous barriers to care in accessing health care services and substance abuse treatment. As a result of a long history of racism and medical abuse many African Americans are wary of studies and reports produced by the government or medical researchers (Fullilove and Fullilove, 1999). This history has also generated several beliefs among African Americans that impact access to HIV prevention and care.

The Tuskegee Syphilis Study has had a profound impact on many African Americans, promoting mistrust and avoidance of the health care system (Thomas and Curran, 1999, Fullilove and Fullilove, 1999; Gipson and Frasier, 1998; Solomon and Cohn, 1996; Washington, 1996). The Tuskegee study generated negative attitudes and fear toward medical research among African Americans, who are currently underrepresented in HIV-related clinical trials (Corbie-

Smith et al., 1999). To people familiar with unethical experimentation like Tuskegee, clinical trials are seen as dehumanizing people and turning them into “guinea pigs” (Thomas and Curran, 1999). Unfortunately, due to racism this mistrust is warranted, especially since even the best HIV treatments involve potential risks and serious side effects (Fullilove, 2001). In addition, the public health community’s emphasis on counseling and testing for HIV without the provision of adequate access to clinical trials and effective treatments reminds many African Americans of the withholding of syphilis treatment for Tuskegee subjects (Thomas and Quinn, 1991).

Other beliefs within the African American community include the suspicion that HIV is a man-made virus, created as a means of genocide for minority groups (Randolph and Banks, 1993). Outcries of AIDS-related genocide have been the subject of several mainstream African American media reports (Thomas and Quinn, 1994) and several surveys have documented the wide impact and popular acceptance of these beliefs (Klonoff and Landrine, 1999; Fullilove 1998; Thomas and Quinn, 1994; Thomas and Quinn 1991). There are also suspicions that HIV tests are a method to purposefully infect people with HIV, antiretroviral therapies are poison, preventive messages to use condoms are a means to decrease African American reproduction, and needle exchange programs are an effort to increase substance abuse (Klonoff and Landrine, 1999; Jones, 1993; Quimby, 1993). Needle exchange is particularly controversial, especially when clean needles are offered without adequate access to drug treatment (Thomas and Quinn, 1994). Conversely, the lack of legal sterile injection equipment has also aroused the suspicion that the government wants substance users to die (DesJarlais and Stephens, 1991).

Another barrier to care for African Americans and other people of color is the perception of AIDS as a disease among white homosexual men. This perception has lead many people to deny that HIV exists in the African American community (Washington, 1996; Greeley, 1995). Stigma toward homosexuals and cultural barriers that prevent discussion around homosexuality also contribute to a belief that African American men do not have sex with men (Thomas and Quinn, 1994). Furthermore, there are no highly visible, vocal, and organized gay organizations in the African American community (Fullilove, 1999). As a result, many African American men are reluctant to disclose their sexual practices, while other men who have sex with men do not self-identify as being gay (Wright, 2001). In some communities, people with HIV receive care and treatment from their families secretly, to prevent community disclosure of sexual practices or drug addiction (Greeley, 1995).

The African American church community is normally a tremendous source of social support. In addition to being a focus of spiritual, social, and political life, the church can usually be depended on for addressing unmet health and human service needs (Thomas et al., 1994). However, for many years the church's reaction to HIV in the African American community has been compromised by moral issues related to life-style, sexual practices, and drug use (Quimby, 1993; Randolph and Banks, 1993). According to Robert Fullilove, Associate Dean at the Columbia University School of Public Health, "more than anything else, the church is the institution that has a history of being responsive in dire times. But for now, AIDS is still being dealt with poorly" (Washington, 1996). More recently, the African American church community is beginning to embrace people with HIV (Quander, 2001).

The aforementioned factors, along with racism, poverty, and lack of opportunities, contribute to avoidance of or poor access to quality HIV medical care. Even those African Americans who do receive HIV care are less likely than whites to receive antiretroviral medications or prophylactic PCP therapy (Segal, 2001; Jeffe 1998).

