RECOVERY MANAGEMENT AND RECOVERY-ORIENTED SYSTEMS OF CARE:

SCIENTIFIC RATIONALE AND PROMISING PRACTICES

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Fifth in a series of Addiction Technology Transfer Monographs on recovery management and recovery-oriented systems of care.

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At the time of publication, Terry Cline, PhD served as the SAMHSA Administrator, H. Westley Clark, MD, JD, MPH, CAS, FASAM served as CSAT Director, and Catherine D. Nugent served as the CSAT Project Officer.

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Prologue

This monograph, by William White, is sure to be regarded as a seminal work in the addictions treatment literature, as it is the first and most comprehensive attempt to lay out the empirical support for moving to recovery-oriented systems of care.

As White points out, the addictions treatment field is reaching a tipping point that is revolutionizing the ways in which behavioral health leaders think about people with alcohol and other drug problems, and consequently how services and systems are developed. At its core, this movement represents a shift away from a crisis-oriented, professionally directed, acute-care approach with its emphasis on isolated treatment episodes, to a recovery management approach that provides long-term supports and recognizes the many pathways to healing. This is what has been missing from the field—a systematic review of the literature to support this transition and the concrete strategies that will help make the vision of recovery-oriented service systems a reality.

White points out that, based on the scientific literature, the field must make radical changes in how treatment services are delivered. Indeed, there have been calls from government officials, treatment providers, and the advocacy community to transform systems of care based on the principles of recovery management. The challenge has been, however, that based on our science we know a lot about addiction but considerably less about recovery and how people recover. Despite this knowledge gap, many practitioners, program administrators, policy makers, and advocates have been actively engaged in trying to align their systems of care with the principles of recovery management. This work to-date has been guided more by values, beliefs, and theory than by empirical evidence. In this monograph, White masterfully weaves the latest research into a recovery management framework and gives the reader the science to understand and support the key principles of this framework.

In order to successfully implement the sweeping changes that are being called for, a clear understanding of recovery and recovery-oriented systems of care is essential. The term “recovery” has been used widely in the addictions field, resulting in many professionals’ assuming that they have been practicing recovery-oriented care. White, however, defines what is really meant by “recovery-oriented care” based on our clinical and scientific understanding of addiction. He goes on to challenge us to align our service delivery with the reality of recovery. This understanding is the first and most critical step in developing services and systems of care that are guided by a recovery vision.

With increasing calls for public accountability, this monograph will be a particularly invaluable resource for policy makers. Having the empirical support for the changes that are being pursued will be helpful to those who have to justify their actions to a legislature, a governmental chief executive, or the broader public.

Furthermore, to effectively move large systems of care from an acute-care model to a recovery management model is a Herculean task. To-date, a major challenge that policy makers and system administrators have faced in doing this work is the absence of a framework that could be used to guide their planning and understanding of the key issues that must be addressed.

While there has been growing consensus in the field that addictions treatment must be radically transformed around the principles of recovery management, with this monograph the field finally has the scientific ammunition to boldly carry out this important work.

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Introduction and Acknowledgments

The modern field of addiction treatment was built on a foundation of assumptions, best guesses, and experiential knowledge. Distinctly missing were large, well designed, multi-site prospective studies that evaluated the effectiveness of treatment. Through its pre-professional developmental years (1945-1975), the fledgling field could not empirically answer crucial questions regarding the effectiveness of treatment as a system of care or the effectiveness of particular approaches to treatment. That status has dramatically changed.

Rigorous studies of addiction treatment have been completed in the United States and the United Kingdom. Some of the most notable of these include the:

- Drug Abuse Reporting Program (DARP) in the 1970s[1]
- Treatment Outcomes Prospective Study (TOPS) in the 1980s[2]
- Drug Abuse Treatment Outcome Study (DATOS) in the early 1990s[3]
- Drug Abuse Treatment Outcome Study for Adolescents in the early 1990s (DATOS-A)[4]
- National Treatment Improvement Evaluation Study (NTIES) in the early 1990s[5]
- California Drug and Alcohol Treatment Assessment (CALDATA) in the early 1990s[6]
- Project MATCH Experiments in the 1990s[7]
- Collaborative Cocaine Treatment (CCT) Experiments in the 1990s[8]
- National Treatment Outcome Research Study (NTORS) in the late 1990s[9]
- Marijuana Treatment Project (MTP) Experiments in the late 1990s[10]
- Methamphetamine Treatment Project (MTP) Experiments in the late 1990s[11]
- Cannabis Youth Treatment (CYT) Experiments in the late 1990s[12]
- Criminal Justice Drug Abuse Treatment Studies (CJDATS) in the 2000s (http://www.cjdats.org/)
- NIDA Clinical Trials Network (CTN) in the 2000s (http://www.nida.nih.gov/CTN/)

1. Simpson, D.D., & Sells, S.B. (1983). Effectiveness of treatment for drug abuse: An overview of the DARP research program. *Advances in Alcohol and Substance Abuse, 2*, 7-29.

2. Hubbard, R.L., Marsden, M.E., Rachal, J.V., Harwood, H.J., Cavanaugh, E.R., & Ginzburg, H.M. (1989). *Drug abuse treatment: A national study of effectiveness* Chapel Hill, NC: University of North Carolina Press.

3. Etheridge, R.M., Hubbard, R.L., Anderson, J., Craddock, S.G., & Flynn, P.M. (1997). Treatment structure and program services in the Drug Abuse Treatment Outcome Study (DATOS). *Psychology of Addictive Behaviors*, *11*, 244-260; Hubbard, R.L., Craddock, S.G., & Anderson, J. (2002). Overview of 5-year follow-up outcomes in the Drug Abuse Treatment Outcome Studies (DATOS). *Journal of Substance Abuse Treatment*, *25*, 125-134.

4. Hser, Y.I., Grella, C.E., Hubbard, R.L., Hsieh, S., Fletcher, B.W., Brown, B.S., & Anglin, M.D. (2001). An evaluation of drug treatments for adolescents in 4 US cities. *Archives of General Psychiatry*, *58*, 689-695.

5. Koenig, L., Denmead, G., Nguyen, R., Harrison, M., & Harwood, H. (1999). *The cost and benefits of substance abuse treatment: Findings from the National Treatment Improvement Evaluation Study (NTIES)*. Rockville, MD: Center for Substance Abuse Treatment.

6. Gerstein, D., Johnston, R., Harwood, H., Fountain, D., Suter, N., & Mallory, K. (1994, April). *Evaluating recovery services: The California drug and alcohol treatment assessment: General report.* Chicago, IL: National Opinion Research Center.

7. Project MATCH Research Group. (1997). Matching alcoholism treatment to client heterogeneity: Project MATCH posttreatment drinking outcomes. *Journal of Studies on Alcohol*, *58*, 7-29.

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9. Gossop, M., Marsden, J., Stewart, D., & Kidd, T. (2003). The National Treatment Outcomes Research Study (NTORS): 4-5 year follow-up results. *Addiction*, *98*, 291-303.

10. Stephens, R.S., Babor, T.F., Kadden, R., & Miller, M. (2002). The Marijuana Treatment Project: Rationale, design and participant characteristics. *Addiction*, *97*(Suppl 1), 109-124.

11. Rawson, R.A., McCann, M.J., Huber, A., Marinelli-Casey, P., & Williams, L. (2000). Moving research into community settings in the CSAT methamphetamine treatment project: The coordinating center perspective. *Journal of Psychoactive Drugs*, *32*(2), 201-208.

12. Dennis, M.L., Godley, S.H., Diamond, G.S., Tims, F.M., Babor, T., Donaldson, J., Liddle, H., Titus, J.C., Kaminer, Y., Webb, C., Hamilton, N., & Funk, R.R. (2004). The Cannabis Youth Treatment (CYT) Study: Main findings from two randomized trials. *Journal of Substance Abuse Treatment, 27*, 197-213.

- Pathways to Recovery 9-year Study from the 1990s to 2000s[13]
- Assertive Continuing Care (ACC) Experiments in the 1990s and 2000s[14]
- Early Re-Intervention (ERI) Experiments in the 2000s[15]

Broad population surveys such as the National Epidemiologic Survey on Alcohol and Related Conditions (NESARC) and the National Survey on Drug Use & Health (formerly called the National Household Survey on Drug Abuse, NHSDA) and longitudinal studies of alcohol and other drug (AOD) problems among community populations[16] have also helped chart the long-term course of AOD problems and their styles of resolution.

The development of national data-collection systems added to this knowledge by providing aggregate clinical and systems-performance data for publicly funded addiction treatment. These valuable sources of information included the Client-Oriented Data Acquisition Process (CODAP) and the Treatment Episode Data Set (TEDS), as well as periodic treatment system surveys such as the National Drug and Alcoholism Treatment Unit Survey (NDATUS), the Drug Services Research Survey (DSRS), the Services Research Outcomes Study (SROS), and the Alcohol and Drug Services Study (ADSS).

Many questions have yet to be answered, but today we can draw empirically grounded conclusions about the performance of addiction treatment as a system of care and the relationship between particular treatment approaches and long-term recovery. Based on a review of this growing body of data, a number of long-tenured observers of modern addiction treatment are setting forth a most provocative argument: Significantly improving long-term recovery outcomes will require a radical reengineering of addiction treatment as a system of care. Rather than system refinement, they are advocating a "fundamental shift in thinking,"[17] a "paradigm shift,"[18] a "fundamental redesign,"[19] a "seismic shift rather than a mere tinkering,"[20] and a "sea change in the culture of addiction service delivery."[21]

What is prompting such rhetoric? What changes in service philosophy and design are being proposed and tested? What scientific findings and systems-performance benchmark data underlie these calls for "systems transformation" and the push for "recovery-oriented systems of care"? The purpose of this monograph is to answer these and related questions.

