



Comprehensive Drug Sentencing Scheme Proposal:

Report to the Colorado Judiciary Committees of the House and Senate

Pursuant to House Bill 12-1310, C.R.S. 16-11.3-103(2.7)(a)

From the Commission on Criminal and Juvenile Justice

December 15, 2012

James Davis, Executive Director
Colorado Department of Public Safety

Jeanne M. Smith, Director
Division of Criminal Justice

Kim English, Research Director
Office of Research and Statistics

Comprehensive Drug Sentencing Scheme Proposal:
**Report to the Colorado Judiciary Committees of the House
and Senate**

Pursuant to House Bill 12-1310, C.R.S. 16-11.3-103(2.7)(a)

From the Commission on Criminal and Juvenile Justice

Prepared by
Kim English



Office of Research and Statistics
Division of Criminal Justice
Colorado Department of Public Safety
700 Kipling Street
Denver, Colorado
<http://www.colorado.gov/cs/Satellite/CDPS-CCJJ/CBON/1251617151523>

ACKNOWLEDGEMENTS

This work would not have been possible without the efforts of the Commission’s Drug Policy Task Force, under the leadership of Commissioner and Task Force Chair **Grayson Robinson**, Arapahoe County Sheriff. As the “Statutes and Structure Working Group,” Drug Policy Task Force members **Maureen Cain** (Colorado Defense Bar), **Christie Donner** (Colorado Criminal Justice Reform Coalition), **Michael Dougherty** (Attorneys General’s Office), **Tom Raynes** (Colorado District Attorney’s Association) and **Dan Rubenstein** (Mesa County District Attorney’s Office) collaborated to submit proposals to the Task Force and the Commission for the modification of the state’s Controlled Substances Act. These individuals worked very hard over many months to, first, identify possible resources to expand community-based substance abuse treatment for those involved in the criminal justice system and, then, to draft an empirically-based approach to drug sentencing.

The Commission is indebted to these professionals for their sustained efforts to collaborate over several years to develop a new approach to drug-involved offenders that is consistent with the Commission’s prior recommendations for drug policy reform.

Table of Contents

Acknowledgements	i
Commission Membership	iii
Drug Policy Task Force Membership	iv
Section One: Introduction	1
Section Two: Background and Empirical Foundation	3
Section Three: Recommendations for Reform	11
Appendix A: Managing Addiction as a Chronic Condition	27

COMMISSION MEMBERSHIP

James Davis, Commission Chair
Department of Public Safety

Doug Wilson, Commission Vice-Chair, State Public
Defender

Tom Clements, Department of Corrections

Michael Dougherty, Attorney General's Office

Kate Horn-Murphy, Victim Representative,
17th Judicial District

Charles Garcia, Former Denver Manager of Safety

Debbie Rose, Juvenile Parole Board

Peter G. Hautzinger, District Attorney's Office, 21st
Judicial District

Regina M. Huerter, Denver Crime Prevention
and Control Commission

William C. Kilpatrick, Golden Police Department

Julie Krow, Department of Human Services

Evelyn Leslie, Colorado School for Family Therapy

Claire Levy, State Representative, House
District 13

Henry Jackson, Dept. of Higher Education

Kelly Friesen, Grand County

John P. Morse, State Senator, Senate District 11

Eric Philp, Probation Services

Donald S. Quick, District Attorney's Office, 17th
Judicial District

Steve King, State Senator, Senate District 7

J. Grayson Robinson, Arapahoe County Sheriff's
Department

Mark Waller, State Representative, House
District 15

Alaurice M. Tafoya-Modi, Criminal Defense Bar

Theresa Cisneros, Judge 4th Judicial District

Norm Mueller, Criminal Defense Bar

Jeanne M. Smith, Division of Criminal Justice

Anthony Young, State Board of Parole

DRUG POLICY TASK FORCE MEMBERSHIP

Chair

Grayson Robinson / Arapahoe County Sheriff's Department

Commission Members

Don Quick / District Attorney's Office, 17th Judicial District

Eric Philp / Probation Services, Judicial Department

Regina Huerter/ Denver Crime Prevention and Control Commission

Bill Kilpatrick / Golden Police Department

Other Task Force Members

Brian Connors / State Public Defender's Office

Bridget Klauber / Criminal Defense Bar

Christie Donner / Colorado Criminal Justice Reform Coalition

Chris Brousseau / District Attorney's Office, 1st Judicial District

Dan Rubinstein / District Attorney's Office, 21st Judicial District

Evie Hudak / State Senator, District 19

Helen Morgan / District Attorney's Office, 2nd Judicial District

John O'Dell / State Board of Parole

Kathleen McGuire / State Public Defender's Office (via phone)

Marc Condojani / Division of Behavioral Health

Mark Hulbert / District Attorney's Office, 5th Judicial District

Mark Waller/ State Representative, District 15

Maureen Cain / Criminal Defense Bar

Pat Steadman / State Senator, 31st District

Reo Leslie / Colorado School for Family Therapy

Terri Hurst / Behavioral Health Care Council

Tim Hand / Division of Adult Parole, Community Corrections and Youthful Offender System

Tom Raynes / Colorado District Attorneys Council

Vince Niski / Colorado Springs Police Department

Section One: INTRODUCTION

The Colorado Commission on Criminal and Juvenile Justice is established in C.R.S. 16-11.3-103. The Commission, empanelled in 2007, consists of 26 voting members, 17 of whom are appointed representatives of specific stakeholder groups, and 9 of whom are identified based on their official position in state government. The Commission's statutory mission is to enhance public safety, to ensure justice, and to ensure the protection of the rights of victims through the cost-effective use of public resources. The General Assembly directed the Commission in its enabling statute to focus on evidence-based recidivism reduction initiatives and the cost-effective expenditure of limited criminal justice funds.

The Commission's statutory duties include the analysis of sentencing policies and practices, the investigation of alternatives to incarceration, evidence-based recidivism reduction initiatives, and cost effective crime prevention programs. Since its inception, the General Assembly has created additional duties, including the study of racial and ethnic disparities within the criminal and juvenile justice systems (House Bill 08-1119), and the study of sentencing policies and practices (Senate Bill 09-286). This report is mandated by House Bill 12-1310, which requires the development of a comprehensive sentencing structure for all drug crimes described in Article 18 of Title 18, C.R.S.

Purpose of this report. In 2012, House Bill 1310 [16-11.3-103(2.7)(a) (I-IX), C.R.S.] directed the Commission to develop a comprehensive drug sentencing scheme for all drug crimes described in Article 18 of Title 18 (Controlled Substances Act). Specifically, the statute directs the Commission to consider the following:

- The development of a sentencing structure that differentiates drug offenders who are primarily users and addicts from more serious offenders who are involved in drug distribution, manufacturing, or trafficking;
- The development of resources through changes in the criminal code that will enhance intervention, supervision and treatment in the community, and enhance public safety by addressing drug abuse and addiction and by decreasing crime through drug abuse recovery;
- Methods by which offenders can gain access to assessment-based treatment services that are based on treatment need regardless of the level or classification of the crime;
- Creation of equivalent penalties for crimes that pose similar risks to public safety;
- Enhancement of penalties when behaviors clearly present a public safety risk;

- Development of resources for additional, pre-filing diversion programs around the state for drug offenders;
- Use of drug courts and how legislative changes could support more effective use of those resources;
- Relevant negative impacts related to criminal convictions; and
- Any other issues that the Commission determines to be important and relevant to the goals of the Commission.

House Bill 12-1310 requires the Commission to report on the progress of its work to the Judiciary Committees of the House and Senate by December 15, 2012. This document constitutes that report.

This report is organized as follows: The following section provides a brief overview of the empirical foundation that the Commission used to develop a new approach to drug-involved offenders that incorporates the science of addiction. Section Three presents the recommendations for reform.

Section Two: BACKGROUND AND EMPIRICAL FOUNDATION

In 2009, the Commission promulgated a new evidence-based approach to those convicted of drug offenses. According to the National Institute on Drug Abuse (NIDA), addiction is defined as a chronic, relapsing brain disease that is characterized by compulsive drug seeking and use, despite harmful consequences. It is considered a brain disease because drugs change the brain - drugs change its structure and how it works. These brain changes can be long lasting, and can lead to the harmful behaviors seen in people who abuse drugs.¹

The need to know. Very high prevalence rates for substance use disorders in criminal justice populations, the chronic (rather than acute) nature of the problem, and the corresponding need for a disease-management model of treatment, require that criminal justice professionals and policy makers understand the new science of addiction. Understanding that addiction is a chronic brain disease containing critical biological, behavioral, and social elements—all of which must be addressed in recovery—can improve decision making when the goal is to reduce recidivism and enhance public safety.

Addiction is a mental illness. According to Nora Volkow, M.D., the Director of NIDA, it is critical to recognize that drug addiction is a mental illness: It is a complex brain disease characterized by compulsive and at times uncontrollable drug craving, seeking, and use, despite devastating consequences, behaviors that stem from drug-induced changes in brain structure and function. These changes occur in the same areas of the brain that are disrupted in various other mental disorders, such as depression, anxiety, and schizophrenia. Population surveys show a high rate of co-occurrence between drug addiction and other mental illnesses. Certain mental disorders are established risk factors for subsequent drug abuse and vice-versa.² Further, addiction is a developmental disease that typically begins in childhood or adolescence but often goes undetected until later in life.³

Addiction begins with voluntary behavior. While addiction begins with the voluntary behavior of using drugs, doing so repeatedly over time changes brain structure and function in fundamental and long-lasting ways that can persist long after the individual stops using them. The evidence suggests that these long-lasting brain changes are responsible for the distortions

¹ National Institute on Drug Abuse (2010). *Drugs, the brain, and behavior: The science of addiction*. National Institutes of Health and Human Services. Available at <http://www.drugabuse.gov/publications/science-addiction/drug-abuse-addiction>.

² For more information on this topic, see <http://www.nida.nih.gov/researchreports/comorbidity/index.html>.

³ Ibid.

of cognitive and emotional functioning that characterize addicts, including the compulsion to use drugs that is the essence of addiction.⁴

Many people erroneously believe that drug addiction is simply a failure of will or of strength of character, but research contradicts this position. Over time the addict loses substantial control over what was initially voluntary behavior, and it becomes compulsive. For many people these behaviors are truly uncontrollable, in the same way that Parkinson's patients cannot control their trembling.⁵

Experts agree that addicts must participate in and take significant responsibility for their recovery.⁶ While having a brain disease does not absolve the addict of responsibility, it does explain why a person cannot simply stop using drugs by sheer force of will alone. And, according to a former director of the National Institute on Drug Abuse, it dictates a much more sophisticated approach to dealing with the array of problems surrounding drug abuse and addiction in our society.⁷

Criminal justice populations. Approximately 20% of the offender population in Colorado is serving a sentence for a drug offense, yet about 80% have substance use disorders.⁸ This compares to approximately 9% of the general Colorado population with a substance use disorder.⁹ Approximately 80% of adults on probation in Colorado had some level of alcohol or illegal drug use problem in a 2006 study,¹⁰ and just over 90% of those in community corrections

⁴ Excerpted from Leshner, A.I. (2001). Addiction is a brain disease. *Issues in Science and Technology*. A joint publication of the National Academy of Sciences, National Academy of Engineering, Institute of Medicine, and the University of Texas at Dallas. Available at <http://www.issues.org/17.3/leshner.htm>.

⁵ Ibid.

⁶ Ibid.

⁷ Ibid.

⁸ English, K. (2010). *White paper from the Treatment Funding Working Group of the Colorado Commission on Criminal and Juvenile Justice*. Denver, CO: Colorado Division of Criminal Justice. Available at http://www.colorado.gov/ccjdir/Resources/Resources/Report/2010-12_TxtFundingWP.pdf.

⁹ U.S. Department of Health and Human Services, Substance Abuse and Mental Health Administration, *States in Brief: Colorado*. On the global measure of any past year dependence on or abuse of illicit drugs or alcohol, rates in Colorado have generally been higher than the national rate. In 2005–2006, the rates were among the 10 highest in the country for all age groups. For more information, see http://www.samhsa.gov/statesinbrief/2009/COLORADO_508.pdf.

¹⁰ The source for this figure is data collected from court files by DCJ researchers. Data were collected from a sample of cases in 10 judicial districts (17 counties: Denver, Jefferson, El Paso, Weld, Mesa, Boulder, Broomfield, Douglas, Teller, Gilpin, Jackson, Adams, Arapahoe, Elbert, Lincoln, and Larimer). These judicial districts were chosen based on the top 10 judicial districts for filings in 2005. The sample is made up of 1,271 court cases from 2004, 2005, and 2006 that were sentenced to probation in 2006. Researchers used a subjective scale to code in data in the file using the following measures (1) no problem, (2) yes a problem but no interference with daily functioning, (3) yes a problem and some disruption of daily functioning, and (4) Yes a problem with serious disruption of functioning. In FY2009, 8,660 (22% of the total filings) individuals were filed on for drug charges in district court, according to Table 18, *Annual Statistical Report FY2009*, Colorado Judicial Branch.

in FY2012 had substance abuse needs.¹¹ Approximately 80% of offenders in prison in Colorado had moderate to severe substance abuse problems in FY 2011 and nearly 38% of prisoners had moderate to severe mental health problems (nearly 70% of these were women).¹²

Integrating treatment and the criminal justice response. Research has shown that combining criminal justice sanctions with drug treatment can be effective in decreasing drug abuse and related crime. Individuals under legal coercion tend to stay in treatment longer and do as well as or better than those not under legal pressure. Often, drug abusers come into contact with the criminal justice system earlier than other health or social systems, presenting opportunities for intervention and treatment prior to, during, after, or in lieu of incarceration—which may ultimately interrupt and shorten a career of drug use.¹³ According to NIDA:

*The most effective models integrate criminal justice and drug treatment systems and services. Treatment and criminal justice personnel work together on treatment planning—including implementation of screening, placement, testing, monitoring, and supervision—as well as on the systematic use of sanctions and rewards.*¹⁴

Cost benefit. The effectiveness of substance abuse treatment in the reduction of recidivism and victimization, and the associated cost benefit, has been confirmed by research. Funding spent on substance abuse treatment provides up to \$7 in taxpayer benefits for every \$1 in cost. This compares to less than \$.40 in return for every dollar spent incarcerating drug offenders.¹⁵ When savings related to health care are included, total savings can exceed costs by a ratio of 12 to 1.¹⁶ In addition, drug treatment reduces the risk of HIV infection by six-fold and improves

¹¹ Walker, A. (in progress). *Colorado Community Corrections FY2012 Annual Report*. Denver, CO: Office of Community Corrections, Division of Criminal Justice, Department of Public Safety.