Hispanics

Latinos face additional barriers to care as a result of higher than average rates of uninsurance, language and literacy barriers, and treatment modalities that run counter to their culture, beliefs and practices. Lack of health insurance is an issue for Latinos across all income levels (Maldonado, 1998), unlike other people with HIV. Attitudes toward substance use and treatment are also different for many Latinos. A 1993 study found that Latinos were less likely than whites to perceive a need for heroin treatment, and that Latino substance users were more likely to have an unfavorable attitude towards substance abuse treatment (Longshore, Hsieh and Anglin, 1993). In addition, Latina women may be discouraged from seeking treatment or care by feelings of embarrassment or the disapproval of a jealous partner (Peters-Rivera, Martinez, and Drone, 1995). Fear of deportation among undocumented individuals, or among those who have documented status but may have violated the law, is another barrier to treatment (Peters-Rivera, Martinez and Drone, 1995).

Care-seeking behaviors are also influenced by circumstances in the individual's country of origin. For example, in most Central and South American countries, pharmacies are permitted to freely dispense drugs that require prescriptions in the United States. This, coupled with the

fact that medical services are often located at a distance, means that people only visit a doctor when they are very sick (HRSA, 1999b). Thus, many foreign-born Latinos are not accustomed to the concept of seeing a physician or taking medications unless they have active symptoms of illness.

Language is also a barrier for many Latinos with HIV. Sixty-eight percent of Hispanics newly diagnosed with AIDS in 1997 reported that Spanish was their first language (HRSA, 1999b). Those who prefer to speak Spanish rather than English or who are less acculturated are more likely to lack a routine source of medical care, to be in poor health, and to live in poverty (Klevens et al., 1999; Schur and Albers, 1996). Several studies document other important implications of the language barrier:

- Latinos may be reluctant to access services if there are no Spanish-speaking staff, and may feel intimidated about being able to speak English well enough to converse with providers;
- People have difficulty filling out the paperwork to obtain benefits or follow written instructions about medications and treatment; and
- The separation of substance abuse treatment and health care services often means that people get lost in the referral process, particularly when one entity is staffed to support Spanish-speaking clients and the other is not (CSAT, 1999; Peters-Rivera, Martinez, and Drone, 1995).

Also central to many Latino cultures is the concept of *simpatica*, which values positive, smooth interpersonal relationships and respect for the other individual. This runs counter to the confrontational approach of many residential or therapeutic community treatment modalities (Caudle, 1993).

Asians and Pacific Islanders

The diversity of Asians and Pacific Islanders has made the challenge of providing culturally competent care for this population very complex (CSAT, 1999). Some of the specific barriers include:

- Few facilities are prepared to provide culturally responsive services for Asian and Pacific Islanders;
- Substance abuse is not easily discussed because it is viewed as a loss of face or shame for the family. Thus, denial is a major barrier to care;
- Programs need to take into account immigration status and war-related trauma, particularly for Southeast Asians;
- People born outside the U.S. are less familiar with the health care system and how to navigate it; and

- There are more than one hundred different languages spoken by this population (HRSA, 1994b). The lack of linguistic capacity places inappropriate responsibilities on family members, particularly when confidentiality is a concern (CSAT, 1999; HRSA, 1994b).

Most traditional 12-step programs or outpatient peer group programs have not been embraced by Asian Americans or Pacific Islanders (CSAT, 1999). Cultural themes that need to be addressed as part of culturally competent service delivery to Asians and Pacific Islanders include moderation, family reputation, humility, sharing, and generosity (CSAT, 1999). Moreover, acupuncture, herbal medicines, religious approaches, story-telling, and guidance from elders are part of the healing process in many cultures, and should be considered as part of the treatment plan (CSAT, 1999), even though this may create controversy within mainstream medical and substance abuse treatment programs (HRSA, 1994b).

American Indians and Alaskan Natives

American Indians and Alaskan Natives confront additional barriers to care. As with African Americans, many American Indians have a serious mistrust of the mainstream culture and health care system. Much of this suspicion stems from the historical legacy of smallpox-infected blankets and the introduction of alcohol into native communities (HRSA, 1992b). This mistrust is a barrier that must be overcome for people to seek care.

Cultural issues are also important to address for American Indians and Alaskan Natives. Implementing a holistic approach to care, including access to local healers, healing ceremonies, and spirit groups is critical to treatment effectiveness for this population (CSAT, 1999). In addition, American Indians may take a long time before they disclose sensitive issues in their lives to another person. As a result, confrontational therapy may destroy any hope of forming the trusting relationship needed to pursue recovery.

A barrier unique to American Indians is the funding source for culturally competent services. The resources available to fund culturally competent substance abuse treatment and medical care are not allocated to urban areas, but to the reservations. Thus, urban residents often return to the reservations for care, placing additional stress on the services provided there. Although services provided on the reservations include substance abuse treatment, there is not the same priority placed on HIV care (CSAT, 1999; HRSA, 1992b). And, even if services are

provided on the reservations, many American Indians do not live close enough to the reservations to receive care there.