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13. Dennis, M.L., Foss, M.A., & Scott, C.K. (2007). An eight-year perspective on the relationship between the duration of abstinence and other aspects of recovery. *Evaluation Review*, *31*(6), 585-612; Scott, C.K., Dennis, M.L., & Foss, M.A. (2005a). Recovery management checkups to shorten the cycle of relapse, treatment re-entry, and recovery. *Drug and Alcohol Dependence*, *78*, 325-338.

14. Godley, M.D., Godley, S.H., Dennis, M.L., Funk, R.R., & Passetti, L.L. (2002). Preliminary outcomes from the assertive continuing care experiment for adolescents discharged from residential treatment. *Journal of Substance Abuse Treatment*, *23*, 21-32; Godley, M.D., Godley, S.H., Dennis, M.L., Funk, R.R., & Passetti, L.L. (2007). The effect of Assertive Continuing Care on continuing care linkage, adherence, and abstinence following residential treatment for adolescents with substance use disorders. *Addiction*, *102*, 81-93.

15. Dennis. M.L., Scott, C.K., & 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; Dennis, M.L., & Scott, C.K. (2007). Managing addiction as a chronic condition. *Addiction Science & Clinical Practice*, *4*(1), 45-55; Scott, C.K., Foss, M.A., & Dennis, M.L. (2005b). Pathways in the relapse-treatment-recovery cycle over 3 years. *Journal of Substance Abuse Treatment*, *28*(Suppl 1), S63-S72.

16. Vaillant, G.E. (2003). A 60-year follow-up of alcoholic men. *Addiction*, *98*, 1043-1051.

17. Moos, R.H. (2003). Addictive disorders in context: Principles and puzzles of effective treatment and recovery. *Psychology of Addictive Behaviors*, *17*, 3-12.

18. 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*(Suppl 1), S51-S62.

19. White, W. (2005a). Recovery management: What if we <u>really</u> believed that addiction was a chronic disorder*? GLATTC Bulletin*, September, 1-8. Chicago, IL: Great Lakes Addiction Technology Transfer Center.

20. Humphreys, K. (2006a). Closing remarks: Swimming to the horizon—reflections on a special series. *Addiction*, *101*, 1238-1240.

21. Miller, W.R. (2007). Bring addiction treatment out of the closet. *Addiction*, *102*, 863-869.

The material presented here defines and distinguishes two quite different models of addiction treatment: an acute-care (AC) model that focuses on brief biopsychosocial stabilization and a recovery management (RM) model that emphasizes sustained recovery support. The historical tension between these models is reaching a tipping point, and the stakes involved in the outcome are quite high.[22] As a professional field, we have oversold what a single episode of acute care can achieve for the more than two million individuals who each year enter the more than 13,000 specialty-sector addiction treatment programs in the United States. As a result, we are vulnerable to a backlash of cultural pessimism that might threaten the future of addiction treatment in America. Disillusioned service consumers and their families, allied professionals, policy makers, public and private purchasers of care, and a public weary of celebrities fleeing back to "rehab" following their latest public indiscretions might collectively revoke the probationary status under which modern addiction treatment has operated as a social institution for five decades. As we approach or surpass the point at which nearly everyone in the culture knows someone personally for whom addiction treatment did not "work," the task we embark on in these pages could not have greater import.

This monograph is written for those on the frontlines of addiction treatment. It is written for the addition service professionals, the clinical supervisors, and the clinical and administrative directors whose daily decisions widen or narrow the doorways of entry to long-term recovery for those they serve. You are being asked in this monograph to take a searching and fearless professional inventory of addiction treatment as currently practiced by yourself and others.

This monograph is also written to the policymakers, purchasers of care, monitors, and evaluators of addiction treatment. You are being asked to look at the scientific and system-performance data that support growing calls for "recovery-focused systems transformation" and to explore new approaches to funding and monitoring local addiction treatment programs.

This monograph is also written for the new generation of recovery advocates and recovery support specialists who are collectively calling for a reconnection between addiction treatment and the larger and more enduring process of addiction recovery.

This is the fifth in a series of monographs related to recovery management. The first, co-authored by William White, Dr. Ernest Kurtz, and Mark Sanders and published by the Great Lakes Addiction Technology Transfer Center in 2006, described the field's beginning shift toward a recovery paradigm, outlined the latest research on the varieties of recovery experience, and summarized

22. White, W.L. (1998). *Slaying the dragon: The history of addiction treatment and recovery in America*. Bloomington, IL: Chestnut Health Systems.

the recovery management model and its particular relevance to communities of color. The second monograph, an edited consensus statement authored by Dr. Michael Flaherty and published by the Northeast Addiction Technology Transfer Center in 2006, was the product of an "addiction as chronic illness" advisory group whose members included Victor Capoccia, Dr. Mady Chalk, Dr. Herman Diesenhaus, Dr. Eric Goplerud, Rick Harwood, Dr. David Lewis, Dr. Tom McLellan, Dr. Kevin Mulvey, Dr. Rick Rawson, Dr. Ed Wagner, William White, and Dr. Mark Willenbring. The third monograph, co-authored by William White and Dr. Ernest Kurtz and published by the Northeast Addiction Technology Transfer Center in 2007, was a primer on how addiction professionals and recovery coaches can effectively link clients from addiction treatment to indigenous communities of recovery. The fourth monograph, published by Great Lakes ATTC in 2008, contained a series of interviews with persons on the forefront of developing "recovery-oriented systems of care," including Dr. H. Westley Clark, Dr. Tom Kirk, Dr. Arthur Evans, Mike Boyle, Phil Valentine, and Lonnetta Albright. Two forthcoming monographs will offer technical papers on the implementation of peer-based recovery support services and on treatment redesign within recovery-oriented systems of care.

The current monograph pauses to underscore the scientific rationale for addiction treatment systems transformation. This monograph:

- defines and distinguishes acute-care and recovery management models of addiction treatment,
- defines and distinguishes the terms *recovery management* and *recovery-oriented systems of care,*
- identifies recovery-focused performance measures (e.g., access, engagement, retention, service scope, service duration, linkage to communities of recovery, and post-treatment monitoring and support) that can be used to evaluate addiction treatment as a system of care and evaluate the performance of local organizations specializing in the treatment of severe AOD problems,
- presents findings from studies of addiction treatment and from national and state addiction treatment data collection systems related to the identified performance measures,
- highlights promising practices aimed at improving long-term recovery outcomes, and
- suggests measures that can be used to evaluate addiction treatment at both macro (system of care) and micro (individual program/unit/worker) levels of performance.

A brief note on the style of this monograph is warranted. First, this publication is a translation and interpretation of existing research, with a particular emphasis on implications for the design and delivery of addiction treatment and recovery support services. As such, extensive citations have been used to document the findings upon which conclusions and recommendations are drawn. Second, the monograph is intended to be widely read by addictions professionals and peer recovery support specialists. This aim dictated short, topically focused chapters and a writing style that was clear, direct, and as prescriptive as possible. It is hoped that the chapter summaries, topical headings and subheadings, bulleted lists, tables, and footnote system of referencing will make the information in this monograph highly accessible.

Synthesizing hundreds of published studies and commentaries would not have been possible without the sustained support of the Northeast Addiction Technology Transfer Center, the Great Lakes Addiction Technology Transfer Center, and the Philadelphia Department of Behavioral Health. I would like to acknowledge Lonnetta Albright, Mike Flaherty, and Arthur Evans for their sustained support of this project and the following individuals for their comments or discussions related to this paper: Mike Dennis, Felicia Dudek, Mike Flaherty, Mark Godley, Ken Ramsey, and Mark Sanders. Thanks also go to Jim Russell for his assistance in collecting data related to key treatment system performance indicators; to Chris Roberts and Barbara Weiner for assistance in procuring journal articles; and to Stephanie Guestchow, Diane Wuycheck, Debra Langer, and Pam Woll for their assistance with copyediting of the manuscript.

Chapter One

Modern Addiction Treatment: Emergence and Evolution of an Acute-Care Model

■ SUMMARY OF KEY POINTS ■

- Addiction (severe alcohol and drug dependency) shares many of the defining characteristics of chronic primary illnesses, e.g., 2 diabetes mellitus, hypertension, and asthma.
- Characterizing addiction as a *chronic* illness does not mean that all AOD problems have a prolonged course requiring professional treatment, that full recovery is not possible, or that self-management responsibilities are in any way diminished.
- Although long characterized as a chronic disorder, addiction has been treated in an essentially acute-care (AC) model of treatment.
- The AC model of addiction treatment is characterized by its crisis-linked point of intervention, brief duration, singular focus on symptom suppression (achievement of abstinence), professionally dominated decision-making process, short service relationship, and expectation of full and permanent problem resolution following "graduation."
- The development of the AC model of addiction treatment grew out of the medicalization, professionalization, and commercialization of addiction treatment and the subsequent growth of managed behavioral health care in the United States.