¹² Barr, B.L., Gilbert, C.R., O’Keefe, M.L. (2012). *Statistical Report Fiscal Year 2011*. Colorado Springs: Colorado Department of Corrections. Available at http://www.doc.state.co.us/sites/default/files/opa/StatRprt_FY2011.pdf.

¹³ National Institute on Drug Abuse (2009). *Principles of drug addiction treatment*. National Institutes of Health and Human Services. Available at <http://www.drugabuse.gov/publications/principles-drug-addiction-treatment>.

¹⁴ *Ibid*, page 19.

¹⁵ For a review, see Przybylski, R. (2009). *Correctional and sentencing reform for drug offenders: Research findings on selected key issues*. Report commissioned on behalf of the Colorado Criminal Justice Reform Coalition. Lakewood, CO: RKC Group. Available at http://www.ccjrc.org/pdf/Correctional_and_Sentencing_Reform_for_Drug_Offenders.pdf.

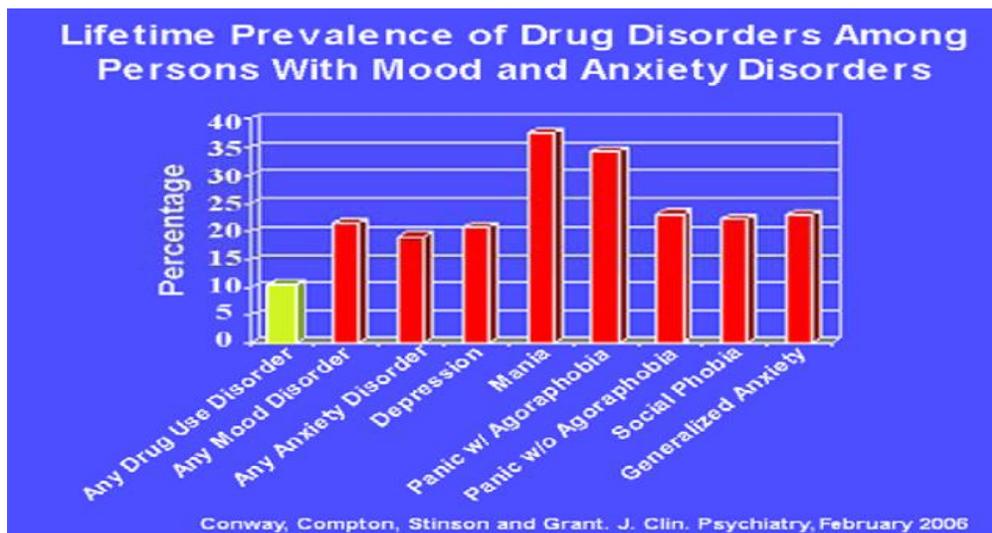
¹⁶ See Mark Stanford, Director of Medical and Clinical Services, Department of Alcohol & Drug Services, Addiction Medicine Division, Santa Clara County Health & Hospital System, reviewing the literature in an editorial in the *San Jose Mercury News*, December 29, 2008.

prospects for employment by 40%.¹⁷ These and other research findings have led NIDA officials to make the following statement:

*Blending the functions of criminal justice supervision with drug abuse treatment and support optimally serves both public health and public safety concerns.*¹⁸

Co-occurring disorders. It is important to note that many individuals with substance use disorders also have serious mental health problems. It is estimated that at least six out of ten people with a substance use disorder also suffer from another form of mental illness. Mounting evidence suggests that common genetic factors may predispose individuals to both mental disorders and addiction or to having a greater

Figure 1. Drug use disorders and mental illness frequently occur together



Source: National Institute on Drug Abuse, at <http://www.drugabuse.gov/publications/topics-in-brief/comorbid-drug-abuse-mental-illness>

risk of the second disorder once the first appears. Stress, trauma (e.g., physical or sexual abuse), and early exposure to drugs are common factors that can lead to addiction and to mental illness, particularly in those with underlying genetic vulnerabilities. Drug abuse and mental illness are developmental disorders that often begin in adolescence or even childhood, periods when the brain is undergoing dramatic developmental changes. Early exposure to drugs

¹⁷ National Institute on Drug Abuse (2006). *Principles of substance abuse treatment for criminal justice populations: A research-based guide*. Washington, D.C.: National Institute of Health, U.S. Department of Health and Human Services. NIJ Publication No. 06-5316,

¹⁸ National Institute on Drug Abuse. See <http://www.drugabuse.gov/publications/topics-in-brief/treating-offenders-drug-problems-integrating-public-health-public-safety>.

of abuse can change the brain in ways that increase the risk for mental illness, just as early symptoms of a mental disorder may increase vulnerability to drug abuse. Patients with co-occurring disorders often exhibit more severe symptoms than those caused by either disorder alone, underscoring the need for careful assessment, integrated treatment, and monitoring.¹⁹

Moving away from the acute care model. Research has documented in dozens of studies that the progress of many patients is marked by cycles of recovery, relapse, and repeated treatments, often spanning over many years before eventually resulting in stable recovery.²⁰ The traditional *acute care* approach to behavioral health has encouraged the idea that individuals entering addiction treatment should be cured and able to maintain lifelong abstinence following a single episode of treatment.²¹ Accordingly, policymakers allocate limited public health dollars for addiction treatment; insurers restrict the number of patient days and visits covered; treatment centers make no infrastructure allowance for ongoing monitoring; and families and the public become impatient when patients relapse.²²

The science of addiction concludes that appropriate treatment is “sustained care recovery management,” a structured process of accessing and completing a range of services. Client progress in early recovery is often marked by episodes of stress, resumed drug use or full-blown relapse, and multiple treatment admissions. Too often treatment episodes are brief, sometimes lasting only a few weeks, based on the notion that a client who enters and completes a single episode of care should then be able to maintain abstinence and continue the recovery process independently.²³

Relapse rates (i.e., how often symptoms occur) for drug addiction are similar to those for other well-characterized chronic medical illnesses such as diabetes, hypertension, and asthma²⁴ which also have both physiological and behavioral components. Treatment of chronic diseases involves changing deeply imbedded behaviors, and relapse does not mean treatment failure.

¹⁹ Excerpted from *Comorbid Drug Abuse and Mental Illness* (NIDA), available at <http://www.drugabuse.gov/publications/topics-in-brief/comorbid-drug-abuse-mental-illness>.

²⁰ For an excellent review, see Hubble, M.A., B.L. Dunken, and S.D. Miller (2001). *The heart and soul of change: What works in therapy*. Washington D.C.: American Psychological Association.

²¹ See Mark Stanford, Director of Medical and Clinical Services, Department of Alcohol & Drug Services, Addiction Medicine Division, Santa Clara County Health & Hospital System, who reviewed the literature in an editorial in the *San Jose Mercury News*, December 29, 2008; Dennis, M.L., C.K Scott, R. Funk, & M.A. Foss (2005). The duration and correlates of addiction and treatment careers. *Journal of Substance Abuse Treatment*, 28, 51-562.

²² McLellan A.T., Lewis D.C., O'Brien C.P., & Kleber H.D. (2000). Drug dependence, a chronic medical illness: Implications for treatment, insurance, and outcomes evaluation. *Journal of the American Medical Association* 284(13):1689-1695.

²³ Ibid.

²⁴ Ibid.

For the addicted patient, lapses back to drug abuse indicate that treatment needs to be reinstated or adjusted, or that alternate treatment is needed.²⁵

Although some individuals can successfully recover with the acute care approach, **more than half of clients entering substance abuse treatment today require multiple episodes of care over several years to achieve and sustain recovery.**²⁶ In fact, approximately half of those who enter treatment programs licensed by the Colorado Division of Behavioral Health complete that episode of treatment.²⁷ Retrospective and prospective treatment studies report that most participants initiate three to four episodes of treatment over multiple years before reaching a stable state of abstinence.²⁸

Treatment works. Despite the likelihood of relapse, research shows the durability of treatment gains. Experts agree that “relapse can be reduced by encouraging and reinforcing the clients’ belief in their ability to cope with the inevitable, temporary setbacks likely to be experienced” during and after therapy.²⁹ The National Institute on Drug Abuse states that outcomes for substance abusing individuals can be improved by cross-agency coordination and collaboration of criminal justice professionals, substance use disorder treatment providers, and other social service agencies. By working together, the criminal justice and treatment systems can optimize resources to benefit the health, safety, and well-being of individuals and the communities they serve. Drug courts epitomize this type of response, and multiple studies have documented their effectiveness.³⁰

Commission recommendation for a new approach. Based on the considerable amount of empirical evidence available about drug addiction, Commission members agreed that a new sentencing philosophy integrating treatment services with sanctions and accountability serves

²⁵ Dennis, M. & Scott, C.K. (2007). Managing Addiction as a Chronic Condition. *Addiction Science & Clinical Practice*, 4(1): 45–55. See Appendix A.

²⁶ In a meta-analysis of 125 studies, nearly 50% of clients dropped out of treatment. Predictors of dropout were substance abuse, minority status, and lower education. See Wierzbicki, M. & Pekarik, G (1993). A meta-analysis of psychotherapy dropout. *Professional Psychology: Research and Practice*, 29, 190-195.

²⁷ Dixon, K. & Jones, A. (November 2012). *The costs and effectiveness of substance use disorder programs in the State of Colorado (C.R.S. 27-80-110) and Reporting Annual Accounting of Forfeited Property Dollars (C.R.S. 16-13-701): Report to the General Assembly House and Senate Health and Human Services Committees*. Denver, CO: Division of Behavioral Health, Colorado Department of Human Services. Figure 10. Available at <http://www.colorado.gov/cs/Satellite/CDHS-BehavioralHealth/CBON/1251581791428>.

²⁸ Ibid note 8; Dennis, M.L., Scott, C.K., Funk, R., & Foss, M.A. (2005). The duration and correlates of addiction and treatment careers. *Journal of Substance Abuse Treatment*, 28, 51-62.

²⁹ Asay, T.P. & Lambert, M.J. (2001). The empirical case for the Common Factors in Therapy: Quantitative Findings. In Hubble, M.A., Duncan, B.L., & Miller, S.D. (Eds.), *The heart and soul of change: What works in therapy*. Pp.33-55. Washington, D.C.: American Psychological Association.

³⁰ The U.S. Government Accountability Office (2005) reviewed 27 drug court evaluations; California’s Judicial Council (2003) studied drug courts in 17 counties and found \$43M in averted incarceration costs. See also Przybylski (2008) at http://www.dcj.state.co.us/ors/pdf/docs/WW08_022808.pdf for a review.

to enhance public safety, reduce recidivism, and prevent victimization. In 2009, the Commission made the following recommendation³¹ pertaining to Colorado Revised Statutes Article 18, Uniform Controlled Substances Act of 1992:

Providing community-based treatment for offenders who suffer from alcoholism and drug abuse—and mental health problems associated with these addictions—will improve public safety by reducing the likelihood that such individuals will have further contact with the criminal justice system. This strategy will provide substantial savings to the taxpayer. Research unequivocally finds that substance abuse treatment reduces both drug use and criminal behavior. Research demonstrates that successful treatment has the following components:

- *Occurs at the earliest possible opportunity;*
- *Is based on an individual treatment plan that incorporates natural communities and pro-social supports;*
- *Includes family members when they offer a positive impact on the recovery process; and*
- *Provides a continuum of community-based services.*

To reduce recidivism, therapeutic intervention rather than incarceration alone is required to treat alcoholism and illicit drug use disorders as well as mental illnesses related to these addictions. Prison should be reserved for violent, frequent or serious offenders. Savings that are achieved from reduced confinement of drug offenders should be directed toward the counties to implement evidence-based sentencing and treatment interventions.

...This approach will combine accountability, risk and needs assessments, criminal penalties, and appropriate treatment for individuals who are addicted to substances and convicted of criminal offenses. This system will differentiate among the following types of individuals:

- *A defendant who is an illegal drug user but is not addicted or involved in other criminal activity;*
- *A defendant who is addicted but is not otherwise engaged in other criminal activity;*
- *A defendant who is addicted and engaged in nonviolent crime to support his or her addiction;*
- *A defendant who is addicted and engaged in violent crime; and*

³¹ Colorado Commission on Criminal and Juvenile Justice (November 2009). *Findings, recommendations and proposed plan for the ongoing study of sentencing reform*. Colorado Department of Public Safety, Division of Criminal Justice, Office of Research and Statistics. Available at http://www.colorado.gov/ccjdir/Resources/Resources/Report/2009-11_SB286Plan.pdf.

- *A defendant who is engaged in drug trafficking or manufacture for profit who is not addicted to illegal drugs.*

This recommendation served as the foundation for developing a new approach to drug-involved offenders that incorporates the knowledge gained from the science of addiction. The recommendation guided three years of study and analysis and resulted in the proposals for sentencing modifications described in Section Three of this report.

Section Three: RECOMMENDATIONS FOR REFORM

The Commission's Drug Policy Task Force identified a series of objectives to promote effective and comprehensive drug crime policy reform. The following objectives guided the recommendations presented in this section:

- Simplification of the current drug sentencing structure;
- Consistency and transparency in sentencing drug offenders;
- Better differentiation between drug users/abusers and low, medium and high level dealers;
- Sentencing options that recognize the individual circumstances of each case;
- Provision of discretion to courts to encourage consideration of a defendant's criminal history, and allowing for or requiring mandatory or aggravated sentencing for the most serious drug offenders;
- Appropriate use of drug courts with priority for funding those that use evidence-based practices;
- Identification of drug offenders for whom rehabilitation and recidivism reduction are the priority goals of sentencing, and differentiating them from those drug offenders for whom incapacitation and deterrence are the priorities;
- Development of a scheme that reflects the social value that distribution of drugs to minors is a more serious offense than distribution to adults; and
- Increase confidence among criminal justice stakeholders that effective and appropriate treatment services are provided to offenders.

