Mental Health and Substance Abuse
Among Offenders with HIV/AIDS

NATIONAL MINORITY AIDS COUNCIL
Building Healthier Communities

Table of Contents

Prepared by the National Minority AIDS Council (NMAC), Division of Technical Assistance, Training, and Treatment, and The Zaplin Group, sponsored by the Centers for Disease Control and Prevention (CDC).

Introduction

Following the deinstitutionalization of mentally ill people—their release from psychiatric facilities into the community—the number of occupied state hospital beds were reduced from 339 per 100,000 population in 1955 to 21 per 100,000 in 1998.[1] The promised increase in alternative community-based care, however, never materialized and prisons and jails have largely taken the place of state hospitals as the largest repository of mentally ill people in the U.S.[1]

The most recent surveys by the Bureau of Justice Statistics (BJS) found that the majority of all prison and jail inmates had either a recent history or recent symptoms of mental illness.[2] A recent study has estimated that our jails alone admit and release more than two million severely mentally ill people each year.[3] Another recent study has found that the presence of any major mental disorder almost doubled the risk for a repeat incarceration and the presence of bi-polar disorder more than tripled the risk for more than four repeat incarcerations.[4] Individuals with a mental illness are twice as likely to have their community sentences revoked as others.[5]

A large percentage of men and women also enter the correctional setting with a history of drug use. Eighty-two percent of all drug arrests in 2007 were for possession.[6] One-half to two-thirds of inmates in jails and in federal and state prisons meet the standard diagnostic criteria for alcohol/drug dependence or abuse.[7] Substance use and certain mental health disorders have been found to be independent risk factors for contracting HIV.[8] Individuals with HIV/AIDS suffering from both substance abuse and mental health problems—often referred to as having a triple diagnosis—have yet another level of complications to manage. Further, they experience more positive overall health outcomes from services that address all three conditions.[9]

HIV treatment requires a lifelong commitment by the patient. In most patients, treatment interruption leads to HIV rebound and decrease in CD4 T-cell (immune system cells targeted by HIV) counts. Interruption of treatment may also lead to HIV acquiring resistance to drugs.[10] Adherence to antiretroviral treatment (ART) is strongly correlated with reduced HIV resistance, increased survival and better quality of life.[10] Studies have shown that persons with mental illness, such as depression and substance abuse problems are at greater risk not to adhere to antiretroviral medication.

Because persons often return from detention, jails or prisons to highly concentrated and economically depressed communities with little access to mental health, substance abuse and HIV/AIDS services,[11] time spent in correctional institutions can provide an important opportunity for them to learn about their HIV infection, cope with their diagnosis, understand medical options, and develop the skills necessary to avoid passing on the HIV virus to anyone else. And, when they reenter the community, comprehensive services including transitional services and prevention and treatment interventions, provided by public and other service organizations including local faith-based and community-based organizations (F/CBOs), can be a stabilizing force for HIV-positive persons with either mental health or substance abuse disorders or both. F/CBOs can facilitate their transition back to their communities and provide the needed, ongoing support to decrease the likelihood that they will revert to the maladaptive behaviors that led to their institutionalization (see also the NMAC booklet *Hitting the Bricks: Working with Ex-Offenders Living with HIV/AIDS* for more information).

Target Audiences: This booklet is meant to serve as a guide for corrections practitioners, F/CBOs, and other service providers who work with persons with mental health and/or substance abuse disorders and HIV/AIDS when they are institutionalized and when they return to the community. It will also be useful to mental health and substance abuse providers, policy-makers, funding decision-makers and social advocacy groups concerned with these individuals.

Organization of the Booklet: There are four major sections to this booklet. The first section provides an overview of the demographics and trends in the criminal justice system related to mental health disorders, substance abuse, HIV/AIDS, and the connections between them. The purpose of this section is to illuminate the confluence of factors that add additional complexity to prevention and treatment interventions for individuals facing multiple factors—the double or triple diagnosis of mental health disorders, and/or substance use disorders, and HIV/AIDS.

The second section presents treatment considerations for persons living with HIV/AIDS and mental health and/or substance abuse disorders who are involved in the U.S. correctional system.

Premised on the need for prevention and treatment interventions to be based on a seamless, system-wide approach designed to improve

measurable outcomes (meaningful impacts on clients), over the long-term, for persons with mental health and substance abuse disorders with HIV/AIDS, the third section contains a description of a key perspective—the Systems Perspective—for successfully designing and implementing prevention and treatment interventions. This perspective is inclusive of taking a person-centered, case planning and tracking approach for addressing a person's high-risk behaviors while managing the complexities of the person who is dual- and/or triple-diagnosed. The program models presented in this section embody a systems perspective that enables comprehensive services to individuals involved in the justice system. The models are presented with sufficient detail to serve as a guide to F/CBOs who want to build their capacity to work with persons with HIV/AIDS and mental health and/or substance abuse disorders. The fourth section presents conclusions followed by linkages to additional resources.

Use of Terms: The term "substance abuse" is used interchangeably with "substance use disorder" which includes alcohol and/or drug abuse and dependence. The term "co-occurring disorder" (COD) includes the co-occurrence of mental illnesses and substance use disorders. This term is used in preference to the term "dual diagnosis" which, in practice, also includes multiple impairments and illnesses. Although much of the city and county jail population includes pre-trial detainees, the term "inmate" is used to refer to both the jail and prison populations. The term "prisoner" is used when referring only to the prison population. The terms "individuals" or "persons" will be used, whenever possible, to refer to former inmates.

Overview: Demographics and Trends in the Criminal Justice System

Mental Health Disorders

In 2007, 4.3 million people were on probation,[14] 13 million people were admitted into jails,[15] 1.5 million people were in prisons and 800,000 people were on parole.[14] Related to the prevalence of mental health problems, BJS' most recent surveys—Survey of Inmates in State and Federal Correctional Facilities, 2004, and the Survey of Inmates in Local Jails, 2002—the majority of all prison and jail inmates had a mental health problem (defined as either a recent history or symptoms of mental health problems in the prior 12 months) as follows: 60–64% in local jails, 49–56% in state prisons, and 40–45% in federal prisons.[2] As shown in Table 1, Recent History and Symptoms of Mental Health Problems among Prison and Jail Inmates, about 24% of jail inmates, 15% of state prisoners, and 10% of federal prisoners reported at least one symptom of a psychotic disorder involving delusions or hallucinations. BJS states that these statistics are meant to provide a "baseline indication of mental health problems among inmates rather than a diagnosis of mental illness."[2]

Table 1: History and Symptoms of Mental Health Problems Among Prison and Jail Inmates

	Percent of Inmates In…		
Mental Health Problem	…State Prison	…Federal Prison	…Local Jail
Any Mental Health Problem	56.2%	44.8%	64.2%
*Recent History of Mental Health Problem**	24.3%	13.8%	20.6%
Told Had Disorder by Mental Health Professional	9.4%	5.4%	10.9%
Had Overnight Hospital Stay	5.4%	2.1%	4.9%
Used Prescribed Medications	18.0%	10.3%	14.4%
Had Professional Mental Health Therapy	15.1%	8.3%	10.3%
Symptoms of Mental Health Disorders†	49.2%	39.8%	60.5%
Major Depressive Disorder	23.5%	16.0%	29.7%
Mania Disorder	43.2%	35.1%	54.5%
Psychotic Disorder	15.4%	10.2%	23.9%

* In year before arrest or since admission.