Acute Versus Chronic Illnesses

Human beings throughout most of their history have died from illnesses and injuries whose course from onset to death was very short. Few achieved life expectancies long enough to die from the effects of a chronic illness. The early history of medicine constitutes a noble and highly successful battle against the roots of such acute illnesses. Eradicating many of these life-threatening illnesses left in its wake the emerging challenge of modern medicine-managing complex and costly chronic disorders over ever-increasing life expectancies. Treatment philosophies and approaches required to

effectively treat and manage these chronic conditions differ markedly from those that have long-guided acute medical interventions.[23]

The first challenge within today's medical interventions is to delineate the probable course of a presenting problem. This mandate is clear: "Acute, transient, self-limited conditions must be distinguished from those likely to be permanent or of lengthy duration."[24] A "chronic-care model" has been developed for the latter that empowers patients to take responsibility for self-monitoring and self-managing the long-term course of their conditions, with health care professionals serving as ongoing allies and consultants.[25]

Addiction as a Chronic Disorder

Addiction has been conceptualized as a "chronic, progressive disease" for more than 200 years in the United States,[26] but the full implications of this proclamation have not been fully understood or reflected in clinical service protocols.

Chronic illnesses span a wide variety of human afflictions. Such disorders may be cellular (cancer), metabolic (diabetes, thyroid diseases), respiratory (asthma, chronic obstructive lung disease, emphysema, chronic bronchitis), cardiovascular (hypertension, atherosclerosis), vascular (migraine), hematological, (hemophilia, anemia), immunological (AIDS), autoimmunological (lupus, multiple sclerosis, rheumatoid arthritis), hepatic (Hepatitis C, cirrhosis), renal (chronic kidney disease), orthopedic (osteoporosis), gastrointestinal (Crohn's disease), neurological (epilepsy, Alzheimer's disease), psychiatric (schizophrenia), skin (psoriasis), or sensory (glaucoma, hearing loss), or involve such widespread conditions as allergies, sleep disorders, and chronic pain.

Severe alcohol and other drug dependencies share many characteristics with such chronic diseases, particularly with 2 diabetes mellitus, hypertension, and asthma. All of these conditions, including alcohol and drug dependence:

- are influenced by genetic heritability and other personal, family, and environmental risk factors;
- can be identified and diagnosed using well validated screening questionnaires and diagnostic checklists
- are influenced by behaviors that begin as voluntary choices but evolve into deeply ingrained patterns of behavior that, in the case of addiction, are further exacerbated by neurobiological changes in the brain that weaken volitional control over these contributing behaviors;

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23. Bodenheimer, T., Wagner, E.H., & Grumbach, K. (2002). Improving primary care for patients with chronic illness. *Journal of the American Medical Association*, *288*(14), 1775-1779.

24. Perrin, E. C., Newacheck, P., Pless, N., Drotar, D., Gortmaker, S. L., & Leventhal, J. et al. (1993). Issues involved in the definition and classification of chronic conditions. *Pediatrics*, *91*(4), 787-793.

25. Wagner, E.H., Austin, B.T., Davis, C., Hindmarsh, M., Schaefer, J., & Bonomi, A. (2001). Improving chronic illness care: Translating evidence to practice. *Health Affairs*, *20*, 64-78; Bodenheimer, T., Lorig, K., Holman, H., & Grumbach, K. (2002). Patient self-management of chronic disease in primary care. *Journal of the American Medical Association*, *288*, 2469-2474.

- are marked by patterns of onset that may be sudden or gradual;
- have a prolonged or permanent course that varies from person to person in intensity (mild to severe) and pattern (from constant to recurrent);
- are accompanied by risks of profound pathophysiology, disability, and premature death;
- have effective treatments, self-management protocols, peer support frameworks, and similar remission rates, but no known definitive cure;
- often generate psychological responses that include hopelessness, low self-esteem, anxiety, and depression; and
- generate excessive demands for adaptation by families and intimate social networks.[27]

Care must be taken in conceptualizing addiction as a chronic disorder, so that this does not constitute a professional euphemism for "Once a junkie, always a junkie."[28] Communications about addiction as a chronic disorder need to contain the following key elements.[29]

- *NOT all AOD problems are chronic—most do NOT have a prolonged and progressive course—but some do, and research is needed to identify early signs of chronic progression.*
- *NOT all persons with AOD problems need specialized, professional, long-term monitoring and support—many recover on their own and/or with family or peer support; again, research is needed to identify who is most likely to need intensive, professional care.*
- *Among those who do need treatment, relapse is NOT inevitable, and NOT all persons suffering from substance dependence require multiple treatments before they achieve stable, long-term recovery.*
- *Even with those who do relapse following treatment, families, friends, and employers should NOT abandon hope for recovery. (Community studies of recovery from alcohol dependence report long-term recovery rates approaching or exceeding 50%).[30]*
- *Having the serious chronic illness of addiction DOES NOT reduce personal responsibility for continuous efforts to manage that illness—just as those with serious diabetes or hypertensive disease must also manage their illnesses.*
- *Appropriate treatment for chronic addiction is NOT simply a succession of short-term detoxifications or treatment stays. Appropriate continuing care requires personal commitment to long-term change, dedication to self-management, and community and family support and monitoring.*

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26. White, W.L. (1998). *Slaying the dragon: The history of addiction treatment and recovery in America.* Bloomington, IL: Chestnut Health Systems; White, W. (2000a). Addiction as a Disease: The Birth of a Concept. *Counselor, 1*(1), 46-51, 73.

27. 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; Roland, J.S. (1987). Chronic illness and the life cycle: A conceptual framework. *Family Process, 26*(2), 203-221.

28. DeLeon, G. (2004). Commentary on "Self-help organizations for alcohol and drug problems: Toward evidence-based practice and policy." *Journal of Substance Abuse Treatment, 26*, 163-165; Brown, B.S. (1998). Drug use: Chronic and relapsing or a treatable condition? *Substance Use and Misuse*, *33*(12), 2515-2520.

29. White, W., & McLellan, A.T. (2008). Addiction as a chronic disease: Key messages for clients, families and referral sources. *Counselor, 9*(3), 24-33.

30. Dawson, S.A., Grant, B.F., Stinson, F.S., Chou, P.S., Huang, B., & Ruan, W.J. (2005). Recovery from DSM-IV alcohol dependence: United States, 2001-2002. *Addiction*, *100*(3), 281-292.

- *Current addiction treatment outcomes are NOT acceptable simply because they are comparable to those achieved with other chronic disorders.*

Defining the Acute-Care Model

In spite of rhetorical declarations about the "chronicity of addiction" and comparative studies between addiction and other chronic health problems, addiction continues to be treated in the United States and most countries of the world as if it were a bacterial infection, a broken bone, or a ruptured appendix. Modern addiction treatment in the United States is being delivered primarily through six modalities—inpatient or social setting detoxification, outpatient detoxification, short-term inpatient or residential treatment, long-term residential treatment (primarily in therapeutic communities or TCs), methadone maintenance treatment (MMT) and other medication-assisted opiate treatments, and outpatient drug-free treatment. These modalities encompass innumerable variations in philosophies, techniques, and service combinations, but all, including TCs and MMT, have been profoundly influenced by the broader acute-care model of addiction treatment.

In the major treatment modalities in the United States, services are delivered through federal programs, state and local government-operated programs, private not-for-profit programs, and private for-profit programs. There are differences in these programs by size, payor mix, service fees, client characteristics, staff credentials, staffing patterns, and scope of services offered,[31] but all utilize variations of the acute-care model of addiction treatment. Debates over the relative superiority of different modalities, ingredients of treatment, and ownership structures all tend to be conducted inside the same acute-care conceptual box.

The acute-care (AC) model of intervention that has dominated specialized addiction treatment since its inception in the mid-nineteenth century is distinguished by the following characteristics:

- Services are delivered "programmatically" in a uniform series of encapsulated activities (screening, admission, a single point-in-time assessment, a short course of minimally individualized treatment, discharge, and brief "aftercare" followed by termination of the service relationship).
- The intervention is focused on symptom elimination for a single primary problem.
- Professional experts direct and dominate the assessment, treatment planning, and service delivery decision-making.

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31. Rodgers, J.H., & Barnett, P.G. (2000). Two separate tracks? A national multivariate analysis of differences between public and private substance abuse treatment programs. *American Journal of Drug and Alcohol Abuse, 26*(3), 429-442; Wheeler, J.R., & Nahra, T.A. (2000). Private and public ownership in outpatient substance abuse treatment: Do we have a two-tiered system? *Administration and Policy in Mental Health, 27*, 197–209; Wheeler, J.R.C., Fadel, H., & D'Aunno, T.A. (1992). Ownership and performance of outpatient substance abuse treatment centers. *American Journal of Public Health, 82*, 711-718.

- Services transpire over a short (and historically ever-shorter) period of time—usually as a function of a prearranged, time-limited insurance payment designed specifically for addiction disorders and "carved out" from general medical insurance.
- The individual/family/community is given the impression at discharge ("graduation") that "cure has occurred": long-term recovery is viewed as personally self-sustainable without ongoing professional assistance.
- The intervention is evaluated at a short-term, single-point-in-time follow-up that compares pre-treatment status with discharge status and post-treatment status, months—or at best a few years—following professional intervention.
- Post-treatment relapse and readmission are viewed as the failure (non-compliance) of the individual rather than possible flaws in the design or execution of the treatment protocol.[32]

Most important among these characteristics is that the current treatment of addiction, like treatment of acute illnesses, is time-limited with no prolonged professional monitoring, support, or strategic re-intervention. Today, addiction treatments, regardless of the number of days or sessions or theoretical orientation, have clearly marked beginnings, middles, and ends that constitute ever-shorter temporal boundaries of the service process and the service relationship. If severe AOD dependency was an acute phenomenon, this would be appropriate, but there are two uniform findings in outcome studies of addiction treatment across modalities: 1) "treatment effects decay over time"[33] and 2) long addiction and treatment careers often precede the achievement of sustainable recovery.[34]

Historically, the acute-care model sets the field up in ways that erode long-term cultural confidence in addiction treatment as a social institution:

> *One of the problems with the expectation of long-term change following a single episode of care is that it holds substance abuse treatment to a very high standard—one that is not imposed on treatments for most medical or behavioral disorders.*[35]

Why an AC Model?