The remainder of this section includes recommendations approved by the Commission on November 9, 2012.

Recommendation FY13-DP #1

Revise drug sentencing classifications and ranges.

The Commission presents this proposal for a rewrite of the Controlled Substances Act that includes a separate sentencing framework based on a drug crime classification that has four felony offense levels, two misdemeanor offense levels and petty offenses. (Note: the current petty offense level will continue as in current law and is not addressed here.) Each felony offense level includes both a presumptive and aggravated sentencing range, except for the DF1. Each felony level also has a corresponding period of parole that would be a mandatory provision of any prison sentence.

Separate drug sentencing scheme

Drug Crime Level	Presumptive Range	Aggravated Range	Parole Period
DF 1	8 – 32 years Mandatory Minimum 8 yrs	None	3 years
DF 2	4-8 years	8-16 years	2 years
DF 3	2-4 years	4-6 years	1 year
DF 4	6-12 months	1-2 years	1 year
DM 1	3-18 months		
DM 2	0-12 months		

OTHER PROVISIONS:

- 1a. Mandatory sentencing: All DF1 offenses carry a mandatory minimum sentence of 8 years to the Department of Corrections. There is only one sentencing range for DF1 crimes which is 8 to 32 years.
- 1b. Continue and encourage all current plea bargaining options. The “wobbler” as described below will not be a replacement for current options such as misdemeanor plea or a deferred judgment. No changes to current probation statutes except as described below.
- 1c. Support the expansion of diversion programs as recommended by the Commission. Divert the appropriate amount of cost savings from the Commission-approved theft statute reform, if possible, to expand District Attorney diversion programs. Attempt to develop a dedicated fund for DA diversion with the highest priority given to those districts that currently have no program at all.

- 1d. Use of deferred judgment: Give the court discretion to accept an admission to violation of the deferred judgment or make a finding of a violation of the deferred judgment without revocation the deferred and entering the judgment of conviction. This requires a change to 18-1.3-102(2) changing the “shall” to “may” for drug offenses. This is consistent with the need for exhaustion of sanctions described below.
- 1e. In order to accommodate the filing structure of drug courts and other concerns of stakeholders, all drug possession offenses for schedule I/II controlled substances will continue to be a felony (DF4). However, there are two additional provisions:
- All possession offenses for schedule I/II shall be a DF4 and will not be weight-based like current law.
 - Creation of a “wobbler” in state law. If a defendant is convicted of an eligible DF4 offense, the felony conviction would “wobble” to a misdemeanor upon successful completion of a probation or community corrections sentence. The wobbler is available for the first two convictions (which includes a diversion or a prior dismissed deferred or a prior “wobbled” case”) of the following DF 4 drug offenses: 1) simple possession when the possession quantity is 4 grams or less of Schedule I/II or 2 grams of meth or heroin, 2) the DF4 MJ/hash possession offense, 3) the transfer without remuneration of the small quantities Schedule I/II (TBD language) and 4) 18-18- 415 fraud and deceit crimes. Defendants are eligible for the wobble even if the defendant goes to trial. Exclusions from eligibility are: 1) prior conviction for a Crime of Violence and 2) ineligibility for probation pursuant to 18-1.3-201.
- 1f. Develop statutory language regarding exhaustion of remedies prior to sentencing a defendant to prison for a D4 felony offense. (This is important in trying to preserve defendant’s “wobbler” opportunities.) While prison is available as a sentence in these cases, the Commission recommends an exhaustion of remedies model for courts to follow and for all parties to consider in sentencing. Prior to revocation of community supervision or sentence, the court must determine that reasonable and appropriate response options to the violation(s) have been exhausted by the supervising agencies given: 1) the nature of the violation(s), 2) the treatment needs of the offender and 3) the risk level of the offender. The court must determine that a sentence to prison is the most suitable option given the facts and circumstances of the individual case and available resources. In making this determination, the court should, to the extent available, review the information provided by the supervising agency which shall include, but shall not be limited, to a complete statement as to what interventions have been tried and failed, what other community options are available (including lateral sanctions or placement for the community corrections clients) and the reasons why any other available options appear to be unlikely to succeed if tried or would present an unacceptable risk to public safety. Under current law, the defendant is entitled to a hearing on probation revocation. The Commission recommends that for community corrections clients, if the defendant makes a written request, there will be a court review (details still need to be worked out with community corrections if paper review

or appearance review and the logistics) of the termination from Community Corrections when there is a recommendation to DOC.

- 1g. Colorado Organized Crime Control Act remains the same. The COCCA statute would need to be amended to include the newly reframed drug crimes eligible for use as predicates.
- 1h. Aggregation: Preserve 18-18-405(5) C.R.S. which allows drug quantities to be aggregated for purposes of establishing crime level and sentencing requirements if sale/dist./possess w/intent dist I/II occurs twice or more within a period of six months so long as defendant has not been placed in jeopardy for the prior offense or offenses
- 1i. Clarification: This drug sentencing scheme applies only when the defendant is sentenced for an offense under 18-18. C.R.S. If the defendant is convicted of another criminal offense, sentence shall be imposed as provided by current law. The court shall retain all current ability to imposed concurrent or consecutive sentences as provided by law.
- 1j. Allow for a Personal Recognizance (PR) bond (with treatment conditions when appropriate) on DF cases involving possession when defendant is not assessed as high risk on bond (as determined by a researched based risk assessment instrument). But allow for a defined waiting period on this to allow fast track drug courts to process cases as appropriate. It is important that the Denver Drug Court and the court's fast track processes be preserved.
- 1k. No sealing waiver required on plea or included in the Rule 11. Make statute clear that a district attorney may not require a defendant to waive his/her right to petition the court to seal an eligible criminal conviction as part of plea negotiations or in the Rule 11. Prior to exercising that power, district attorneys with the power to veto or object to a petition to seal should make best efforts to conduct an individualized assessment of the merits (or lack thereof) of a petitioner's request to seal the record.
- 1l. Develop a data collection system for this legislation that will allow for assessment of what is happening statewide in the implementation of these changes, transparency regarding the policies and practices of district attorneys and other criminal justice agencies, collating and tracking sentences given by the court in these cases, and allowing for assessment of outcomes. Use cost savings from bill to fund this effort, as needed.

- 1m. In any legislation developed pursuant to drug sentencing reform recommendations, include a requirement of a post-enactment review in three years to use the data collected and assess implementation and make any appropriate recommendations for change.
- 1n. Change state law to allow probation to determine who is appropriate for an intensive supervision program to include misdemeanor offenders. Statute should include a requirement that any placement of a defendant onto intensive supervised probation be based on a research-based risk/need assessment that indicates that intensive supervision is appropriate.
- 1o. Change state law to allow misdemeanor drug defendants to be required to participate in a residential treatment program as a condition of probation. Statute should include a requirement that placement in a residential treatment program as a condition of probation must be based on an assessed treatment need level that indicates IRT (intensive residential treatment) is appropriate and the Correctional Treatment Fund appropriation should be available to pay for the treatment. If the residential treatment program is offered through a community corrections program, the community corrections probation and community corrections board must both accept/approve probation client prior to placement.
- 1p. Sync the quantities and classifications of bath salts, salvia and cannabinoids to the structure as necessary and appropriate. Also address flunitrazipam and ketamine as appropriate and any other pharmaceuticals, as needed.

List of 18 – 18 Crimes

DF-1 Felony:

Presumptive range: 8- 32 years
Mandatory minimum of 8 years (DOC)

18-18-405: distribution/manufacture/possession with intent to distribute more than 225 grams of Sched I/II (more than 8 ounces) or more than 112g of methamphetamine or heroin (more than 4 oz)

18-18-407(1)(b): offense was part of a pattern of manufacturing, sale, dispensing, or distributing which constituted a substantial source of that person’s income and in which the person manifested special skill or expertise.

18-18-407(1)(c): offense was part of a conspiracy to distribute, manufacture, sell drugs and the defendant initiated, organized, plan, finance, direct, etc part of conspiracy.

18-18-407(1)(d): introduction, distributed, or imported into the state more than 14 grams of any schedule I or II or more than 7g of methamphetamine or heroin.

18-18-407(1) (e): sale, distribution, possession or importation in excess of 50 pounds of marijuana or 25 pounds of concentrate. (Also, 18-18-406: distribution over 50 pounds of marijuana or over 25 pounds of concentrate.)

18-18-407(1) (f): use or possession of deadly weapon or firearm during commission of drug crime (NOTE: requires sentencing in the aggravated range)

18-18-407(1)(g): use of a child for the purposes of drug dealing

18-18-407(1)(h): offense was part of a continuing criminal enterprise- 5 or more people involved in 2 or more drug crimes on separate occasions.

18-18-407(2)(a): drug distribution/manufacture within or upon the grounds of school, vocational school or public housing development or within 1,000 feet of the perimeter of any school, public housing, etc.

18-18-405: sale of a Schedule I or II controlled substance (any quantity) other than marijuana to a minor by adult and the adult is at least 2 years older than the minor

18-18-406: sale to minor of 2.5 lbs or more of marijuana or more than 1 lb of concentrate (hash) if adult is at least 2 years older than the minor

DF-2 Felony

Presumptive range: 4-8 years

Aggravated range: 8-16 years

18-18-405: distribution/manufacture/possession with intent to distribute more than 14 grams up to 225 grams of Schedule I/II (1/2 oz – 8 ounce) or more than 7g – 112g of methamphetamine or heroin (1/4 oz–4 oz)

18-18-405: sale of a Schedule III, IV, or V controlled substance other than marijuana to a minor by adult and the adult is at least 2 years older than the minor

18-18-406: distribution of more than 5 pounds of marijuana but not more than 50 pounds of marijuana or more than 2 1/2 pounds but not more than 25 pounds of concentrate

18-18-406(7): sale/transfer to a minor by adult of more than 6 oz of marijuana but not more than 2.5 pounds or more than 3 oz but not more than 1 pound of concentrate if adult is at least 2 years older

18-18-406.2: sale of synthetic cannabinoids or salvia by adult to minor and adult is more than 2 years older.

18-18-412.5: unlawful possession of ephedrine, pseudoephedrine, or phenylpropanolamine with intent to manufacture methamphetamine and amphetamine.

DF-3 Felony

Presumptive range: 2-4 years

Aggravated range: 4-6 years

18-18-405: distribution/manufacture/possession with intent to distribute up to 14 grams of Sched I/II (up to 1/2 oz) or up to 7 grams of methamphetamine or heroin (1/4 ounce)

18-18-405: distribution of more than 4 grams of Schedule III and IV

18-18-406: distribution of more than 12 ounces but not more than 5 pounds of marijuana or more than 6 ounces but not more than 2 ½ pounds of concentrate; cultivation of more than 30 marijuana plants

18-18-406: knowingly process or manufacture marijuana or concentrate or knowingly allow land owned, occupied or controlled for same except as authorized pursuant to part 3 of article 22 of title 12 CRS.

18-18-406(7): sale/transfer to a minor by adult of more than 1 oz but not more than 6 oz of marijuana or more than 1/2 oz but not more than 3 oz of concentrate if adult is more than 2 years older

18-18-406.2: distribution, sale of synthetic cannabinoids or salvia divinorum

18-18-412.7: sale or distribution of materials to manufacture controlled substances

18-18-416: inducing consumption by fraudulent means

18-18-422: distribution of imitation controlled substance (adult to minor and adult at least 2 years older)

18-18-423: manufacture, deliver or possess with intent a counterfeit substance

DF-4 Felony

Presumptive range: 6-12 months

Aggravated range: 1-2 years

18-18-403.5: simple possession of Schedule I/II drugs or ketamine/flunitrazipam

18-18-405: transfer without remuneration of up to up to 4 grams of Schedule I/II or up to 2 grams of methamphetamine or heroin

18-18-405: manufacture, dispense, sell, distribute, possession with intent 4g or less of Schedule III or IV

18-18-406: cultivation of more than 6 but less than 30 marijuana plants

18-18-406: possession of over 12 ounces of marijuana or over 3 ounces of hash

18-18-406: distribution of more than 4 ounces but not more than 12 ounces of marijuana or more than 2 ounces but not more than 6 ounces of concentrate

18-18-415: obtaining controlled substance by fraud and deceit

18-18-406(7): sale/transfer to a minor by adult of 1 oz or less of marijuana or 1/2 oz or less of concentrate if adult is more than 2 years older

18-18-422: distribution of imitation controlled substance (adult to adult)

DM-1 Misdemeanor (sentence range 6-18 months)

18-18-403.5 (2)(b)(II)(c): possession schedule III, IV, V (except flunitrazepam and ketamine)

18-18-405: transfer with no remuneration of 4 grams or less of schedule III, IV

18-18-405(2)(a)(IV)(A): sale/distribution of schedule V (with or without remuneration)

18-18-406(4)(b): marijuana possession more than 6 ounces but not more than 12 ounces or 3 oz or less of concentrate, **except as otherwise provided by Amendment 64.**

18-18-406: sale/distribution of 4 oz or less of marijuana or 2 ounces or less of concentrate

18-18-406.5: unlawful use of marijuana in a detention facility

18-18-406(7.5)(a): cultivation of up to 6 marijuana plants

18-18-411: maintaining, renting or making available property used for dist/manufacture of controlled substances

18-18-422(3): promotion of distribution of imitation controlled substances via advertising

DM-2 Misdemeanor (sentence range 0-12 months)

18-18-404(1)(a): use of scheduled drugs

18-18-406(2): failure to appear in court on marijuana summons

18-18-406(4)(a): possession of more than two ounces but not more than 6 ounces of marijuana

18-18-406.1: unlawful use or possession of synthetic cannabinoids or salvia divinorum