Alaskan Natives face barriers to care that include the issues related to cultural competence, as noted above, as well as the most severe constraints regarding services in rural areas. From a cultural perspective, confrontational approaches to substance abuse treatment can have a negative impact (CSAT, 1999). Direct eye contact is viewed negatively by many individuals, but situational role modeling can be an effective method of developing relapse prevention strategies (CSAT, 1999). From a logistical perspective, the major barriers to care include transportation and telephone communication. Transportation to both medical and substance abuse treatment is a considerable barrier in Alaska, as people need to travel great distances for treatment. People often need temporary housing when they seek care (HRSA, 1992b). In addition, many Alaskans have no telephones, or their telephones are on party lines. This makes it very difficult to schedule appointments, seek between-appointment advice, obtain information or direction about new symptoms, or obtain other support services. In addition, it is very difficult to have these conversations in a confidential manner (HRSA, 1992b).

Women

Women with HIV face barriers to care as a result of poverty; parenting responsibilities; histories of physical, sexual or emotional abuse; and the predominance of male-dominated treatment settings. Most women with HIV are poor before becoming infected, and become poorer during their illness (HRSA, 1998c). The CDC estimates that almost two-thirds of women of color infected with HIV are mothers of children under the age of 20, and that their needs are likely to be shaped in part by this fact (HRSA, 1999c).

Women's health may be less of a priority for them than the health and welfare of their children (HRSA, 1999c). Many residential substance abuse programs do not accommodate women and their children or women who are pregnant. Thus, when treatment slots do become available, women may decline admission rather than leave their children in the care of others (Weissman et al., 1995).

The HRSA/NIDA study of HIV positive women found significant gaps in women's abilities to receive the type of substance abuse treatment they needed. This was especially true for women who needed drug detoxification, drug-free residential programs, and outpatient

treatment (Weissman et al., 1995). Existing treatment models have been slow to address the needs and circumstances of HIV positive women (Wells and Jackson, 1992; Weissman, 1991). Substance abuse treatment programs are likely to have been designed for men, since there are three men for every woman living with HIV who is a substance abuser (Weissman et al., 1995). Male-dominated settings often overlook the concerns of women, such as parenting issues, physical and sexual abuse, and developing relevant life skills (Weissman et al., 1995).

A significant number of addicted women have co-occurring psychological disorders (Weissman et al., 1995). Mental illness, sexual abuse, domestic violence or substance abuse may negatively affect a woman's ability to access appropriate treatment (HRSA, 1999c) by making it more difficult to effectively cope with and use service systems, particularly those that are not sensitive to her needs (Weissman et al., 1995).

Barriers for HIV positive women seeking medical care include long waiting times for appointments in large urban clinics and long periods of waiting while at the clinic, a particular problem for women with young children (Solomon and Cohn, 1996). Separate clinics for infectious disease, gynecological services, and pediatric care in most hospital-based settings create an additional barrier, as women must schedule separate appointments for different aspects of their own care and for their children's care (Solomon and Cohn, 1996).

Men who have Sex with Men (MSM)

Stigmatization and homophobia contribute to alcohol and drug use among MSM (Ungvarski et al., 1999), and also have a serious impact on access to care. Numerous studies document that MSM use alcohol and other substances more commonly than the general population (Ungvarski 1999; Ferrando et al. 1997). Several studies also suggest that HIV-infected MSM are more likely to have a history of substance abuse than non-infected MSM (Ferrando et al., 1997; Lemp et al., 1994). Thus, the stresses faced by many MSM may be particularly acute for those HIV-infected individuals who are also substance users.

A major barrier to care for MSM is the fear of revealing their sexual orientation to others, "coming out." "Coming out" leaves an individual open to potential rejection, condemnation, violence and loss of family or social support (Ungvarski et al., 1999). And yet every visit to a medical provider for HIV care or to a substance abuse treatment program puts this issue on the table. Fear of "coming out" creates great stress, and is likely to contribute to increased substance

abuse (Ungvarski et al., 1999), just as it may prevent people from seeing a medical provider. The social isolation faced by MSM – from peers, schoolmates, coworkers, family members (Grossman, 1991) – also impacts peoples’ ability to seek care. Gay men with HIV rely more on their peers for support than they do on family members, at least until they develop AIDS (Pakenham 1998).