† In the 12 months prior to the interview.

Source: Bureau of Justice Statistics, Mental Health Problems of Prison and Jail Inmates, 2006.

The prevalence of mental health problems among inmates varies by race, ethnic group, age, and gender. Among state prisoners, mental health problems were found in 62% of Whites, 55% of Black/African Americans and 46% of Hispanics. And among jail inmates, the prevalence was 71% for Whites, 63% for Black/African Americans and 51% for Hispanics. The prevalence of mental problems was significantly higher in women than men. In federal prisons, 61.2% of women inmates had a mental health problem compared to 43.6% of men inmates—a 40% increase in prevalence. In state prisons, 73.1% of women and 55% of men had mental health problems. In jails, 75.4% of women and 62.8% of men had mental health problems.[2]

A recent study on the prevalence of mental illness among jail inmates, found that the rate of serious mental illness among male inmates was 14.5% and 31% among female inmates, and estimated that more than two million seriously mentally ill individuals are admitted to jails each year.[3] Serious mental illness was defined in this study as the presence of one or more diagnoses for major depression, bipolar disorders, and schizophrenia spectrum disorders.[3,16] Other, less serious, mental illnesses such as anxiety disorders, post-traumatic stress disorders (PTSD), adjustment disorders, borderline personality disorders, or acute psychiatric conditions such as suicidal thinking were not included.[3,16] Including PTSD as a serious mental illness increased the estimates to 17.2% for men and 34.3% for women. The prevalence of serious mental illnesses varied in the five jails studied in the two time periods examined. Based on this study, the authors stated that the likely prevalence range to be found in jails would vary between 11.0 to 18.9% for men and 21.7 to 42.1% for women.[3]

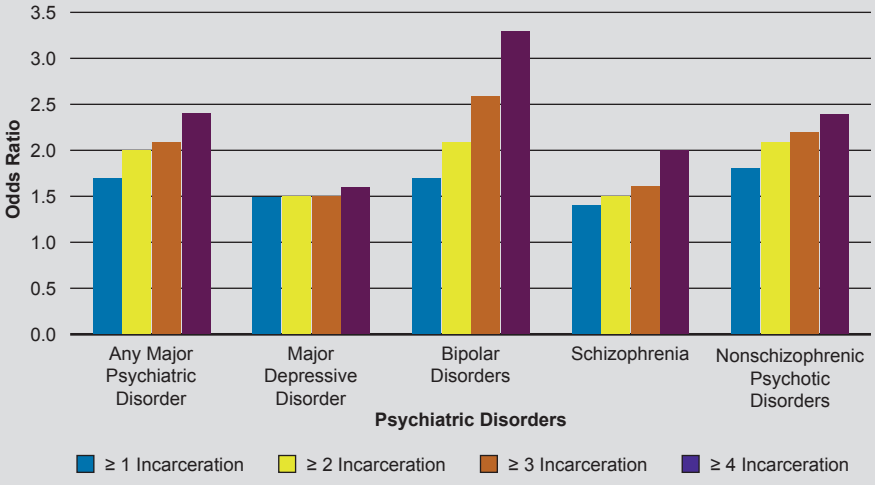
According to BJS, 17.5–33.8% of the inmates with mental health problems received treatment in 2006 after admission (33.8% in state prisons, 24% in federal prisons and 17.5% in jails).[2] By comparison, 22.3% of inmates in state prisons, 14.9% in federal prisons, and 22.6% in jails received treatment in the year prior to their arrest. About 10% more individuals were treated in state and federal prisons after arrest compared to the year before. Treatment

in jails however declined with 5% fewer individuals treated in jails compared to the year before arrest.[2] The most common type of mental health treatment in all correctional settings primarily consisted of inmates having received a prescribed medication. About 80% of the state and federal inmates and 85% of the jail inmates receiving treatment for mental illness were prescribed medication.[2]

As shown in Figure 1, Risk of Incarceration by Type of Psychiatric Disorder, a study of all Texas prison inmates admitted between September 1, 2006 and August 31, 2007 (n = 79,211) found that those with any of four psychiatric disorders—major depressive disorders, bipolar disorders, schizophrenia, and nonschizophrenic psychotic disorders—had a much higher risk for repeated incarceration than those without disorders.[4]

The presence of any major mental disorder almost doubled the risk for more than one incarceration and the presence of bi-polar disorder more than tripled the risk for more than four repeat incarcerations.[4]

Figure 1: Risk of Incarceration by Type of Psychiatric Disorder



Note: Odds ratios were adjusted for gender, age, race, current and previous violent criminal offense classification, current and previous drug-related criminal offense classification, and length of current sentence.

Source: Adapted from table in: Baillargeon J, Binswanger IA, Penn JV, Williams BA, Murray OJ. Psychiatric disorders and repeat incarcerations: the revolving prison door. Am J Psychiatry. 2009 Jan;166(1):103-9. Epub 2008 Dec 1.

Substance Use Disorders

As stated, a large percentage of men and women enter the correctional setting with a history of drug use. In state prisons, 29% of women and 19% of males were incarcerated for drug-related offenses in 2007. Eighty-two percent of all drug arrests in 2007 were for possession.[6] Additionally, the BJS reports that in 2004, 17% of state prisoners and 18% of federal inmates said they committed their current offense to obtain money for drugs.[17] One-half to two thirds of inmates in jails and federal and state prisons meet the standard diagnostic criteria for alcohol/drug dependence or abuse.[7] Prisons and jails, however, provide treatment by a trained professional to only 7–17% of these offenders.[7]

HIV/AIDS

At the end of 2006, 1.6% of male inmates and 2.4% of female inmates in state and federal prisons were known to be HIV-positive or to have confirmed AIDS, nearly half of whom were housed in New York, Florida, and Texas.[18] The rate of HIV/AIDS infection among those in federal or state prisons in 2006 (1.7%)[18] was at least 3.8 times* the rate of infection in the general population (0.45%) in that same year. (See also the NMAC booklet *HIV/AIDS Fundamentals: What You Need to Know* for more information.)

* This calculation based on the HIV prevalence of 1.7% in prisons divided by the 2006 CDC prevalence estimate of 0.448% in the U.S. population. The HIV prevalence in prisons may be underestimated as the majority of states and the Federal system did not test all their inmates (only 21 states did), an unknown number of HIV infected inmates were, therefore, not counted or included in the 1.7% estimate. The HIV prevalence in prisons may be significantly higher than 3.8 times that of the general population.

Understanding the Connections: Mental Health Disorders, Substance Abuse Disorder, and HIV/AIDS

Interconnected Prevalence

People living with HIV/AIDS have high rates of mood and affective disorders including major or chronic depression, generalized anxiety disorder, PTSD, impulsivity, or personality disorders.[20,21,22] Depression, discussed further below, is the most common psychiatric disorder in HIV-infected individuals, and it is also associated with greater risks of acquiring HIV infection.[20,23]

A national study on the 12-month prevalence of psychiatric disorders, illicit drug use, and drug-dependence among people receiving regular care for HIV infection found that 36% of HIV-infected individuals suffered from major depression, 26.5% from chronic depression, 15.8% from general anxiety disorders, and 10.5% from panic attacks.[20] These rates, compared to the general population using the same screening methods, were 4–12 times higher than the general population. Overall, 47.9% of HIV-infected individuals experienced psychiatric disorders in the year prior to the interview.[20] HIV-infected African Americans were about 60% less likely to have had psychiatric disorders than Whites or Hispanics.[20] Experts believe that 40–60% of prisoners with HIV/AIDS have a mental illness and that 50% of that mental illness is undiagnosed and untreated.[24]

Injection drug use (IDU) was responsible for 24% of HIV infections of those living with HIV/AIDS in the U.S. at the end of 2007* (29% for American Indian/Alaskan Native, 28% for Hispanics, 27% for Black/African Americans, 18% for Whites, and 10% for Asians).[25]

* Male and female. Calculation includes 5% due to "male-to-male sexual contact and injection" factor.