18-18-412: abusing toxic vapors

18-18-412.8: retail sale or purchase of methamphetamine precursor >3.6g in 24 hours; sale to minor

18-18-414(e-n): pharmacy and hospital violations related to refills on Schedule III, IV, V, failure to maintain required records, failure to obtain required license.... etc. (currently just listed as “misdemeanor” without class level)

18-18-429: sale/delivery or manufacture with intent to deliver drug paraphernalia

18-18-430: advertising to promote sale of drug paraphernalia

Petty Offense

18-18-406(1): marijuana possession 2 ounces or less **except as otherwise provided by Amendment 64.**

18-18-406(3)(a)(I): public display or consumption of 2 ounces or less of marijuana

18-18-406(5): transfer without remuneration of 2 ounces or less of marijuana

18-18-413: authorized possession of controlled substance in wrong container

18-18-428: possession of drug paraphernalia

Proposed Crime Classification Overview

Scheduled controlled substances

Crime	Misd 2 (0-12 mos)	Misd 1 (6-18 mos)	Felony D4 PR: 6-12 mos AR: 1-2 years	Felony D3 PR: 2-4 yrs AR: 4-6 yrs	Felony D2 PR: 4-8 yrs AR: 8-16 yrs	Felony D1 PR: 8-32 yrs Man Min 8 yrs
Drug Use	Any drug					
Possession III, IV, V		Any amount				
Possession I/II & fluni/ketamine			Any amount			
Transfer/sharing		Sch III/ IV	4g or less-Sch I/II 2g or less-meth/heroin			
Sale-sched V		Any amount				
Sale-imitation substance			to adult	to minor		
Sale-Sch III/IV			4g or less	>4g		
Sale-schedule I/II				14g or less (1/2 oz or less)	>14g -225g (>1/2 oz-8oz)	>225g (>8 oz)
Sale-meth/heroin				7g or less (1/4 oz or less)	>7g – 112g (>1/4 oz –4oz)	>112g meth/heroin (>4 oz)
Sale to minor & adult is +2yrs older than minor					Sch III, IV, V	Sch I, II
Importation I/II						>14g; >7g meth/heroin

Scheduled Drugs - definitions

Schedule I drug - has a high potential for abuse; has no currently accepted medical use in the US; and lack accepted safety for use under medical supervision. Examples include heroin, psilocybin (mushrooms), LSD, GHB, peyote, and marijuana.

Schedule II drug – has a high potential for abuse; currently accepted for medical use in the US; and abuse may lead to dependence. Examples include cocaine, methamphetamine, oxycodone, morphine, fentanyl .

Schedule III drug – has a potential for abuse that is less than drugs included in Schedules I/II; has currently accepted medical use in US; and abuse may lead to moderate or low dependence. Examples include Vicodin.

Schedule IV drug – has a low potential for abuse relative to drugs in Schedule III, has currently accepted medical use in US, and abuse may lead to limited dependence relative to drugs in Schedule III.

Schedule V drug – has a low potential for abuse relative to substances included in Schedule IV, has currently accepted medical use in treatment, and abuse may lead to limited dependence relative to drugs in Schedule IV.

Marijuana and Concentrate Offenses (where quantity dictates crime level)

Crime	Petty offense	Misd 2 (0-12mos)	Misd 1 (6-18 mos)	Felony D4 PR: 6-12 mos AR: 1-2 years	Felony D3 PR: 2-4 yrs AR: 4-6 yrs	Felony D2 PR: 4-8 yrs AR: 8-16 yrs	Felony D1 PR: 8-32 yrs Man Min 8 yrs
Possession MJ	2 oz or less	>2oz - 6oz	>6 -12oz	> 12 oz			
Poss of concentrate-hash			3 oz or less	>3 oz			
Transfer/share MJ	2 oz or less						
Cultivation MJ			up to 6	>6 - 30plants	> 30 plants		
Sale/distribution MJ			4 oz or less	> 4oz - 12oz	>12oz - 5 lbs	>5 lbs -50 lbs	> 50 lbs
Sale concentrate-hash			2 oz or less	>2oz - 6 oz	>6oz - 2.5lbs	>2.5lb - 25lbs	> 25 lbs
Sale to minor MJ & adult +2yrs older				1 oz or less	> 1 oz - 6 oz	>6oz - 2.5 lbs	>2.5 lbs
Sale to minor Hash & adult +2yrs older				½ oz or less	>1/2oz – 3oz	>3oz-1 lb	> 1lb

Recommendation FY13-DP #2

Replicate the Summit View³² model of state/local partnerships for residential treatment in communities.

Expand residential treatment capacity by allowing a state funding mechanism to local governments for the capital construction or acquisition of real property for the purposes of providing residential treatment in the community. Regional collaboration is permitted to expand residential treatment options in rural or otherwise underserved areas. Clients could include referral from criminal justice, child welfare, other agencies or voluntary admissions. (Summit View, Grand Junction replication).

Discussion

Colorado has one of the highest illicit drug use prevalence rates in the nation, according to the National Survey on Drug Use and Health,³³ yet a critical shortage of residential treatment beds exists in Colorado.³⁴ Substance abuse disorder and other mental health problems are significant cost drivers in the criminal justice, child welfare and medical care systems. The overwhelming majority of residential treatment beds are available only for individuals involved in the criminal justice system who are accepted into a community corrections programs.

Mesa County officials decided to develop a community-based residential treatment program instead of expanding the local jail. Summit View, which opened in 2007, accepts people from many referral systems, including criminal justice and child welfare, and also voluntary admissions. The results from Mesa County's experience could serve as a model for other communities across the state.

Given the budget crises faced by many county governments, the state could be a valuable partner in expanding capacity for residential treatment services. The Division of Behavioral Health may also be able to leverage and target its funding to help support operations for the delivery of residential treatment. Also, as offender populations decline, it may be possible to repurpose existing state and local buildings to meet the objective of expanding residential treatment beds.

³² Summit View is a residential treatment facility in Mesa County.

³³ See <http://www.samhsa.gov/data/NSDUH/2k10State/NSDUHsae2010/NSDUHsaeMapAnyDU2010.pdf>.

³⁴ English, K. (2010). *White paper from the Treatment Funding Working Group of the Colorado Commission on Criminal and Juvenile Justice*. Denver, CO: Colorado Division of Criminal Justice. See Table 2. Available at http://www.colorado.gov/ccjdir/Resources/Resources/Report/2010-12_TxtFundingWP.pdf.

Recommendation FY13-DP #3

Develop a jail option for the completion of specific drug-related, short prison sentences.

Request that the Department of Corrections evaluate the feasibility of allowing defendants sentenced to prison with a relatively short sentence who need substance abuse treatment to serve their prison sentence in the county jail if the jail can provide the appropriate level of substance abuse treatment. The Sheriff and the DOC would need to both agree to a defendant serving his/her prison sentence in jail. DOC would be responsible to pay for the cost of incarceration at the jail per diem set by the legislature.

Discussion

People sentenced to prison for relatively short periods of time and who also have substance abuse treatment needs are not likely to receive treatment while in prison. There is a lack of treatment available in prison, particularly for people with shorter sentences. Processing inmates through the DOC's Denver Reception and Diagnostic Center (DRDC) is very costly because it involves numerous tests and assessments.

The treatment funds appropriated to the Division of Behavioral Health from HB 10-1352 have been used to develop or expand the capacity to provide substance abuse treatment in jail through the Jail Based Behavioral Health Services (JBBS) program. In FY2011-12, \$1,450,000 was appropriated to the Division of Behavioral Health and JBBS grants were awarded to the Sheriff's Departments in Alamosa, Arapahoe, Boulder, Delta, Denver, El Paso, Jefferson, La Plata, Larimer, and Logan counties.³⁵

Allowing inmates to serve relatively short prison sentences in jail may increase his or her likelihood of receiving substance abuse treatment services while incarcerated. If allowed to serve the prison sentence in jail, inmates may also have better access to family visitation and re-entry support services offered by the jail or local community-based programs. This may help promote successful re-entry following release.

This recommendation may present some operational and logistical challenges for the jail, DOC administration, and the Parole Board. For example, DOC inmates in jail would need to be eligible to be awarded earned time. A DOC inmate serving his or her sentence in jail would still be eligible under state law to be referred to community corrections (unless waived) or, as an alternative, a DOC inmate could be eligible for a jail work-release program, if offered. DOC inmates in jail would still be eligible under state law for consideration by the Parole Board when eligible. Further discussion is needed on these issues to determine whether this

³⁵ Treatment Funding Work Group. (September 13, 2012). *Impact of CCJJ bills on substance use disorder treatment*. Report presented to the Drug Policy Task Force of the Colorado Commission on Criminal and Juvenile Justice.

recommendation is viable and further discussion may also be needed regarding whether the current jail reimbursement rate paid by DOC would be adequate in this circumstance.

Recommendation FY13-DP #4

Expand intensive residential treatment (IRT) availability in DOC.

Encourage the General Assembly to provide funding to the Department of Corrections to develop or expand an intensive residential treatment program for inmates who have relatively short sentences and who are assessed to need that level of treatment.

Discussion

Approximately 51% of new commitments to prison in FY2011 were assessed to be in moderately/severe or severe need of substance abuse treatment.³⁶ Another 39% were assessed to be in moderate need of substance abuse treatment.³⁷

Inmates with relatively short sentences, regardless of the nature of the conviction, are unlikely to receive treatment services while incarcerated. Public safety and inmate recovery could be promoted by providing more inmates with an intensive residential treatment modality for those in high need of treatment within DOC. Prioritize those with relatively short sentences.

³⁶ Barr, B., Gilbert, C.R., & O'Keefe, M.L. (2012). *Statistical Report Fiscal Year 2011*. Colorado Springs, CO: Colorado Department of Corrections.

³⁷ Ibid.

Recommendation FY13-DP #5

Expand civil remedies to prevent, intervene and treat substance abuse.

Allow for expansion of civil remedies (e.g. consumer protection and/or use of public health regulatory authority) as part of building more comprehensive drug policy. Areas related to this proposal include strategies to prevent and effectively intervene in prescription drug abuse/misuse and adopting medical models for detoxification programs.

Discussion

Comprehensive drug policy should integrate law enforcement, treatment, public health and civil law strategies designed to prevent drug abuse, promote recovery from addiction, and reduce the supply of illegal drugs in Colorado.

In 2012, the Colorado Legislature revised the Colorado Consumer Protection Act to promote its use in stopping retailers from selling designer drugs like "bath salts" and "spice." There may be other applications of the Colorado Consumer Protection Act. Currently, the Colorado Department of Health, Welfare and Environment does not have regulations regarding the possession or sale of illegal drugs.

The Commission recommends exploring the expansion of civil law strategies and to collaborate with medical and behavioral health treatment providers, their respective regulatory agencies/boards, and health departments to develop recommendations related to preventing and intervening in the misuse of prescription medications and the development of medical-based models for detoxification services in Colorado.

Recommendation FY13-DP #6

Expand access to trauma-informed substance abuse treatment.

If there are projected cost-savings from legislation reforming the Colorado Controlled Substances Act, the Commission recommends that the General Assembly prioritize expanding access to trauma-informed treatment services for people with a substance abuse disorder to the extent that is appropriate and available.

Discussion

The General Assembly has appropriated approximately \$8M to expand treatment services since the passage of HB 1352 in 2010.³⁸ However, there are still gaps in access to treatment services for indigent offenders. Additionally, the federal Substance Abuse and Mental Health Services Administration (SAMHSA) recommends that treatment for substance abuse disorders be provided in a manner that is informed by best practices in trauma care due to the high prevalence of traumatic histories among substance abuse treatment clients.³⁹ Currently few Colorado substance abuse treatment providers are trained in providing trauma-informed care.

³⁸ Treatment Funding Work Group. (September 13, 2012). *Impact of CCJJ bills on substance use disorder treatment*. Report presented to the Drug Policy Task Force of the Colorado Commission on Criminal and Juvenile Justice.

³⁹ Trauma-informed care is an approach to engaging people with histories of trauma that recognizes the presence of trauma symptoms and acknowledges the role that trauma has played in their lives. See <http://www.samhsa.gov/nctic/>.

Appendix A

Managing Addiction as a Chronic Condition

Managing Addiction as a Chronic Condition

This article reviews progress in adapting addiction treatment to respond more fully to the chronic nature of most patients' problems. After reviewing evidence that the natural history of addiction involves recurrent cycles of relapse and recovery, we discuss emerging approaches to recovery management, including techniques for improving the continuity of care, monitoring during periods of abstinence, and early reintervention; recent developments in the field related to self-management, mutual aid, and other recovery supports; and system-level interventions. We also address the importance of adjusting treatment funding and organizational structures to better meet the needs of individuals with a chronic disease.

Michael Dennis, Ph.D.¹

Christy K Scott, Ph.D.²

¹Chestnut Health Systems
Bloomington, Illinois

²Chestnut Health Systems
Chicago, Illinois

Historically, addiction treatment systems and research have been organized to provide and improve the outcomes of acute episodes of care. The conceptual model has been that an addicted person seeks treatment, completes an assessment, receives treatment, and is discharged, all in a period of weeks or months. This orientation stands at variance with clinical experience and studies conducted over several decades, which confirm that, although some individuals can be successfully treated within an acute care framework, more than half the patients entering publicly funded addiction programs require multiple episodes of treatment over several years to achieve and sustain recovery (Dennis et al., 2005; Dennis, Foss, and Scott, 2007). The progress of many patients is marked by cycles of recovery, relapse, and repeated treatments, often spanning many years before eventuating in stable recovery, permanent disability, or death (Anglin et al., 2001; Anglin, Hser, and Grella, 1997; Dennis, Scott, and Funk, 2003; Hser et al., 1997, 2001; McLellan et al., 2000; Scott, Dennis, and Foss, 2005; Scott, Foss, and Dennis, 2005; Simpson, Joe, and Broome, 2002; Weisner et al., 2004; Weisner, Matzger, and Kaskutas, 2003; White, 1996).