How did addiction treatment come to embrace an acute-care (AC) model of intervention? A confluence of circumstances contributed to the solidification of an AC model as the core design of modern addiction treatment during the 1970s and 1980s.

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33. Weisner, C., Delucchi, K., Matzger, H., & Schmidt, L. (2003). The role of community services and informal support on five-year drinking trajectories of alcohol dependent and problem drinkers. *Journal of Studies on Alcohol*, *64*(6), 862-873.

34. 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*, S51-S62; Hser, Y., Anglin, M., Grella, C., Longshore, D., & Prendergast, M. (1997). Drug treatment careers: A conceptual framework and existing research findings. *Journal of Substance Abuse Treatment, 14*(3), 1-16.

35. O'Brien, C., & McLellan, A.T. (1996). Myths about the treatment of addiction. *Lancet, 347*, 237-240; McKay, J.R., & Weiss, R.V. (2001). A review of temporal effects and outcome predictors in substance abuse treatment studies with long-term follow-ups: Preliminary results and methodological issues. *Evaluation Review*, *25*, 113-161.

THE MEDICALIZATION OF TREATMENT: The desire to legitimize addiction treatment institutionally led to emulation of the field of primary medicine. Early accreditation standards for programs treating alcohol and drug dependence were adapted from standards for acute-care hospitals, with little focus on service support for long-term recovery. The emerging system of addiction treatment—prior to the funding backlash of the early 1990s—was focused on building bed capacity for acute biopsychosocial stabilization rather than building resources in the community to support long-term recovery maintenance. Ironically, addiction treatment modeled itself on the acute-care model of primary medicine at the exact time critics were documenting the ineffectiveness of this model for chronic primary health disorders.[36]

CATEGORICAL SEGREGATION: Addiction treatment became part of a categorically segregated health and human service system in the United States—a system marked by ever-increasing numbers of service silos that each focused on a specialized problem area. Such segregation prevented us from looking at the whole person and generating services to support the evolution of global (multidimensional) health in long-term recovery.

PROFESSIONALIZATION OF ADDICTION COUNSELING: Counselor credentialing (certification and licensing) movements modeled themselves on the short-term psychotherapy roles within the fields of psychology and social work. This raised the professional legitimacy of the counselor (from its earlier "paraprofessional" status) and elevated the counselor's role in recovery initiation, but left the service consumer abandoned in his or her efforts at post-treatment recovery maintenance.

BUSINESS ORIENTATION: The rapid shift in program orientation from a client-focused recovery orientation (1960s-1970s) to an institution-focused business orientation (1980s) diminished client advocacy and contributed to acceptance of an aggressive program of managed behavioral health care that shortened lengths of stay and eliminated continuing care as a reimbursable service. This process removed ultimate accountability for local addiction treatment programs from the individuals and families they served, and instead placed it on public and private purchasers of care; accrediting and monitoring authorities; and parental organizations, as programs were purchased or merged into larger organizational networks. In this transition the nature of accountability for local programs shifted from long-term recovery outcomes to regulatory compliance, procedural efficiency, and maximization of billable services.[37] Reviews of the effects of managed behavioral health care note a decrease in front-end access to addiction treatment; decreased intensity, scope, and magnitude of

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37. White, W.L. (1998). *Slaying the dragon: The history of addiction treatment and recovery in America.* Bloomington, IL: Chestnut Health Systems.

services delivered; and reduced service completion rates—factors that we shall see are all critical predictors of long-term recovery.[38]

DISCONNECTION FROM COMMUNITIES OF RECOVERY: There is a tendency for grassroots treatment programs closely connected to local communities of recovery to become professionalized, bureaucratized, and disconnected from these communities over time.[39] In the wake of the professionalization and commercialization of addiction treatment, the relationships between treatment institutions and indigenous communities of recovery were weakened or lost altogether. Such disconnection was evident in the reduced percentage of staff in recovery, abandonment of the expectation that all staff would participate in local recovery support meetings (e.g., open meetings of AA/NA and Al-Anon), cessation of meetings between the treatment center and the service committees of local recovery support fellowships, and the weakening or collapse of volunteer programs and alumni associations. Such disconnection contributed to the loss of focus on long-term recovery.

LEVEL-OF-CARE SPECIALIZATION: Over the course of two decades, clients in addiction treatment went from receiving a spectrum of services from a single provider to a level-of-care system in which detoxification, inpatient treatment, intensive outpatient treatment, and "aftercare" services were often provided by multiple organizations, with no organization maintaining continuity of contact and support over time. This division of labor defined responsibility for particular service sets, but left no one responsible for continual monitoring and support of the long-term recovery process.

RECOVERY MAINTENANCE VERSUS RECOVERY INITIATION: Factors that sustain recovery ("maintenance factors") are different from those factors that serve to initiate recovery ("triggering mechanisms").[40] Where treatment can play a critical role in recovery initiation, factors outside the treatment experience play a more critical role in long-term recovery maintenance,[41] and these factors become more important as time from treatment discharge increases.[42]

In the next chapter, we will look at the forces that are coming together to galvanize support for a major redesign of addiction treatment service models.

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Chapter Two

The Momentum for Change

■ SUMMARY OF KEY POINTS ■

- The AC model of specialized addiction treatment has measurable positive effects compared to the absence of intervention or the alternative use of non-specialized interventions, but these effects vary widely by program, counselor, and population served.
- Based on the growing body of outcome data, marketing of the AC model has oversold what individuals, families, and referral sources can expect from a single episode of brief, specialized treatment of severe AOD problems.
- Challenges to the AC model and calls for a more sustained recovery management (RM) model have come from multiple sources: a new grassroots recovery advocacy movement, disillusioned payors, research data on limitations of the AC model, positive evaluations of RM model components (e.g., recovery checkups), and excitement generated by recent "recovery-oriented systems-transformation" pilots, e.g., the State of Connecticut and the City of Philadelphia.
- "Recovery-oriented systems of care" (ROSC) are networks of formal and informal services developed and mobilized to sustain long-term recovery for individuals and families impacted by severe substance use disorders. The *system* in ROSC is not a local, state, or federal treatment agency but a macro-level organization of a community, a state, or a nation.
- "Recovery management" (RM) is a philosophical framework for organizing addiction treatment services to provide pre-recovery identification and engagement, recovery initiation and stabilization, long-term recovery maintenance, and quality-of-life enhancement for individuals and families affected by severe substance use disorders.

"Treatment Works," But...

It is hard to convey in words what the modern system of addiction treatment has meant to millions of individuals and families, as well as communities across the United States. Lives—including those of many who will read this monograph—have been saved and transformed. Families have been healed and restored. Individuals who once wounded their communities have been returned to those communities as assets whose service work has further extended the fruits of their recoveries. The blessings of this system of care have been summed up in recent years by the effusive slogan, "Treatment Works!"

This marketing mantra of addiction treatment has much to commend it, including its acknowledgement of the superiority over the institutions it replaced (e.g., "drunk tanks" in jails and "inebriate wards" of aging state psychiatric hospitals), its celebration of those whose recoveries have been initiated through the vehicle of treatment, and its honoring of those who work on the frontlines of addiction treatment. However, the slogan "treatment works" 1) erroneously suggests a homogenous set of services that are consistent in design and quality across the United States, 2) ignores pathways of recovery that do not involve treatment, 3) misrepresents the highly variable and complex outcomes of addiction treatment, 4) shifts the focus of recovery from the person seeking treatment to the treatment professional, and 5) conveys a mechanical quality of treatment analogous to taking antibiotics for a few weeks or having a tumor surgically removed.[43]

The acute-care model of specialized addiction treatment does "work" in the sense that it has measurable positive effects, compared to the absence of any intervention or the alternative use of non-specialized interventions.[44] This finding has been confirmed in multiple national studies in the United States and England.[45]

> *...treatment programs with diverse ideologies are effective in reducing substance use and improving psychosocial outcomes. These effective programs engage clients in a common focus, which is to help them understand, adapt to, and alter their life circumstances.*[46]

Post-treatment remissions average about one third, overall AOD use decreases by more than 80% in the months following discharge, and substance-related problems decrease by 60% in the months following treatment.[47] Treatment-influenced reductions in alcohol and other drug use are also linked to rapid reductions in illegal activity and illegal income,[48] as well as reduced risk of HIV and other addiction-related infectious diseases and health problems.[49]

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43. White, W. (2005c). Treatment Works: Is it time for a new slogan? (Abridged). *Addiction Professional*, *3*(1), 22-27.

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This good news about treatment-facilitated recovery even extends to those addicted to drug choices that have been portrayed in the popular press as particularly pernicious. A 12-year follow-up of persons treated for cocaine dependence found 52% in stable recovery,[50] and a follow-up of clients treated for methamphetamine dependence showed a recovery rate similar to those of clients treated for heroin or cocaine dependence.[51] But as we shall see in later chapters, the effect of treatment varies considerably from program to program, from counselor to counselor, and from client to client.

The positive evaluations of addiction treatment leave us with the question: Why do we need a fundamental change in the design of addiction treatment? This chapter will briefly outline the forces that set the stage for calls to transform the design of addiction treatment.