For MSM who have “come out,” negative provider attitudes can be a major barrier to care. Numerous studies have documented homophobia and homosexual bias among health care providers who serve people with HIV and AIDS (Wainberg 1999; Ungvarski et al., 1999; Scherer et al., 1991; Douglas et al., 1985). Although some providers target their services to gay and bisexual men, many MSM of color do not self-identify as gay or bisexual because of homophobia within their ethnic cultures. As a result, they may not access these providers (HRSA, 1999b).

Individuals who are Homeless

Individuals who are homeless have a high incidence of injection drug use and commonly lack health insurance, two factors that have been shown to negatively affect health care utilization, level of medical care received, and individual health status (National Health Care for the Homeless Council, 1998). Barriers specific to treatment for HIV disease include:

- Co-existing medical problems;
- Skepticism of the health care system and reluctance to seek medical care until a condition is critical;
- Reluctance to disclose HIV status upon presentation at clinics or emergency rooms;
- Lack of background information on previous medical problems and treatment;
- Atypical medical manifestations of disease pathology; and
- Lack of access to regular follow-up care (Woods, 1994).

Many homeless persons are loners who avoid contact with others and often shun offers of assistance (Swan, 1997), and most are alienated from existing social structures (Zevin, 1998). Poor encounters with medical providers who perceive homeless individuals to be outcasts may discourage this population from seeking needed care, adding to their already high levels of fear, pain, suffering, despair, and depression (Zevin, 1998). Many are mentally ill, typically with serious psychiatric disorders (Swan, 1997). Among health care providers, feelings of frustration with this population are common, and provider “burnout” and fatigue may impact the quality of health care.

Adherence to medication regimens may be compromised by a lack of stable housing or basic necessities like food (National Health Care for the Homeless Council, 1998). Medications are often lost or stolen on the streets, some homeless shelters may forbid drugs of any kind, some medications need to be kept under certain conditions like refrigeration, and it may be difficult to keep timed medication schedules or take medication with meals if meals are sporadic and uncertain (Woods, 1994). Substance abuse treatment is also problematic. Substance abuse treatment slots are limited, and when treatment slots do become available, homeless individuals are often dropped from the lists because they cannot be contacted (National Coalition for the Homeless, 1999b).

Additional barriers to care for this population include lack of proper documentation to prove eligibility for services, as well as lack of transportation, lack of support services, and abstinence-only substance abuse treatment programs (National Coalition for the Homeless, 1999b). Curfew times at shelters and meal programs may conflict or compete with the availability of health care (Woods, 1994).

Individuals Living in Rural Areas

Unique issues arise in rural areas. For instance, treatment is often not available or is restricted in terms of access and type. In addition, many rural areas lack the funds, expertise, and/or infrastructure to adequately address the multiple issues faced by HIV positive substance users. When available, substance abuse treatment tends to be offered through outpatient counseling settings with more limited staffing than in urban areas. Local aftercare or follow-up services and self-help groups like Alcoholics Anonymous may be limited (Leukefeld and Godalski, 1997). A number of rural areas experience shortages of primary care providers, especially those willing to see patients with HIV/AIDS (Berry et al., 1995).

The physical geography of some rural areas can pose a significant barrier. Rugged topography, severe seasonal weather, and long distances between destination points make it hard for providers to meet on a regular basis and for clients to travel for services (Leukefeld and Godalski, 1997; Berry et al., 1995). Traveling to services requires a greater commitment of time, energy and resources for people living in rural areas (Leukefeld and Godalski, 1997).

Attitudes in rural communities may also create barriers. A study of four rural areas identified stigma associated with HIV and “strong community prejudices” against MSMs, IDUs,

and people of color as significant barriers to service development (Berry et al., 1995). There is a greater degree of suspicion of all mental health services, and rural people consider themselves to be self-reliant and independent, which may run contrary to the need for assistance or treatment on the part of PLWH who are substance users. The difficulty in receiving anonymous care in rural communities coupled with these attitudes may discourage people from seeking services (Leukefeld and Godalski, 1997).

VI. PROGRAM INNOVATIONS AND INTERVENTIONS

In this section, we summarize some important factors identified in the literature that are important in linking substance abuse treatment and HIV primary care. We also provide examples of programs that have been preliminarily identified in both the literature and from discussions with experts in the field as creating linkages between substance abuse treatment and HIV care.