The traditional acute care approach to drug abuse has encouraged people to suppose that patients entering addiction treatment should be cured and able to maintain lifelong abstinence following a single episode of specialized treatment. Accordingly, policymakers allocate limited public health dollars for addiction treatment; insurers restrict the number of patient days and visits covered; treatment centers make no infrastructure allowance for ongoing monitoring; and families and the public become impatient when patients relapse (McLellan et al., 2000).

The mismatch between the typical natural history of substance use disorders (SUDs) and treatment models and expectations reduces our ability to help addicted individuals. In this overview, we define SUDs, highlight their chronic features, discuss several recently developed techniques to manage SUDs over time, and present information that can help guide systems and programs in adapting to a chronic care approach to SUDs.

CHRONICITY OF SUDS

The American Psychiatric Association (APA; 2000) and World Health Organization (WHO; 1999) define addiction as a chronic, tenacious pattern of substance use and related problems; they distinguish two types of SUDs: dependence and abuse (the latter called “hazardous use” by the WHO). The definition of substance dependence implies chronicity: Symptoms—including increased tolerance for the substance, inability to abstain, replacement of healthy activities with substance use, and continued use despite medical or psychological problems—have been present for longer than 12 months and are likely to persist if left untreated. Substance abuse applies when people do not meet the dependence criteria, but report at least one moderately severe substance-related symptom that puts them at high risk for harming themselves or others and for developing dependence. Dependence requires treatment, and abuse generally results in referral to brief intervention or treatment.

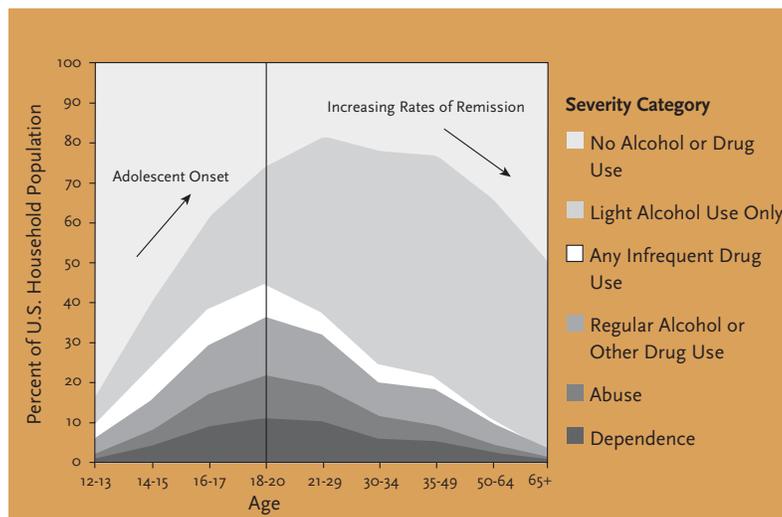
A growing body of neuroimaging studies provides evidence that a physiological basis underlies the clinical experience of SUD chronicity (Fowler et al., 2007). These studies demonstrate that cravings, cue reactivity, tolerance, and withdrawal can be seen in the brain; that they interact with brain development (particularly among adolescents); that they respond to medications as well as social and physical environment; and that chronic substance use is associated with physical changes in the brain that have an impact on brain functioning and emotional states (Chang et al., 2005, 2006; Kufahl et al., 2005; Paulus, Tapert, and Schuckit, 2005; Risinger et al., 2005; Schlaepfer et al., 2006; Volkow, Fowler, and Wang, 2003, 2004).

Epidemiological Indicators of Chronicity

Of the 235 million people aged 12 and over in the U.S. household population in 2001, 5 percent met the criteria for substance dependence, and 4 percent met the criteria for substance abuse in the past year (Office of Applied Studies (OAS), 2002). Epidemiological data affirm that SUDs typically follow a chronic course, developing during adolescence and lasting for several decades. Some 90 percent of all individuals with dependence started using before the age of 18, and half started before the age of 15 (Dennis et al., 2002). In the U.S. population as a whole, the prevalence of dependence and abuse rises through the teen years, peaks at around 20 percent between ages 18 and 20, then declines gradually over the next four decades (Figure 1; OAS, 2002). A significant portion of older nonusers are people in recovery. In studies of community (Dawson, 1996; Kessler, 1994; Robins and Regier, 1991) and treatment (Dennis et al., 2005) populations, between 58 and 60 percent of people who met the criteria for an SUD at some time in their lives eventually achieved sustained recovery—that is, they had no dependence or abuse symptoms for the past year. Most who recover do so only after at least one episode of treatment (Cunningham, 1999*a*, 1999*b*).

People who enter treatment are a distinct subgroup of substance users whose problems are particularly severe and intractable. Among people in publicly funded addiction treatment in 2002, 62 percent met the diagnostic criteria for dependence; 16 percent met the criteria for abuse; and 22 percent were admitted for other subclinical substance-related problems (e.g., acute intoxication, mental health problems aggravated by substance use; OAS, 2005). Of people admitted to U.S. public

FIGURE 1. Substance Use Disorders Begin in Adolescence and Last for Decades



In the U.S. household population in 2001, the percentage of people who reported substance dependence or abuse rose through the adolescent age groups to peak among the 18- to 20-year-olds, and declined through subsequent age groups (OAS, 2002).

programs in 2003, 64 percent were reentering treatment: 23 percent for the second time, 22 percent for the third or fourth time, and 19 percent for the fifth or more time (OAS, 2005). In fact, numerous longitudinal studies have shown that, on average, people reach sustained abstinence only after three to four episodes of different kinds of treatment over a number of years (Anglin, Hser, and Grella, 1997; Dennis et al., 2005; Grella and Joshi, 1999; Hser et al., 1997, 1998; Scott, Dennis, and Foss, 2005; Scott, Foss, and Dennis, 2005). In one longitudinal study with 1,271 patients, the estimated median time from first use to at least 1 drug-free year was 27 years, and the median time from first treatment to 1 alcohol- and drug-free year was 9 years with three to four episodes of treatment (Dennis et al., 2005).

In sum, most patients in publicly funded addiction treatment have SUDs and require multiple treatment episodes over several years to reach stable recovery. For optimal outcomes, treatment systems and interventions should be able to address the long-term aspects and cyclical dynamics of the disorder.

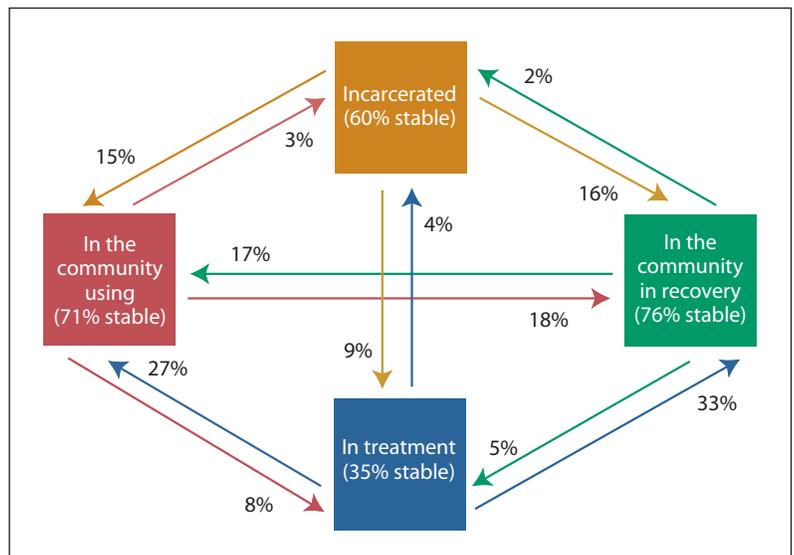
Inside the Cycles of Recovery and Relapse

In a recent study, Scott and colleagues provided insight into the factors influencing 448 patients' transitions between relapse, treatment reentry, incarceration, and recovery (Scott, Dennis, and Foss, 2005). Over 2 years of monitoring, 82 percent transitioned at least once, and 62 percent moved multiple times (Figure 2). In an average quarter, 32 percent of the patients moved from one status to another.

Several variables predicted the transitions. Patients with higher substance use severity and environmental obstacles to recovery—for example, substance use in the home, family problems, and victimization—were less likely to transition from drug use to recovery or treatment (i.e., the individuals most in need of treatment were the least likely to re-enroll on their own). Patients were more likely to transition from use to recovery when they believed their problems could be solved, desired help with their problems, reported high self-efficacy to resist substance use, and received addiction treatment during the quarter.

Scott and colleagues conducted a second study, this time with 1,326 adult patients over a 3-year period, that looked at annual transitions (Scott, Foss, and Dennis, 2005). More than 83 percent of the participants transitioned from one point in the cycle to another during the 3 years (including 36 percent who transitioned twice

FIGURE 2. The Pathway to Recovery Is Cyclical



Over a 2-year period, 82 percent of drug users transitioned one or more times between use, incarceration, treatment, and recovery. An average of 32 percent changed every 90 days, with movement in every direction and treatment increasing the likelihood of getting to recovery (Scott, Foss, and Dennis, 2005).

and 14 percent who transitioned three times). Treatment participation was again a primary correlate of the transition from use to recovery. The odds ratio of transitioning from use to recovery went up 1.14 for every 9 weeks of treatment received during the year. Among patients who started the year in recovery, the major predictor of whether they maintained abstinence was not treatment, but their level of self-help group participation. The odds ratio of relapse went down 0.55 for every 77 days of self-help group attendance.

Factors Affecting the Duration of SUDs

The age at first substance use and the duration of use before starting treatment are related to the length of time it takes people to reach at least 1 year of alcohol and drug abstinence. Scott and colleagues found that the median time of use was significantly longer for people who started before age 15 than for those who started after age 20 (29 vs. 18 years; Scott, Dennis, and Foss, 2005). Patients who began treatment within 10 years of their initial drug use achieved a year or more of abstinence after an average of 15 years, compared with 35 or more years among those who entered treatment after 20 or more years of use. These results clearly establish the need to diagnose and intervene as early as possible, ideally during the first decade of use.

Systems that offer both inpatient and outpatient care for SUDs cost more to maintain, but save more in social costs.

The Impact of Co-Occurring Problems

As clinicians and researchers are aware, individuals with SUDs have high rates of additional health and social burdens that increase the difficulty of treatment: psychiatric problems, HIV risk behaviors, violence, illegal activity and involvement in the criminal justice system, service utilization, homelessness, and a wide range of vocational problems (Center for Substance Abuse Treatment, 2000; Compton, Lamb, and Fletcher, 1995; Epstein, 2002; Grant, 2000; Hasin et al., 1997*a*, 1997*b*; Jaffe, 1993; Kessler et al., 1996; Langenbucher, Morgenstern, and Miller, 1995; Lennox, Scott-Lennox, and Bohlig, 1993; Lennox, Scott-Lennox, and Holder, 1992; Lennox, Zarkin, and Bray, 1996; Mark et al., 2001; Regier et al., 1990; Woody, Cottler, and Cacciola, 1993). Patients who abuse multiple substances or have other co-occurring problems are more likely to experience difficulties with treatment/medication adherence, shorter stays, administrative discharges, compromised functional status, difficult community adjustment, reduced quality of life, and worse outcomes (e.g., Brooner et al., 1997; Ford, Snowden, and Walser, 1991; Hien et al., 1997; McLellan et al., 1983; Mueser et al., 1990; Project MATCH Research Group, 1997; Ross, Glaser, and Germanson, 1988; Rounsaville et al., 1982, 1986; Weisner, Matzger, and Kaskutas, 2003; White et al., 2005). Clinical trials have demonstrated that when patients have an SUD combined with one or more non-substance-related disorders, it can be more effective—in terms of both clinical outcome and cost—to provide integrated care (Parthasarathy et al., 2003; Willenbring, 2005).

EMERGING APPROACHES TO RECOVERY MANAGEMENT

Recently, clinicians and researchers have generated several new approaches to improve the long-term management of an SUD by responding to its chronic nature. Underlying the approaches are three strategies:

- Improve the continuity of care;
- Use monitoring and early reintervention; and
- Provide other recovery support.

Improving Continuity of Care

During the years- or decades-long course of an SUD, patients need varying levels of care. In periods of intensified symptoms, a patient may be able to cope best by retreating from the community to a specialized inpatient or intensive outpatient setting. Conversely, reen-

try into the community at the conclusion of an intensive treatment episode marks the beginning of a new state of risk related to continuing biobehavioral vulnerability and environmental exposures.

Accordingly, the APA (1995), the American Society of Addiction Medicine (2001), and the Department of Veterans Affairs Office of Quality and Performance (www.oqp.med.va.gov/cpg/SUD/SUD_Base.htm) have issued clinical practice guidelines recommending that patients being discharged from intensive levels of addiction treatment be transferred to outpatient treatment for a period of time before leaving the addiction treatment system. A number of studies demonstrate that this practice promotes continuation of abstinence and reduces the likelihood of arrest (e.g., Brown et al., 1994; Donovan, 1998; Gilbert, 1988; Godley et al., 2007; Higgins, Badger, and Budney, 2000; Ito and Donovan, 1986; Kosten et al., 1992; McKay, 2001; McKay et al., 1998; Moos et al., 2001; Moos and Moos, 2003; Ouimette, Moos, and Finney, 1998; Peterson et al., 1994; Ritsher et al., 2002; Ritsher, Moos, and Finney, 2002; Sannibale et al., 2003; Walker et al., 1983). Also, in one of the few economic evaluations of long-term management of chronic SUDs, French and colleagues (2000) found that while the outlay to provide a full continuum of inpatient and outpatient care was greater than that for outpatient treatment alone (\$2,530 vs. \$1,138; $p < 0.05$), the cost differential was offset by significantly greater reductions in societal costs over the subsequent 9 months (savings of \$17,833 vs. \$11,173; $p < 0.05$).

