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Addiction Treatment and Recovery: A Primer for Criminal Justice Personnel¹

William L. White and David Gasperin

Introduction

For more than a decade, the Illinois Department of Transportation's Division of Traffic Safety, the University of Illinois-Springfield's Center for Legal, Policy and Administrative Studies, the Administrative Office of the Illinois Courts and Chestnut Health Systems research and training division (Lighthouse Institute) have been involved in training the criminal justice personnel who prosecute, sentence and supervise DUI offenders. As that training has progressed, we have explored questions about the role of addiction treatment in the rehabilitation of substance-involved offenders and how the criminal justice system can best link individuals to treatment, support treatment participation, reduce post-treatment criminal recidivism and enhance long-term recovery outcomes. The purpose of this primer is to offer tentative answers to these questions for the prosecutors, judges, probation officers and Secretary of State Hearing Officers who stand as a protective shield between substance-involved offenders and the citizens of Illinois.

Information from several sources provided an important skeleton for this primer: 1) an earlier monograph on *Management of the High-Risk DUI Offender* (White, 2003), 2) the Center for Substance Abuse Treatment's pamphlet *What is Substance Abuse Treatment*, 3) *Questions and Answers About Adolescent Substance Use Problems and their Treatment* (Risberg and White, 2003a,b) and 4) the Great Lakes Addiction Technology Transfer Center's monograph *The Varieties of Recovery Experience* (White and Kurtz, 2005).

Our focus in this primer is to summarize the best available scientific information on the treatment of offenders with substance use disorders. Where that evidence is lacking due to a shortage of funded studies on a particular issue, we have tried to summarize the latest thinking on that issue drawn from our own experience and the experience of criminal justice and addiction treatment personnel from around the country. We hope this primer will serve as a helpful orientation for new and long-tenured personnel working in the criminal justice system.

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Table of Contents

Introduction

AOD Problems and Their Resolution

- Problem development
- Problem Prevalence
- Treatment Prevalence
- National Treatment Population Profile
- Treatment Profile Illinois
- Criminal Justice (CJ) Referral Profile
- Rate of CJ Referrals to Tx System
- Prevalence of “Natural Recovery”
- Natural Recovery vs. Clinical Populations

Addiction Treatment

- Profile of Treatment Providers
- Obstacles to Treatment
- Waiting List Management
- The Assessment Process
- Types of Treatment
- Outpatient vs. Residential Treatment
- Brief Intervention
- Medications used in Treatment
- Research on Methadone Maintenance Treatment
- Treatment Duration
- Characteristics of Successful Programs
- Cost of Tx & Sources of Payment
- Treatment Completion Rates
- Treatment Effectiveness Research
- Effects of Treatment on Criminal Behavior
- Effects of Treatment on Global Health
- Treatment Outcomes for Adolescents
- Science-based Principles of Addiction Treatment
- Post-Treatment Continuing Care

Addiction Recovery

- Recovery Defined
- Degrees of Recovery
- Prevalence of Recovery
- Styles of Recovery
- Stages of Recovery
- Relapse and Recovery
- Role of Recovery Mutual Aid Groups
- A.A. Sobriety Rates
- A.A. and Special Populations
- Alternatives to A.A
- Occupation-based Recovery Support Groups
- Mutual Aid Involvement Following Treatment
- Role of CJ Professionals in Enhancing Involvement
- Predicting Recovery Stability/Durability
- Moderated Resolution of AOD Problems

Appendix

Addiction Recovery and Related Mutual Aid Groups in America

AOD Problems and their Resolution

What distinguishes substance use from a substance use disorder?

A significant portion of American citizens consume alcohol and others drugs during their lives, but only a much smaller portion of those individuals develop significant problems related to such use. Alcohol and other drug (AOD) problems vary in their course, spanning from adverse reactions to a single episode of AOD-intoxication, problems that span only a few months or years, and problems that span a significant period of one's life. Substance use disorders are distinguished by problems that meet the criteria of severity and duration. The current diagnostic system for substance use disorders, the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV), divides these disorders into two categories.

AOD-problems that meet DSM-IV criteria for substance abuse reflect clinically significant impairment marked by one or more of the following in the past year:

- repeated substance use that results in failure to perform major role obligations,
- repeated use in situations that are physically hazardous,
- repeated substance-related legal problems, and
- continued substance use in spite of adverse AOD-related problems.

AOD problems that meet DSM-IV criteria for substance dependence reflect clinically significant impairment marked by at least three of the following in the past year:

- tolerance (escalating dosage required to produce desired effect),
- withdrawal (physical/psychological distress and craving following drug cessation),
- loss of control (erosion of volitional control over quantity and duration of use),
- failed efforts to cease or reduce use,
- significant time involved in drug procurement, drug use and recovery from drug effects,
- social, occupational or recreational activities forsaken or reduced due to drug use, and
- continued use in spite of adverse physical or psychological problems caused by substance use (American Psychiatric Association, 1994).

It can be seen from these criteria that substance use disorders are distinguished from substance use by their consequences and distinguished from transient substance-related problems by their severity and duration.

How do people develop such disorders?

The development of a substance use disorder requires two conditions. The first condition involves forces that initiate excessive alcohol and other drug consumption. These are sometimes referred to as etiological pathways. The second condition involves those forces that operate to sustain excessive drug consumption over time. The former might be thought of as initiating factors (push forces); the latter can be thought of as maintenance factors (pull forces).

There are multiple etiological pathways that mark the migration from substance use to the development of a substance use disorder. These pathways can be thought of in terms of sources of personal vulnerability and span three categories.

Some individuals have increased biological vulnerability for substance use disorders (e.g., experience alcohol and other drugs as more rewarding) (Volpicelli, 2001). Such vulnerability can result from genetic predisposition (children with extensive, intergenerational family histories of substance use disorders have 4-5 times the risk of later development of a substance use disorder than children born in families without such histories)(Goodwin,1988). This pattern is variably referred to as “gamma species alcoholism” (Jellinek, 1960), “Type B” alcoholism (Babor, et al., 1992), “Type II alcoholism,” “male-limited alcoholism” (Cloninger, 1987), and “primary alcoholism” (White, 1996). Biological vulnerability can also result from physical trauma to the brain and nervous system that alters what might have otherwise been a normal response to psychoactive drugs. In general, biological vulnerability is indicated by one or more of the following: a family history of AOD problems, atypically high or low tolerance to alcohol and other drugs, euphoric recall of first AOD use, evidence of neurological insult predating AOD use (e.g., history of seizure activity, sensory impairment, cognitive impairment), and radical personality change while intoxicated. There are also individuals with severe and often complex medical illnesses (particularly those triggering acute and chronic pain) who develop patterns of self-medication with alcohol and other drugs to alleviate the symptoms of such illnesses.

People can also possess psychological vulnerability for substance use disorders. This vulnerability is reflected in two patterns. The first involves people who are going through a major developmental crisis, e.g., divorce, death, occupational displacement, or other stressful event and increase their AOD consumption to ameliorate the distress associated with such events. The second pattern is seen in individuals with serious psychiatric illnesses whose excessive AOD use reflects one of numerous symptoms of such illnesses, an effort to hide or mask the existence of this stigmatized condition, or an effort to self-medicate symptoms of such an illness. Two common examples often seen in the criminal justice system illustrate this pattern of vulnerability. The first involves individuals with severe personality disorders whose excessive AOD use reflects a broader pattern of sensation-seeking, risk-taking, and boundary-testing as well as a reflection of a broader cluster of traits, including self-centeredness, impulsivity, poor problem solving and disregard for social and legal norms. The second pattern involves individuals with histories of childhood victimization whose AOD use serves to self-medicate. The sustained risk for AOD problems rises in tandem with particular traumagenic factors related to such victimization. These factors include:

- early age of onset of victimization,
- long duration of victimization,
- victimization by multiple perpetrators over time and across circumstances,
- victimization by trusted individuals,
- boundary-invasive forms of victimization, and
- failure to be believed or protected following disclosure of victimization.

A third category of vulnerability for substance use disorders involves environmental vulnerability. In this pattern, excessive AOD use emerges in response to one’s relationship to his or her family, social, or cultural environment. This pattern spans individual’s using drugs excessively to behaviorally express serious problems in the nuclear family (a common pattern among adolescents), individuals developing AOD problems within a subculture in which excessive AOD use is a ticket of membership and a source of identity, and individuals who are enmeshed in cultural patterns of (often male-based) excessive drinking. (See White, 2003 for a detailed description of the “species of substance use disorders,” distinguishing characteristics and indicated treatment strategies.)

Biological, psychological and environmental vulnerability can serve to prime a pattern of excessive AOD use that over time can mature into a severe and life-threatening substance use

disorder. Risk for the development of substance use disorders increases when combinations of these risk factors appear in the life of a single individual.

The forces that maintain excessive substance use are often quite different than the forces that initiate such a pattern of use. Once a pattern of excessive AOD use has been initiated, other forces come into play to sustain that pattern over time. These can include such factors as the growing range of psychological needs met by drug consumption and enmeshment in a drug-enmeshed social network (a culture of addiction), but there is growing evidence that the most powerful of these sustaining forces involve brain adaptations induced by sustained drug exposure. Volitional control over whether to use or not use and how much to use once use starts rapidly diminishes as the brain is “hijacked” by these biological adaptations to sustained drug exposure (Dackis, & O’Brien, 2005; Shaham, & Hope, 2005).

By the time people present in the criminal justice system due to AOD-related problems, they often present with deeply imbedding clusters of initiating and maintenance factors that have matured into diagnosable substance use disorders. The fact that those with substance use disorders are not a homogenous population underscores the need for sophisticated assessment procedures, a broad menu of treatment strategies and recognition of multiple long-term pathways and styles of recovery.

How many people in the United States have a substance use disorder?

In 2002, a national household survey identified the prevalence of those U.S. citizens who needed treatment for a substance use disorder as well as those who had received such assistance that year. Based on this survey, the estimated number of persons aged 12 or older needing treatment of an AOD-related problem was 22.8 million (9.7 percent of the total population) (SAMHSA, 2003). Thirteen percent of Americans have met DSM-IV criteria for alcohol abuse or alcohol dependence some time during their lives; the 12-month prevalence rate for alcohol abuse and dependence among Americans is 4-5% of the population (Grant, 1997).

What percentage of people who need addiction treatment actually receive such treatment?

Of the 22.8 million people needing treatment, only 2.3 million (1.0 percent of the total population aged 12 or older; 10.3 percent of those who needed treatment) received treatment at a specialty substance abuse facility during the year preceding the survey (SAMHSA, 2003). There is evidence that only a quarter to a third of people who meet DSM-IV criteria for a substance use disorder receive specialized addiction treatment in their lifetime (Dawson, Grant, Stinson, et al, 2005; Cunningham & Breslin, 2004).

What is the profile of individuals treated for substance use disorders in the United States?

The National Institute on Drug Abuse reported the profile of 1.7 million treatment admissions in 2003. The dominant profile of persons entering treatment for a substance use disorder were being treated for problems with alcohol (23.2%), alcohol and another drug (18.7%), marijuana (15.4%), heroin (14.4%), crack cocaine (9.9%), amphetamines (7.7%), cocaine (3.5%) or other opiates (2.9%). Those admitted to treatment in 2003 were predominately White (61.8%), African-American (23.6%) and Hispanic or Latino (13.3%). Most were between 31-45 years of age (43.4%) or 21-30 (24.6%). Fifteen percent of those admitted to treatment were between age 12-20. (Source: <http://www.drugabuse.gov/DrugPages/Stats.html>)

The percentage of women admitted for treatment of a substance use disorder is increasing in the United States with women now representing 30% of national treatment admissions. Women also present with different drug choices. Women make up only 23.6% of alcohol admissions, but 50.9% of sedative admissions, 49.6% of tranquilizer admissions, 46.3% of other opiate admissions and 44.6% of methamphetamine admissions. (Source: <http://www.whitehousedrugpolicy.gov/drugfact/women/>)

Does this profile differ among those admitted to treatment in Illinois?