Medical care and substance abuse treatment for PLWH can be linked in several ways: through incorporating medical care into substance abuse treatment programs (Herman and Gourevitch, 1997); through incorporating substance abuse services into primary care programs (Kirton, Ferri and Eleftherakis, 1999); through the addition of substance abuse services to mobile vans that provide comprehensive medical and social services in neighborhoods where out-of-treatment addicts tend to live (Leshner, 2000); through linking needle exchange programs with the wider HIV service system and better coordinating them with other HIV services (Finkelstein and Vogel, undated); and through the establishment of referral systems or linkage and contracting systems between medical and substance abuse treatment providers (Selwyn, 1996). Each of these methods, however, has to overcome certain barriers if it is to succeed.

Some of the programs for HIV positive substance users that incorporate innovative approaches to care are described below. There is a considerable degree of crossover between innovative features, and the following sections describe some key interventions such as:

- Comprehensive and integrated care;
- Outreach-based services;
- Special population-focused services;
- Prison-based services;
- Specialized housing initiatives; and
- Other specialized innovations.

Comprehensive and Integrated Care

As delivery of HIV care to all individuals becomes more complex, it becomes even more complicated for substance users with HIV (Kirton, Ferri and Eleftherakis, 1999). The increase in substance use among PLWH highlights the need for the effective integration of substance abuse treatment and primary care. Because substance abuse significantly influences medical issues,

both medical and substance abuse complications should be managed together and as they occur (NY AIDS Institute, 1995).

There is agreement that all aspects of treatment for substance abuse and HIV are best accomplished through comprehensive, integrated care and the use of a multidisciplinary team that includes the client, physician, substance abuse treatment provider, case manager, mental health provider, and a nurse or nurse practitioner (Kirton, Ferri and Eleftherakis, 1999). Comprehensive programs such as these are better able to attend to individual needs than those that specialize in one area of service. For example, in addition to coordinating substance abuse with medical care, these programs consider psychiatric history and recognize that triply diagnosed PLWH also require psychiatric evaluation, psychotropic medication options, and mental health treatment management and referrals (NY AIDS Institute, 1995). Furthermore, integrated HIV and substance abuse treatment programs – especially those with systems for improving patient access to concrete services – keep individuals linked to care. They can also help to overcome some additional obstacles, such as the lack of employment and residential services. Some programs cited in the literature that offer comprehensive and integrated care in one central location include:

- **Montefiore Substance Abuse Treatment Center** serves about 900 patients in the Bronx, NY. On-site substance abuse services include methadone maintenance, individual counseling, acupuncture, group therapy, and 12-step programs. Since the early 1980's, Montefiore has also been able to provide general and HIV-related primary care, TB prevention and testing, dental care, gynecological and pre-natal care, and mental health and social support services. Medical and substance abuse providers form the core management team, setting clinic policy and addressing ongoing treatment integration issues (Herman and Gourevitch, 1997).
- San Francisco General Hospital (SFGH) offers two innovative programs for HIV positive substance users. **The Substance Abuse Services (SAS) HIV Medical Clinic** provides primary medical care five mornings per week to substance abuse clients. In addition to AIDS specialists, the program includes psychiatrists, nurse practitioners, social workers, and linkages to support services, such as the SFGH Maternal and Child Health Department and the Probation Department. Methadone maintenance and outpatient substance abuse treatment are available (Selwyn and Batki, 1995). The **Program for AIDS Counseling and Education (PACE)** is another SFGH initiative for combining substance abuse and HIV treatment. Care for chronic medical, substance abuse, and psychiatric problems is integrated, and HIV-positive IDUs are preferentially admitted to methadone treatment services. PACE serves more than 100 HIV-positive IDUs, as well as their sexual and drug using partners (HIV InSite, 2000).

- **Tarzana Treatment Services** offers Southern California residents a wide variety of substance abuse, HIV, and other health-related services. Examples include:
 - 24-hour, medically supervised detoxification and psychiatric assessment;
 - methadone maintenance and methadone detoxification;
 - residential treatment for men, women, and their families;
 - family medical clinics and HIV services;
 - outpatient adult and adolescent substance abuse treatment programs;
 - counseling and 12-step services; and
 - mental health services.

Tarzana's HIV services include outreach, case management, housing and advocacy programs, and an HIV-specific residential substance abuse treatment and detoxification program. (Tarzana, 2000).