The Coming of Age of American Communities of Recovery

Recovery mutual aid support groups have been conceptualized as an adjunct and "aftercare" arm of addiction treatment since the nineteenth century heydays of the Washingtonians, the sobriety-based fraternal temperance societies, the ribbon reform clubs, and institution-based support fellowships (e.g., the Keeley Leagues, the Godwin Association).[52] A fully developed culture of recovery is now emerging in America. The most significant of recent developments include:

- the growth and diversification (secular, spiritual, and religious) of recovery mutual aid societies;[53]
- the emergence of a new grassroots recovery advocacy movement in the United States;[54]
- the rise of recovery community organizations that exist independent of addiction treatment organizations and recovery mutual aid societies;[55] and
- the proliferation of new recovery community institutions, e.g., recovery homes, recovery colonies, recovery industries, recovery schools, recovery ministries/churches, peer-directed recovery support centers, and Internet-based recovery communities.[56]

The growth and maturation of this culture of recovery is forcing a reevaluation of the role of professional treatment and communities of recovery in the long-term recovery process.

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56. White, W. (in pressa). The culture of recovery in America: Recent developments and their significance. *Counselor.*

Disillusionment among Purchasers of Addiction Treatment Services

The expansion of insurance coverage for alcoholism treatment in the 1970s and 1980s set the stage for the explosive growth of private, hospital-based, and freestanding addiction treatment programs in the United States throughout the 1980s. Abuses within the treatment industry (e.g., excessive fees, inappropriate admissions and readmissions, excessive lengths of stay, full charges for time patients spent on weekend passes, and unethical marketing practices) triggered a financial backlash and the emergence of an aggressive system of managed behavioral health care that produced a 20% fatality rate among private sector treatment facilities between 1989 and 1991[57] and the subsequent collapse of some of America's largest and best known treatment providers (e.g., Parkside).[58]

For programs that survived the 1990s, this backlash produced an overall decrease in private-pay expenditures for addiction treatment and instigated new service protocols, including provider selection by payors, standardized assessment instruments, patient placement criteria, evidence-based practice guidelines (and worker credentialing), and post-discharge follow-up, as well as new benefit limitations and greater administrative burdens, e.g., increased paperwork and phone negotiations related to service access and service continuation. The federal and state agencies that came to bear an increasing financial burden for addiction treatment implemented similar guidelines through new systems of public managed behavioral health care.[59] What became evident in both private and public treatment systems was the existence of a growing population of individuals with severe AOD problems who were recycling through repeated episodes of expensive acute-care treatment without evidence of long-term recovery outcomes. This triggered calls for a better model of addressing complex and chronic AOD problems.[60]

Visions of a Transformed System of Care

Recognition of the repeated recycling of people through the acute-care model of addiction treatment spurred calls for a model of sustained recovery management more analogous to the management of other chronic health care problems.[61] Such approaches in primary medicine have been collectively christened the "chronic-care model".[62] In the arena of addiction treatment, this approach is reflected in such concepts as *extended case monitoring,*[63] *chronic care or disease management,*[64] *stepped care,*[65] *assertive continuing care*,[66] *recovery management*,[67] *recovery coaching*,[68] *post-treatment recovery support services*,[69] *recovery management checkups,*[70] *concurrent recovery monitoring*,[71] *adaptive treatment,*[72] and *sustained care.*[73]

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Toward a Recovery Paradigm

Calls for a "chronic-care" model of addiction treatment grew out of and in turn intensified a shift in the organizing paradigm of the addictions field from one of pathology (focus on the etiology and patterns of AOD problems) and intervention (focus on professional-directed addiction treatment) to a focus on the lived solution (focus on long-term addiction recovery).[74] This emerging recovery paradigm is evident in calls to reconnect addiction treatment to the larger and more enduring process of addiction treatment,[75] and to growing scientific interest in AA, other Twelve Step programs, and secular and religious alternatives to Twelve Step programs.[76] At the treatment system level, it is also evident in:

- the emergence of recovery as an organizing fulcrum for national, state, and urban addiction treatment policy;[77]
- efforts to define recovery;[78]
- calls for a fully developed recovery research agenda;[79]
- federal programs promoting peer-based recovery support services, such as CSAT's Access to Recovery and Recovery Community Services Program; and
- calls to use recovery as an integrating bridge for the addiction and mental health fields.[80]

The field seems to be shifting its historical focus toward the processes of recovery initiation to pathways, patterns, stages, and styles of long-term recovery. That transition has opened the door for the concepts of *recovery management and recovery-oriented systems of care,* which are heard with increasing frequency but are often ill-defined or used interchangeably.[81]

Among mainstream addiction treatment representatives, advocacy of such redesign of addiction treatment is triggering fears that the crucial role treatment plays in recovery initiation for many people might be lost in this new focus on long-term support processes.[82] The author shares this concern and has tried to emphasize that models of sustained support are an extension of the acute-care model, not a call to eliminate resources for acute stabilization and recovery initiation. As with any chronic disorder, episodes of acute biopsychosocial stabilization are essential to save lives, and such episodes often play a critical role in the movement toward long-term recovery. The issue is not whether we have professionally directed addiction treatment or peer-based recovery support services, but how these and other supports can be best combined and sequenced to enhance long-term recovery outcomes.

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Recovery-oriented Systems of Care as a Macrosystem Organizing Philosophy

The phrase *recovery-oriented systems of care* as used in this monograph refers to the complete network of indigenous and professional services and relationships that can support the long-term recovery of individuals and families and the creation of values and policies in the larger cultural and policy environment that are supportive of these recovery processes. The "system" in this phrase is not a federal, state, or local agency, but a macro-level organization of the larger cultural and community environment in which long-term recovery is nested.

Recovery Management as a Microsystem Organizing Philosophy

Recovery management as used in this monograph is a philosophy of organizing addiction treatment and recovery support services to enhance pre-recovery engagement, recovery initiation, long-term recovery maintenance, and the quality of personal/family life in long-term recovery.

As we shall see, achieving both a recovery-oriented system of care and the implementation of a recovery management philosophy requires substantial changes in treatment philosophies, purchase-of-care strategies, regulatory policies and monitoring protocols, clinical and support service menus, service relationships, the roles of the service professional and service consumer, the training and supervision of staff and volunteers, and intra- and inter-organizational relationships.[83]

health care system. Retrieved on June 26, 2007, from http://www.glattc.org/Interview%20With%20Arthur%20C.%20Evans,%20PhD.pdf

78. Betty Ford Institute Consensus Panel. (2007). What is recovery? A working definition from the Betty Ford Institute. *Journal of Substance Abuse Treatment*, *33*, 221-228; Laudet, A.B. (2007). What does recovery mean to you? Lessons from the recovery experience for research and practice. *Journal of Substance Abuse Treatment*, *33*, 221-228; White, W. (2007b). Addiction recovery: Its definition and conceptual boundaries. *Journal of Substance Abuse Treatment*, *33*, 229-241; Kaplan, L. (2008). *The role of recovery support services in recovery-oriented systems of care.* DHHS Publication No. (SMA) 08-4315. Rockville, MD: Center for Substance Abuse Treatment, Substance Abuse and Mental Health Services Administration.

79. Laudet, A.B. (2008). Building the science of recovery. Presented at the Recovery Symposium, May 1-2, Philadelphia, PA: Sponsored by the Institute for Research, Education and Training in Addictions.

80. White, W., Boyle, M., & Loveland, D. (2004). Recovery from addiction and recovery from mental illness: Shared and contrasting lessons. In R. Ralph & P. Corrigan (Eds.), *Recovery and mental illness: Consumer visions and research paradigms* (pp. 233-258). Washington DC: American Psychological Association; Davidson, L., & White, W. (2007). The concept of recovery as an organizing principle for integrating mental health and addiction services. *Journal of Behavioral Health Services and Research, 34*(2), 1094-3412; Gagne, C.A., White, W., & Anthony, W.A. (2007). Recovery: A common vision for the fields of mental health and addictions. *Psychiatric Rehabilitation Journal, 32*(10), 32-37.

81. Kaplan, L. (2008). *The role of recovery support services in recovery-oriented systems of care.* DHHS Publication No. (SMA) 08-4315. Rockville, MD: Center for Substance Abuse Treatment, Substance Abuse and Mental Health Services Administration.

82. Huniscker, R. (2008). Another acronym to learn: ROSC. *NAATP Visions*, *May*,

83. Anthony, W.A. (2000). A recovery-oriented service system: Setting some system level standards. *Psychiatric Rehabilitation Journal*, *24*(2), 159-168; Kirk, T. (2007). Creating a recovery-oriented system of care. Retrieved on June 26, 2007, from htttp://www.glattc.org/Interview%20With%20Thomas%20A.%20Kirk,%20Jr.,%20PhD.pdf

Chapter Three

Recovery-focused System Performance Measures

■ SUMMARY OF KEY POINTS ■

- Interest is rapidly growing in the development of formal, systems-level performance measures for addiction treatment.
- Recovery-focused performance measures include three dimensions of systems evaluation: 1) measures of infrastructure stability and adaptive capacity, 2) recovery-focused service process measures, and 3) long-term recovery outcome measures.
- Infrastructure stability and adaptive capacity reflect the capacity of an organization to undergo systems-transformation processes (e.g., from an AC to an RM model of care) and the capacity of an organization to fulfill its commitment to continuity of contact and support over time for individuals and families seeking long-term recovery.
- Recovery-oriented service process measures (e.g., early identification, engagement, retention, etc.) are intermediary outcomes that are linked to the final goal of long-term individual and family recovery.
- Long-term recovery outcome measures represent the major fruits of recovery, defined here as the resolution of alcohol and other drug problems, the progressive achievement of global (physical, emotional, relational) health, and citizenship (life meaning and purpose, self-development, social stability, social contribution, and elimination of threats to public safety).