There were a total of 97,714 treatment admissions in Illinois in FY 2004. 33% of those admissions were women (30% nationally), and the primary drugs at the time of admission in their order of frequency were alcohol, marijuana, cocaine, heroin, methamphetamines and other opiates. The racial composition of 2004 treatment admissions in Illinois was 48% White, 41% African American, 9% Hispanic and 4% other. Adolescents made up 17% of all treatment admissions.

(Source: Illinois Department of Human Services, Division of Alcoholism and Substance Abuse, FY 2004 Data Book. <http://www.dhs.state.il.us/oasa/dasafy2004dataBook.pdf>)

Does this profile differ for individuals referred from the criminal justice system?

Nationally, referrals from the criminal justice system to addiction treatment (compared to all admissions) are more likely to be male, younger, employed, report a primary problem with alcohol and have no prior history of treatment. (Source:

<http://www.oas.samhsa.gov/2k4/CJreferrals/CJreferrals.htm>)

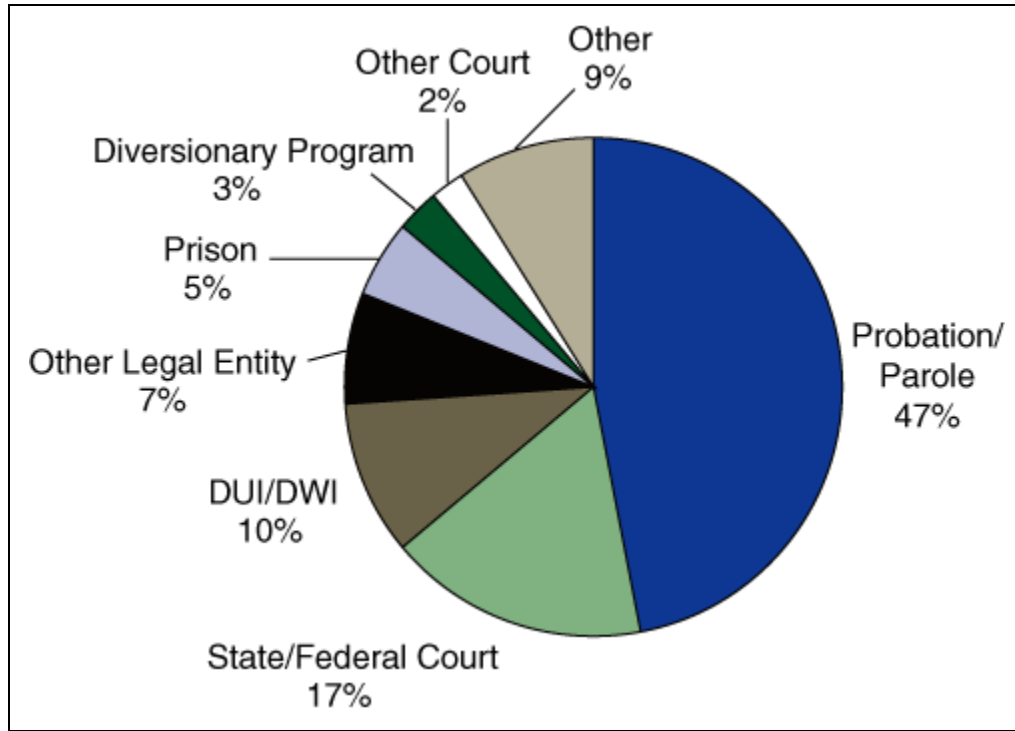
In Illinois, there were a total of 64,087 criminal justice (CJ) referred clients (not including TASC and DUI referrals). These referrals were predominately male (75%) with a slightly higher percentage of White referrals (50.6%) (compared to 37.4% for Blacks, 8.9% Hispanics and 3% for Other). Of the CJ referred clients in 2004, 82% were unmarried (never married, divorced, separated or widowed), 68% had a family income of less than \$7,400 and 49% were unemployed at the time of their admission to treatment. Their primary drugs of choice were marijuana (32%), alcohol (27.5%), cocaine (14.9%), heroin (12.3%) and methamphetamines (3.9%). (Source: Illinois Department of Human Services, Division of Alcoholism and Substance Abuse, FY 2004 Data Book. <http://www.dhs.state.il.us/oasa/dasafy2004dataBook.pdf>)

What percentage of referrals to addiction treatment are from the criminal justice system?

In 2002, 36% of admissions (655,000 admissions) to addiction treatment in the United States were from the criminal justice system. More than half (54%) of adolescent admissions to treatment were referred by the criminal justice system (compared with 40% in 1992). (Source: <http://www.drugabusestatistics.samhsa.gov/2k4/youthTX/youthTX.cfm>)

The criminal justice system is the largest source of referrals to addiction treatment. The types of criminal justice referrals are illustrated in Figure 1.

Figure 1. Criminal Justice System Referrals, by Type: 2002



(Source: 2002 SAMHSA Treatment Episode Data Set (TEDS)
<http://www.oas.samhsa.gov/2k4/CJreferrals/CJreferrals.htm>)

In Illinois, 38% of clients entering treatment were criminal justice referred in FY 2004 with an additional 4% coming from TASC and 4% coming from DUI evaluators. Of the CJ referred clients, 75% came from Court Service referrals, 16% from DOC referrals, 5% from law enforcement and 4% from attorneys.

(Source: Illinois Department of Human Services, Division of Alcoholism and Substance Abuse, FY 2004 Data Book. <http://www.dhs.state.il.us/oasa/dasafy2004dataBook.pdf>)

What percentage of people with AOD problems resolve these problems without professional treatment or recovery mutual aid involvement?

Many people with AOD problems (including many of those who meet DSM-IV criteria for substance abuse or substance dependence) resolve these problems without professional assistance or involvement in mutual aid groups such as Alcoholics Anonymous. In the scientific literature on addiction, this is referred to as natural recovery, spontaneous remission, or maturing out. Natural recovery is, according to some studies, the most common recovery pathway (Fillmore, Hartka, Johnstone, Speigman & Temple, 1988; Sobell, Sobell, Toneatto, & Leo, 1993; Cunningham, Sobell, Sobell & Kapur, 1995; Cunningham, 1999; Sobell, Cunningham, & Sobell, 1996; Tuchfeld, 1981). Only a small portion (less than 25 percent) of those who recover from a substance use disorder do so through the vehicle of professionally-directed treatment (Knutper, 1972; Vaillant, 1979; Sobell, et al., 1996). Natural recovery is most common in individuals with shorter and less severe AOD-using careers and those with higher incomes and more stable social and occupational supports (Sobell, et al., 1993; Sobell et al., 1996; Larimer & Kilmer, 2000). Natural recovery has also been documented across a wide variety of abuse and dependence patterns (opiate addiction, cannabis dependence, etc.)(Biernacki, 1986, Granfield and Cloud, 1999; Ellingstad, Sobell, Sobell, et al, 2005).

People who achieve a period of natural recovery are more prone to relapse than those who enter recovery through the mechanism of professional treatment, suggesting the need for monitoring and early re-intervention with both groups (Moos & Moos, 2006)

What distinguishes those who can and can't resolve these problems on their own?

Those who require treatment and/or sustained mutual aid involvement are distinguished by greater personal vulnerability (family history of substance-related problems, lowered age of onset), greater problem severity and chronicity, co-occurring medical and psychiatric disorders, and lower "recovery capital" (internal and external resources that can help initiate and sustain sobriety) (Room, 1989; Weisner, 1993; Bischof, et al., 2000; Granfield & Cloud, 1996, 1999; Tucker & Gladsjo, 1993). In the presence of these factors, individuals may need significant and ongoing support to initiate and sustain recovery. The operating principle seems to be: the greater the level of problem severity, the greater the likelihood an offender will need professional treatment and mutual aid resources to achieve recovery and reduce the likelihood of criminal recidivism as well as his or her threat to public safety.

One predictor of growing note is that of early age of onset of regular substance use. In the past four decades, substance experimentation has moved from a symbolic rite of passage from late adolescence into adulthood to a rite of passage from childhood into adolescence (White, 1999; Dennis, Babor, Roebuck, & Donaldson, 2002). This lowered age of onset of drug exposure is particularly pronounced in populations of adolescents and young adults entering the criminal justice system and addiction treatment programs. Thirty-eight percent of drug-using youth incarcerated within state-operated juvenile facilities reported onset of drug use before age 12 (19 percent before age 10) (U.S. Department of Justice, 1994). In the just-completed Cannabis Youth Treatment Study, more than 80 percent of the 600 youth admitted to the study began regular substance use between the ages of 12 and 14 (Dennis, Titus, et al., 2002). This trend has profound implications as lowered age of onset (before age 15) of AOD use has been linked to increased risks of adult substance use disorders, faster development of AOD problems, greater problem severity, co-occurring physical and psychiatric disorders, and poor intervention outcomes (White, Godley, & Dennis, 2003). Lowered age of onset of drinking has also been linked to increased lifetime risk of drinking and driving, and involvement in motor vehicle crashes while under the influence of alcohol (Hingson, Heeren, Jananka, & Howland, 2000).

Addiction Treatment

Who provides addiction treatment in the United States?

A 2003 survey of specialized addiction treatment facilities in the United States identified 13,626 such facilities that on March 31, 2003 had a total of 1,092,546 clients enrolled in treatment. More than 60% of the facilities surveyed in 2003 were operated by private non-profit entities, one-quarter were operated by private for-profit organizations, and the remainder were operated by Federal, State, local, or tribal governments. 80% of the facilities provided outpatient care, 28% provided residential treatment, and 7% offered hospital inpatient care. (Source: <http://oas.samhsa.gov/2k5/nssats/nssats.cfm>)

What are the major obstacles to people receiving treatment for an alcohol or other drug problem?

There are five major obstacles to entry into treatment: 1) the individual's own lack of desire to change or ambivalence about stopping AOD use, 2) geographical accessibility to the kind of treatment that is needed, 3) the lack of needed ancillary support services such as sober housing, transportation and day care, 3) the potential of waiting lists that preclude immediate admission to treatment and 4) the lack of financial resources to pay for treatment (White, 1998).

What can the criminal justice system do to facilitate treatment entry and support individuals who are on a waiting list to get into treatment?

Such efforts are important given research confirming that those on the waiting list are ambivalent about treatment, continue to use while on a waiting list, and often fail to enter treatment when the immediate crisis passes. (Graham, Brett & Bois, 1995). Drop-out rates for those on waiting lists to enter treatment range from 25-50% (Stark, Campbell, & Brinkerhoff, 1990). Criminal justice personnel can 1) maintain contact with and continually re-motivate those on waiting lists to enter treatment, 2) arrange interim recovery initiation resources (e.g., sober housing, linkage to recovery mutual aid groups), 3) provide recovery literature to those waiting to enter treatment, 4) conduct pre-treatment orientation and readiness groups, and 4) serve as an advocate with the treatment agency to speed admission to treatment.

Waiting lists are longest in most areas for residential treatment and methadone maintenance treatment. Probation officers may find individuals on prolonged waiting lists to enter residential treatment that, through enmeshment in sober housing and mutual aid groups and probation monitoring and support, initiate what by all appearances is a stable pattern of recovery. Waiting lists can serve as a filter for treatment need. Those who can initiate and sustain recovery for 60-90 days while on the waiting list may not need a residential level of care to achieve recovery.

What occurs in the assessment process?

The assessment process varies by treatment modality and across public and private sector settings but generally involves a determination of the type, severity and duration of AOD problems (via a physical, laboratory tests, and AOD use history); the identification of co-occurring medical, psychiatric, legal and occupational/educational problems as well as an evaluation of the family, social, occupational environment in which recovery will be attempted. This data is then integrated into a preliminary treatment plan that is refined over time in collaboration with each client and family.

What are the major types of treatment for substance use disorders?