Despite the benefits associated with continuing care, a study of discharge patterns in 23 states and jurisdictions showed that although 58 percent of patients successfully completed detoxification, hospital, residential treatment, or intensive outpatient programs, only about 17 percent of these individuals proceeded to regular outpatient care (OAS, 2005). Studies focusing on single correctional, drug court, residential, intensive outpatient, and detoxification programs have found, similarly, that 25 to 90 percent of discharged individuals do not successfully access the recommended outpatient continuing care (Godley et al., 2002; Godley, Godley, and Dennis, 2001; Mark et al., 2003; McCorry et al., 2000; McKay et al., 2002; OAS, 2005; Taxman, 2002). Common reasons for low success rates in bridging patients into continuing care include relying on patients' self-motivation to follow through with discharge recommendations, discharging patients to geographically large catchment areas (particularly from criminal/juvenile jus-

tice and adolescent residential programs) where followup services are not easily accessed, and passively linking patients to other organizations or staff without proactive efforts to ensure continuity of care.

Recent studies have evaluated new and more assiduous protocols to improve participation in continuing care (Ciliska et al., 1996; Godley et al., 2002, 2007; McKay et al., 2004; Simon et al., 2004; Slesnick and Prestopnik, 2004; Zhu et al., 1996). As an example, McKay and colleagues (2004, 2005) demonstrated benefits with telephone-based continuing care. The researchers randomly assigned 359 alcohol- or cocaine-dependent adults who had completed a 4-week intensive outpatient program to one of three continuing care protocols: (a) twice weekly standard outpatient treatment for 12 weeks; (b) twice weekly relapse prevention group therapy for 12 weeks; or (c) 4 weeks of relapse prevention group therapy and 12 weeks of therapist-initiated telephone contact. Over the course of the study, the participants who were telephoned had significantly fewer positive cocaine urine tests than those in group b (odds ratio 0.80) or group a (odds ratio 0.26). The results also suggest that telephone delivery of continuing care may be most effective for persons whose SUD is less severe; participants with high dependence levels or co-occurring disorders benefited slightly less than others.

Godley and colleagues (2002, 2004, 2007) developed a protocol called assertive continuing care (ACC) and showed that it improved participation and recovery indicators. Researchers randomly assigned 183 adolescents in residential treatment to either ACC or usual continuing care (UCC). Adolescents in the ACC group worked with a case manager who tried to meet with them once before discharge. Subsequently, the case managers provided in-home outpatient treatment and helped negotiate additional treatment services, school support, probation, and other services to support recovery. All the adolescents in both intervention groups were referred to local outpatient treatment programs and self-help groups, and were given continuing care plans. Over the 90 days following discharge, those who received ACC:

- Were more likely than those given UCC to access at least some continuing care services (94 vs. 54 percent);
- Received more days of continuing care sessions (median 14.1 vs. 6.3);
- Were more likely to engage in 7 or more of 12 activities associated with sustaining abstinence (e.g., self-help, urine testing, relapse prevention work; 64 vs. 35 percent); and

- Were more likely to remain abstinent 1 to 3 months after discharge from residential treatment (43 vs. 24 percent),
- Which was, in turn, predictive of abstinence 4 to 9 months after discharge (69 vs. 19 percent).

The research team is currently exploring whether contingency contracting can further improve continuing care participation and related outcomes and whether ACC can improve outcomes following outpatient treatment.

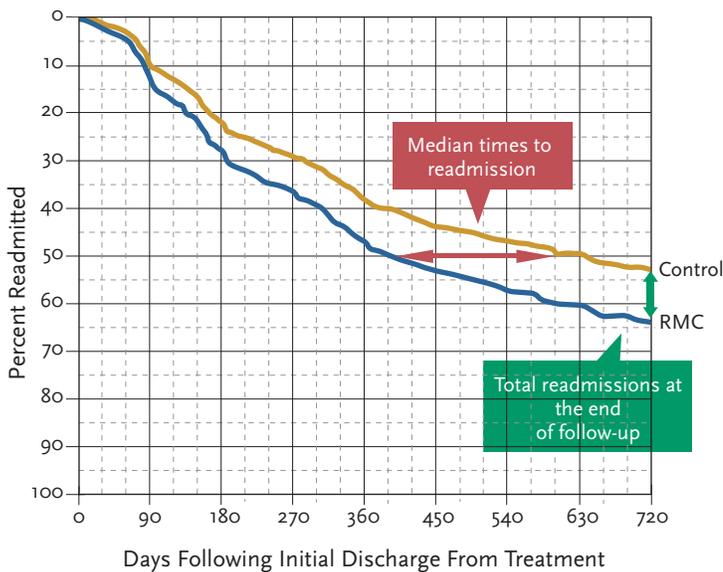
On a broader scale, various groups have suggested using performance measurement to improve continuity of care (e.g., Garnick et al., 2002; McCorry et al., 2000; McLellan et al., 2005; www.ncqa.org; www.washingtoncircle.org). One of the largest such initiatives, the Network for the Improvement of Addiction Treatment (NIATx), is a partnership among the Center for Substance Abuse Treatment, the Robert Wood Johnson Foundation, and a number of independent addiction treatment organizations (Capoccia et al., 2007; McCarty et al., 2007; Wisdom et al., 2006). The NIATx mission is to improve the efficiency with which the treatment field uses its capacity and to encourage ongoing improvements in treatment access and retention. NIATx assumes that addiction is a chronic and progressive condition and that interruptions and delays in the continuity of care can seriously exacerbate consequences. Using a process-improvement model, the first 13 NIATx programs were able to reduce the time from an individual's first contact to treatment entry by 37 percent, and from the first assessment to first treatment episode by 33 percent. They also improved the rate of returning for the second treatment session by 18 percent and the likelihood of staying four or more sessions by 11 percent (McCarty et al., 2007).

Monitoring and Early Reintervention

Ongoing monitoring and early reintervention have improved long-term outcomes for a range of chronic conditions, including asthma, cancer, diabetes, depression, and severe mental illness (Dunbar-Jacob et al., 1995; Engel, 1977, 1980; Huber, 2005; Institute of Medicine, 2001; McLellan et al., 2005; Nicassio and Smith, 1995; Roter et al., 1998; Weisner et al., 2004). Applying this approach to SUDs, Scott and Dennis (2003) developed and tested the recovery management checkup (RMC). With RMC, treatment staff members do not rely on patients to recognize that they need help but instead conduct quarterly checkups to assess

Monitoring and early reintervention have improved long-term outcomes for a range of chronic conditions.

FIGURE 3. Time to Readmission to Treatment by Condition



In the 24 months following discharge from an index episode of care, the rate of readmission was higher (64% versus 51%) and the median time to readmission was shorter (376 vs. 600 days) among patients who received recovery management checkup intervention, compared to controls. [Adapted from Dennis, Scott, and Funk, 2003; with permission from Elsevier.]

patient status. Staff members use motivational interviewing techniques to assist those who have relapsed to resolve their ambivalence about their substance use and commit to treatment or other appropriate care. Staff members also deploy assertive treatment linkage, engagement, and retention protocols to secure patient access to treatment and increase the amount of therapy received.

The initial clinical trial of RMC randomly assigned 448 adults, when they first presented for treatment, to post-treatment followup with the checkup intervention or only quarterly monitoring (Figure 3; Dennis, Scott, and Funk, 2003; Scott, Dennis, and Foss, 2005). At the end of 2 years of followup, the results showed that patients in the RMC group:

- Returned to treatment in greater numbers (60 vs. 51 percent)
- Returned to treatment sooner (median 376 vs. 600 days)
- Attended treatment on more days (average 63 vs. 40)
- Were less likely to be in need of treatment after 2 years (34 vs. 44 percent).

A second clinical trial, with 446 patients, used a modified RMC protocol and produced parallel findings. These two trials indicate that ongoing monitoring and

early reintervention can promote positive patient behaviors in long-term substance use.

Other Recovery Support Initiatives

Individuals with an SUD, like those with other chronic conditions, require a variety of support services to help manage their condition during and between episodes of formal treatment. Research demonstrates that active participation in self-help groups during and after treatment promotes lengthier periods of recovery (Brown, 1993; Hsieh, Hoffman, and Hollister, 1998; Humphreys and Moos, 2001; Kyroutz, Humphreys, and Loomis, 2002; McKay et al., 2002; Ritsher et al., 2002; Scott, Dennis, and Foss, 2005). Preliminary evidence also suggests that self-help participation is associated with better outcomes when patients join groups that focus on their particular issues, such as dual diagnoses (Laudet et al., 2000) or adolescent issues (Finch, 2005; Kelly and Myers, 1997; Kelly, Myers, and Brown 2002; White and Finch, 2006). Other recently tested recovery support approaches include telephone-based self-monitoring (Simpson et al., 2005) and Internet-based groups (Klaw, Huebsch, and Humphreys, 2000; Kypri et al., 2005; Toll et al., 2003). A meta-analysis of 24 studies involving 3,739 participants with chronic health conditions (other than SUDs) suggests that Internet-based interventions that allow interactions between patients and staff have a significantly higher impact than sites providing information only (Murray et al., 2004).

Connecticut and other states have begun to add recovery-based performance measures, values, and continuity of care between professional and “peer-based recovery supports” to their recovery initiatives (www.dmhhs.state.ct.us/recovery.htm). Similarly, in 2003, the Arizona Department of Health Services embarked on a unique initiative designed to develop a “peer workforce” for persons with SUDs (azdhs.gov/bhs/bhsglance.pdf). Public health systems that provide addiction, mental health, child welfare, and other services in Connecticut, Arizona, and other jurisdictions target key subgroups of people with SUDs to interrupt the cycle of relapse, treatment reentry, and recovery. For example, parents with SUDs can access standardized screening, colocated services, intensive case managers, or recovery coaches to facilitate long-term treatment engagement (e.g., Loveland and Boyle, 2005; Ryan, Louderman, and Testa, 2003).

IMPLICATIONS FOR PRACTICE

Whether a program implements one of the approaches

Individuals with an SUD require support services to manage their condition during and between treatments.

we have described or others yet to be developed, the literature suggests that programs should take their resources and capacities into account when choosing which empirically proven efficacious programs to implement to improve care. Lipsey and colleagues (2001), in a meta-analysis, demonstrated that the thoroughness of implementation can markedly affect the efficacy of evidence-based interventions. The researchers recommended that programs implement the most efficacious program they can implement well, because a highly efficacious program will not yield any better results for patients if it is implemented poorly. Such findings have led the National Institutes of Health to emphasize the need to improve the state of “implementation science” (e.g., grants.nih.gov/grants/guide/pa-files/PAR-06-039.html). Based on a recent review of the implementation science literature, Fixsen and colleagues (2005) suggested that efforts to implement new approaches should generally include implementation strategies at multiple levels, including but not limited to Federal, state, and local stakeholders, and staff across all levels of the provider organizations.

Shifting from an acute care to a chronic care model of recovery has implications for addiction programs, as well as for external stakeholders in those programs, and proper implementation of a chronic care model is crucial to its efficacy.

Organizational Support for a Chronic Care Approach

The philosophical, financial, clinical, and practical implications of moving to a chronic care approach will touch everyone in an addiction treatment organization—its board of directors, management, clinical supervisors and line staff, administrative supports, and clients. Consider what is required, for example, to respond appropriately when a person returns for his or her fourth episode of care: intake and admission procedures must be streamlined to facilitate rapid interruption of crises or relapses; patient and staff assumptions that multiple treatments represent failure must give way to attitudes more aligned with the standards we apply to treating other chronic conditions that need long-term management; and the funding structure will need to provide the necessary financial support.

In addition, as we learn more about the factors that influence patients’ progress in different phases of recovery, we will likely need greater resources and infrastructure to organize this information so that it can support real-time clinical decision making. It may be nec-

essary to modify assessment and other record systems to transfer information readily when patients move between levels of care and to make them accessible to multiple staff on the treatment team. Addressing such issues is likely to be critical for improving the management of SUDs.

Even when staff members favor the change to a chronic care model, they may not have adequate training, education, experience, or resources to address the needs of a particular client comprehensively—ranging, for example, from making psychiatric referrals to helping with housing. Miller and colleagues (2006) suggest that programs need to equip staff with three types of infrastructure before change can happen efficiently:

- Preparatory knowledge, which may be inculcated through reading, verbal instruction, or observing competent practice by others;
- Practice with feedback—of note, early practice during or right after training without feedback can reinforce bad habits and do as much harm as good; and
- Ongoing coaching or supervision, which is essential, because practice will inevitably bring up a wide range of situations and complex scenarios not covered in the basic materials or training.

Even experienced clinicians benefit from opportunities to brainstorm with staff colleagues on ways to handle a new situation or adapt a protocol when necessary. When Miller and colleagues (2004) randomized 140 counselors to a wait list condition or four training conditions (workshop, workshop + practice feedback, workshop + coaching, workshop + feedback + coaching), all training conditions improved knowledge and proficiency, but actual practice changed only when both feedback and coaching were provided. Although this particular study focused on a specific intervention, these three components will likely be important factors when implementing many key changes necessary to move toward a chronic-care model.

Federal, State, and Local Stakeholders

Public payers, government regulators, and accrediting bodies set requirements and impose limits on what publicly funded treatment providers can accomplish in terms of adopting a chronic-care approach to treating SUDs. More than three-quarters of the people accessing addiction treatment receive some kind of public assistance (Substance Abuse and Mental Health Services Administration, 2006); this makes public fund providers the primary purchasers of services and gives them a unique

We will need additional infrastructure to organize the information we learn about the influences on recovery.

ability to reshape existing structures and policies. As one example of the constructive use of this power, McLellan (2006) recently reported preliminary data from Delaware demonstrating that offering treatment providers performance-based incentives can improve the system of care. The data showed that retention rates from 2002 to 2004 increased 30 days (48 to 69 percent) and 60 days (25 to 42 percent) after admission. The State of Massachusetts implements a continuum of care based on the chronic disease model for its prevention and treatment systems (www.mass.gov/dph/bsas/sa_strategic_plan.ppt). In an attempt to more effectively address the chronic aspects of addiction, Connecticut is reviewing and modifying its regulations, services, and training to focus more on recovery values, recovery-based performance measures, and continuity of care between professional and “peer-based recovery” supports (www.dmhas.state.ct.us/recovery.htm). Although these and other efforts across the United States are encouraging first steps in the change process, adopting a chronic-care approach will require buy-in and active participation from all concerned with reducing the health and social consequences of drug abuse and addiction.