HIV Risk Behavior

Intravenous (IV) drug use contributes to HIV infection by directly transmitting the virus from one person to another when the injection equipment is reused and remains contaminated with small amounts of the previous person's HIV-infected blood. In fact, HIV can survive in a used syringe for at least 4 weeks.[26] The use of substances also increases the risk of acquiring or transmitting HIV by impairing decision-making ability, increasing impulsivity, lowering inhibitions, reducing the perception of personal risk and decreasing the ability to negotiate safe sex.[27,28]

HIV risk behaviors have been found to be prevalent in patients with bipolar disorders and substance use disorders, as both are associated with impulsivity, impaired judgment, and risk-taking. In one recent study, the HIV risks demonstrated by this population included unprotected intercourse (69%), multiple partners (39%), sex with prostitutes (24%, men only), and sex trading (10%).[29]

Trauma—sexual or physical—is associated with sexual and substance use behaviors that, in turn, lead to increased risk of contracting and transmitting HIV.[32] For women, early and chronic sexual abuse was associated with a seven-fold increase in risk behaviors and any sexual abuse combined with physical abuse was associated with a five-fold increase. For men, any sexual abuse was associated with an eight-fold increase in risk behaviors while physical abuse alone was associated with a three-fold increase.[30] Physical and sexual abuse is also associated with a higher prevalence of mental illness such as depression, borderline personality disorders, anxiety, and PTSD.[31]

In one study conducted in southern states, of HIV-infected individuals, lifetime sexual abuse was reported by 30% of men and 38% of women. Fifty percent of HIV-infected individuals experienced sexual or severe physical abuse.[32] The fact that race was not a distinguishing factor is indicative that social structure and childhood poverty may be more important in identifying high-risk groups.[32]

Co-Occurring Disorders—Dual and Triple Diagnosis

The most common cause of mental illness relapse is substance abuse. The most common cause of substance abuse is mental illness.[33] An estimated 42% of all state prison inmates and 48% of inmates in local jails have both a mental health problem and substance abuse or dependence.[2] As shown in Table 2, Substance Use among Prison and Jail Inmates by Mental Health Status, about three-quarters of inmates in state prisons and local jails with mental health problems were found to also have substance abuse or dependence. A study based at the University of Washington HIV Clinic in Seattle, the largest single provider of medical care to HIV patients in the northwestern U.S., found that of all the 1,744 HIV patients receiving care in 2004, 38% had co-occurring mental illness and substance use disorders.[39]

Table 2: Substance Use Among Prison and Jail Inmates, by Mental Health Status

	Percent of Inmates In…					
	…State Prison		…Federal Prison		…Local Jail	
	With Mental Problem	Without Mental Problem	With Mental Problem	Without Mental Problem	With Mental Problem	Without Mental Problem
Any Alcohol or Drugs	***74.1%***	***55.6%***	***63.6%***	***49.5%***	***76.4%***	***53.2%***
Dependence	53.9%	34.5%	45.1%	27.3%	56.3%	25.4%
Abuse Only	20.2%	21.1%	18.5%	22.2%	20.1%	27.8%
Alcohol	***50.8%***	***36.0%***	***43.7%***	***30.3%***	***53.4%***	***34.6%***
Dependence	30.4%	17.9%	25.1%	12.7%	29.0%	11.8%
Abuse Only	20.4%	18.0%	18.6%	17.7%	24.4%	22.8%
Drugs	***61.9%***	***42.6%***	***53.2%***	***39.2%***	***63.3%***	***36.0%***
Dependence	43.8%	26.1%	37.1%	22.0%	46.0%	17.6%
Abuse Only	18.0%	16.5%	16.1%	17.2%	17.3%	18.4%
No Dependence or Abuse	***25.9%***	***44.4%***	***36.4%***	***50.5%***	***23.6%***	***46.8%***

Treatment Considerations

Evidence indicates that a person's mental state influences disease progression through both behavioral and biological pathways. A recent review found substantial and consistent evidence that chronic depression, stressful events and trauma history can negatively impact HIV disease progression.[34] The studies examined, spanning from 1992 to 2007, included the periods before and after the availability of Highly Active Antiretroviral Therapy (HAART). In the post-HAART era, two studies found that women with chronic depressive symptoms were about two times more likely to die of AIDS than those with fewer or no occurrences of depression.

Depression was also associated with lower CD4+ T-cell counts and higher viral loads. Similar results in other studies also held for men. It is significant to note that two studies found that depression accelerated HIV disease progression independently of the patient's adherence to therapy.[35,36] One of these studies indicated that the negative biological effects of depression were multiplied by the effects of non-adherence to treatment to produce the poor outcomes.[36]

Other studies examining the impact of trauma (e.g., history of sexual and physical abuse) and severe stressful events (e.g., childhood neglect, parent's major illness, sibling's death, or murder of family member), found similar results. Moreover, these studies found a dose-response relationship—a greater frequency and/or severity of trauma or stress resulted in faster development of AIDS-related diseases and death.[34]

In contrast, another recent review[37] found evidence that an optimistic outlook, positive coping responses (e.g., active coping, problem solving, acceptance), and spirituality (e.g., meditation, prayer, affirmations, visualizations) had a beneficial effect on HIV disease progression. Higher CD4+ cell count, better suppression of viral loads and lower mortality were typical findings of many studies. These findings, characterized by the reviewing authors as good initial evidence, may be explained by behavior and biology. There is some support that those with a positive outlook adopt

healthier behaviors such as better adherence to HIV medication, more exercise, and less illicit drug use.[37] Support for a biological explanation includes numerous studies that show that hormones important for health such as cortisol, epinephrine, and dopamine, to name a few, are affected by emotions.[37]

Initiation and Adherence to HIV/AIDS Treatment

Current ART enables HIV-infected patients to live long and productive lives.[10] Current U.S. Department of Health and Human Services (HHS) guidelines generally recommend beginning treatment in patients with a history of an AIDS defining illness or a with CD4 T-cell count less than 350 cells/mm.[10] Initiating treatment late—with a lower CD4 T-cell count—results in faster disease progression and death[38] (see the NMAC booklet on HIV/AIDS Fundamentals for more information).

A study of all HIV-infected patients receiving care in 2004 at the University of Washington HIV Clinic found that patients with substance use disorders or with a mental illness diagnosis

including depression, anxiety, schizophrenia, bipolar disorder, and personality disorders, after becoming eligible for treatment according to HHS guidelines, began treatment significantly later than those without such disorders. For those with co-occurring mental illness and substance use disorders, the delay was even longer.[39] Those receiving treatment for depression and anxiety disorders, however, were as likely to receive ART as patients with no mental illness.