There are many ways to classify treatment services. Treatment programs vary by:

- intensity of treatment, e.g., outpatient, intensive outpatient, residential
- the setting in which treatment occurs, e.g., with the client living at home, with the client living in a treatment community, or in jail or prison
- treatment philosophies (from biological, psychological, cultural and spiritual models), service delivery frameworks (individual, group, family) and particular techniques (from medications to interventions such as coping skills training, motivational enhancement, contingency management, 12-step facilitation, community reinforcement approach, relapse prevention, multidimensional family therapy)
- the duration of treatment services, e.g. brief intervention, short-term (less than 30 days) and long-term (more than 30 days)

The American Society of Addiction Medicine has defined placement criteria across five levels of care in addiction treatment: Level 0.5, Early Intervention; Level I, Outpatient Treatment; Level II, Intensive Outpatient/Partial Hospitalization; Level III, Residential/Inpatient Treatment; and Level IV, Medically-Managed Intensive Inpatient Treatment (ASAM, 1996). Admission criteria are defined for each level of care based on the following dimensions: acute intoxication/withdrawal potential; biomedical conditions and complications; emotional, behavioral or cognitive conditions and complications; readiness to change; relapse, continued use or continued problem potential; and recovery environment. Addiction treatment exists on a continuum from high structure and intensity

(inpatient medical detoxification) to low structure and intensity (weekly outpatient counseling) and from brief interventions that span a few hours of professional contact to interventions that may last for years (methadone maintenance).

What factors determine whether someone gets residential or outpatient treatment?

Inpatient services are generally indicated for those individuals who present with:

- substance use disorders of great intensity and/or chronicity,
- acute medical/psychological problems that require close monitoring or care during detoxification and early recovery,
- a family/social environment that inhibits the initiation of sobriety, or
- a prior history of failure in outpatient addiction treatment modalities.

Is inpatient/residential treatment more effective than outpatient treatment?

It is hard to compare effectiveness across these levels because inpatient/residential treatment is used to treat the most severe substance use disorders. Both inpatient and outpatient treatment can be effective when matched to the right individual. A major problem of inpatient and residential programs is transfer of learning from the institutional environment to the client's natural environment. Where these environments are not conducive to sustained recovery, efforts must be made to alter these environments or to find alternative environments that can support recovery, e.g., recovery homes. Given the shortened lengths of residential treatment, efforts to evaluate these natural environments and the potential need for alternative environments must begin at the point of treatment admission.

Can't some individuals resolve AOD problems through very brief professional intervention?

There is a growing body of evidence that brief interventions can have very positive effects on those with alcohol problems (as measured by shifts to abstinence or moderated use), particularly among those with lower problem severity and greater natural resources (Brief Interventions, 2003). Brief interventions rely on feedback of personal risk, emphasizing the individual's personal responsibility and choice to resolve the problem, explicit advice to decelerate or stop AOD use, outlining a menu of ways to reduce or stop drinking, an empathic counseling style, expressions of confidence in the client's ability to change, personal-goal setting, and on-going monitoring and encouragement (Miller and Sanchez, 1993).

What are the most commonly used medications in the treatment of substance use disorders?

There are a growing number of pharmacological adjuncts in the treatment of addiction (most aimed at treating alcohol or opiate dependence) (Volpicelli, 2001; Senay, 1998).

1. Aids in detoxification, for example, benzodiazepines (e.g., valium) facilitate the safe elimination of substances from the body.
2. Stabilization agents such as methadone, levo-alpha-acetyl methadol (LAAM), and buprenorphine, enhance metabolic stability, reduce post-detoxification cravings and reduce relapse.
3. Aversive agents, such as Antabuse (disulfiram), provide a chemical shield against impulses to use by eliciting toxic reactions (e.g., flushing, nausea/vomiting, increased heart rate) to even a small intake of alcohol.
4. Neutralizing agents (antagonists), such as naltrexone when used in the treatment of opiate addiction, neuter the ability of a drug to induce its desired euphoric effects.

5. Anti-craving agents, such as naltrexone, nalmefene and acamprosate used in the treatment of alcoholism, reduce post-withdrawal cravings for alcohol and reduce the rewarding effects of alcohol if it is consumed.
6. Agents such as antidepressants, mood stabilizers and neuroleptic (anti-psychotic) medications, used to treat co-occurring psychiatric disorders, are also common in addiction treatment given the increasingly high co-occurrence of depression, bi-polar disorder, anxiety disorder, and psychosis.

A recent trend has been the use of medications in combination (e.g., naltrexone and acamprosate in the treatment of alcohol dependence) (Johnson, 2000).

Medications will play an increasing role in the treatment of substance use disorders as new medications are developed that have fewer side effects and, as a result, generate higher rates of compliance related to their use (Alcohol Alert, 2000).

What are the major side effects of these medications?

Some of the medications used in addiction treatment are contraindicated for some offenders due to their medical or psychiatric status and several of these medications can have unpleasant side effects in a small percentage of individuals. Most of these side effects are transient and relatively mild. The most common of these side effects (constipation, nausea, dizziness, sedation, sweating, skin rash, headache, and fatigue) dissipate naturally or with adjustments in dosage, but some (such as impotence or delayed ejaculation) can compromise compliance.

Since some of these symptoms can surface after primary treatment is completed, it is recommended that probation officers monitor medication compliance, ask specific questions about any unpleasant side effects and encourage offenders experiencing such effects to report them to their physicians so that dosages may be adjusted or alternative medications prescribed.

There is considerable stigma and misinformation that continues to surround the use of methadone, particularly in the criminal justice system. Will this change with the growing emphasis on evidence-based practices?

No addiction treatment modality has been more extensively and rigorously evaluated than methadone maintenance treatment (MMT). Nearly every major health policy body has reviewed the evidence on MMT, including the National Institute on Drug Abuse, American Medical Association, American Society of Addiction Medicine, Institute of Medicine, National Academy of Sciences, National Institute on Health Consensus Panel, and the Office of National Drug Control Policy. These collective reviews conclude that orally administered methadone can be provided for a prolonged period at stable dosages (without the escalation in tolerance seen with morphine or heroin), with a high degree of long-term safety, and without significant effects on psychomotor or cognitive functioning. These reviews also confirm that MMT delivered at optimal dosages by competent practitioners: 1) decreases the death rate of opiate-dependent individuals by as much as 50%, 2) reduces transmission of HIV, hepatitis B and C and other infections, 3) eliminates or reduces illicit opiate use (by minimizing narcotic craving and blocking the euphoric effects of other narcotics), 4) reduces criminal activity, 5) enhances productive behavior via employment and academic/vocational functioning, 6) improves global health and social functioning, and 7) is cost-effective (White and Coon, 2003; National Consensus, 1998; Kreek and Vocci, 2002).

The positive effects of MMT documented in the literature are not automatic. They are contingent upon access to MMT, adequate dosages of methadone, competent staff, and a full range of psychosocial rehabilitation services. They are also contingent upon continued involvement in MMT. Rates of relapse following termination of MMT are high even for clients clinically judged to have a good prognosis for recovery without methadone. The effectiveness of methadone as a biologically normalizing agent and its prolonged utility in preventing relapse has prompted addictionologist Dr.

Avram Goldstein (2001) to compare the role of methadone in the treatment of the opiate-dependent person with the role of insulin in the treatment of the diabetic. Forty percent of individuals seeking treatment with heroin as their primary drug choice are placed in methadone treatment. (Source: <http://www.drugabusestatistics.samhsa.gov/2k3/methadoneHtx/methadoneHtx.cfm>) Today, approximately 179,000 of the more than 900,000 opiate addicts in the United States are enrolled in methadone maintenance treatment (Kreek and Vocci, 2002).

What pharmacological treatments are available to treat abuse or dependence on drugs other than alcohol or opiates (e.g., sedatives, cocaine, methamphetamine, hallucinogens, inhalants, cannabis)?

While there are medications used to treat acute adverse reactions to these substances and aid in detoxification (e.g., benzodiazepines), there are no specific medicines to treat other substance use disorders that are analogous to the roles methadone or naltrexone play in the treatment of opiate and alcohol addiction. The Food and Drug Administration has not yet approved any medications specifically for treatment of problems related to use of anabolic steroids, inhalants, hallucinogens, methamphetamines and other stimulants, or marijuana. There are, however, numerous funded studies seeking to find pharmacological adjuncts to help in the treatment of individuals experiencing problems related to these other substances. (Source: <http://nida.nih.gov/Infofacts/treatmed.html>)

There is a growing trend to concurrently treat those individuals entering treatment who are also addicted to nicotine. There are a variety of pharmacological treatments (gum, patches, nasal sprays) and medications such as bupropion used to treat nicotine addiction.

How long does treatment usually last?

The length of involvement in treatment varies by modality and by individual, with the longest lengths of stay usually reserved for those with very severe, complex problems and few recovery supports in their natural environment. A study of treatment discharges in the year 2000 revealed the following median lengths of stay across the country: Detoxification—5 days, outpatient treatment—91 days, intensive outpatient treatment—44 days, short-term residential rehabilitation—27 days, long-term residential rehabilitation—75 days, and hospital-based residential treatment 12 days. (Source: http://www.dasis.samhsa.gov/teds00/TEDS_2K_CH6.htm)

Unfortunately, lengths of stay are often determined not by clinical need, but by administrative (intensity of demand for services via waiting lists) and fiscal (length of stay restrictions by payors) issues.

What are the characteristics of the most successful treatment programs?

There are several benchmarks that indicate a baseline of quality and professionalism in the provision of addiction treatment services. Some of the most significant of these include:

- state licensure,
- Accreditation by the Joint Commission on Accreditation of Health Organizations (JCAHO) or the Commission on Accreditation of Rehabilitation Facilities (CARF),
- medical/psychiatric services or linkage arrangements,
- multidisciplinary staff; direct service staff certified as addiction counselors; supervising staff trained at M.A. to Ph.D. level,
- prior experience with drug choice, age, ethnicity, clinical profile of client being referred,
- use of global assessment instruments and processes,
- diversity of treatment modalities (full continuum of care),
- intensity of family involvement,

- intensity of linkage to mutual aid groups and other recovery support services,
- intensity and duration of aftercare programs; presence and strength of alumni association, and
- specialized services for clients with special needs, e.g., adolescents, women, clients of color, dually diagnosed, relapsed clients.

Methadone maintenance treatment programs that provide higher dosages of methadone (above 60 mg per day) and provide a broader range of psychosocial support services have better retention and long-term recovery rates than clinics that utilize lower doses and offer minimal ancillary support services. (Source: <http://nida.nih.gov/Infofacts/TreatMeth.html>)

Programs that have the best outcomes treating adolescent substance use disorders:

- use comprehensive assessment processes,
- focus on the special developmental needs of adolescents (family and group-oriented treatment),
- address co-occurring emotional/behavioral problems,
- provide strong programming in classroom academics and vocational counseling,
- have flexible policies regarding rule violations, and
- have well-organized monitoring and recovery support services that continue after initial treatment (Friedman & Glickman, 1986; White, Dennis, & Tims, 2002; Williams & Chang, 2000).

Seen as a whole, the treatment programs that are most effective offer a comprehensive range of services, provide ancillary services that address issues that may contribute to or result from prolonged substance use and which provide case management or recovery support services that address obstacles to treatment completion and recovery maintenance (Siegal, Rapp, Li, et al, 1997; McLellan, Grisson, Zanis, Randall, Brill & O'Brien, 1997; McLellan, Hagan, Levine, et al, 1999).

What does treatment cost, and who pays for this treatment?

Costs for addiction treatment vary from private to public sector programs, across modality and from provider to provider. The National Treatment Improvement Evaluation Study (NTIES), a Congressionally-mandated five-year study of the impact of drug and alcohol treatment, found that treatment costs in publicly funded programs range from a low of about \$1,800 per client to a high of approximately \$6,800 per client. The following differences in cost by modality were reported.

Comparative Cost of Treatment		
Table 6. Type, Length and Cost of Treatment		
<i>Methadone</i>	\$13/day	\$3,900/client (about 300 days)
<i>Outpatient nonmethadone</i>	\$15/day	\$1,800/client (about 120 days)
<i>Correctional</i>	\$24/day	\$1,800/client (about 75 days)
<i>Long-term residential</i>	\$49/day	\$6,800/client (about 140 days)
<i>Short-term residential</i>	\$130/day	\$4,000/client (about 30 days)

(Source: <http://www.ncjrs.org/nties97/costs.htm>)

Looking at the costs of treatment as a whole, 64% of these costs were publicly subsidized via federal/state funding (Medicaid, Medicare, Substance Abuse Prevention and Treatment Block Grants, and other federal/state funding), with the remaining 36% being paid for by private insurers, private

philanthropy or paid for by the clients and their families. (Source: <http://alcoholism.about.com/library/weekly/aa00721a.htm>)

What percentage of people admitted to addiction treatment in the United States do not successfully complete that treatment?