- New Haven, Connecticut's **Central Medical Unit (CMU)** is a community-based primary care clinic for people enrolled in outpatient drug treatment. A program priority is to provide HIV-specific care and prevention of secondary infections. After testing positive for HIV, patients are enrolled in CMU's HIV Early Intervention Program and offered ongoing primary care, including screening/treatment for tuberculosis, syphilis, and hepatitis B (O'Connor et al., 1992).
- The **Lower East Side Service Center** in Manhattan also offers comprehensive programs for people with substance abuse and HIV. It combines different forms of drug treatment, methadone maintenance, therapeutic communities, primary care, and HIV counseling services. It also maintains a residential program and a vocational program, including a thrift shop (personal communication, key informant, January 18, 2000).

Outreach-Based Services

Because substance-using PLWH are often difficult to find, engage and retain in treatment, programs that reach out into the community rather than wait for clients to present or be referred often have more positive outcomes. One form of outreach to active substance users is needle exchange. Although needle exchange is primarily viewed as an HIV prevention strategy, an important component of many programs is the opportunity to engage in substance abuse treatment (Battjes et al., 1998; Drucker et al., 1998).

In a review of 24 published articles on needle exchange and methadone maintenance programs, Drucker et al. (1998) determined that most of the studies found beneficial effects from the use of needle exchange. Studies have shown that needle exchange slows the rate of new HIV infection, reduces intravenous drug use and engages those at highest risk in care (Drucker et al., 1998; Finkelstein and Vogel, undated; Paone et al., 1998). Some suggest that more outreach and needle exchange programs be developed to encourage entry into treatment (Battjes et al., 1998),

as substance users not in treatment have higher rates of HIV disease than those in treatment (Williams et al., 1998; Finkelstein and Vogel, undated).

Several HIV/substance abuse treatment programs also have strong outreach components, unrelated to needle exchange, and two are described here. Other innovative programs, such as Prototypes and Positive MATCH, also offer strong outreach services but are described in later sections because of their other innovative features.

- Philadelphia FIGHT operates **Project TEACH**, a peer education and medical service model for HIV positive substance users. A large number of HIV positive substance users in recovery are trained to become peer educators. This often increases their involvement in their own HIV care, and primary care services are offered through a medical staff that is sensitive to the problems this population faces (personal communication, key informant, January 19, 2000).
- Outreach, Incorporated runs **Safe Place**, a drop-in center in Atlanta for substance abusing African Americans. One-third of program clients are known to be HIV positive. Outreach locates substance users living with or at risk for HIV and invites them to Safe Place, where they can receive peer support, HIV counseling and testing, other support services, and access to a network of additional providers (HRSA 1998a).

Population-Focused Services

Several programs have addressed the need to target specific populations with HIV and substance abuse. By focusing on one group, these programs are able to offer individuals a range of services often unavailable in more general programs but that are necessary for client-centered, effective treatment. They also provide a safe haven for disclosure of HIV status and discussion of issues specific to PLWH. Three of these programs are described here. Safe Place, an outreach model that also targets its services to African Americans, was described above.

- The **Well-Being Institute** in Detroit, Michigan is a drop-in, day treatment center for women. Ninety-three percent of its clients are African American, 79 percent have been diagnosed with mental illness, and most are indigent. The Institute locates clients through street outreach and referrals. It then designs a program to meet individual needs, using a system of nursing care and links to primary care. These links are more than simple referrals: Well-Being maintains a network of long-standing relationships with various providers and ensures that clients remain in care. Appointments are scheduled for clients. After reaching a certain point in the Well-Being program, clients enroll in the **Detroit LIGHT House**, an intensive substance abuse program specializing in HIV-related issues. Well-Being also offers free van transportation to and from the Institute and to primary care appointments. Child care services are available on-site (HRSA 1998a, Smereck et al., 1999).