Individuals with active substance abuse, particularly those with a recent relapse, are at a higher risk for non-adherence to treatment.[10] A history of substance abuse does not by itself indicate a higher risk for lower adherence.[10] A study conducted in four U.S. cities (Baltimore, Miami, New York, and San Francisco), found that 54 percent of HIV-infected individuals with active drug use, reporting at least one drug injection in the previous 12 months, made mistakes when taking HIV medication—either took the incorrect number of doses per day or pills per dose.[40] Twenty-five percent had poor adherence to medication. Both the mistakes and the poor adherence were strongly associated with higher HIV loads and lower CD4+ T-cell counts.[40] As in other studies, recent cocaine use was associated with poor adherence.[40]

As patients typically overestimate their adherence to therapy, a report by the patient of sub-optimal adherence must be taken seriously.[10] Such patients should be screened for mental illness especially depression and substance use disorders.[41]

Addressing Depression and Other Mental Health Disorders

Treatment for depression and other mental illness have shown beneficial effects on sexual risk behaviors, psychiatric symptoms, and medication adherence.[41] Treatment for HIV-infected individuals with both mental and substance use disorders has also shown promise, but with a greater set of problems, improvements tend to occur only after months or years of consistent treatment.[42]

It is important to screen for and treat depression in prisoners living with HIV/AIDS for the following reasons:

- Depression is the most common mental health disorder in HIV-infected individuals,
- Depression, by itself, is a serious illness that can significantly impact a person's quality of life,
- Untreated depression is associated with an increased risk of suicide,
- Depression and other psychiatric illnesses may impair a person's ability to adhere to antiretroviral treatment regi¬mens and thus may complicate efforts to treat HIV/AIDS, and
- Depression shares many symptoms with other serious neurocognitive disorders and complications.

Persons with symptoms of depression should be evaluated by a skilled health care provider who is able to screen for other impair¬ments including bipolar disorder, schizophrenia, AIDS dementia complex, medication interactions, HIV encephalopathy or other diseases of the central nervous system.

AIDS Dementia Complex

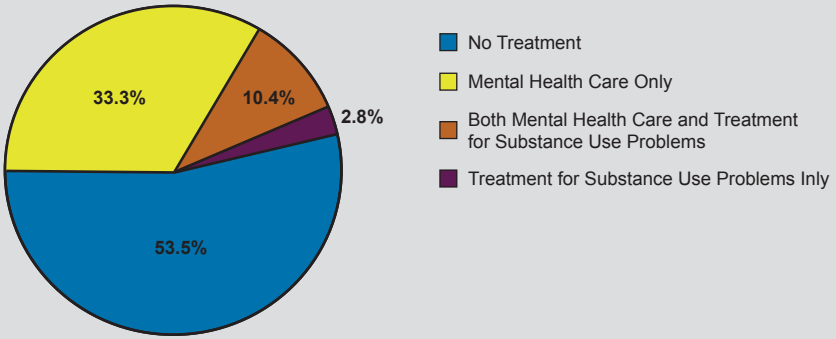
It is important for service-providers and correctional staff working with those who have HIV/AIDS, to be aware that HIV/AIDS itself can also cause mental impairments. Cognitive and motor impairments directly related to HIV-infection are rare among asymptomatic HIV-positive people, but their prevalence increases in people with more advanced HIV-disease. This condition is known as AIDS Dementia Complex (ADC). Symptoms of ADC can include the following:[43,44]

- Early signs include forgetfulness and inability to concentrate as well as personality changes such as apathy, withdrawal, diminished libido, emotional instability, depression,
- With disease progression, motor functions are affected, e.g., leg weakness, slowed movement, tremor and unsteadiness, and
- In advanced disease, psychiatric disturbances, inability or unwillingness to speak, muscle twitching, paralysis of the lower body, seizures, and incontinence may occur.

Systems Perspective and Models

The separation of mental health and substance abuse treatment systems with separate regulations, financing, education and credentialing, and eligibility for services often results in persons with co-occurring disorders (COD) being refused services and/or being "bounced" between service providers.[45] COD patients rarely receive comprehensive screening, assessment or integrated services.[45,12] As shown in Figure 2, Past Year Mental Health Care among Adults Aged 18 or Older, these structural barriers added to the stigma, shame, and discrimination experienced by some individuals are reflected in the statistics of the 2007 National Survey on Drug Use and Health showing that over half of the individuals with COD did not receive any services in 2007. Of those that did, few received integrated care and the rest received sequential or parallel treatment with limited positive outcomes.[45,12] In recognition of the poor outcomes for people with COD, integrated treatment programs, based on the systems perspective, have been developed.[45,12]

Figure 2: Past Year Mental Health Care Among Adults Aged 18 or Older with Both Serious Psychological Distress and a Substance Use Disorder, 2007. (Source: http://oas.samhsa.gov/nsduh/2k7nsduh/2k7Results.pdf)



Having any serious health-related condition such as being HIV-infected (with or without AIDS-related diseases), or having a mental illness or substance use disorder presents challenges that are generally insurmountable by any single individual without help—the assistance of others such as families and professionals in the medical and behavioral fields are required. When an individual incurs two or all three conditions, the challenges are greatly increased. Coordinated treatment and close collaboration between all the service providers becomes a necessity.

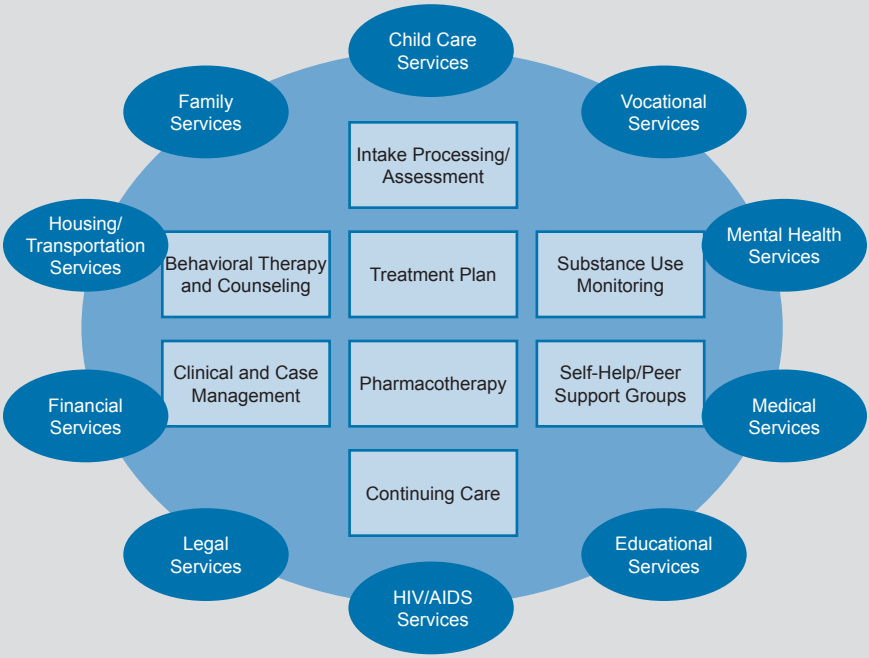
When co-occurring illnesses afflict an individual with additional social deficits such as poverty, under-employment, under-education, unstable family life, homelessness, no health insurance, and little access to health care, the challenges are multiplied—adding housing, employment, and other social services to the needed services supplied by medical, mental health, and substance abuse providers. When millions of individuals with social deficits and/or one or more illnesses are arrested and sanctioned into probation, jails, prisons and parole each year, the challenges are vast. Person-centered assessment and care on this scale can only be addressed at the societal and systems levels and must include coordination and collaboration with the various components of the justice system.