More than half of clients admitted to addiction treatment do not successfully complete treatment (24% leave against staff advice; 18% are administratively discharged for various infractions; 9% are transferred) (SAMHSA-OAS, 2002; Stark, 1992). Completion rates vary by modality: short-term residential treatment (61%); inpatient hospital treatment (55%); detoxification (51%), intensive outpatient treatment (42%), outpatient treatment (35%), long-term residential treatment (33%) and methadone treatment (15%), and are lower for drugs other than alcohol, particularly for opiates and cocaine (SAMHSA-OAS, 2002).

In Illinois, 56% of clients admitted to treatment in FY 2004 failed to successfully complete treatment, and 59% of CJ-referred clients failed to complete treatment. (Source: Illinois Department of Human Services, Division of Alcoholism and Substance Abuse, FY 2004 Data Book. <http://www.dhs.state.il.us/oasa/dasafy2004dataBook.pdf>)

How effective are current treatments for substance use disorders?

Seen as a whole, the overall effects of treatment are positive. Treatment-related remissions (persons no longer meeting DSM-IV criteria for a substance use disorder following treatment) average about one-third, substance use decreases by an average of 87% following treatment, and substance-related problems decrease by an average of 60% following treatment (Miller, Walters, & Bennett, 2001). Recent studies confirm that addiction treatment outcomes are comparable to treatment outcomes for other chronic health conditions (e.g., Type I diabetes, hypertension and asthma) (McLellan, O'Brien, Lewis, & Kleber, 2000). The recognition of such overall positive effects has been linked to the willingness of probation officers to link offenders to treatment services (Polcin & Greenfield, 2003).

One of the largest and best-designed treatment outcome studies was Project Match, which tested the relative effectiveness of three models of treatment for alcohol problems (motivational enhancement therapy, cognitive-behavioral therapy, and twelve-step facilitation therapy). Drinking days among those treated declined from 75% of days to 20% of days following treatment, with the three models proving equally effective with approximately 50% of those treated (Project MATCH Research Group, 1998). This study also confirmed differences in outcome by problem severity. Those participants with the most severe alcohol problems did better (measured in days of abstinence) in 12-step facilitation therapy, and those with less severe problems did better in cognitive-behavioral therapy (Fuller & Hiller-Sturmhofel, 1999). Another large study in the Veterans Hospitals found very similar outcomes, with those in 12-step oriented programs more likely to have achieved continuous abstinence than those in cognitive behavioral programs (Ouimette, Finney & Moos, 1997).

Follow-up studies reveal highly variable responses to addiction treatment, including those who:

- remain continually abstinent following treatment (sustained abstinence effect),
- remain continually abstinent and function at levels superior to those preceding onset of substance use disorder (amplified effect),
- immediately return to pre-treatment levels of substance use (no effect),
- decrease their use to subclinical levels (moderated effect) or experience less severe problems than before treatment (partial effect),
- abstain initially but return to pre-treatment levels of substance use (transient effect),
- relapse following treatment but migrate to a pattern of stable recovery (delayed effect),
- recycling between periods of recovery and periods of relapse (ambivalent effect), and
- accelerate substance use following treatment (iatrogenic effect).

The most striking (and sobering) aspects of treatment outcome studies include the following findings:

- *Post-treatment Relapse*: The majority of people completing addiction treatment resume AOD use in the year following treatment (Wilbourne & Miller, 2002). Of those who consume alcohol and other drugs following discharge from addiction treatment, 50-60% do so within 30 days of discharge and 80% within 90 days of discharge (Hubbard, Flynn, Craddock & Fletcher, 2001).
- *Re-admission*: Between 25-35% of clients who complete addiction treatment will be re-admitted to treatment within one year, 50% within 2-5 years (Hubbard, Marsden, Rachal, Harwood, Cavanaugh, & Ginzburg, 1989; Simpson, Joe, & Broome, 2002). Of all those admitted to publicly funded addiction treatment in the U.S., 60% already have one or more prior treatment admissions (24% have three or more prior admissions) (SAMHSA-OAS, 2001). Those with five or more admissions were more likely to be homeless and unemployed (Source: <http://drugabusestatistics.samhsa.gov/2K2/reasmitTX/readmitTX.cfm>). In Illinois, 60% of all clients admitted to treatment in FY 2004 had one or more prior treatment episodes, and 12% of this group had four or more prior treatment episodes; 59% of criminal justice referred clients had one or more prior treatment episodes, and 5% had 4 or more prior treatment episodes (Source: Illinois Department of Human Services, Division of Alcoholism and Substance Abuse, FY 2004 Data Book. <http://www.dhs.state.il.us/oasa/dasafy2004dataBook.pdf>).
- *Mortality*: Long-term follow-up studies of treated clients reveal a high mortality rate related to accidental poisoning/overdose, liver disease, cancer, cardiovascular disease, AIDS, suicide and homicide (Hser, et al., 2001).
- *Addiction/Treatment Careers*: More than half of persons treated for substance dependence who achieve a year of stable recovery do so after 3-4 episodes of treatment over a span of eight years (Anglin, Hser, & Grella, 1997; Dennis, Scott, & Hristova, 2002). These early years are often marked by cycling in and out of recovery initiation experiments prior to achieving recovery stability (Scott, Foss & Dennis, 2005). This suggests a positive cumulative effect of multiple treatment episodes for those with severe and complex substance use disorders. Another important finding is that the earlier the intervention (in terms of age and months/years of use) with a substance use disorder, the better the clinical outcomes and the shorter the addiction/treatment career (White & Dennis, 2002).

These stark findings do not mean that addiction treatment has no value. Treatment-related remissions (persons no longer meeting DSM-IV criteria for a substance use disorder following treatment) average about one-third, substance use decreases by an average of 87% following treatment, and substance-related problems decrease by an average of 60% following treatment (Miller, Walters, & Bennett, 2001). Such findings suggest a wide range of positive effects that stand between immediate, complete and enduring abstinence on the one hand and unabated addiction on the other.

What are the specific effects of addiction treatment on criminal behavior?

The two treatments whose effects on criminal behavior have been most studied are therapeutic communities (TCs) and methadone maintenance treatment (MMT). These studies conclude that TC-based treatment reduces criminal behavior by 40 % or more and that MMT-based treatment reduces criminal behavior by as much as 50%.

(Source: <http://www.nida.nih.gov/PODAT/PODAT5.html>). A just completed 5-year follow-up study of the effects of addiction treatment on criminal recidivism confirm earlier studies that treatment generates significant reductions in criminal behavior the year following treatment and that criminal behavior continues to decline in the five years following treatment (Gossop, Trakada, Stewart & Witton, 2005; see also Hubbard, et al, 1997 & Simpson, et al, 2002).

What is the effect of addiction treatment on broader areas of personal health and social functioning?

Evaluations of addiction treatment consistently report post-treatment increases in employment and income, improvements in mental and physical health, decreases in criminal activity, decreases in homelessness and decreases in behaviors that put one at risk for HIV/AIDS infections. (Source: <http://www.ncjrs.org/nties97/concl.htm>)(<http://www.whitehousedrugpolicy.gov/treat/effectiveness.html>)

Do these outcomes differ for adolescents?

Adolescent treatment can be measured in terms of several potential post-treatment outcomes: abstinence, reduced frequency and intensity of drug use, reduced alcohol- and other drug-related problems, and changes in personal health, personal achievement (academic/vocational performance) and interpersonal relationships. The major reviews of adolescent treatment research have drawn the following conclusions.

All studies report significant reductions in the frequency and intensity of alcohol and other drug use following treatment (Titus & Godley, 1999). Most studies also report significant reductions in related problems (psychological adjustment, school performance, family relationships, criminality) following treatment (Hser et al, 2001). Treatment is superior to no treatment even when abstinence is not achieved, with post-treatment drug use reductions of around 50% of pre-treatment levels among those adolescents who use following treatment (Williams & Chang, 2000).

A review of studies that monitored adolescents following treatment found an average abstinence rate of 38% at one year following treatment, with different programs varying in abstinence rates. The rate of sustained abstinence after one year following residential treatment was 14-47% (data was from four studies). Adolescent outpatient rates of sustained abstinence are even lower. Only a minority of outpatients achieve abstinence at the time they are discharged from treatment. (Williams & Chang, 2000).

Post-treatment relapse rates for adolescents are high and can fluctuate over time. Relapse rates following treatment can be reduced for adolescents by providing post-treatment monitoring, support, and if necessary, early re-intervention (Brown et al., 2001; Godley et al., 2002).

Are there any science-based principles to guide the delivery of addiction treatment and the expectations of what a single episode of treatment can achieve?

The National Institute on Drug Abuse recently released the following thirteen research-based principles of effective addiction treatment:

- 1. No single treatment is appropriate for all individuals.*
- 2. Treatment needs to be readily available.*
- 3. Effective treatment attends to multiple needs of the individual, not just his or her drug use.*
- 4. An individual's treatment and services plan must be assessed continually and modified as necessary to ensure that the plan meets the person's changing needs. It is critical that the treatment approach be appropriate to the individual's age, gender, ethnicity, and culture.*
- 5. Remaining in treatment for an adequate period of time is critical for treatment effectiveness. Research indicates that for most patients, the threshold of significant improvement is reached at about 3 months in treatment.*
- 6. Counseling (individual and/or group) and other behavioral therapies are critical components of effective treatment for addiction.*
- 7. Medications (methadone, naltrexone) are an important element of treatment for many patients, especially when combined with counseling and other behavioral therapies.*

8. *Addicted or drug-abusing individuals with coexisting mental disorders should have both disorders treated in an integrated way.*
9. *Medical detoxification is only the first stage of addiction treatment and by itself does little to change long-term drug use.*
10. *Treatment does not need to be voluntary to be effective. Strong motivation can facilitate the treatment process. Sanctions or enticements in the family, employment setting, or criminal justice system can increase significantly both treatment entry and retention rates and the success of drug treatment interventions.*
11. *Possible drug use during treatment must be monitored continuously. Lapses to drug use can occur during treatment.*
12. *Treatment programs should provide assessment for HIV/AIDS, hepatitis B and C, tuberculosis and other infectious diseases, and counseling to help patients modify or change behaviors that place themselves or others at risk of infection.*
13. *Recovery from drug addiction can be a long-term process and frequently requires multiple episodes of treatment. As with other chronic illnesses, relapses to drug use can occur during or after successful treatment episodes. Addicted individuals may require prolonged treatment and multiple episodes of treatment to achieve long-term abstinence and fully restored functioning. Participation in self-help support programs during and following treatment often is helpful in maintaining abstinence.*

(Source: <http://www.nida.nih.gov/PODAT/PODAT1.html>)

How important is participation in post-treatment continuing care (what in some places is called “aftercare”) to long-term recovery outcomes?

Participation in continuing care following primary treatment is associated with improved outcomes at follow-up (Ito & Donovan, 1986; Johnson & Herringer, 1993; Godley, Godley, & Dennis, 2001; Dennis, Scott, & Funk, 2003), but only 1 in 5 adult clients receive continuing care services following discharge from addiction treatment (McKay, 2001), and only 36% of adolescents receive any continued care contact following discharge from addiction treatment (Godley, Godley & Dennis, 2001). The figures underscore the importance of post-treatment monitoring via probation and court services of those individuals under the supervision of the criminal justice system.

How can post-treatment monitoring and support be improved?

The first point of enhancement involves the process of linking clients to recovery mutual aid societies while they are in treatment. Active linkage (facilitating direct connection to a person or specific group) can increase affiliation with a recovery mutual aid society (Weiss, et al 2000), but studies reveal most referrals to mutual aid are of the passive variety (verbal suggestion only) (Humphreys, et al 2004). Improving such linkage through the treatment center site or by probation officers would mark a significant improvement.