  The attainment of recovery must be an integral part of all efforts to improve treatment quality, effectiveness and efficiency.—McLellan, Chalk & Bartlett[84]

Addiction treatment outcomes are best viewed in systemic terms—achievements that are influenced by policy-level, community-level, program-level, and client-level variables.[85] There is an *ecology of addiction recovery* revealed through studies of the inter-relationships among individuals experiencing and resolving severe AOD problems and their physical, family, social, and cultural environments.[86] These ecological influences are graphically depicted below as adapted from Urie Brofenbrenner's ecological systems theory.

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84. McLellan, A.T., Chalk, M., & Bartlett, J. (2007). Outcomes, performance, and qualityóWhatís the difference? *Journal of Substance Abuse Treatment*, *32*, 331-340.

85. Heinrich, C.J., & Lynn, Jr., L.E. (2002). Improving the organization, management, and outcomes of substance abuse treatment programs. *American Journal of Drug and Alcohol Abuse*, *28*, 601-622.

86. White, W. (in pressc). "With a Little Help from my Friends": The development and mobilization of community resources for the initiation and maintenance of addiction recovery. *Journal of Substance Abuse Treatment*.

Figure 1: The Ecology of Recovery

Addiction recovery within the Brofenbrenner framework is influenced by multiple levels of the recovering person's ecosystem.[87] At the center of this ecological onion rests the individual and the internal vulnerabilities and assets the individual brings to AOD problem-resolution efforts.

Embracing the individual is the microsystem—the immediate physical, family, social, and cultural environments that can act to inhibit or support AOD problem resolution. The microsystem can be thought of in terms of direct influence—one's family and kinship network, intimate and social relationships, the neighborhood, and the workplace that constitute one's stage of daily living.

The second layer of the environment is the mesosystem, conceptualized here as the professional services and indigenous recovery supports available to the individual. The mesosystem encompasses local addiction treatment resources as well as recovery supports available in the local community to support long-term recovery.

Brofenbrenner's third layer of the ecosystem is the exosystem—the larger community environment in which recovery efforts succeed or fail. Recovery-linked components of the exosystem include community attitudes about addiction/recovery, resource accessibility from the larger network of health and human services, and the response of key community institutions (law, religion, medicine, financial institutions, media, and business and industry) to those with AOD problems.

The broadest layer of the recovery environment is the macrosystem. The macrosystem encompasses broad state, national, and international trends that exert a profound influence on the recovery efforts of individuals, families, and local communities. The macrosystem includes broad AOD-related attitudes and policies as well as the more focused policies and programs of federal and state agencies and related support institutions in the addictions field (e.g., advocacy, research, and education and training).

Long-term addiction recovery is about more than a relationship between an individual and a treatment center; it is about altering the complex relationships between individuals and the multiple layers of the ecosystem in which individuals and families are nested. As such, all layers of this ecosystem are targets of recovery-focused interventions. Our particular focus in this monograph will be on those aspects of the mesosystem (treatment and recovery support structures and processes) and the family and community milieus that influence post-treatment recovery outcomes.[88]

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87. Berk, L. (2001). *Development through the lifespan*. Boston: Allyn & Bacon.

88. White, W. (in pressc). ¡With a Little Help from my Friendsî: The development and mobilization of community resources for the initiation and maintenance of addiction recovery. *Journal of Substance Abuse Treatment*.

Systems Perspectives on Treatment Performance Measurement

Interest in performance and outcome measures for addiction treatment is growing in the United States.[89] Legislative oversight committees, independent policy groups, federal and state alcohol/drug agencies, addiction treatment program licensing and accreditation authorities, public and private purchasers of services, research institutions, and recovery advocacy organizations are all holding addiction treatment institutions to an increased level of accountability.[90] Varied and sometimes conflicting interests of these groups create multiple expectations of addiction treatment as a cultural institution. These interests span:

- access to care,
- achievement of personal recovery,
- reduction of threats to public health (e.g., AOD-related disease transmission),
- reductions in threats to public safety (e.g., AOD-related crime and violence, AOD-impaired driving),
- reductions in threats to the welfare of children (e.g., AOD-related child neglect and abuse),
- organizational prestige (of organizational leaders and institutional boards),
- institutional profit (e.g., for addiction treatment organizations), and the
- stewardship of public and private expenditures (e.g., purchasers of treatment services).[91]

All of these interests reflect legitimate goals, but the performance expected of addiction treatment institutions will vary widely depending on prioritization of these interests.

This monograph will focus on performance measures that directly affect the ability of addiction treatment as a specialized system of care to provide sustained support to individuals and families in **long-term** recovery from severe substance use disorders. In the following discussions, we will explore three critical performance arenas of addiction treatment as a system of care: 1) infrastructure stability and adaptive capacity, 2) recovery-focused service process measures, and 3) treatment/recovery outcomes. These broad arenas have figured prominently in work to-date conceptualizing treatment/recovery processes[92] and formulating performance measures for evaluating addiction treatment.[93] All three arenas are important, whether we are talking about the evaluation of a local treatment agency or the evaluation of addiction treatment as an American cultural institution.

89. Center for Substance Abuse Treatment. (1995). *Developing state outcomes monitoring for alcohol and drug abuse treatment*. Treatment Improvement Protocol (TIP) Series 14. DHHS Publication. Rockville, MD: Substance Abuse and Mental Health Services Administration; McCarty, D. (2007). Performance measurement for systems treating alcohol and drug use disorders. *Journal of Substance Abuse Treatment*, *33*, 353-354; Garnik, D.W., Horgan, C.M., Lee, M.T. Panas, L., Ritter, G.A., Davis, S., Leeper, T., Moore, R., & Reynolds, M. (2007). Are Washington Circle performance measures associated with decreased criminal activity following treatment? *Journal of Substance Abuse Treatment*, *33*, 341-352; Garnik, D.W., Lee, M.T., Chalk, M., Gastfriend, D., Horgan, C.M., McCorry, F., McLellan, A.T., & Merrick, E.L. (2002). Establishing the feasibility of performance measures for alcohol and other drugs. *Journal of Substance Abuse Treatment*, *23*, 375-385; Substance Abuse and Mental Health Services Administration, Office of Applied Studies. (2002). Year 2000 discharges by reason for discharge, according to type of service: TEDS 2000. (Number and percent distribution). Retrieved February 20, 2008, from http://wwwdasis.samhsa.gov/teds00/6.3a.htm; Soldz, M.J., Panas, L., & Rodriguez-Howard-Howard, M. (2002). The reliability of the Massachusetts Substance Abuse Management Information System. *Journal of Clinical Psychology*, *58*, 1057-1069.

90. Pelletier, L.R., & Hoffman, J.A. (2001). New federal regulations for improving quality in opioid treatment programs. *Journal of Healthcare Quality*, *23*(2), 29-33.

91. Wheeler, J.R.C., Fadel, H., & D'Aunno, T.A. (1992). Ownership and performance of outpatient substance abuse treatment centers. *American Journal of Public Health*, *82*, 711-718.

92. Simpson, D.D. (2004). A conceptual framework for drug treatment process and outcomes. *Journal of Substance Abuse Treatment*, *27*, 99-121.

93. Pelletier, L.R., & Hoffman, J.A. (2001). New federal regulations for improving quality in opioid treatment programs. *Journal of Healthcare Quality*, *23*(2), 29-33; McLellan, A.T., Chalk, M., & Bartlett, J. (2007). Outcomes, performance, and quality—What's the difference? *Journal of Substance Abuse Treatment*, *32*, 331-340.

Infrastructure Stability and Adaptive Capacity

Treatment outcomes are usually thought of as being determined by such client variables as problem severity or degree of motivation for change, but there is growing evidence that program and extra-program contextual factors exert significant influences on the achievement of, or failure to achieve, long-term recovery. For example, multi-site studies of addiction treatment have linked the best outcomes to such program characteristics as clear treatment policies, high expectations of clients, highly structured treatment activities, high rates of staff in recovery, and a wider range of psychosocial services.[94] Such positive outcomes have also been linked to broader organizational infrastructure characteristics and to the broader policy environment.[95]

Infrastructure is the institutional platform upon which services are built to promote long-term recovery for individuals and families. Key indicators of infrastructure stability measure the degree to which addiction treatment as a professional field and local addiction treatment organizations can ensure the safety, continuity, and quality of care provided to individuals, families, and communities. Success stories related to work on the infrastructure of addiction treatment over the past 40 years include designated federal and state authorities for AOD problems; a federal, state, local and private financing partnership; widespread licensure and accreditation of addiction treatment programs; preparatory education and training programs for addiction service professionals; and addiction professional licensure and certification programs. Such successes have been critical to building a national network of addiction treatment programs and enhancing service quality and client safety.

In spite of these achievements, a number of infrastructure vulnerabilities raise a troubling question: *if addiction is a chronic illness requiring sustained monitoring, support, and early re-intervention, can the current acute-care model of addiction treatment provide such continuity of support over an extended period of time?*[96] Indicators of infrastructure strength particularly important to recovery management include:

- a recovery-focused organizational culture;
- adequate capitalization, funding diversification, availability of funding streams that enable sustained support, and financial stewardship;
- stability of organizational ownership;
- administrative and clinical leadership and workforce stability;
- recovery representation at policy and clinical decision-making levels;

94. Moos, R.H., King, M.J., Burnett, E.B., & Andrassy, J.M. (1997). Community residential program policies, services and treatment orientations influence patients' participation in treatment. *Journal of Substance Abuse*, *9*, 171-187; Joe, G.W., Simpson, D.D., & Hubbard, R.L. (1991). Treatment predictors of retention in methadone maintenance. *Journal of Substance Abuse*, *3*, 73-84.