Systems-based models that focus on individuals with mental illnesses and co-occurring disorders that are applicable to those involved with the criminal justice system include the Integrated Dual Disorder Treatment (IDDT),[46,12] the Assess, Plan, Identify, and Coordinate (APIC) model,[47] and the Sequential Intercept Model.[48] These three models, intended to serve as a practical guide to F/CBOs and others, are presented below. They provide a good overview of the many issues involved in the implementation of integrated and comprehensive systems that can benefit individuals involved in the criminal justice system.

The IDDT model describes an integrated approach to service delivery that can be applied in the correctional and community settings and can include additional approaches such as the Modified Therapeutic Community (MTC),[49,50] Forensic Assertive Community Treatment (FACT),[51] and Forensic Intensive Case Management (FICM) models. The APIC model describes the delivery of comprehensive services to inmates returning to the community. The Sequential Intercept model describes the comprehensive approach that can be used to steer individuals with mental illnesses into treatment at various stages of contact with the justice system.

One of the main points stressed by all of these models is that effective intervention requires close cooperation and collaboration between the mental health and drug abuse treatment systems, the justice system, and other public and non-profit agencies and systems including F/CBOs. The National Institute of Drug Abuse published a guide called the Principles of Drug Addiction Treatment that includes a summary graphic shown in Figure 3, Components of Comprehensive Substance Abuse Treatment Program, which shows the various societal-level services that need to be supplied and coordinated to form a comprehensive community-based approach to substance abuse treatment. It is adaptable to the treatment of mental illnesses and COD.

Figure 3: Components of Comprehensive Substance Abuse Treatment Program



Source: Adapted from the National Institute of Drug Abuse: Principles of Drug Addiction Treatment. Second Edition. 1999, revised April 2009.

Integrated Dual Disorder Treatment (IDDT) Model

IDDT is an evidence-based, integrated treatment model, developed at Dartmouth University Psychiatric Research Center, which offers mental health and substance abuse services in one setting—the same clinician or team of clinicians provide a person-centered treatment plan that to the patient appears consistent and seamless. In general, IDDT components include staged interventions, assertive outreach, motivational interventions, counseling, social support interventions, a long-term perspective, comprehensiveness, cultural sensitivity and competence.[12] Core IDDT components include:[12,52,53]

- A multidisciplinary team consisting of a team leader, case manager(s), nurse, psychiatrist, mental health professional, substance abuse professional, criminal justice specialist/liaison, supported employment specialist, housing specialist, and family specialist
- Stage-appropriate interventions:
  - Engagement: Provide assertive outreach through case management and meeting in client's homes. Build a trusting relationship with client. Provide practical support (e.g. food, clothing, housing, medicine). Assess continuously.
  - Persuasion: Assist client to develop the motivation to reduce substance abuse and participate in treatment.
  - Active treatment: Build coping skills to manage both disorders (e.g., refusal and communication skills, symptoms, triggers, cravings). Provide cognitive behavioral and social support interventions, family therapies, and peer and self-help group support such as Dual Recovery Anonymous, as indicated
  - Relapse prevention: Develop a relapse-prevention plan and help clients set goals. Provide continued support with clinical and positive peer relationships.

In sum, IDDT provides integrated and comprehensive services that are culturally sensitive and competent. IDDT requires system-level changes for successful implementation. Guides and scales that measure program fidelity to IDDT are available (see Additional Resources).[54,55]

Assess, Plan, Identify, and Coordinate (APIC) Model

In an effort to address the reentry from jail of the many individuals with mental illnesses and co-occurring disorders, the National GAINS Center assisted in the development of the APIC model. To implement this model at a systems level, a coordinating committee comprising all the stakeholders at the local level work directly with the staff providing transition planning in order to identify and remove barriers to successful re-entry. "System integration is not an event, a document, or position. It is an ongoing process of communicating, goal setting, assigning accountability, evaluating, and reforming."[47] Jail and community providers meet and collaborate in establishing standards for treatment planning and required documentation as well as establish a mechanism to monitor the implementation of the plan. A committee consisting of jail representatives and community providers meet regularly to monitor, resolve problems, and improve the process.[47] The key elements of the APIC model are as follows:

Assess: Using standardized instruments, the inmate's clinical and social needs, and public safety risks are assessed.

- The goal is to collect as much information as possible in a short amount of time and when possible update this information prior to release. Acquire medical and other records.[13,47]
- A critical part of the evaluation process is engaging the inmate to assess his or her own needs. Without the individual's earnest participation, the assessment may be contrary to their perceived needs and the resulting plan may be seen by the inmate as additional restrictions to their freedom or as a continuation of punishment.[47]
- An evaluation of either a mental illness or a substance use disorder should prompt an evaluation for co-occurring conditions.[47]
- A specific person or team should be identified and made responsible for collecting all relevant information from various sources such as law enforcement, court, corrections, correctional care, and community provider systems.[47]

Plan: At the system and individual level, plan for the treatment and services required to address both the short-term and long-term needs identified previously. Planning should include:

- The critical time just after release—the first hour, day, and week.
- Most importantly, listening to and involving the inmate in the formulation of the plan.[47]

- With the consent of the inmate, family input into the plan is desirable, and all potential sources of community support identified and enlisted.[47]
- Ensuring that the inmate has access to and a means to pay for needed treatment and services in the community. Initiating benefit applications or reinstatements for eligible inmates for Medicaid, federal Supplemental Security Income (SSI), Social Security Disability Insurance (SSDI), Temporary Assistance to Needy Families (TANF), veterans benefits, food stamps and other government entitlement programs.[47]
- Connecting inmates to medical care and behavioral health services in the community including those services that provide integrated treatment for co-occurring disorders as needed. Previous medication history needs to be accessed and continued while incarcerated and provided for after release. Assuring continuity of HIV medication while in jail and post-release is essential.[47]
- Basic needs such as housing—referral to a shelter is not seen here as adequate—clothing, food, transportation, and legal services need to be addressed.[47]
- Employment. Supported employment and vocational training has shown to enable those with even serious mental illnesses the opportunity to work which can provide essential self-esteem and the ability to obtain necessary resources.[47]

Identify: Identify the community and correctional programs responsible for post-release services.

- A transition plan must identify the specific referrals that are appropriate to the inmate based on the underlying clinical diagnosis, cultural and demographic factors, financial arrangements, geographic location and relevant legal circumstances.[47]
- The preferences of the inmates as to what treatment they are motivated to participate in and demographic and cultural issues including the inmate's gender, age, race/ethnicity, language, beliefs and customs are factors to be taken into consideration when identifying community-based referrals. The appropriateness of the referrals should be determined in consultation with the community team.[47]
- A complete discharge summary including diagnosis, medications and dosages, legal status, transition plan, and other relevant information should be forwarded to the community provider prior to the time of release.[47]
- All documents such as benefit cards and identification brought by the inmate or acquired while incarcerated must be returned. If an individual does not have a photo ID he or she should be assisted in acquiring one while incarcerated.[47]
- Conditions of release and the intensity of community corrections supervision should match the severity of the inmate's criminal behavior. Inmates should not be threatened with longer sentences if they do not accept treatment. Inmates with co-occurring disorders should not have their incarceration extended if community resources are not available to treat them.[47]

- The inmate's illnesses, level of disability, motivation for change, and criminal history determine the intensity of treatment and support services as available in the community.[47]
- Issues on confidentiality and information sharing should be clarified and discussed with the inmate.[47]
- The transition plan included in the charts kept by the correctional institution and community behavioral health services should include documentation identifying the site and time of the first behavioral health referral appointment; the plan that insures the inmate has the necessary resources to pay for services, food, and shelter; continuous supply of medication; and precisely where the inmate will live and with whom.[47]
- Provide for those in jail for less than 48 hours with, at minimum, a resource card that includes information where the individual may apply for federal benefits, social security card, and contact information of various service providers and shelters.[13]

Coordinate: The implementation of the transition plan to avoid gaps in care.