There are also new approaches to assertive continuing care being pioneered that place a greater emphasis on post-treatment monitoring and recovery support services. A recent study tested the effects of proactive, quarterly recovery management checkups, early re-intervention and treatment re-linkage on 448 clients (predominately African American women dependent upon cocaine, opiates and alcohol) entering treatment via a central intake unit in Chicago (Dennis, Scott, & Funk, 2003). Following their primary treatment, the clients were randomly assigned to receive the recovery management checkup (RMC) protocol or a quarterly follow-up interview for data collection, but no services. Follow-up data was collected from participants on a quarterly basis over the 24 months following their discharge from treatment. Compared to the control group, at 24 months those clients receiving RMCs and early re-intervention services 1) used substances on fewer days following treatment, 2) were more

likely to return to treatment, 3) returned to treatment sooner, 4) stayed in treatment longer when they returned, and 5) experienced fewer quarters over the two years in which they were in need of treatment services.

These new approaches, variably referred to as recovery management (RM) or assertive continuing care (ACC), differ from traditional aftercare services in four significant ways:

1. RM/ACC shifts the responsibility for post-treatment contact from the client to the service professional.
2. RM/ACC capitalizes on critical windows of vulnerability following treatment, particularly the first 90 days (studies reveal that 80% of all people who relapse following treatment do so in the first 90 days.).
3. RM/ACC individualizes the monitoring schedule based on clinically relevant points of vulnerability that can be predicted by the client.
4. RM/ACC emphasizes continuity of contact in a primary recovery support relationship over time.

In the traditional model, clients who relapse following treatment do not return to treatment until the severity of their problems have returned to high severity and their family and social supports have again eroded. In the RM/ACC model, clients are re-linked to treatment at a lower level of problem severity and a higher level of family and social support—conditions that enhance the prognosis for long-term recovery following treatment. Where local treatment programs do not provide RM/ACC-type post-treatment support services, criminal justice professionals, particularly probation officers, could play an important role in post-treatment monitoring and recovery support.

Recovery

What is recovery and how is it different from treatment?

Recovery is the process through which severe and persistent alcohol and other drug (AOD) problems (those problems meeting DSM-IV criteria for *substance abuse* or *substance dependence*) are resolved in tandem with the development of physical, emotional, ontological (spirituality, life meaning), relational and occupational health (White & Kurtz, 2005). Treatment is a professional intervention that focuses on solidifying motivation for recovery initiation and achieving early biopsychosocial stabilization. In contrast, recovery is the long-term process of sustaining and enhancing that motivation and stability.

What is the prevalence of recovery from substance abuse and substance dependence?

There is no system of regularly collecting data on the prevalence of recovery in the U.S. that is comparable to the national surveys that measure changes in prevalence and patterns of alcohol and other drug use. Data that is available comes from three sources: 1) follow-up studies of individuals treated for a substance use disorder, 2) occasional community-wide surveys and 3) membership surveys of recovery mutual aid organizations. The follow-up studies and community surveys of the past 25 years reveal significant recovery rates: 41% (Ojesjo, 1981), 63% (Helzer, Burnam, & McEvoy, 1991), 72% (Dawson, 1996), 30% (Schutte, Nichols, Brennan, & Moos, 2001), 59% (Valliant, 2003), and 48% (Dawson, Grant, Stinson, Chou, Huang, & Ruan, 2005). Variations in reported recovery rates are influenced by such factors as different demographic and clinical characteristics of study participants and different definitions of recovery.

One indication of the extent of recovery comes from studies that compare lifetime prevalence of alcohol abuse and dependence to past year alcohol abuse and dependence. In one recent study, 13% of adults in America reported meeting criteria for alcohol abuse or dependence during their lifetime, but past year prevalence of alcohol abuse and dependence was only between 4 and 5% (Grant, 1997).

The difference in these percentages suggests a large population of Americans who have resolved, are resolving or will resolve AOD problems.

Are there degrees of recovery?

The resolution of substance use disorders, like other chronic health problems range from:

- full recovery: complete and enduring cessation of all AOD-related problems and the movement toward global health,
- partial recovery: reduced frequency, duration, intensity and consequences of AOD use in tandem with increases in personal functioning (Jorquez, 1983; Hser, Hoffman, Grella, & Anglin, 2001), and
- enriched recovery: individuals who through recovery get “better than well”—experience changes so profound that they bring great depths of experience, meaning and social contribution (White & Kurtz, 2005)

Treatment outcome studies have documented the first of these patterns and the third pattern is often heard referenced in various recovery mutual aid meetings. A recent analysis of treatment outcome studies drew three major conclusions: 1) treatment-related remissions (persons no longer meeting DSM-IV criteria for a substance use disorder following treatment) average about one-third of those treated, 2) substance use (measured by days of use and volume of use) decreases by an average of 87% following treatment, and 3) substance-related problems decrease by an average of 60% following treatment (Miller, Walters, & Bennett, 2001). It is clear from such findings that people who are constitutionally incapable of permanent sobriety may achieve *partial recovery*-significant decreases in AOD-related problems, improved levels of health and social functioning, and significant reductions in the social costs and threats they pose to the larger community (Zweben 1996).

Are there different styles of recovery?

Recovery can reflect a process of sudden transformation or a process of incremental change. Most people resolve severe and persistent AOD problems through multiple efforts—self-resolutions, mutual aid support and professionally directed treatment—spanning an extended period of time before final resolution is achieved (Vaillant & Milofsky, 1982). But there are individuals (as many as one-third in surveys of recovered people) whose abstinence decision occurred “immediately” rather than incrementally (Sobell, et al., 1993; Burman, 1997). Miller and C’de Baca (2001) found that this type of “quantum change” or “transformative change” is usually marked by high vividness (intensity), suddenness (unintentional), positiveness and permanence of effects. Some of these “spontaneous” recoveries reflect quite extraordinary conversion-like experiences, while others represented a seemingly insignificant experience that was the proverbial “straw that broke the camel’s back.” It is clear that the priming dose of negative consequences and hope-infusing experiences necessary to ignite recovery can come climactically or incrementally.

There are religious, spiritual and secular frameworks of recovery. Religious and spiritual frameworks of recovery involve experiences of connection with resources within and beyond the self and involve a reconstruction of personal identity and interpersonal relationships (e.g., participation in a community of shared faith), and a reformulation of personal values (e.g., humility, gratitude, and forgiveness) (Kurtz & Ketcham, 1992). Secular recovery is a style of recovery that does not involve reliance on any religious or spiritual ideas (God or Higher Power), experiences (conversion), or rituals (prayer) (White & Kurtz, 2005).

There are also variations in recovery styles based on the degree to which people in recovery relate to others in recovery. There are acultural (recovery without contact with other recovering people), bicultural (recovery while relating both to people in recovery and people without recovery experiences) and culturally enmeshed (exclusive contact with others in recovery) styles of long-term recovery (White & Kurtz, 2005).

What are the typical stages of recovery from addiction?

Klingemann's (1991) three-stage recovery model (motivation, action, maintenance) and Prochaska and colleagues' (1992) six-stage recovery model (precontemplation, contemplation, planning, action, maintenance, and termination) underscore the fact that the process of recovery begins *before* AOD use is moderated or terminated. They further contend that while a single, linear movement through these stages is possible, the more common pattern is a spiral pattern of repeated movements through these stages before permanent recovery is achieved. Other studies of the stages of recovery (Frykholm, 1985; Biernacki, 1986; Waldorf, 1983; Brown, 1991) reinforce that this transformation involves these stages: ambivalence regarding use, consequences related to use, a turning point, sobriety sampling, confirmation of sobriety commitment, disengagement from the culture and rituals of use and sobriety consolidation.

White and Kurtz (2005) have described the transformation from addiction to recovery as escalating AOD-related pain (I need to recover), the desire to change (I want to recover), hope for the possibility of change (I can recover), commitment to change (I am going to recover), experiments in abstinence (I am recovering), and movement from sobriety experiments to sobriety identity (I am an ex-addict/recovered/recovering alcoholic/addict).

What percentage of clients experience one or more episodes of relapse before establishing permanent sobriety?

In a 2001 national household survey of people in recovery from addiction, 53% of those who self-identified themselves as in recovery reported that they had not experienced a relapse since committing themselves to recovery; 16% reported that they had experienced one relapse since beginning their recovery, and 30% reported having had more than one relapse. (Source: Highlights from the First-ever National Survey of the Recovery Community. www.facesandvoicesofrecovery.org) Such samples include many individuals with much lower levels of problem severity and much greater recovery support resources than are commonly seen in publicly funded addiction treatment or the criminal justice system. Lapses (short episodes of use following re-initiation of recovery) and relapses (more sustained episodes of use and AOD-related problems) as a precursor to stable recovery are much more common in criminal justice offenders.

There are five patterns of post treatment outcome: 1) continuous sobriety, 2) continuous use during or following treatment, 3) early sobriety followed by clinical deterioration and full relapse, 4) early lapses or relapses following by a rebound into stable recovery, and 5) periodic cycling in and out of addiction and recovery. Group one requires continued praise and support, group two requires re-intervention with criminal justice sanctions and a more structured and intense level of treatment, and groups three, four and five require progressive sanctions, recovery support and early re-intervention. The integration of active relapse prevention planning within probation supervision can enhance long-term recovery outcomes.

What role do Alcoholics Anonymous and other recovery mutual aid groups play in the recovery process?

Most of what we know about recovery mutual aid societies is based on studies of Alcoholics Anonymous (A.A.). A.A. is the most widely used community resource in the United States for the resolution of alcohol-related problems. (Room, 1989; Room & Greenfield, 1993; Weisner, Greenfield, & Room, 1995). In a 1990 household survey, 3.1 percent of those interviewed reported having attended A.A. sometime in their life for an alcohol problem and, of those, 1.5 percent reported having attended A.A. in the past year—a figure that far exceeds A.A.'s report of its current membership (Room & Greenfield, 1993). Mutual aid involvement can play a significant role in the movement from addiction to recovery for both adults (Timko, et al., 1994; Fiorentine, 1999; Fiorentine & Hillhouse, 2000; Timko, et

al, 1999; McCrady & Miller, 1993; Emrick, et al., 1993) and adolescents (Johnsen & Herringer, 1993; Margolis, Kilpatrick, & Mooney, 2000).

The positive effect of mutual aid comes not from exposure alone (e.g., mandated A.A. attendance), but by what might be called an intensity effect. Recovery outcomes improve with the number of meetings attended in the first three years of recovery (Humphreys, Moos, & Cohen, 1997; Chappel, 1993). Other measures of intensity of involvement include active application of program concepts (e.g., “working the steps”), meeting participation (attendance, speaking, interacting, leading, having a home group), participation in pre- and post-meeting rituals, use of mutual aid networks for fellowship and leisure, reading program literature, being sponsored, sponsoring others and involvement in other service work (Cross, et al., 1990; Johnson & Herringer, 1993; Emrick, et al., 1993; Caldwell & Cutter, 1998; Montgomery, Miller, & Tonigan, 1995; Humphreys, Moos, & Cohen, 1997). This intensity effect of mutual aid involvement has been found to apply to adolescents as well as adults (Margolis, Kilpatrick, & Mooney, 2000).

The positive effects of recovery mutual aid involvement include the reconstruction of personal identity and values and the construction of a sobriety-based social network. Many substance-involved offenders enter the criminal justice system deeply enmeshed in a culture of addiction—in fact may be as dependent upon that culture as the drugs in their lives. Recovery mutual aid groups provide a means for detaching from the culture of addiction and enmeshing oneself in a culture of recovery (White, 1996).

Does this positive effect extend to those who undergo mandated exposure to AA via criminal justice coercion?

An exception to AA’s effectiveness involves coerced involvement in A.A. through the criminal justice system. When coerced A.A. attendance is compared via randomized trials to alternative interventions, forced A.A. exposure generates worse long-term results (See Kownacki & Shadish, 1999 for a review). Such findings challenge the practice of coerced A.A. attendance as a condition of sentencing or probation regulations.

What percentage of A.A. members achieve long-term sobriety?

The latest survey of Alcoholics Anonymous reveals a membership of more than 2 million. The average length of reported continuous sobriety among A.A. members is eight years, with 36% of A.A. members reporting continued sobriety of more than ten years. About a quarter of A.A. members at any time are in early recovery (have less than a year of sobriety) (A.A. Grapevine, July, 2005).