- **Prototypes**, a Los Angeles therapeutic community, offers special services for women dealing with substance abuse, mental illness, and HIV. The program provides residential, day treatment, and outpatient services for women and their children. The culturally competent staff conducts extensive outreach and case management in the street and shelters. Lesbian women are welcomed, and their partners receive support. Prototypes is a “one-stop” source for care services, with a provider network available on-site. Prototypes’ clients are immediately linked with primary care and drug treatment services, so that they are accessible when the clients are ready to use them. Counseling, case management, 12-step programs, child care, and transportation are readily available. Prototypes has established links with child welfare, social services, criminal justice agencies, and the school system. The program also provides support services for pregnant women, vocational rehabilitation and job training, pastoral care, spiritual support, and group counseling sessions. Treatment slots and family support programs are maintained for women who require hospitalization. Prototypes also helps women plan for their children’s care after their death. (HRSA,1998a; Selwyn and Batki, 1995).
- Walden House, Inc. in San Francisco operates the **Young Adult Plane Tree Project (YAPT)**, a residential substance abuse treatment program for indigent adolescents, many of whom are PLWH. Almost 90 percent of the residents are gay/lesbian/bisexual, and many have mental illness. The program offers referrals to a variety of providers and services, including primary care, mental health, and substance abuse, transportation, and case management. Because clients come from various cultural backgrounds, care is available by multicultural providers (Hymel and Greenberg, 1998).

Prison-Based Services

To address the high prevalence of HIV and substance abuse in prison populations, states have engaged both public and private organizations in extensive collaborations. New York and Rhode Island offer two such examples.

- The New York State Department of Health (DOH) and Department of Correctional Services (DOCS) have worked together on HIV/AIDS issues since 1987. Specific treatment-based initiatives include:
 - The Women’s Prison Initiative, incorporating a peer education model and providing a comprehensive continuum of care for women;
 - The AIDS in Prison Hotline, offering inmates counseling, education, support, and referrals to community-based services;
 - The HIV-Related Tuberculosis Project, providing prevention and education, screening, and treatment;
 - Screening and treatment for syphilis;
 - Case management; and
 - Discharge planning services

New York also provides numerous HIV prevention and education, testing, and counseling programs for inmates (Hammett, 1998).

- Miriam Hospital in Providence, Rhode Island operates **Project Bridge**. This program provides intensive case management and outreach to people with HIV being released from prison or exiting drug detoxification programs. Members of both populations often discontinue routine medical care upon release and Project Bridge aims to increase primary care utilization and adherence to treatment in these groups. Social workers and outreach workers follow clients for 18 months after discharge, linking them with primary care, case management, psychosocial support, and substance abuse treatment. The same physicians from Miriam Hospital follow clients while they are incarcerated and when they are released to the community (personal communication, key informant, January 15, 2000).

Housing

A number of programs recognize the need for stable housing during periods of substance abuse treatment for people with HIV. These programs provide a supportive residential community and access to substance abuse treatment, HIV primary care, and support services.

- **A Safe Haven**, is a structured sober environment for 80 residents in Chicago. The program maintains curfews, random drug screening, self-help groups, peer groups, and weekly community meetings. These meetings are often used to introduce job opportunities to clients. Residents must attend four AA meetings and four self-help groups, and make four recovery-related phone calls per week. A Safe Haven works with the **Pride Program**, an outpatient clinic offering a range of substance abuse services for gay men with HIV/AIDS. HIV-positive residents normally go to the Pride Program during the day and return to A Safe Haven at night. One innovative feature of this system is that HIV status is not stigmatized among the residents like it might be with other programs serving both HIV-positive and HIV-negative clients. At A Safe Haven, the main issue is substance abuse, and the environment fosters such solidarity among residents in their personal and communal crusades against substance abuse that HIV status loses its stigma (personal communication, key informant, January 20, 2000).
- **Harvest House** in Newton Grove, North Carolina, is another supportive housing facility for substance users. A residential program for men only, Harvest House incorporates the 12 Step model and offers on-site primary care for people with HIV. A referral network is available for medical care issues that cannot be handled within the facility. The Tri-County Community Health Center in Newton Grove prepares clients for living in Harvest House, providing counseling, medical care, and access to social services (personal communication, key informant, February 1, 2000).
- The **Bethel Recovery Center** is a clean and sober home for women in Bridgeport, Connecticut. The Center's Director works with the Multiple Diagnosis Initiative (MDI) project, a HRSA SPNS project serving people who are HIV positive, homeless, and have substance abuse or mental illness issues, and six of Bethel's beds are devoted to this program's enrollees. Bethel offers several classes and workshops on-site, and substance abuse and HIV treatment services are available through referral. A contact at the Bridgeport Health Department links HIV positive residents with primary care, mental

health services, nutrition counseling, and alternative therapies (personal communication, key informant, February 11, 2000).