95. Ghose, T. (2008). Organizational- and individual-level correlates of posttreatment substance use: A multilevel analysis. *Journal of Substance Abuse Treatment*, *34*, 249-262.

96. McLellan, A.T., Carise, D., & Kleber, H.D. (2003). The national addiction treatment infrastructure: Can it support the public's demand for quality of care? *Journal of Substance Abuse Treatment*, *78*, 125-129.

- safety protocols for service providers and consumers;
- technological capabilities; and
- institutional relationships with local communities (with particular emphasis on communities of recovery).

The next chapter will evaluate the current state of addiction treatment based on a sampling of these performance measures.

Adaptive or absorptive capacity refers to the resources the system/organization can mobilize to initiate and sustain processes of self-change. Adaptive capacity is a measure of organizational health and resilience and is influenced by the professionalism of organizational members, the frequency and accuracy of environmental scanning, and the collection and utilization of feedback from multiple organizational stakeholders (e.g., service consumers and service buyers).[97] More specifically, it addresses the degree to which addiction treatment as a system of care can recognize major service design flaws and initiate and sustain system-transformation processes aimed at correcting such flaws.

Adaptive capacity measures the organization's ability to maintain service support while initiating and sustaining change processes. For example, organizations that are hopelessly over-extended may recognize the need to change their service design from an AC to a RM model of care, but may lack the energy and resources to start and complete such a transformation process. There are frameworks for assessing a particular organization's readiness to change,[98] but no comparable instrument exists to assess the readiness of an entire professional field to shift its operating paradigm.

Recovery-focused Service Process Measures

Recovery-focused service process measures are intermediate measures that exert an influence on long-term recovery outcomes. For purposes of this paper, we will evaluate the current system of addiction treatment using eight recovery-focused process measures: 1) treatment attraction and access; 2) screening, assessment, and level-of-care placement; 3) composition of the service team; 4) service relationship (engagement, retention, and discharge status); 5) service dose, scope, and quality; 6) locus of service delivery and influence on the post-treatment recovery environment; 7) assertive linkage to communities of recovery; and 8) post-treatment monitoring, support, and early re-intervention. Chapters Six through Thirteen will provide brief evaluations of addiction treatment using these key recovery-focused process measures.

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97. While client-reported satisfaction with a treatment experience may affect intermediate outcomes (e.g., level of participation), not all studies have found that such satisfaction is correlated with post-treatment recovery outcomes (Siqueland, L. Crits-Christoph, P., Barber, J., Connolly Gibbons, M.B., Gallop, R., Griffin, M., Frank, A., Thase, M.E., Luborsky, L., & Liese, B. (2004). What aspects of treatment matter to the patient in the treatment of cocaine dependence? *Journal of Substance Abuse Treatment*, *14*, 565-572.); Knudsen, H.K., & Roman, P.M. (2004). Modeling the use of innovations in private treatment organizations: The role of absorptive capacity. *Journal of Substance Abuse Treatment*, *26*, 353-361.

98. Lehman, W.F.K., Greener, J.M., & Simpson, D.D. (2002). Assessing organizational readiness for change. *Journal of Substance Abuse Treatment*, *22*, 197-209.

Long-term Recovery Outcome Measures

Treatment/recovery outcome measures vary widely, with considerable disagreement about how to define such terms as *relapse and recovery.*[99] There is, for example, evidence that abstinence or achievement of sustained levels of subclinical use may be obtained without concomitant improvements in criminal lifestyle, health, employment, income, and housing.[100] For purposes of this paper, we will posit that the purpose of treatment is recovery and define long-term recovery in terms of an enduring lifestyle marked by: 1) the resolution of alcohol and other drug problems, 2) the progressive achievement of global (physical, emotional, relational) health, and 3) citizenship (life meaning and purpose, self-development, social stability, social contribution, elimination of threats to public safety).[101] These broad arenas embrace four of the seven performance domains that are part of SAMHSA's National Outcome Measures: abstinence from drug use and alcohol abuse, finding and keeping a job or enrolling or staying in school, decreased criminal justice system involvement, safe and stable housing, and social connectedness.[102]

Traditionally, such measures of treatment outcomes have been collected at a single point in time, but the growing understanding of addiction as a chronic disorder suggests the importance of measuring these outcomes at multiple points in time, to accurately evaluate the courses of both addiction and recovery careers.[103] We will use the available treatment outcome research to evaluate the extent to which the acute-care model of addiction treatment in the United States can achieve these three dimensions of recovery. We will also provide a table of promising practices related to each area of performance. These suggestions are drawn from the published literature or represent practices currently being piloted that have yet to be evaluated. Chapters Six through Thirteen will also include examples of measurable, recovery-linked benchmarks that might be utilized to evaluate each area of performance.

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99. Maddux, F.F., & Desmond, D.P. (1986). Relapse and recovery in substance abuse careers. In F. Tims & C. Leukefeld (Eds.), *Relapse and recovery in drug abuse* (NIDA Monograph 72, pp. 49-72). Rockville, MD: National Institute on Drug Abuse.

100. Bacchus, L., Strang, J., & Watson, P. (2000). Pathways to abstinence: Two-year follow-up data on 60 abstinent former opiate addicts who had been turned away from treatment. *European Addiction Research, 6*, 141-147.

101. Betty Ford Institute Consensus Panel. (2007). What is recovery? A working definition from the Betty Ford Institute. *Journal of Substance Abuse Treatment, 33*, 221-228; White, W. (2007b). Addiction recovery: Its definition and conceptual boundaries. *Journal of Substance Abuse Treatment, 33*, 229-241; Laudet, A.B. (2007). What does recovery mean to you? Lessons from the recovery experience for research and practice. *Journal of Substance Abuse Treatment*, *33*, 221-228.

102. Substance Abuse and Mental Health Services Administration, Office of Applied Studies. (2002). Year 2000 discharges by reason for discharge, according to type of service: TEDS 2000. (Number and percent distribution). Retrieved February 20, 2008, from http://www.dasis.samhsa.gov/teds00/6.3a.htm

103. McLellan, A.T., McKay, J.R., Forman, R., Cacciola, J., & Kemp, J. (2005). Reconsidering the evaluation of addiction treatment: From retrospective follow-up to concurrent recovery monitoring. *Addiction*, *100*, 447-458.

SUMMARY: RECOVERY-FOCUSED SYSTEM PERFORMANCE MEASURES

I. Infrastructure Strength and Adaptive Capacity

A. Recovery representation/orientation
B. Organizational health and stability
C. Health and stability of administrative/clinical leadership
D. Cultural/political status
E. Capitalization, funding diversification
F. Availability of funding streams for sustained support
G. Financial stewardship
H. Institutional relationships
I. Workforce composition and stability
J. Technological capabilities
K. Adaptive capacity

II. Recovery-focused Service Process Measures

A. Treatment attraction and access
B. Screening, assessment, and level-of-care placement
C. Composition of the service team
D. Service relationship (engagement, retention, and discharge status)
E. Service dose, scope, and quality
F. Locus of service delivery/Influence on the post-treatment recovery environment
G. Assertive linkage to communities of recovery
H. Post-treatment monitoring, support, and early re-intervention

III. Recovery Outcome Measures

A. Pre-post treatment changes in:
   - AOD use/consequences
   - Living environment
   - Physical health and health care costs
   - Emotional health
   - Family relationships and family health
   - Citizenship (legal status, education, employment, community participation, community service)
   - Quality of life (spirituality, life meaning, and purpose)

B. Post-treatment Service/Support Utilization Patterns
   - Utilization of professional services
   - Utilization of indigenous recovery support institutions

C. Changes in Family and Community Recovery Capital

Chapter Four

The Infrastructure of Addiction Treatment

■ SUMMARY OF KEY POINTS ■

- Measurable elements of addiction treatment infrastructure required to fully implement an RM model include recovery orientation and representation, leadership stability, an esteemed status of addiction treatment as a cultural and community institution, capitalization and funding diversification, availability of funding streams for sustained recovery support, financial stewardship, organizational stability, workforce stability, technological capabilities, and adaptive capacity.
- Recovery advocates perceive a historical weakening of the recovery orientation of addiction treatment programs; in their view, addiction treatment has become detached from the larger and more enduring process of long-term recovery.
- The extension of the AC model of treatment to an RM model will require repositioning addiction treatment as a cultural institution and re-educating the public and policymakers about the nature of addiction and its treatment.
- The shrinking proportion of health care resources devoted to addiction treatment and the growing reliance on governmental funding for treatment will limit resources and demand effective stewardship of the resources that can be mustered to support systems-transformation efforts.
- The move to an RM model will require substantial changes in funding policies and mechanisms to facilitate the development of long-term recovery support services.
- Challenges to systems-transformation efforts include the instability of addiction treatment organizations, the mass exodus of long-tenured leaders within the addiction treatment field, and the lack of system-wide programs of leadership development and succession planning.
- Ensuring continuity of contact in long-term recovery support relationships will require reversal of the currently high annual turnover rate of the addiction treatment workforce.
- Efforts to create ROSC and to shift local treatment agencies toward an RM orientation will require tandem efforts to strengthen the national infrastructure of addiction treatment in the United States and the infrastructures of local addiction treatment service providers. Lacking such efforts, ROSC and RM will constitute only a new rhetoric and isolated pockets of innovation rather than a true transformation of the system of care.

There is increasing expression of concerns about the health and stability of the 13,200 specialty programs that are at the core of today's addiction treatment infrastructure.[104] Key concerns include the following issues.