NEXT STEPS

Recent studies suggest some initial approaches to chronic care management. However, the field would benefit from research that investigates (1) the costs of ongoing monitoring and early reintervention; (2) the chronic care model in different populations (e.g., pregnant and postpartum women, offenders leaving prison, and adolescents); (3) the point at which an individual’s recovery history and status warrant transition from quarterly to biannual checkups; (4) the usefulness of more frequent or even continuous monitoring in improving outcomes; (5) the impact of less formal types of care (e.g., recovery coaches or faith-based interventions); (6) modes of service delivery such as telephone and e-mail; and (7) the indirect effects of recovery management on other outcomes such as HIV infection, illegal activity, emotional problems, vocational activity, and quality of life.

This information can help individuals and their families, and treatment staff recognize that addiction is a chronic but treatable condition, that most people with SUDs need help from several sources, that recovery often takes multiple episodes of treatment, and that relapse is common. However, staff members should encourage

clients with SUDs and their families by stating that the majority of people do succeed and the likelihood of reaching recovery status is related to continuing care and ongoing recovery support. When relapse occurs, staff should explain the chronic nature of the condition, proactively refer those in relapse to continuing care and other services, and work with patients to ensure that they follow through with recommendations for continuing care, for self-help group meetings, for ongoing urine monitoring, and for services to address other problems.

CONCLUSION

Historically, addiction treatment has been conceptualized as an episodic relationship in which a person seeks treatment, receives an assessment, and then is treated and presumed cured—all in a relatively short time period. Although the field faces numerous challenges in its attempts to manage chronic SUDs more effectively, this review demonstrates that we are making progress. Indeed, it has been argued that addiction treatments appear to be as effective as interventions available for other chronic conditions such as diabetes and hypertension (McLellan et al., 2000). The growing body of empirical evidence demonstrating the chronicity of SUDs, coupled with increasing awareness among various stakeholders about the need for change, represents genuine progress. Formal and informal efforts to address the problems continue to expand; it is hoped that this enhanced awareness will lead to increased dialogue and action among the numerous stakeholders to improve the treatment and long-term management of chronic SUDs.

ACKNOWLEDGMENTS

This work was supported by NIDA grants R37 DA 11323 and R01 DA 15523. The authors would like to thank Joan Unsicker, Stephanie Guetschow, David Anderson, and Eric Sarlin for their assistance in preparing and editing the manuscript, and Ya-Fen Chan, Mark Godley, Susan Godley, Laverne Stevens, Bill White, and several anonymous reviewers for their thoughtful comments. The opinions are those of the authors and do not reflect official positions of the government.

CORRESPONDENCE

Michael Dennis, Ph.D., Chestnut Health Systems, 720 West Chestnut, Bloomington, IL 61701; e-mail: mdennis@chestnut.org. &

REFERENCES

- American Psychiatric Association, 1995. *Practice Guidelines for the Treatment of Patients with Substance Use Disorders: Alcohol, Cocaine, Opioids*. Washington, DC: American Psychiatric Association.
- American Psychiatric Association, 2000. *Diagnostic and Statistical Manual of Mental Disorders* (4th ed., Text Revision, DSM-IV-TR). Washington, DC: American Psychiatric Association.
- American Society of Addiction Medicine, 2001. *Patient Placement Criteria for the Treatment of Substance-Related Disorders* (2d ed.). Chevy Chase, MD: American Society of Addiction Medicine.
- Anglin, M.D., et al., 2001. Drug treatment careers: Conceptual overview and clinical, research, and policy applications. In: F. Tims, C. Leukefeld, and J. Platt (Eds.), *Relapse and Recovery in Addictions*. New Haven, CT: Yale University Press, pp. 18-39.
- Anglin, M.D.; Hser, Y.I.; and Grella, C.E., 1997. Drug addiction and treatment careers among clients in the Drug Abuse Treatment Outcome Study (DATOS). *Psychology of Addictive Behaviors* 11(4):308-323.
- Bronner, R.K., et al., 1997. Psychiatric and substance use comorbidity among treatment-seeking opioid abusers. *Archives of General Psychiatry* 54(1):71-80.
- Brown, S.A., 1993. Recovery patterns in adolescent substance abuse. In: J.S. Baer, G.A. Marlatt, and J. McMahon (Eds.), *Addictive Behaviors Across the Life Span: Prevention, Treatment, and Policy Issues*. Newbury Park, CA: Sage, pp. 161-183.
- Brown, S.A., et al., 1994. Correlates of success following treatment for adolescent substance abuse. *Applied and Preventive Psychology* 3(2):61-73.
- Capoccia, V.A., et al., 2007. Making "stone soup": Improvement in clinic access and retention in addiction treatment. *Joint Commission Journal on Quality and Patient Safety* 33(2):95-103.
- Center for Substance Abuse Treatment, 2000. *Changing the Conversation: The National Treatment Plan Initiative*. Rockville, MD: Department of Health and Human Services.
- Chang, L., et al., 2005. Additive effects of HIV and chronic methamphetamine use on brain metabolite abnormalities. *American Journal of Psychiatry* 162(2):361-369.
- Chang, L., et al., 2006. Combined and independent effects of chronic marijuana use and HIV on brain metabolites. *Journal of Neuroimmune Pharmacology* 1(1):65-76.
- Ciliska, D., et al., 1996. A systematic overview of the effectiveness of home visiting as a delivery strategy for public health nursing interventions. *Canadian Journal of Public Health* 87(3):193-198.
- Compton, W.M.; Lamb, R.J.; and Fletcher, B.W., 1995. Results of the NIDA treatment demonstration grants' cocaine workgroup: Characteristics of cocaine users and HIV risk behaviors. *Drug and Alcohol Dependence* 37(1):1-6.
- Cunningham, J.A., 1999a. Resolving alcohol-related problems with and without treatment: The effects of different problem criteria. *Journal of Studies on Alcohol* 60(4):463-466.
- Cunningham, J.A., 1999b. Untreated remissions from drug use: The predominant pathway. *Addictive Behaviors* 24(2):267-270.
- Dawson, D., 1996. Gender differences in the risk of alcohol dependence: United States, 1992. *Addiction* 91(12):1831-1842.
- Dennis, M.L., et al., 2002. Changing the focus: The case for recognizing and treating cannabis use disorders. *Addiction* 97(Suppl. 1):4-15.
- Dennis, M.L., et al., 2005. The duration and correlates of addiction and treatment careers. *Journal of Substance Abuse Treatment* 28(Suppl. 1):S51-S62.
- Dennis, M.L.; Foss, M.A.; and Scott, C.K., 2007. An 8-year perspective on the relationship between the duration of abstinence and other aspects of recovery. *Evaluation Review* 31(6):585-612.
- Dennis, M.L.; Scott, C.K.; and Funk, R., 2003. An experimental evaluation of recovery management checkups (RMC) for people with chronic substance use disorders. *Evaluation and Program Planning* 26(3):339-352.
- Donovan, D.M., 1998. Continuing care: Promoting the maintenance of change. In: W.R. Miller and N. Heather (Eds.), *Treating Addictive Behaviors* (2d ed.). New York: Plenum, pp. 317-336.
- Dunbar-Jacob, J.; Burke, L.E.; and Puczyński, S., 1995. Clinical assessment and management of adherence to medical regimens. In: P.M. Nicassio and T.W. Smith (Eds.), *Managing Chronic Illness: A Biopsychosocial Perspective*. Washington, DC: American Psychological Association.
- Engel, G.L., 1977. The need for a new medical model: A challenge for biomedicine. *Science* 196(4286):129-136.
- Engel, G.L., 1980. The clinical application of the biopsychosocial model. *American Journal of Psychiatry* 137(5):535-544.
- Epstein, J.F., 2002. *Substance Dependence, Abuse and Treatment: Findings from the 2000 National Household Survey on Drug Abuse*. DHHS Publication No. SMA 02-3642. Rockville, MD: Substance Abuse and Mental Health Services Administration.
- Finch, A.J., 2005. *Starting a Recovery School with CEH Test Hazelden Professional Library: A How to Manual*. Center City, MN: Hazelden Foundation.
- Fixsen, D.L., et al., 2005. *Implementation research: A synthesis of the literature*. Louis de la Parte Florida Mental Health Institute, National Implementation Research Network (FMHI Publication No. 231). Tampa, FL: University of South Florida; nirn.fmhi.usf.edu/resources/publications/Monograph/.
- Ford, L.; Snowden, L.R.; and Walser, E.J., 1991. Outpatient mental health and the dual-diagnosis patient: Utilization of services and community adjustment. *Evaluation and Program Planning* 14(4):291-298.
- Fowler, J.S., et al., 2007. Imaging the addicted human brain. *Science & Practice Perspectives* 3(2):4-16.
- French, M.T., et al., 2000. Benefit-cost analysis of residential and outpatient addiction treatment in the state of Washington. *Evaluation Review* 24(6):609-634.
- Garnick, D.W., et al., 2002. Establishing the feasibility of performance measures for alcohol and other drugs. *Journal of Substance Abuse Treatment* 23(4):375-385.
- Gilbert, F.S., 1988. The effect of type of aftercare follow-up on treatment outcome among alcoholics. *Journal of Studies on Alcohol* 49(2):149-159.
- Godley, M.D., et al., 2002. Preliminary outcomes from the assertive continuing care experiment for adolescents discharged from residential treatment. *Journal of Substance Abuse Treatment* 23(1):21-32.
- Godley, M.D., et al., 2004. Findings from the assertive continuing care experiment with adolescents with substance use disorders. In: W. Dewey (Ed.), *Problems of Drug Dependence, 2003: Proceedings of the 65th Annual Scientific Meeting, The College on Problems of Drug Dependence, Inc.* NIDA Research Monograph Series No. 184. Rockville, MD: National Institute on Drug Abuse, pp. 123-124.
- Godley, M.D., et al., 2007. The effect of assertive continuing care (ACC) on continuing care linkage, adherence and abstinence following residential treatment for adolescents with substance use disorders. *Addiction* 102(1):81-93.
- Godley, S.H.; Godley, M.D.; and Dennis, M.L., 2001. The assertive aftercare protocol for adolescent substance abusers. In: E. Wagner and H. Waldron (Eds.), *Innovations in Adolescent Substance Abuse Interventions*. New York: Elsevier, pp. 311-329.
- Grant, B.F., 2000. Theoretical and observed subtypes of DSM-IV alcohol abuse and dependence in a general population sample. *Drug and Alcohol Dependence* 60(3):287-293.
- Grella, C.E., and Joshi, V., 1999. Gender differences in drug treatment careers among clients in the National Drug Abuse Treatment Outcome Study. *American Journal of Drug and Alcohol Abuse* 25(3):385-406.
- Hasin, D.S., et al., 1997a. Alcohol dependence and abuse diagnoses: Validity in community sample heavy drinkers. *Alcoholism: Clinical and Experimental Research* 21(2):213-219.
- Hasin, D.S., et al., 1997b. Differentiating DSM-IV alcohol dependence and abuse by course: Community heavy drinkers. *Journal of Substance Abuse* 9:127-135.
- Hien, D., et al., 1997. Dual diagnosis subtypes in urban substance abuse and mental health clinics. *Psychiatric Services* 48(8):1058-1063.