Aren’t A.A. and other Twelve Step groups less effective for special populations, e.g., women, ethnic minorities, etc.?

While the original membership of A.A. during its formative years (1935-1939) was almost exclusively white, middle-aged men, criticisms that A.A./N.A. and other 12-step groups are not appropriate for women, ethnic minorities, and other special populations have not held up under scientific investigation (Gilbert, 1991). Women and cultural minorities affiliate with A.A./N.A. at the same rates as white men (Humphreys, et al., 1994), and at least one report suggests women may have an easier time affiliating with 12-step groups than men (Denzin, 1987). Recent surveys of 12-step group participation reveal no racial differences in levels of affiliation or participation (Kessler, et al., 1997; Winzelberg & Humphreys, 1999). African Americans and Caucasians affiliate with AA at virtually the same rates, but African American participation declines at a greater level than Caucasians after the first year. (This may be related to African Americans, particularly African American women, migrating to a traditional Black church as their primary sobriety-based support structure. Population surveys have revealed that A.A. is widely known in minority communities and recommended as a resource for alcohol problems (Caetano, 1993). A.A. membership surveys reveal that 4.4% of A.A. members are Hispanic and 3.2%

of A.A. members are African American. Women currently constitute 35% of A.A. membership (Alcoholics Anonymous, 2005).

Specialized recovery mutual aid resources may enhance recovery for those who bring special obstacles or vulnerabilities to their attempts to initiate recovery (Laudet, et al., 2000). Double Trouble in Recovery (DTR) groups or professionally directed support groups may enhance recovery for the dually diagnosed who may not be comfortable or welcomed in regular A.A./N.A. meetings (Noordsy, et al., 1996). There is, however, recent survey evidence to suggest that individuals with comorbid psychiatric illness do affiliate with A.A. and that participation in A.A. is positively associated with stable recovery (Ouimette, et al., 2001).

The assumption that those with no or low religious orientation would not do well in 12-step programs—a practice that has led to decreased referrals of atheists and agnostics to A.A. (Winzelberg & Humphreys, 1999)—has been challenged by research revealing that those with low religious orientation affiliate with A.A. at rates similar to those with high religious orientation (Winzelberg & Humphreys, 1999) and, in some studies, do not seek out non-spiritually-based alternatives to A.A./N.A./C.A. even when available (Weiss, et al., 2000). In contrast to these findings, Tonigan, Miller, and Schermer (2002) found that atheists and agnostics were less likely to attend AA and more likely to disaffiliate from AA following initial exposure.

Kelly, Myers, and Brown (2002) conducted a study of 12-Step group affiliation among adolescents. They found that 71.6 percent of youth completing a Minnesota Model treatment program attended at least one 12-Step meeting in the first three months following treatment. It was concluded that affiliation and the positive effects from such affiliation were linked to youth with more severe AOD problems.

What about people who don't feel comfortable in A.A. or other 12-Step Groups?

There are a growing variety of adjuncts and alternatives to 12-Step recovery groups in the United States. These include religious frameworks (Alcoholics Victorious, Mountain Movers, Alcoholics for Christ, various recovery ministries), secular frameworks (Secular Organization for Sobriety, LifeRing Secular Recovery), gender-specific support (Women for Sobriety), culturally nuanced frameworks (the Red Road, Free N' One) and moderated recovery frameworks (Moderation Management) of problem resolution. A guide to these mutual aid resources that is updated each month is posted at http://facesandvoicesofrecovery.org/resources/support_home.php.

Are there support services or special support meetings for particular occupational groups?

Yes. Most of these are for professions that would face special stigma if it were known that they had an alcohol or other drug problem. These groups include the Impaired Nurse Network (National Nurses Society on Addiction), Peer Assistance Network for Nurses (Illinois Nurses Association), Dentists Concerned for Dentists, Lawyers Assistance Program, Lawyers Concerned for Lawyers, International Lawyers in Alcoholics Anonymous, International Pharmacists Anonymous, Illinois State Medical Society Impaired Physician Program, and International Doctors in Alcoholics Anonymous.

What percentage of clients sustain mutual aid involvement following treatment?

Overall dropout rates in A.A. are reported to range between 35-68%, with most of this attrition occurring in the first weeks and months of contact with A.A. (Emrick, 1989). The two most recent and largest studies of persons who drop out of A.A. participation in the first year following treatment place such attrition at 41% and 40% (Tonigan, Miller, Chavez, Porter, Worth, Westphal Carroll, Repa, Martin & Tracy, 2002; Kelly and Moos, 2003).

What can the criminal justice system can do to increase mutual aid engagement and retention rates?

Research has confirmed that passive linkage (verbal encouragement) is much less effective than active linkage (assertive introduction to a particular person or group). The attrition rate noted above would indicate the need for pre-linkage orientation to A.A., personalized and matched referral to particular individuals and meetings, monitoring of continued attendance and response to A.A., and when indicated, active referral to alternatives to A.A. The ever-growing diversity of recovery support groups calls for matching individual clients to particular groups and meetings (and individual representatives of such groups/meetings) by such factors as age, gender, socioeconomic status, drug of choice, smoking status, and attitudes toward religion and spirituality (Forman, 2002; White & Nicolaus, 2005). Probation officers can enhance offender engagement in mutual aid groups by becoming personally knowledgeable of such groups (e.g., attending open meetings, meeting with representatives of Hospital and Institution Committees of AA/NA) and by linking each offender to a particular group or individual within the local recovery community. (For a monograph on how to professionally link individuals to recovery mutual aid groups, see White and Kurtz, 2006).

When is a pattern of sobriety stable and enduring?

The stability and durability of addiction recovery increases with length of continuous sobriety (Vaillant, 1983). A growing number of studies are suggesting that the point at which most recoveries become fully stabilized is between four and five years (Vaillant, 1996; Nathan & Skinstad, 1987; De Soto, et al., 1989; Dawson, 1996; and Jin, et al., 1998). While relapses can and sometimes do occur in those with five or more years of sobriety, the rate of relapse is low (below 15 percent) after the achievement of five years of stable recovery.

Recovery durability differs by drug choice. Studies of heroin addicts have confirmed the instability of periods of abstinence. Studies of recovered heroin addicts found that while five years of abstinence significantly reduced the risk of future relapse, the subsequent relapse rate was higher with heroin addiction than the rates reported for alcoholism (Maddux & Desmond, 1981; Hser, et al., 2001). Those at greatest risk of relapse following the achievement of five or more years of sobriety are those with the greatest characterological problems and adverse drinking-related social consequences (Jin, et al., 1998). Once attained, recovery is more durable for those with late onset alcohol problems compared to those with early onset alcohol problems (Schutte, et al., 1994).

The best indicators of recovery stability are time, reconstruction of personal identity (presence of a 3-part story style, e.g., my life before, what happened to change it, my life now), and reconstruction of one's social network.

Won't some offenders resolve their substance-related problems without permanent abstinence?

The ability to resolve alcohol problems through moderation rather than abstinence strategies is highly influenced by problem severity. As problem severity increases, the likelihood of a successful, sustained, and moderated resolution declines. A recent review (Larimer, et al., 1998) of the research on moderated outcomes for alcohol problems drew the following four conclusions:

1. Even in traditional abstinence-oriented treatment programs, some alcohol-dependent clients choose and achieve moderation goals.
2. Even when they are trained in controlled drinking, many alcohol-dependent individuals choose abstinence. Over time, rates of abstinence (as compared to controlled drinking) tend to increase.
3. Offering a choice of goals tends to result in greater treatment retention and recruitment of a broader range of problem drinkers, without increasing the risk of relapse to uncontrolled-drinking states.

4. Client characteristics, goal choice, and severity of dependence may all be related to treatment outcome (abstinence, moderation, or relapse); when given a choice, individuals tend to choose the goal that is most appropriate for them.

The fact that those who resolve alcohol problems through moderation differ from those who resolve such problems through abstinence is a crucial point further confirmed by studies of Moderation Management (MM). Klaw and Humphreys (2000) found that one-third of MM membership would not meet diagnostic criteria for an alcohol use disorder, and that of those who did, nearly all met the criteria for alcohol abuse rather than alcohol dependence. Given the earlier data presented on the level of problem severity among most DUI offenders, abstinence goals would seem most indicated for those offenders whose history indicates a significant problem with alcohol or other drugs. Individuals seeking reinstatement of driving privileges through the Secretary of State bear the burden of proof that their resolution goal (abstinence or moderation) is congruent with the intensity and duration of their drinking history/problems and that this resolution (abstinence or moderation) marks a sustainable pattern of stability rather than a brief, externally posed hiatus in their drinking career.

What is the effect of recovery on the family?

Severe AOD problems fundamentally alter family roles, rules and rituals in ways that help the family in the short run but harm family relationships and individual development in the long run. (For a detailed review, see White and Savage, 2003) In recovery, these maladjustments of the family have to collapse and then be radically reoriented. Brown & Lewis have described the demands of this process on the family as the “trauma of recovery” (Brown & Lewis, 1999). Recovery forces individual family members to work through the impact that addiction has had on each of their lives, reformulate all family relationships (adult intimate relationships, parent-child relationships, sibling relationships, relationships with extended family) and develop recovery-supportive relationships with broader social and kinship networks (White, 1996).

Family recovery is not an easy or rapid process. Aspects of this “unsafe, potentially out-of-control environment” continue for as long as three years into the initiation of sobriety and mastery of early recovery (Brown & Lewis, 1999). Families (particularly marriages/partnerships) that have survived every manner of insult addiction presented may not survive intact if professional and social supports are not available to soften the new demands that recovery imposes (Rouhbakhsh, Lewis, & Allen-Byrd, 2004). Similarly, recovery does not automatically bring effective parenting: “...children may be just as neglected and abandoned in recovery as they were during the drinking, or more so, as the system collapses and parents turn their attention away from the family onto themselves” (Brown and Lewis, 1999, p. 23). Women-focused recovery literature is replete with references to mothers in early recovery shifting from a pattern of rejection of children during addiction to a pattern of acceptance, but overprotection and overindulgence, in early recovery (Kirkpatrick, 1986). The recognition of these prolonged effects are prompting renewed calls for more family-oriented models of intervention and treatment.

Probation officers will also witness inexplicable efforts on the part of family members to sabotage an offender’s early recovery efforts. The reasons for such sabotage are many and include the co-addiction of other family members, fear of intimate partners that the offender will leave if he or she gets sober, and fear of loss of income to the family from drug-related enterprises. Such possibilities call for a careful assessment of the family and social environment in which recovery initiation is being attempted. Where this environment is clearly toxic, structured sober living (e.g., recovery home) is clearly indicated.

What support services are available to assist families through the recovery process?

Family members can benefit from both professional and peer support (e.g., Al-Anon) during the sustained recovery process. Some treatment programs have services specifically designed for family

members, and family members can access peer-based supports either through local face-to-face or online family support groups.

Are there culturally specific pathways to recovery?

There are particular patterns of recovery that have been noted in the research literature. A report on African American women treated in Illinois through the 23 Project SAFE treatment sites notes the propensity for African American women in recovery to migrate from Alcoholics Anonymous or Narcotics Anonymous to involvement in their churches as their “primary sobriety-based support structure” in the months and years following treatment (White, Woll and Webber, 2002; see also Sanders, 2002; White & Sanders, 2004). Culturally prescribed frameworks of AOD problem resolution are evident in abstinence-based religious and cultural revitalization movements (e.g., Nation of Islam, the Red Road) as well as cultural adaptations of existing recovery support structures (e.g., the “Indianization” of Alcoholics Anonymous and the adaptation of A.A. within Hispanic/Latino communities) (Womak, 1996; Hoffman, 1994; Coyhis & White, 2006).

The Role of the Criminal Justice System in Addiction Recovery

What percentage of persons in the criminal justice system have significant problems with alcohol and/or other drugs?