- Implementing the systems approach, an oversight group must be responsible for coordinating the multidisciplinary actions of all the various agencies involved.[13,47]
- Case managers can perform a critical role in the implementation of transition plans and their use is strongly encouraged when dealing with the complex and multiple needs of inmates with co-occurring disorders.[13,47]
- Encourage community providers to provide "in reach" to the correctional institution to begin the engagement process—especially including personal contact with the inmate—prior to release. Efforts should be made to facilitate entry by community providers into the institution through streamlined search procedures, minimum waiting at the entrance, and extended visitation hours. In turn, the community provider should become familiar with the security requirements at the facility.[13,47]
- Explicitly communicating to all parties the name(s) and contact information of the person(s) responsible for care of the individual after release and the first follow-up appointment. Making sure that the inmate knows who to contact if there are problems with medications, medical or other social-service related issues, or if appointments need to be changed. Establish a tracking mechanism to follow-up on failed appointments.[13,47]
- Post-release measures should include that the court system, probation and parole officers and community providers collaboratively apply relapse prevention techniques including hospitalization, and graduated sanctions instead of re-incarceration for inmates with co-occurring disorders who violate the conditions of release. Probation and parole officers supervising this population should have behavioral health expertise and a lower case load.[13,47]

Sequential Intercept Model

The Sequential Intercept Model provides a conceptual framework that communities, in collaboration with the justice system, can use to develop targeted strategies that evolve over time to divert mentally ill individuals from the criminal justice system and steer them into community treatment.[48] The model describes the various possible intercept points ranging from a person's initial contact with law enforcement to reentry from jail or prison. Systems-level implementation may include:[48,56]

- Development of statewide planning for mental health and criminal justice collaborations
- Statewide crisis-intervention services
- Legislating task forces/commissions comprising mental health, substance abuse, criminal justice and other stakeholders such as F/CBOs to validate and implement needed changes
- Legislative actions establishing jail diversion programs
- Supporting stakeholder collaborations through joint projects, shared funding, information sharing and cross-training
- State-level changes to access to benefits by suspending rather than terminating Medicaid/SSI benefits. Facilitating reinstitution and benefits applications prior to the inmate's release from jail or prison
- Removing constraints that exclude former inmates from housing and services and making access to housing a priority
- Expanding access to comprehensive and integrated treatment such as IDDT as needed
- Expanding services such as supported housing and employment, education, training and peer advocacy
- Ensuring constitutionally mandated adequate physical and mental health services in jails and prisons, provide individualized transition services to inmates (see APIC model in this booklet), and
- Establishing systems and services that are culturally sensitive, gender and age specific.

The best sequential intercept model is accessible, comprehensive, and includes effective mental health services with integrated treatment for those with mental illness and co-occurring substance-use disorders to minimize the maladaptive behaviors leading to justice system involvement. Unfortunately, this level of service exists in only a few communities in the U.S.[48] Intercept can be targeted at five distinct areas of contact with the justice system, including the first contact with law enforcement, initial detention and court hearings, jails and courts, reentry, and community supervision as follows:[48,56]

Intercept 1: Law enforcement and emergency services. Provide specialized mental health training to dispatchers and a team of police officers who would respond to calls involving people with mental health disorders. Employ mental health workers to assist police officers. Document police contacts with persons with mental illnesses. Provide police-friendly drop-off at local hospitals, crisis unit, and triage center. Provide follow-up services to intercepted individuals. Conduct regular stakeholder meetings for continuous evaluation and improvement of services.

Intercept 2: Initial detention, initial court hearings. Provide mental health and substance use disorder screening in jail or the courthouse detention facilities by prosecution, defense, judge/court staff or service providers at the earliest opportunity. Provide linkages to comprehensive services, integrated dual disorder treatment (IDDT), access to benefits, health care, and housing. Individuals who commit less serious crimes are typical candidates for post-arrest diversion into treatment.

Intercept 3: Jails and courts. Specialty courts such as drug and mental health courts have evolved to handle persons with mental illnesses, substance use disorders and COD identified in screening and through medical histories. Collaboration with community mental health and substance abuse providers is necessary. Provide access to medications, benefits, health care, and housing. Monitor progress with scheduled appearances. Flexible application of sanctions is desirable. Provide jail-based treatment services.

Intercept 4: Reentry. The application of models such as the Assess, Plan, Identify, and Collaborate (APIC) model providing comprehensive transitional services to the jail or prison inmate reentering the community. Such models link the individual to treatment and social services to benefit the individual and the community and reduce recidivism.

Intercept 5: Community corrections. Screen all individuals under community supervision. Probation and parole officers with behavioral health expertise should collaborate with mental health providers to provide graduated and clinical responses to violations or non-compliance with conditions of release. Maintain a community of care: connections to IDDT and other supportive health services, employment, housing, and other social services. Establish policies and procedures that maximize communication and information sharing between community corrections and service providers.

Source: http://gainscenter.samhsa.gov/pdfs/integrating/GAINS_Sequential_Intercept.pdf

Conclusions

Co-occurring disorders are common in both the general and criminal justice populations. The complex and interrelated needs of the individual with COD requires systems-level coordination and collaboration among service providers when providing comprehensive services. Integrated programs can supply seamless, efficient, and effective treatment to individuals with COD. Programs that address inmate reentry into the community and which provide access to medical services, mental health treatment, and social services at every stage of a person's contact with the criminal justice system have the potential to be of great benefit to many individuals and the community.

Resources

Comprehensive Resources

- The Center for Mental Health Services National GAINS Center: Includes mental health-related resources and publications on co-occurring disorders, evidence-based practices, integrated services, jail diversion programs, specialty courts, reentry, women, and veterans. http://www.gainscenter.samhsa.gov
- Criminal Justice/Mental Health Consensus Project-The CSG Justice Center: Includes database of collaborative justice and mental health programs and related publications. http://www.cjmh-infonet.org/

Integrated Treatment for Co-Occurring Disorders

- Center for Evidence Based Practices at Case Western Reserve University: Provides assistance in implementing the IDDT model and other evidence-based practices. http://www.centerforebp.case.edu/index.html
- IDDT Program Fidelity Guides: http://mentalhealth.samhsa.gov/cmhs/communitysupport/toolkits/cooccurring/dualdisorders/fidelityscale.asp and http://www.centerforebp.case.edu/publications/

Reentry Programs

- Reentry National Media Outreach Campaign: Supports the work of community and faith-based organizations. Information on reentry programs in the U.S. http://www.reentrymediaoutreach.org/resourceguide.htm

HIV/AIDS, Mental Health Resources, Substance Abuse

- National Minority AIDS Council website: www.nmac.org; phone: (202) 483-NMAC
- The Body: Information and resources on HIV/AIDS, mental health, and substance abuse http://www.thebody.com/
- National Prevention and Information Network (NPIN) http://www.cdcnpin.org/
- AIDS.gov: www.aids.gov