- Higgins, S.T.; Badger, G.J.; and Budney, A.J., 2000. Initial abstinence and success in achieving longer term cocaine abstinence. *Experimental and Clinical Psychopharmacology* 8(3):377-386.
- Hser, Y.I., 1997. Drug treatment careers: A conceptual framework and existing research findings. *Journal of Substance Abuse Treatment* 14(6):543-558.
- Hser, Y.I., et al., 1998. Relationships between drug treatment careers and outcomes: Findings from the National Drug Abuse Treatment Outcome Study. *Evaluation Review* 22(4):496-519.
- Hser, Y.I., et al., 2001. A 33-year follow-up of narcotics addicts. *Archives of General Psychiatry* 58(5):503-508.
- Hsieh, S.; Hoffman, N.G.; and Hollister, C.D., 1998. The relationship between pre-, during-, post-treatment factors, and adolescent substance abuse behaviors. *Addictive Behaviors* 23(4):477-488.
- Huber, D.L., 2005. *Disease Management: A Guide for Case Managers*. Amsterdam: Elsevier.
- Humphreys, K., and Moos, R., 2001. Can encouraging substance abuse patients to participate in self-help groups reduce demand for health care? A quasi-experimental study. *Alcoholism: Clinical and Experimental Research* 25(5):711-716.
- Institute of Medicine, 2001. *Crossing the Quality Chasm: A New Health System for the 21st Century*. Washington, DC: National Academy Press.
- Ito, J., and Donovan, D.M., 1986. Aftercare in alcoholism treatment: A review. In: W.R. Miller and N. Heather (Eds.), *Treating Addictive Behaviors: Process of Change*. New York: Plenum, pp. 435-452.
- Jaffe, J., 1993. The concept of dependence: Historical reflections. *Alcohol Health and Research World* 17(3):188-189.
- Kelly, J.F., and Myers, M.G., 1997. Adolescent treatment outcome in relation to 12-step group attendance. *Alcoholism: Clinical and Experimental Research* 21:27A.
- Kelly, J.F.; Myers, M.G.; and Brown, S.A., 2002. Do adolescents affiliate with 12-step groups? A multivariate process model of effects. *Journal of Studies on Alcohol* 63(3):293-304.
- Kessler, R.C., 1994. The National Comorbidity Survey of the United States. *International Review of Psychiatry* 6:365-376.
- Kessler, R.C., et al., 1996. The epidemiology of co-occurring addictive and mental disorders: Implications for prevention and service utilization. *American Journal of Orthopsychiatry* 66(1):17-31.
- Klaw, E.; Huebsch, P.D.; and Humphreys, K., 2000. Communication patterns in an on-line mutual help group for problem drinkers. *Journal of Community Psychology* 28(5):535-546.
- Kosten, T.R., et al., 1992. Six-month follow-up of short-term pharmacotherapy for cocaine dependence. *American Journal of Addictions* 1:40-49.
- Kufahl, P.R., et al., 2005. Neural responses to acute cocaine administration in the human brain detected by fMRI. *Neuroimage* 28(4):904-914.
- Kypri, K., et al., 2005. Innovative approaches to intervention for problem drinking. *Current Opinion in Psychiatry* 18(3):229-234.
- Kyrouz, E.M.; Humphreys, K.; and Loomis, C., 2002. A review of research on the effectiveness of self-help mutual aid groups. In: B.J. White and E.J. Madara (Eds.), *American Self-Help Clearinghouse Self-Help Group Sourcebook* (7th ed.). Cedar Knolls, NJ: American Self-Help Clearinghouse, pp. 1-16.
- Langenbucher, J.W.; Morgenstern, J.; and Miller, K.J., 1995. DSM-III, DSM-IV and ICD-10 as severity scales for drug dependence. *Drug and Alcohol Dependence* 39(2):139-150.
- Laudet, A.B., et al., 2000. Support, mutual aid and recovery from dual diagnosis. *Community Mental Health Journal* 36(5):457-476.
- Lennox, R.D.; Scott-Lennox, J.A.; and Bohlig, E.M., 1993. The cost of depression-complicated alcoholism: Health-care utilization and treatment effectiveness. *Journal of Mental Health Administration* 20(2):138-152.
- Lennox, R.D.; Scott-Lennox, J.A.; and Holder, H.D., 1992. Substance abuse and family illness: Evidence from health care utilization and cost-offset research. *Journal of Mental Health Administration* 19(1):83-95.
- Lennox, R.D.; Zarkin, G.A.; and Bray, J.W., 1996. Latent variable models of alcohol-related constructs. *Journal of Substance Abuse* 8(2):241-250.
- Lipsey, M.W.; Chapman, G.L.; and Landenberger, N.A., 2001. Cognitive-behavioral programs for offenders. *Annals of the American Academy of Political and Social Science* 578(1):144-157.
- Loveland, D., and Boyle, M., 2005. *Recovery Coach and Recovery Planning Manual*. Behavioral Health Recovery Management Clinical Guidelines. Peoria, IL: Fayette Companies; www.bhrm.org/guidelines/addguidelines.htm.
- Mark, T.L., et al., 2001. The economic costs of heroin addiction in the United States. *Drug and Alcohol Dependence* 61(2):195-206.
- Mark, T.L., et al., 2003. Factors associated with the receipt of treatment following detoxification. *Journal of Substance Abuse Treatment* 24(4):299-304.
- McCarty, D., et al., 2007. The Network for the Improvement of Addiction Treatment (NIATx): Enhancing access and retention. *Drug and Alcohol Dependence* 88(2-3):138-145.
- McCorry, F., et al., 2000. Developing performance measures for alcohol and other drug services in managed care plans. *Journal on Quality Improvement* 26(11):633-643.
- McKay, J.R., 2001. Recent developments in alcoholism: The role of continuing care in outpatient alcohol treatment programs. In: M. Galanter (Ed.), *Services Research in the Era of Managed Care* (Vol. 15). New York: Plenum, pp. 357-372.
- McKay, J.R., et al., 1998. Predictors of participation in aftercare sessions and self-help groups following completion of intensive outpatient treatment for substance abuse. *Journal of Studies on Alcohol* 59(2):152-162.
- McKay, J.R., et al., 2002. Evaluation of full versus partial continuum of care in the treatment of publicly funded substance abusers in Washington State. *American Journal of Drug and Alcohol Abuse* 28(2):307-338.
- McKay, J.R., et al., 2004. The effectiveness of telephone-based continuing care in the clinical management of alcohol and cocaine use disorders: 12-month outcomes. *Journal of Consulting and Clinical Psychology* 72(6):967-979.
- McKay, J.R., et al., 2005. The effectiveness of telephone-based continuing care for alcohol and cocaine dependence: 24-month outcomes. *Archives of General Psychiatry* 62(2):199-207.
- McLellan, A.T., 2006. Research...for a Change: Impact Through Customer-Oriented Research. Slides presented at the Blending Addiction Science & Practice: Bridges to the Future conference, Seattle, WA, October 16-17; www.sei2003.com/blendingseattle/tue_pdfs/Tuesday_Plenary_McLellan.pdf.
- McLellan, A.T., et al., 1983. Predicting response to alcohol and drug abuse treatments: Role of psychiatric severity. *Archives of General Psychiatry* 40(6):620-625.
- McLellan, A.T., et al., 2000. Drug dependence, a chronic medical illness: Implications for treatment, insurance, and outcomes evaluation. *Journal of the American Medical Association* 284(13):1689-1695.
- McLellan, A.T., et al., 2005. Reconsidering the evaluation of addiction treatment: From retrospective follow-up to concurrent recovery monitoring. *Addiction* 100(4):447-458.
- Miller, W.R., et al., 2004. A randomized trial of methods to help clinicians learn motivational interviewing. *Journal of Consulting and Clinical Psychology* 72(6):1050-1062.
- Miller, W.R., et al., 2006. Disseminating evidence-based practices in substance abuse treatment: A review with suggestions. *Journal of Substance Abuse Treatment* 31(1):25-39.
- Moos, R., et al., 2001. Outpatient mental health care, self-help groups, and patients' one-year treatment outcomes. *Journal of Clinical Psychology* 57(3):273-287.
- Moos, R.H., and Moos, B.S., 2003. Long-term influence of duration and intensity of treatment on previously untreated individuals with alcohol use disorders. *Addiction* 98(3):325-327.
- Mueser, K.T., et al., 1990. Prevalence of substance abuse in schizophrenia: Demographic and clinical correlates. *Schizophrenia Bulletin* 16(1):31-56.
- Murray, E., et al., 2004. Interactive health communication applications for people with chronic disease. *Cochrane Database of Systematic Reviews* 4:CD004274.
- Nicassio, P.M., and Smith, T.W. (Eds.), 1995. *Managing Chronic Illness: A Biopsychosocial Perspective*. Washington, DC: American Psychological Association.
- Office of Applied Studies, 2002. *Results from the 2001 National Household Survey on Drug Abuse: Volume I. Summary of National Findings*. DHHS Publication No. SMA 02-3758. Rockville, MD: Substance Abuse and Mental Health Services Administration.
- Office of Applied Studies, 2005. *Treatment Episode Data Set (TEDS): 2002. Discharges from Substance Abuse Treatment Services*. DHHS Publication No. SMA 04-3967. Rockville, MD:

- Substance Abuse and Mental Health Services Administration.
- Ouimette, P.C.; Moos, R.H.; and Finney, J.W., 1998. Influence of outpatient treatment and 12-step group involvement on one-year substance abuse treatment outcomes. *Journal of Studies on Alcohol* 59(5):513-522.
- Parthasarathy, S., et al., 2003. Utilization and cost impact of integrating substance abuse treatment and primary care. *Medical Care* 41(3):357-367.
- Paulus, M.P.; Tapert, S.F.; and Schuckit, M.A., 2005. Neural activation patterns of methamphetamine-dependent subjects during decision making predict relapse. *Archives of General Psychiatry* 62(7):761-768.
- Peterson, K.A., et al., 1994. Determinants of readmission following inpatient substance abuse treatment: A national study of VA programs. *Medical Care* 32(6):535-550.
- Project MATCH Research Group, 1997. Matching alcoholism treatments to client heterogeneity: Project MATCH posttreatment drinking outcomes. *Journal of Studies on Alcohol* 58(1):7-29.
- Regier, D.A., et al., 1990. Comorbidity of mental disorders with alcohol and other drug abuse: Results from the Epidemiologic Catchment Area (ECA) study. *Journal of the American Medical Association* 264(19):2511-2518.
- Risinger, R.C., et al., 2005. Neural correlates of high and craving during cocaine self-administration using BOLD fMRI. *Neuroimage* 26(4):1097-1108.
- Ritsher, J.B., et al., 2002. Psychiatric comorbidity, continuing care, and mutual help as predictors of five-year remission from substance use disorders. *Journal of Studies on Alcohol* 63(6):709-715.
- Ritsher, J.B.; Moos, R. H.; and Finney, J.W., 2002. Relationship of treatment orientation and continuing care to remission among substance abuse patients. *Psychiatric Services* 53(5):595-601.
- Robins, L.N., and Regier, D.A., 1991. *Psychiatric Disorders in America*. New York: Macmillan.
- Ross, H.E.; Glaser, F.B.; and Germanson, T., 1988. The prevalence of psychiatric disorders in patients with alcohol and other drug problems. *Archives of General Psychiatry* 45(11):1023-1031.
- Roter, D.L., et al., 1998. Effectiveness of interventions to improve patient compliance: A meta-analysis. *Medical Care* 36(8):1138-1161.
- Rounsaville, B.J., et al., 1982. Diagnosis and symptoms of depression in opiate addicts: Course and relationship to treatment outcome. *Archives of General Psychiatry* 39(2):151-156.
- Rounsaville, B.J., et al., 1986. Prognostic significance of psychopathology in treated opiate addicts: A 2.5-year follow-up study. *Archives of General Psychiatry* 43(8):739-745.
- Ryan, J.; Louderman, R.; and Testa, M., 2003. *Substance Abuse and Child Welfare: Experimenting with Recovery Coaches in Illinois*. Urbana, IL: University of Illinois at Urbana-Champaign, Children and Family Research Center.
- Sannibale, C., et al., 2003. Aftercare attendance and post-treatment functioning of severely substance dependent residential treatment clients. *Drug and Alcohol Review* 22(2):181-190.
- Schlaepfer, T.E., et al., 2006. Decreased frontal white-matter volume in chronic substance abuse. *International Journal of Neuropsychopharmacology* 9(2):147-153.
- Scott, C.K, and Dennis, M.L., 2003. *Recovery Management Checkups: An Early Re-Intervention Model*. Chicago, IL: Chestnut Health Systems.
- Scott, C.K; Dennis, M.L.; and Foss, M.A., 2005. Utilizing recovery management checkups to shorten the cycle of relapse, treatment reentry, and recovery. *Drug and Alcohol Dependence* 78(3):325-338.
- Scott, C.K; Foss, M.A.; and Dennis, M.L., 2005. Pathways in the relapse–treatment–recovery cycle over 3 years. *Journal of Substance Abuse Treatment* 28(Suppl. 1):S63-S72.
- Simon, G.E., et al., 2004. Telephone psychotherapy and telephone care management for primary care patients starting antidepressant treatment: A randomized control trial. *Journal of the American Medical Association* 292(8):935-942.
- Simpson, D.D.; Joe, G.W.; and Broome, K.M., 2002. A national 5-year follow-up of treatment outcomes for cocaine dependence. *Archives of General Psychiatry* 59(6):538-544.
- Simpson, T.L., et al., 2005. Telephone self-monitoring among alcohol use disorder patients in early recovery: A randomized study of feasibility and measurement reactivity. *Drug and Alcohol Dependence* 79(2):241-250.
- Slesnick, N., and Prestopnik, J.L., 2004. Office versus home-based family therapy for runaway, alcohol abusing adolescents: Examination of factors associated with treatment attendance. *Alcoholism Treatment Quarterly* 22(2):3-19.
- Substance Abuse and Mental Health Services Administration, 2006. *Results from the 2005 National Survey on Drug Use and Health: National Findings*. DHHS Publication No. SMA 06-4194. Rockville, MD: Substance Abuse and Mental Health Services Administration.
- Taxman, F., 2002. Supervision—Exploring the dimensions of effectiveness. *Federal Probation* 66(2):14-27.
- Toll, B.A., et al., 2003. What do Internet-based alcohol treatment websites offer? *Cyberpsychology & Behavior* 6(6):581-584.
- Volkow, N.D.; Fowler, J.S.; and Wang, G.J., 2003. The addicted human brain: Insights from imaging studies. *Journal of Clinical Investigation* 111(10):1444-1451.
- Volkow, N.D.; Fowler, J.S.; and Wang, G.J., 2004. The addicted human brain viewed in the light of imaging studies: Brain circuits and treatment strategies. *Neuropharmacology* 47(Suppl. 1):3-13.
- Walker, R., et al., 1983. Length of stay, neuropsychological performance, and aftercare: Influences on alcohol treatment outcome. *Journal of Consulting and Clinical Psychology* 51(6):900-911.
- Weisner, C., et al., 2004. *Report of the Blue Ribbon Task Force on Health Services Research at the National Institute on Drug Abuse*. Rockville, MD: National Institute on Drug Abuse.
- Weisner, C.; Matzger, H.; and Kaskutas, L.A., 2003. How important is treatment? One-year outcomes of treated and untreated alcohol-dependent individuals. *Addiction* 98(7):901-911.
- White, W.L, 1996. *Pathways from the Culture of Addiction to the Culture of Recovery: A Travel Guide for Addiction Professionals* (2d ed.). Center City, MN: Hazelden.
- White, W.L., et al., 2005. It's time to stop kicking people out of addiction treatment. *Counselor* 6(2):12-25.
- White, W.L., and Finch, A.J., 2006. The recovery school movement: Its history and future. *Counselor* 7(2):54-57.
- Willenbring, M.L., 2005. Integrating care for patients with infectious, psychiatric, and substance use disorders: Concepts and approaches. *AIDS* 19(Suppl. 3):S227-S237.
- Wisdom, J.P., et al., 2006. Addiction treatment agencies' use of data: A qualitative assessment. *Journal of Behavioral Health Services and Research* 33(4):394-407.
- Woody, G.E.; Cottler, L.B.; and Cacciola, J., 1993. Severity of dependence: Data from the DSM-IV field trials. *Addiction* 88(11):1573-1579.
- World Health Organization (WHO), 1999. *The International Statistical Classification of Diseases and Related Health Problems, Tenth Revision (ICD-10)*. Geneva, Switzerland: World Health Organization.
- Zhu, S.-H., et al., 1996. Telephone counseling for smoking cessation: Effects of single-session and multiple-session interventions. *Journal of Consulting and Clinical Psychology* 64(1):202-211.