Persons with significant AOD problems exert a tremendous impact on the criminal justice system. More than 1.5 million individuals are arrested every year for drug violations in the United States (Federal Bureau of Investigation, 2002). A study of AOD use at the time of arrest in 33 American cities found that 64% of all men and women arrested tested positive for drugs at the time of their arrest (National Institute of Justice, 2002). Twenty-nine percent of victims of violent crime report that their attacker was under the influence of alcohol and/or drugs at the time of the attack (U.S. Department of Justice, 2002).

Drug-related offenses consume significant resources from America’s court systems, with drug offenses accounting for more than one third of all U.S. district court cases (U.S. Department of Justice, 2001). Drug offenders in state prison increased from 149,700 to more than 250,000 between 1990 and 2000, and more than 73,000 drug offenders currently reside in federal prisons (56% of federal offenders) (Federal Bureau of Prisons, 2002). Drug offenders make up 25% of those on probation in the United States and 33% of those released from prison (Office of National Drug Control Policy, 2003).

A recent study found that substance abuse and addiction are implicated in the incarceration of 80%-1.4 million-of the 1.7 million men and women currently incarcerated in the U.S. Between 1980 and 1995, individuals arrested for violation of drug laws accounted for 30% of the growth in state prison populations and 68% of the growth in the federal prison population. That same study reported that taxpayers spend \$30 billion a year to incarcerate individuals with a history of AOD problems. (<http://www.casacolumbia.org/absolutenm/templates/PressReleases.asp?articleid=167&aoneid=49>) AOD problems also contribute to re-incarceration of offenders. Of the one-third of new admissions to prison each year resulting from parole violations, 16% of these are directly attributable to a drug-related violation (arrest on a drug-related charge or repeated positive urine screens) (Hughes, Wilson & Beck, 2001). Also noteworthy is the fact that the majority of people entering the criminal justice system with alcohol and other drug problems do not have prior treatment, making contact with the criminal justice system an ideal opportunity to initiate such services.

Between 1990 and 2002, the drug offense arrest rate more than doubled from 402 to 828 arrests per 100,000 population (Accessed September 3, 2005 at http://www.icjia.state.il.us/public/index.cfm?metasection=Data&metapage=JTF_DrugArrests). In Illinois, there were 11,292 adults and 181 juveniles incarcerated for drug offenses on June 30, 2004 (25% and 11% respectively of the total prison population.) These numbers do not reflect those who are incarcerated for other drug-related charges, i.e., burglary, theft, prostitution. Since 1994, the drug

offender population has grown 37.3%, with most of these offenders returning to the community after a relatively short period of incarceration. In 2003, 5,942 inmates were released following an average 4-5 month period of incarceration for possession of a controlled substance. The total population of persons released from prison on drug charges have a three-year recidivism (re-incarceration) rate of 53.3%. Incarcerations for DUI rose more than 500% between 1994 and 2003 (from 75 to 463).

(Source: Illinois Department of Corrections Statistical Presentation 2003 http://www.idoc.state.il.us/subsections/reports/statistical_presentation_2003/2003StatisticalPresentation.pdf)

What types of interventions for AOD problems are being provided inside the criminal justice system?

Under the initial influence of Project REFORM (funded by the Bureau of Justice Assistance of the U.S. Department of Justice), Project RECOVERY (funded by the Center for Substance Abuse Treatment) and the initiatives of the Department of Justice's Drug Courts Program Office, states have made significant progress in launching diversion programs, pretrial release programs (conditioned on entry into treatment), drug education programs, assessment and referral services, mandated treatment through specialized drug courts, specialized intensive probation services, in-prison treatment and pre-release and post-release counseling and referral programs (Lipton, 1995). These efforts are significant. In 2002, the criminal justice system referred 655,000 individuals to addiction treatment across the country and referred more than 77,000 individuals to treatment in Illinois (DASIS Report, 2004; FY2004 Data Book). More than 173,000 offenders are treated annually inside jails and prisons in the United States (SAMHSA, 2000). The Illinois Department of Corrections currently (September, 2005) has 3,685 beds within its prison designated for specialized addiction treatment, including the 900 bed facility at Sheridan exclusively devoted to addiction treatment. Of the total IDOC treatment beds, 506 are designated for women and 493 are designated for juveniles.

Providing supervision and support services for alcohol and other drug-related offenses also consumes considerable probation resources. A total of 14,825 adult probations in Illinois were ordered to participate in alcohol and drug programs as part of their probation during 2003. There were 13,743 DUI offenders on probation in 2003, 14.7% of the total probation caseload in Illinois. (Source: http://www.state.il.us/court/SupremeCourt/AnnualReport/2003/StatsSumm/pdf/cir_adult&juv.pdf)

What is the status of the drug court movement in the United States and in Illinois?

There are currently more than 1,100 drug courts operating in the country (Drug Courts Program Office, 1999), and 22 drug courts operating in Illinois. Many more are being planned as well as adaptations to the drug court model (e.g., mental health courts in Cook, Winnebago and Lake Counties). What distinguishes drug courts is the unique combination of judicial monitoring (regular status hearings), addiction treatment and case management services, drug testing, probation supervision, a non-adversarial collaboration between prosecution and defense counsel and multi-agency case conferences for service planning and progress review. (For comprehensive information regarding the components of drug courts, see *Defining Drug Courts: The Key Components*, Washington, DC: Office of Justice Programs, Drug Courts Program Office, 1997). While drug courts vary considerably, the most critical elements in the Illinois programs are strong judicial leadership (a committed judge), frequent status calls, a treatment provider that can work with relapse prone clients (rather than throwing them out of treatment), and a probation officer knowledgeable about recovery and committed to assertive monitoring, and, when needed, early re-intervention. The positive response to the pilot studies and now established drug courts is triggering adaptations of the adult drug court model. These adaptations include tribal drug courts, juvenile drug courts, mental health courts, family and dependency courts and DUI courts. One of the major deficiencies of drug courts is the lack of a model blueprint of progressive sanctions and awards linked to offender behavior.

How effective is treatment inside the criminal justice system?

Several aspects of treatment in the criminal justice system have been evaluated. In 2001, the National Center on Addiction and Substance Abuse at Columbia University completed the most recent critical review of drug court research and evaluation activities. The critical review of drug court research indicates:

- Drug use and criminal activity are reduced while participants are in drug court.
- Studies using comparison or matched samples show lower re-arrest rates for drug court participants than for the comparison group.
- A majority of the studies found lower post-program recidivism rates for drug court participants.
- For those drug courts conducting cost analysis, estimates indicate that drug courts are less expensive than traditional adjudication.

(Source: [http://www.ncsconline.org/WC/FAQs/DrugCtFAQ.htm#Are drug courts effective.](http://www.ncsconline.org/WC/FAQs/DrugCtFAQ.htm#Are%20drug%20courts%20effective))

As close observers of the drug court movement around the country and in Illinois, the authors are struck by the highly variable service combinations that constitute what are being called drug courts. There seems to be no single drug court model in Illinois. We are also struck by how much the effectiveness of drug courts seems to be shaped by the commitment and style of the judges who found them. Our concern is the extent to which drug court effectiveness can be maintained when this generation of drug court pioneers move to other venues or retire and turn their drug courts over to individuals who may be less knowledgeable about and less committed to the model. We have also noticed a positive trend in Illinois of judges using more open probation orders, which allows the probation officer to establish case plans and then establish joint agreement on the plan between the judge, the probation officer and the offender.

A recent follow-up study of prison-based treatment in the state of Connecticut found that, while nearly 46 percent of Connecticut's prison population are rearrested within a year of release, only 37.4 percent of inmates who receive brief substance-focused treatment and only 23.5 percent of inmates who receive intensive treatment are rearrested in the year following their release. (Source: <http://www.jointogether.org/sa/action/dt/news/reader/0,2812,575760,00.html>). This study reflects two national research trends: 1) re-arrest and re-incarceration rates are lower for those drug involved offenders who go through treatment inside prison, 2) the degree of that effect is influenced by treatment dose and intensity, with those experiencing longer episodes of more intense treatment having the lowest recidivism rates.

Don't people have to have motivation to recover for treatment to work?

The view that motivation for recovery at the time of admission to treatment was an important predictor of long-term recovery outcomes has a long history in the addiction treatment field, but this view is not supported by the latest scientific research. A recent review of the literature on the effectiveness of coerced treatment concluded that retention was high with coerced treatment and that clinical outcomes are indistinguishable between coerced and non-coerced clients (Farabee, Prendergast & Anglin, 1998). One of the latest of these studies actually found that legally mandated clients did better than either criminal justice clients who were not mandated or clients entering treatment with no criminal justice involvement. At follow-up, the mandated clients were more likely to be abstinent, in stable remission and have no identifiable substance-related consequences (Kelly, Finney & Moos, 2005). The National Institute on Drug Abuse examined studies on this issue and their findings are that "individuals who enter treatment under legal pressure have outcomes as favorable as those who enter treatment voluntarily" (NIDA, 1999). There is a growing professional consensus that motivation for recovery should be viewed as an outcome of early treatment, not a required ticket of admission to enter treatment (White, Boyle & Loveland, 2002) or grounds for expulsion from treatment (White, Scott, Dennis & Boyle, 2005).

Is the use of treatment by the criminal justice system cost-effective?

Treatment interventions across multiple points in the criminal justice system have been found to have significant effects on enhancing long-term recovery, reducing criminal recidivism and reducing the social cost of addiction—particularly criminal justice costs. Drug treatment programs in prisons, such as the widely acclaimed “Delaware Model” combined with work-release reduced the probability of re-arrest following release by 70%. (Source: <http://www.nida.nih.gov/PODAT/PODAT6.html>) Similarly positive findings have been reported on post-release treatment (McCollister, French, Inciardi, Butzin, Martin & Hooper, 2003).

What can the criminal justice system do to improve treatment outcomes?

The criminal justice system can exert its influence in a number of ways to improve treatment outcomes for the substance-impaired offender. Given our review of treatment outcome literature, we think the most significant of these actions would include:

- Using assessment protocol that emphasize the identification of offender assets (“recovery capital”) as well as problems (Granfield & Cloud, 1999),
- using external coercion to engage the offender in an assessment and treatment process,
- monitoring treatment engagement to insure an adequate dose of treatment and to enhance the probability of successful completion of a primary course of treatment,
- encouraging and facilitating family involvement in the treatment process,
- monitoring and encouraging participation in a structured program of aftercare following services,
- encouraging the development of a sobriety-based social support system,
- monitoring post-treatment functioning and providing feedback, linkage to recovery supports and, when needed, early re-intervention, and
- acting swiftly to correct noncompliance with court orders.

We would also recommend that probation officers orient each offender to the particular treatment program to which they are being referred. We suspect that such individual or group pre-treatment orientation would contribute significantly to treatment engagement and treatment completion rates.

How important is monitoring to long-term recovery?

Several reviews (e.g. Westermeyer, 1989) of factors effecting treatment outcome make special note of the potential role of monitoring in long-term outcomes. Such sustained monitoring takes on added significance in light of “treatment careers” research (Hser, et al., 1997), new recovery management models (White, Boyle, & Loveland, 2002), and recent studies on the potential value of post-treatment monitoring and recovery support services (Dennis, Scott, & Funk, 2003). These innovative studies underscore several key points:

- A single, acute intervention rarely has sufficient effect to initiate stable and enduring recovery in those with severe and persistent alcohol and other drug problems.
- Multiple episodes of treatment may be viewed, not as failures, but as incremental steps in the developmental process of recovery.
- Treatment effects not visible following a single episode become discernable when viewed over the longer history of treatment and recovery. Treatment episodes may have effects that are incremental and cumulative.
- The treatment of individuals with severe substance use disorders needs to shift from serial episodes of brief intervention to a model of sustained recovery management, e.g.,

active engagement, motivational enhancement, support for treatment retention, post-treatment monitoring and recovery support services, stage appropriate recovery education, active linkage to local communities of recovery, recovery checkups, and, when needed, early re-intervention and re-engagement in treatment.

These findings underscore the need to: 1) distinguish between a lapse (episode of drinking or drug use following by re-commitment to recovery) and a relapse (more extensive periods of use and AOD-related problems that may include criminal recidivism and threats to public safety, and 2) maintain systems of rigorous surveillance and re-intervention with those offenders who post a potential threat to public safety.