- AIDSinfo. (HHS). http://aidsinfo.nih.gov/
- Substance Abuse & Mental Health Services Administration (SAMSHA): http://www.samhsa.gov/
- The National Institute on Drug Abuse (NIDA): http://www.nida.nih.gov/

References

1. Lamb HR, Bachrach LL. Some perspectives on deinstitutionalization. Psychiatr Serv. 2001 Aug; 52(8): 1039–45. Review.
2. James, D.J., Glaze, L.E. (2006) *Mental Health Problems of Prison and Jail Inmates*. U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics, Special Report (Available at: http://www.ojp.gov/bjs/pub/pdf/mhppji.pdf, Accessed June 7, 2009)
3. Steadman HJ, Osher FC, Robbins PC, Case B, Samuels S. Prevalence of serious mental illness among jail inmates. Psychiatr Serv. 2009 Jun; 60(6): 761–5.
4. Baillargeon J, Binswanger IA, Penn JV, Williams BA, Murray OJ. *Psychiatric disorders and repeat incarcerations: The revolving prison door*. Am J Psychiatry. 2009 Jan; 166(1): 103–9. Epub 2008 Dec 1.
5. Prins, S.J., Draper, L. (2009) Improving Outcomes for People with Mental Illnesses under Community Corrections Supervision: A Guide to Research-Informed Policy and Practice. Council of State Governments Justice Center. Available at: http://consensusproject.org/ Accessed July 10, 2009
6. Sourcebook of Criminal Justice Statistics Online. Percent distribution of arrests for drug abuse violations. Table 4.29.2007. http://www.albany.edu/sourcebook/pdf/t4292007.pdf
7. The National Institute on Drug Abuse (NIDA). *Treating Offenders with Drug Problems: Integrating Public Health and Public Safety* (March 2009) http://www.nida.nih.gov/tib/drugs_crime.html Accessed June 14, 2009
8. Chander G, Himelhoch S, Moore RD. Substance abuse and psychiatric disorders in HIV-positive patients: Epidemiology and impact on antiretroviral therapy. Drugs 2006; 66: 769–789.
9. New York State Department of Health, the Johns Hopkins University Infectious Diseases Division, Mental Health Disorders Among Substance-Using HIV-Infected Patients (New York: March, 2008) (Available at: http://www.hivguidelines.org/GuideLine.aspx?GuideLineID=132, Accessed June 6, 2009)
10. Panel on Antiretroviral Guidelines for Adults and Adolescents. *Guidelines for the use of antiretroviral agents in HIV-1-infected adults and adolescents*. Department of Health and Human Services. November 3, 2008; 1-139. Available at http://www.aidsinfo.nih.gov/ContentFiles/AdultandAdolescentGL.pdf. Accessed June 10, 2009.
11. Reentry: Helping Former Prisoners Return to the Community (Baltimore, Maryland: The Annie E. Casey Foundation, 2005) (Available at: http://www.aecf.org/upload/publicationfiles/ir2980d32.pdf, Accessed June 3, 2009)
12. Drake RE, Essock SM, Shaner A, Carey KB, Minkoff K, Kola L, Lynde D, Osher FC, Clark RE, Rickards L. Implementing dual diagnosis services for clients with severe mental illness. Psychiatr Serv. 2001 Apr; 52(4): 469–76. Review.

13. Solomon, A.L., Osborne, J.W.L., LoBuglio, S.F., Mellow, j., Mukamal, D.A., (2008) Life after Lockup: Improving Reentry from Jail to the Community. Note on Language. Page.XVI. Urban Institute, Justice Policy Center Washington DC. http://www.urban.org/UploadedPDF/411660_life_after_lockup.pdf

14. US Department of Justice, Bureau of Justice Statistics. http://www.ojp.usdoj.gov/bjs/glance/tables/corr2tab.htm Accessed July 12, 2009

15. Sabol, W.J., Minton,T.D. (2008) Jail Inmates at Midyear 2007. US Department of Justice, Bureau of Justice Statistics. http://www.ojp.gov/bjs/pub/pdf/jim07.pdf

16. Council of State Governments Justice Center Releases Estimates on the Prevalence of Adults with Serious Mental Illnesses in Jails. http://consensusproject.org/downloads/prevalence.brief.pdf

17. US Department of Justice, Bureau of Justice Statistics, Drug Use and Dependence, State and Federal Prisoners, 2004. October, 2006. NCJ 213530. (Available at: http://www.ojp.usdoj.gov/bjs/abstract/dudsfp04.htm, Accessed June 8, 2009)

18. Bureau of Justice Statistics (2006). *HIV in Prisons*. Maruschak, Laura, BJS Statistician. National Prisoner Statistics series. NCJ 222179. Available at: http://www.ojp.usdoj.gov/bjs/pub/html/hivp/2006/hivp06.htm#highlights

19. Centers for Disease Control and Prevention, HIV Prevalence Estimates—United States, 2006, MMWR Weekly, Weekly October 3, 2008; 57(39): 1073–1076 (Available at: http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5739a2.htm, Accessed May 24, 2009)

20. Bing, E.G., Burnam, M.A., Longshore, D., Fleishman, J.A., Sherbourne, C.D., London, A.S., et al. (2001). *Psychiatric disorders and drug use among human immunodeficiency virus-infected adults in the United States*. Arch Gen Psychiatry. 2001 Aug; 58(8): 721–8.

21. Pence, B.W. (2009). *The impact of mental health and traumatic life experiences on antiretroviral treatment outcomes for people living with HIV/AIDS*. J Antimicrob Chemother. 2009 Apr; 63(4): 636–40. Epub 2009 Jan 18. Review.

22. Friedland, G.H. (2002). "HIV therapy in 'triple diagnosed' patients: HIV infection, drug use and mental illness." Presentation: International AIDS Society.

23. Whetten K, Reif S, Whetten R, Murphy-McMillan LK. Trauma, mental health, distrust, and stigma among HIV-positive persons: implications for effective care. Psychosom Med. 2008 Jun; 70(5): 531–8. Review.

24. Altice FL (2001). "Ask the expert: Managing the patient with triple diagnosis." HEPP News 4(1): 5.

25. Centers for Disease Control and Prevention. Cases of HIV Infection and AIDS in the United States and Dependent Areas, 2007. HIV/AIDS Surveillance Report, Table 10.

26. The Body. AIDS InfoNet, Fact Sheet 154, Drug Use and HIV. May 22, 2008. (Available at: http://www.thebody.com/content/art6055.html, Accessed June 8, 2009)

27. National Institute on Drug Abuse. Drug Abuse and the Link to HIV/AIDS and Other Infectious Diseases. NIH Publication. August, 2008. (Available at: http://www.drugabuse.gov/PDF/Infofacts/DrugsAIDS08.pdf, Accessed June 8, 2009)

28. Meade, C.S. (2006). *Sexual risk behavior among persons dually diagnosed with severe mental illness and substance use disorder*. J Subst Abuse Treat. 2006 March; 30(2): 147–57.

29. Meade CS, Graff FS, Griffin ML, Weiss RD., HIV risk behavior among patients with co-occurring bipolar and substance use disorders: associations with mania and drug abuse, Drug Alcohol Depend. 2008 Jan 1; 92(1–3): 296–300. Epub 2007 Sep 11.

30. Bensley LS, Van Eenwyk J, Simmons KW. Self-reported childhood sexual and physical abuse and adult HIV-risk behaviors and heavy drinking. Am J Prev Med. 2000 Feb; 18(2): 151–8.