- The Bernal Heights Housing Corporation's **Positive MATCH** (Mothers and Their Children with HIV) program addresses the acute housing shortage in San Francisco. Clients (45 families, about 95 adults and 120 children) receive permanent, supportive housing. In addition, they become involved in a one-stop case management system including substance abuse treatment, mental health care, primary care for HIV/AIDS, and support services. The program focuses on the needs of the family, developing a long-term plan for child placement in advance of a crisis. They also offer residents an aftercare program and educational forum, and an additional 900 clients receive outreach and educational services (HRSA, 2000).

State Collaborations

Some programs have especially unique, innovative features. The following models address or avoid issues frequently encountered in the substance abuse/HIV treatment process.

- The **Bureau of Alcohol and Drug Abuse of Nevada** collaborates with the State Health Department's HIV/AIDS/STD division to provide case management for people with HIV. This program is innovative in that, similar to some of the prison-based systems described above, two government agencies are working together on these issues. This collaboration allows for well-coordinated HIV specialized care, substance abuse treatment, and mental health services (personal communication, key informant, February 25, 2000).
- The **Ohio Department of Alcohol and Drug Addiction Services (ODADAS)** and the **East Central AIDS Education and Training Center (ECAETC)** have also formed a collaboration with an innovative approach. Their program uses a train-the-trainer model, providing a workshop for physicians and nurses with HIV or substance abuse expertise. The workshop teaches these medical providers how to train other nurses and physicians in Ohio. The program's ultimate goal is improved patient care through a stronger information-sharing network of providers. Workshop topics include information on substance abuse, HIV/AIDS, continuity of care, regional program planning issues, and how to train other providers (Gabel and Peterson, 1993).

VII. CONCLUSION

The twin epidemics of HIV and substance abuse have had a major impact on the health of low income and minority communities in the United States. Research shows that substance users are less likely to access HIV medical care than other people with HIV. The literature also reveals that special care delivery strategies are needed to ensure that the reduction in mortality and morbidity seen in other groups of people with HIV is duplicated among HIV positive substance users.

At this time the service delivery systems for HIV and substance abuse treatment are still very separate. Likewise, the clinical culture and approach to care in each system is different. Finally, performance standards for the delivery of services target one service or the other, rather than integrated service delivery.

A growing body of literature describes effective practices and strategies for serving HIV positive substance users, identifying key areas where service delivery systems and practices can be enhanced to meet the needs of this population. These practices and strategies include:

- Co-located and integrated services;
- A multidisciplinary team approach to care;
- Routine substance abuse screening in primary care settings, with subsequent assessment and referral to treatment;
- A harm reduction approach to service delivery;
- Adherence support strategies tailored to the lifestyles and needs of substance users;
- Services that are provided culturally sensitive and competent manner;
- Involving consumers in their own care and using peers as part of the service delivery model; and
- Providing a holistic array of services that include housing assistance and support services to address peoples' immediate needs as part of their HIV care and substance abuse treatment.

The strategies described above form a foundation for the development of programs and performance standards. In addition, these practices can be replicated by provider organizations as they consider new service development or program expansion. Funders can enhance provider capacity to adopt these strategies through targeted funding and training.

At the same time, there remain more systemic barriers to care for HIV positive substance users – barriers that cannot be addressed by individual providers or performance standards. These include the inadequacy of funding for substance abuse treatment across the country, as well as regulatory barriers that make it difficult for individuals to meet eligibility standards or for

providers to deliver needed services. Another important barrier is the legacy of racism and unethical medical experimentation among communities of color that makes it difficult for many to accept services from the mainstream medical and treatment communities.

Finally, the literature reveals that the stigma associated with HIV and the stigma associated with addiction remain pervasive. This stigma creates and reinforces barriers to HIV primary care for addicts, as well as substance abuse treatment for people with HIV. It creates divisions and denial in communities that consider HIV to be a “gay disease,” and reinforces sentiments that addicts are less than human. Stigma creates mistrust among HIV positive substance users, keeps many away from treatment of any kind, and produces a genuine fear that any sharing of information will lead to breaches in confidentiality, thus furthering social isolation.

Combating these systemic barriers requires leadership – on the part of individuals, providers, communities, public officials and religious leaders. Hand in hand with changes in the funding of HIV services and provider practices, the struggle to improve and strengthen services to HIV positive substance users requires leadership in areas beyond the direct purview of HRSA: expansion in the funding of and eligibility for substance abuse treatment; a concerted effort to address the twin epidemic in communities of color; and the marshalling of leadership at every level of our society to combat the stigma associated with both HIV and substance abuse.

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