How important is drug testing as a monitoring tool?

Drug testing serves multiple purposes in the criminal justice system: a routine monitoring tool at the point of arrest, 2) a tool to identify breaches in compliance with court orders, 3) a means of monitoring treatment and post-treatment rehabilitation status, and 4) a device to reduce drug use inside correctional facilities. Sanctions for positive drug tests vary depending on the purpose for its use. Evaluations of the effectiveness of drug testing have found that 1) drug testing alone can reduce criminal recidivism, 2) drug testing combined with treatment generates greater reductions in recidivism and 3) drug testing reduces drug use inside correctional institutions (Harrell & Kleinman, 2000; MacPherson, 2004). (Source: http://www.sppsr.ucla.edu/ps/webfiles/faculty/kleinman/drug_testing.pdf). Another less recognized rationale for drug testing is that it provides a culturally accepted rationale for refraining from drug use when an offender finds himself in a situation where he or she is offered drugs.

The question of the ideal frequency of drug testing varies by setting (use during treatment versus use as part of probation supervision) and by individual offender. For treatment programs in Illinois that conduct drug testing, the frequency ranges from three times per week to monthly, and the frequency of drug testing in probation departments in Illinois ranges close to the same with drug courts using a higher frequency of drug testing.

What new technologies are available to assist in monitoring offenders with AOD problems?

New technologies that are being used to monitor alcohol and drug use include:

- saliva and hair testing as an alternative to the chemical testing of urine,
- a new generation of alcohol monitoring devices including such products as the SCRAM (Secure Continuous Remote Alcohol Monitor)—a device that transmits data collected from an ankle bracelet that measures exposure to alcohol by the amount of alcohol that passes through the skin,
- remote electronic alcohol monitoring devices that combine random call schedules with a device that measures and transmits alcohol exposure through a voice-recognition, camera-rigged breathalyzer (e.g., products like the Sobriator),
- GPS tracking devices (e.g., the iSECUREtrac) that can identify the location of an offender at any time to monitor movement of the client into prohibited locations, and
- Ignition Interlock Devices (a breath-testing unit connected to a car's ignition) that prevents operating the vehicle when the driver is under the influence of alcohol).
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What should the criminal justice system's response be to episodes of offender AOD use while under supervision?

There are two important principles to guide such responses. First, there should be a response of some kind to every episode of use that is reported or detected. Second, the nature of that response

should be nuanced based on the quantity and duration of use, the circumstances surrounding use and the collateral activity related to the use incidents. As we have noted earlier, most people who achieve stable recovery experience one or more lapse or relapse episodes before achieving stable sobriety. The goal of the criminal justice system in working with offenders with substance use disorders is to: 1) minimize the number of such episodes, 2) prevent or minimize the collateral criminal and public safety threats related to such incidents, 3) interrupt such episodes at the earliest possible point, and 4) use lapse/relapse incidents as opportunities to strengthen the commitment to recovery and improve methods of recovery maintenance. We recommend a triaged response from increased surveillance (e.g., reporting, drug testing) through re-engagement in treatment services to brief jail time to more extended jail sentences. Such responses could differ significantly between those offenders who are grossly out of compliance (“trail and nail”), those who have the greatest potential for recovery (monitor and support) and those who are superficially compliant (low maintenance monitoring).

What population of offenders deserve a higher allocation of time and more intense monitoring?

Courts and probation departments differ in their philosophies over which offenders should receive the greatest concentration of scarce resources, e.g., offenders with the best prognosis for recovery, offenders with the highest risk of chemical and criminal relapse or offenders with the highest potential threat to public safety. There is a trend toward using the latter category to focus the most assertive monitoring. What this means in practice is aggressive supervision is directed toward those who have a substance use disorder whose other characteristics heighten their threat to the public. Probation departments in Illinois are identifying sex offenders, domestic battery recidivists and DUI recidivists in this category.

Are there any emerging principles to guide the management of the substance-impaired offender?

There are four principles that we think can enhance rehabilitative outcomes and enhance the protection of public safety (White, 2004).

Clarity and Consistency Principle: This principle requires three strategies: **1) defining** expectations of each offender in behavioral terms (It is our experience that judges and probation officers get what they expect and monitor e.g., probation officers who expect and monitor payment of fines have higher collection rates than probation officers who never inquire about the status of fines.), **2) linking** the intensity of rewards and punishments to the degree of compliance or non-compliance with those terms, and **3) getting** multiple forces in the offender’s environment (the courts, allied agencies, family members, employers) to understand and reinforce those expectations.

Dose and Intensity Principle: Insuring an adequate dose of treatment and an appropriate level of treatment intensity improve rehabilitative outcomes. Longer courses of treatment and continuing care services, multiple points of accountability with the courts and extended external monitoring (e.g., probation supervision and drug testing) are highly recommended for those with severe substance use disorders. There is also little evidence that low-intensity interventions have any rehabilitative effects on persons with severe substance use disorders, e.g., addicted DUI offenders passively attending remedial education classes.

Combination Principle: We have yet to develop effective technology that scientifically matches each offender to the ideal sentence and rehabilitative strategy. As a result, combinations of interventions are always more effective in the long run than single interventions. Combinations of interventions (probation supervision, fines, community service) generate better outcomes than any single intervention.

Containment Principle: There are offenders at particular points in their lives in which no rehabilitation interventions will produce stable recovery or lower their threat to public safety. Under these circumstances, the role of the criminal justice system and human service professionals is to

contain these individuals within the limits of criminal law and within the boundaries of the laws with professional ethics guiding the delivery of treatment services.

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Appendix

Addiction Recovery and Related Mutual Aid Groups in America

Al-Anon Family Groups, Inc., 1600 Corporate Landing Parkway, Virginia Beach, VA 23454-5617. (757) 563-1600 or (888) 4ALANON for meeting information; <http://www.al-anon.alateen.org/>.

Alcoholics Anonymous (AA), General Service Office, P.O. Box 459, Grand Central Station, New York, NY 10163; (212) 870-3400; www.aa.org.

Online Intergroup of Alcoholics Anonymous; see <http://aa-intergroup.org> for information about online AA Groups.

Sober 24; an online 12 step recovery support group resource; <http://www.sober24.com>.

Deaf and Hard of Hearing 12 Step Recovery Resources; A web site that provides recovery resources for deaf and hard of hearing persons, <http://www.dhh12s.com/index.htm>.

Alcoholics Victorious (AV), a Christ-centered 12 Step program; 1045 Swift Street, Kansas City, MO 64116; (816) 471-8020; <http://av.iugm.org>.

Cocaine Anonymous (CA); <http://www.ca.org>.

Depressed Anonymous (DA) A 12-Step program for persons suffering from chronic depression; Coordinator Depressed Anonymous, PO Box 17414, Louisville, KY 40217; (502) 569 1989 or email info@depressedanon.com; <http://www.depressedanon.com/index.html>.

Double Trouble in Recovery (DTR), "a recovery group for the dually diagnosed," Howie Vogle; Email: HV613@aol.com; phone (718) 373-2684; P.O. Box 245055 Brooklyn, New York 11224; <http://www.doubletroubleinrecovery.org>.

Dual Recovery Anonymous (DRA); 12-step program for people with a dual diagnosis; Dual Recovery Anonymous World Service Central Office, P.O. Box 8107, Prairie Village, KS 66208. Toll Free (877) 883-2332; <http://www.dualrecovery.org>.

Families Anonymous (FA); a Twelve Step program for relatives and friends of those who have alcohol, drug or behavioral problems; P.O. Box 3475, Culver City, CA 90231-3475; FA World Service Office (800) 736-9805 or by email at famanon@FamiliesAnonymous.org; <http://www.familiesanonymous.org>.

Gamblers Anonymous (GA); P.O. Box 17173, Los Angeles, CA 90017; (213) 386-8789; <http://www.gamblersanonymous.org>.

Gam-Anon Family Groups; Twelve Step program for family and close friends of compulsive gamblers; Gam Anon, P.O Box 157, Whitestone, NY 11357; (718) 352-1671; <http://www.gam-anon.org>.

Grief Recovery After Substance Passing (G.R.A.S.P.); support group for those who have lost someone due to substance use; Call (619) 656-8414 or email mom@jennysjourney.org; <http://www.grasphelp.org>.

GROW, Inc.; a mutual help program for those recovering from depression, anxiety and other mental health problems; 2403 W. Springfield Ave., Box 3667, Champaign, IL 61826; (217)352 6989;

Jewish Alcoholics, Chemically Dependent Persons and Significant Others (J.A.C.S.); a 12 Step support group integrating Alcoholics Anonymous and Judaism; 850 Seventh Avenue, New York, NY 10010; (212) 397-4197; <http://www.jacsweb.org>.

LifeRing Secular Recovery (LSR); secular program of recovery; <http://www.unhooked.com>.

Marijuana Anonymous (MA); Marijuana Anonymous World Services, P.O. Box 2912, Van Nuys, CA 91404, (800) 766-6779; www.marijuana-anonymous.org.

Methadone Anonymous Support; a 12 Step program for people recovering from opiate addiction; email methadoneAnonymous@neo.rr.com; <http://www.methadonesupport.org>

Millati Islami; a Muslim 12 step program to combat alcohol and drug addiction; <http://www2.islamicity.com/al-muminun/MIFAX/mifax.htm>.

Moderation Management (MM); Support group for problem drinkers who want to reduce their drinking and make other positive lifestyle changes; Moderation Management Network Inc., PO Box 3055, Point Pleasant NJ 08742; (732) 295-0949; email moderation@moderation.org; <http://moderation.org>.

Narcotics Anonymous (NA); a 12 Step program for persons recovering from addiction to drugs other than or in addition to alcohol; P.O. Box 9999, Van Nuys, CA 91409; (818) 773-9999; <http://www.na.org>.

Nicotine Anonymous; a 12 Step program for persons recovering from nicotine addiction; Nicotine Anonymous World Services, 419 Main Street, PMB#370, Huntington Beach, CA 92648; (415) 750-0328; email info@nicotine-anonymous.org; <http://www.nicotine-anonymous.org>.

Overcomers Outreach; a Christian recovery ministry that utilizes the 12 steps of Alcoholics Anonymous along with scriptures; PO Box 2208, Oakhurst, CA 93644. (800) 310-3001; <http://overcomersoutreach.org>.

Recovery, Inc.; a community mental health organization that offers a self help method of training for the management of troublesome behavior and emotions; 802 N. Dearborn St., Chicago, IL 60610; (312) 337-5661; <http://www.recovery-inc.com>.

Schizophrenics Anonymous; Offers a 6 step program, fellowship, support and information for people with schizophrenia; Schizophrenics Anonymous, National Schizophrenia Foundation, 403 Seymour, Suite 202, Lansing, MI 48933; (517) 485-7168; Mental Health Consumer line: (800) 482-9534; e-mail sareferrals@nsfoundation.org; <http://www.nsfoundation.org>.

Secular Organization for Sobriety/Save Our Selves (S.O.S.); a secular program of addiction recovery; Contact Jim Christopher, 4773 Hollywood Blvd., Hollywood, CA 90027 (323) 666-4295.; Email SOS@CFIWest.org; <http://www.cfiwest.org/sos>.

SmartRecovery®; a secular program of addiction recovery; 7537 Mentor Avenue, Suite #306, Mentor, Ohio 44060, Toll-Free: (866) 951-5357 or (440) 951-5357; <http://www.smartrecovery.org>.

Sober City; a virtual online community to support people suffering from alcoholism and addiction; <http://www.sobercity.com>.

SoberDykes Hope Page; online support for women in recovery from addiction and psychiatric illness; links to many gay and lesbian recovery resources; <http://www.soberdykes.org>.

Women for Sobriety (WFS); offers a Thirteen Statement Program encouraging positive growth for recovering women; WFS, Inc., P.O. Box 618, Quakertown, PA 18951-0618; (215) 536-8026; <http://www.womenforsobriety.org>.

Source: This list has been abstracted from "Mutual Support Resources Guide" developed by Drs. Linda and Ernie Kurtz posted at http://www.facesandvoicesofrecovery.org/resources/support_home.php. Additional information on these groups and how to work with them can be found at this web site.