31. Whetten K, Reif S, Whetten R, Murphy-McMillan LK. T*rauma, mental health, distrust, and stigma among HIV-positive persons: implications for effective care*. Psychosom Med. 2008 Jun; 70(5): 531–8. Review.

32. Whetten K, Leserman J, Lowe K, Stangl D, Thielman N, Swartz M, Hanisch L, Van Scoyoc L. *Prevalence of childhood sexual abuse and physical trauma in an HIV-positive sample from the deep south*. Am J Public Health. 2006 Jun; 96(6): 1028–30. Epub 2006 May 2.

33. Substance Abuse and Mental Health Services Administration, "Improving Services for Individuals at Risk of, or with, Co-Occurring Substance-Related and Mental Health Disorders" (Rockville, Maryland, January, 1997), p.1.

34. Leserman, J. (2008). *Role of depression, stress, and trauma in HIV disease progression*. Psychosom Med. 2008 Jun; 70(5): 539–45. Epub 2008 Jun 2. Review.

35. Bouhnik AD, Préau M, Vincent E, Carrieri MP, Gallais H, Lepeu G, Gastaut JA, Moatti JP, Spire B; MANIF 2000 Study Group. *Depression and clinical progression in HIV-infected drug users treated with highly active antiretroviral therapy*. Antivir Ther. 2005; 10(1): 53–61.

36. Lima VD, Geller J, Bangsberg DR, Patterson TL, Daniel M, Kerr T, Montaner JS, Hogg RS. *The effect of adherence on the association between depressive symptoms and mortality among HIV-infected individuals first initiating HAART*. AIDS. 2007 May 31; 21(9): 1175–83.

37. Ironson, G., Hayward, H. (2008).Do positive psychosocial factors predict disease progression in HIV-1? A review of the evidence. Psychosom Med. 2008 Jun; 70(5): 546–54. Review.

38. Sterne, J.A., Hernan, M.A., Ledergerber, B., et al.(2006). *Longterm effectiveness of potent antiretroviral therapy in preventing AIDS and death: A prospective cohort study*. Lancet 2005; 366: 378–384

39. Tegger MK, Crane HM, Tapia KA, Uldall KK, Holte SE, Kitahata MM.*The effect of mental illness, substance use, and treatment for depression on the initiation of highly active antiretroviral therapy among HIV-infected individuals*. AIDS Patient Care STDS. 2008 Mar; 22(3): 233–43.

40. Arnsten JH, Li X, Mizuno Y, Knowlton AR, Gourevitch MN, Handley K, Knight KR, Metsch LR; for the INSPIRE Study Team. *Factors associated with antiretroviral therapy adherence and medication errors among HIV-infected injection drug users*. Journal of Acquiring Immune Deficiency Syndrome. 2007 Nov 1; 46 Suppl 2: S64–71.

41. Pence, B.W. (2009). *The impact of mental health and traumatic life experiences on antiretroviral treatment outcomes for people living with HIV/AIDS*. J Antimicrob Chemother. 2009 Apr; 63(4): 636–40. Epub 2009 Jan 18. Review.

42. Whetten K, Reif S, Ostermann J, Pence BW, Swartz M, Whetten R, Conover C, Bouis S, Thielman N, Eron J.(2006). *Improving health outcomes among individuals with HIV, mental illness, and substance use disorders in the Southeast*. AIDS Care. 2006; 18 Suppl 1: S18–26.

43. Cognitive Disorders and HIV/AIDS: HIV-Associated Dementia and Delirium. New York State Department of Health AIDS Institute in collaboration with Johns Hopkins Institute. AIDS Institute: 90 Church Street, 13th Floor New York, NY 10007-2919 http://www.hivguidelines.org/GuidelineDocuments/m-cognitive.pdf

44. AIDS Dementia Complex. (2003).The University of North Carolina at Chapel Hill School of Medicine. http://www.med.unc.edu/medicine/web/AIDSDementia.pdf

45. Osher,F.C.(2005) Evidence-Based Practice for Justice Involved Individuals. Expert Panel Meeting. Discussion Paper: Integrated Mental Health/Substance Abuse Responses to Justice Involved Persons with Co-Occurring Disorders. The CHMS National GAINS Center.

46. Drake RE, Yovetich NA, Bebout RR, Harris M, McHugo GJ. Integrated treatment for dually diagnosed homeless adults.J Nerv Ment Dis. 1997 May; 185(5): 298–305.

47. Osher, F., Steadman, H.J., Barr, H,. (2002) A Best Practice Approach to Community Re-entry from Jails for Inmates with Co-occurring Disorders: The APIC Model: Delamr, NY: The National GAINS Center.

48. Munetz MR, Griffin PA. Use of the Sequential Intercept Model as an approach to decriminalization of people with serious mental illness. Psychiatr Serv. 2006 Apr; 57(4): 544–9.

49. Sacks S, Sacks JY, De Leon G. Treatment for MICAs: Design and implementation of the modified TC. Journal of Psychoactive Drugs, (special edition). 1999; 31(1): 19–30

50. Sacks S, Banks S, McKendrick K, Sacks JY. (2008).Modified therapeutic community for co-occurring disorders: a summary of four studies. J Subst Abuse Treat. 2008 Jan; 34(1): 112–22. Epub 2007 Jun 15.

51. Morrissey, J., Meyer, P. (2005). Evidence-Based Practice for Justice Involved Individuals. Expert Panel Meeting. Discussion Paper: Extending ACT to Criminal Justice Settings: Applications, Evidence, and Options. The CHMS National GAINS Center. http://gainscenter.samhsa.gov/text/ebp/Papers/ExtendingACTPaper.asp Accessed July 14, 2009.

52.Delos Reyes, C.M., Kubek, P.M., Krusyinski, R., Boyle, P.E. (2008) *Medical Professionals & Integrated Dual Disorder Treatment (IDDT)*.Center for Evidence-Based Practices, Case Western Reserve University. Cleveland, Ohio. http://www.ohiosamiccoe.case.edu/library/media/iddtmedicalprofessionals.pdf

53. Mueser, K.T., Drake, R.E., Sigmon, S.C., & Brunette, M.(2005). Psychosocial interventions for adults with severe mental illnesses and co-occurring substance use disorders: A review of specific interventions. Journal of Dual Diagnosis, 1, 57–82.

54. Center for Evidence-Based Practices, Case Western Reserve University. Cleveland, Ohio. http://www.centerforebp.case.edu/publications/

55. Evidence-Based Practices: Shaping Mental Health Services Toward Recovery. Co-Occurring Disorders: Integrated Dual Disorders Treatment . *An Integrated Dual Disorders Treatment Fidelity Scale. SAMSHA's National Mental Health Information Center. United States Department of Health and Human Services*. http://mentalhealth.samhsa.gov/cmhs/communitysupport/toolkits/cooccurring/dualdisorders/fidelityscale.asp

56. The Center for Mental Health Services. National GAINS Center. Delmar, NY http://gainscenter.samhsa.gov/pdfs/integrating/GAINS_Sequential_Intercept.pdf

NATIONAL MINORITY AIDS COUNCIL
Building Healthier Communities

1931 13th Street, NW • Washington, DC 20009

202.483.NMAC (6622) • www.nmac.org

This publication was supported by cooperative agreement 5U65PS323703 from the Centers for Disease Control and Prevention. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the Centers for Disease Control and Prevention.