Recovery Representation and Orientation

Recovery advocates over the past decade have lamented the absence of long-term recovery orientation in addiction treatment organizations. They allege that treatment has become detached from the larger and more enduring process of recovery.[105] Advocates see no references to recovery in the statements of mission, vision, and core values of addiction treatment programs, and they attribute this to what they see as an erosion of recovery representation at all levels of decision making within the addiction treatment field. They have witnessed a progressive decline in the number of addiction professionals with personal recovery experience and a weakening of institutional linkage between treatment organizations and local communities of recovery and indigenous recovery support institutions.[106]

Recovery representation has only recently begun to increase at the national level, through the work of organizations like Faces and Voices of Recovery and the Johnson Institute. Parallel changes at the local level are reflected in the increased use of recovering people as paid staff and volunteers working as outreach workers and recovery coaches. The development of recovery-oriented systems of care and recovery management approaches to addiction treatment can reflect deep changes in treatment philosophy and practices or a superficial adaptation to the latest "flavor of the month" chase for funds. The former will come only through a focused recovery re-orientation process within each organization. That re-orientation is already underway in many organizations.

Organizational Health and Stability

The role of a treatment center within a recovery-oriented system of care is one of maintaining continuity of support for the clients and communities it serves over time. The current high rates of closure (15% over two years) and re-organization (29% over two years) of addiction treatment programs undermine such capacities for continuity of support.[107] The number of specialized addiction treatment programs has dropped from more than 16,000 in 1990 to 13,200 specialty programs today.[108]

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104. McLellan, A.T., Carise, D., & Kleber, H.D. (2003). The national addiction treatment infrastructure: Can it support the publicís demand for quality of care? *Journal of Substance Abuse Treatment*, *78*, 125-129; McLellan, A.T., & Meyers, K. (2004). Contemporary addiction treatment: A review of systems problems for adults and adolescents. *Biological Psychiatry*, *56*(10), 764-770; Substance Abuse and Mental Health Services Administration. (2006). Strengthening Professional Identity: Challenges for the Addiction Treatment Workforce. Center for Substance Abuse Treatment. Retrieved on July 30, 2008, from http://www.samhsa.gov/matrix2/matrix_workforce.aspx; Roman, P.M., Ducharme, L.J., & Knudsen, H.K. (2006). Patterns of organization and management in private and public substance abuse treatment programs. *Journal of Substance Abuse Treatment*, *31*, 235-243; Evans, W.N., & Hohenshil, T.H. (1997). Job satisfaction of substance abuse counselors. *Alcoholism Treatment Quarterly*, *15*, 1-13.

105. White, W. (2004b). Recovery: The next frontier. *Counselor*, *5*(1), 18-21.

106. Kurtz, E., & White, W. (2007). *Telephone- and Internet-based recovery support services*. Chicago, IL: Great Lakes Addiction Technology Transfer Center.

107. McLellan, A.T., Carise, D., & Kleber, H.D. (2003). The national addiction treatment infrastructure: Can it support the publicís demand for quality of care? *Journal of Substance Abuse Treatment*, *78*, 125-129.

108. McLellan, A.T., & Meyers, K. (2004). Contemporary addiction treatment: A review of systems problems for adults and adolescents. *Biological Psychiatry*, *56*(10), 764-770.

Organizations working with stigmatized issues and stigmatized service consumers are prone to processes of "incestuous closure" that undermine service quality and the health and viability of organizations and their service providers.[109] Pioneering addiction treatment organizations (e.g., Synanon) have imploded in the aftermath of such processes, leaving in their wake legacies of abuses that have added to the professional literature on therapeutic cults.[110] Grassroots helping organizations are also prone to become "chaotically disengaged systems"—a process through which their historical mission and core values are lost in the transition from a community-based service organization to a behavioral health care business. Organizational boundary closure at one extreme—and complete organizational boundary permeability without gatekeeping at the other extreme—distort organizational values and create role stressors (e.g., role conflict, role ambiguity, role overload, etc.) that undermine clinical performance and clinical outcomes.[111]

There is a direct connection between organizational structure, health, and functioning and client outcomes as measured by client engagement, satisfaction, and service outcomes.[112] Programs that lack structure, high client expectations, and energetic and goal-directed staff suffer from high drop-out rates, low linkage to recovery support groups, and poor post-treatment recovery outcomes.[113] The consistency, clarity, and strength of the program philosophy and service structure and the presence of high expectations for participation are more predictive of client outcomes than either client characteristics or the theoretical orientation of the program.[114] Recovery management requires a stable foundation upon which long-term recovery support relationships can be built. Organizational instability and impaired organization health in the field will slow the speed of overall system-transformation efforts and the ability of organizations to implement particular technological changes in their service protocols.

Leadership Stability

There is no delicate way to put this: As a field, we are getting old. The exodus of long-tenured administrative and clinical leaders has already begun and will rapidly escalate over the next 5-7 years. While alarms resound about this impending crisis in leadership,[115] there is no system-wide strategy of leadership development and succession planning for the field. Leadership transitions constitute a drain on the field's energies and raise the question of whether or not a new generation of leaders can be mobilized to lead a recovery-focused redesign of addiction treatment that will take years, if not decades. That question has yet to be answered.

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109. White, W. (1997c). *The incestuous workplace: Stress and distress in the organizational family* (2nd ed.). Center City, MN: Hazelden.

110. Jansen, R. (2001). *The rise and fall of Synanon*. Baltimore, MD: The Johns Hopkins University Press.

111. White, W. (1997c). *The incestuous workplace: Stress and distress in the organizational family* (2nd ed.). Center City, MN: Hazelden.

112. Greener, J.M., Joe, G.W., Simpson, D., Rowan-Szal, G.A., & Lehman, W.E.K. (2007). Influence of organizational functioning on client engagement in treatment. *Journal of Substance Abuse Treatment*, *33*, 139-147.

113. Moos, R.H., & Moos, B.S. (1998). The staff workplace and the quality and outcomes of substance abuse treatment. *Journal of Studies on Alcohol*, *59*, 43-51.

114. Moos, R.H., King, M.J., Burnett, E.B., & Andrassy, J.M. (1997). Community residential program policies, services and treatment orientations influence patients' participation in treatment. *Journal of Substance Abuse*, *9*, 171-187.

115. White, W.L. (2002b). Leadership in addiction treatment: The coming crisis. *Counselor*, *3* (3), 60-61; White, W., & Hagen, R. (2006). Leadership development, succession planning and graceful disengagement (10 Steps to leaving an organization in good hands). *Behavioral Healthcare*, *26*(1), 32-34.

Cultural/Political Status

Issues rise and fall and rise again in cultural prominence, and these cycles shape the fate of social institutions and the lives they impact. Does the addiction field have the political capital to generate the resources needed to support systems-transformation efforts? The decline in the number of our single state agencies that constitute independent departments with direct gubernatorial and legislative access would suggest that we are in a marginal position at best. We are not well positioned to face an economic crisis in which policymakers will be forced to decide between roads, schools, day care, and addiction treatment. There is also a question of whether addiction treatment as a field has the political capital to transform itself in the face of resistance from institutions whose future professional and financial interests are best served by the current acute-care model of addiction treatment. That resistance is and will be substantial.

Capitalization, Funding Level, and Diversification

Concerns of note here include the erosion of resource allocation for AOD problems in proportion to other health arenas, the decline in insurance revenues supporting addiction treatment (and the commensurate decrease in services provided), and the addiction treatment field's growing reliance on governmental funding (80% of current revenues).[116] How can the field bear the costs of system-transformation activities and maintain service responsiveness through the change process—all in an environment of tightening resources? The reliance on government funding and the unknown degree of capitalization of addiction treatment programs constitute major sources of vulnerability and raise the question of how the field's infrastructure could be sustained through a period of sustained economic austerity.

A related question concerns the extent to which existing financial resources can be strategically allocated to support proximal (short-term) or distal (long-term) recovery outcome measures. One promising practice is the Delaware Division of Substance Abuse and Mental Health's movement to an incentivised system of performance-based contracting—a move that resulted in increased service utilization and client participation in treatment.[117]

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116. Mark, T.L., Coffey, R.M., McKusick, D.R., Harwood, H., King, E., Bouchery, E., Genuardi, J., Vandivort, R., Buck, J., & Dilonardo, J. (2005). *National estimates of expenditures for mental health services and substance abuse treatment*, 1991-2001 (SAMHSA Publication No. SMA 05-3999). Rockville, MD: Substance Abuse and Mental Health Services Administration; Mark, T.L., & Coffey, R.M. (2004). Trends: The decline in receipt of substance abuse treatment by the privately insured, 1992-2001. *Health Affairs*, *23*(6), 157-162.

117. McLellan, A.T., Kemp, J., Brooks, A. and Carise, D. (in press). Improving public addiction treatment through performance contracting: The Delaware experiment. *Health Policy*.

Availability of Funding Streams for Sustained Support

The existing funding streams that support addiction treatment evolved in tandem with the AC model of treatment. It is unlikely that the extension of the AC model to a more encompassing model of sustained recovery management will be possible without a restructuring of funding policies and mechanisms. That restructuring process is already underway in states that are embarking on recovery-focused systems-transformation processes, e.g., Connecticut, Arizona, Florida, and Michigan. Examples of such changes include revision of Medicaid rules to allow for reimbursement of peer-based post-treatment recovery support services, rate renegotiations to include recovery support services, and incentive payments for embracing elements of the RM model.

At this late stage in the field's development, we simply have no scientific consensus on what mechanisms of funding best support long-term recovery outcomes. Modern funding in the public sector has shifted from a grant-based program funding model to the fee-for-service model through which private health care had long operated. This shift contributed to a narrowing of services offered, now limited to those services approved for reimbursement and billing in the fee-for-service system, leaving that system poorly designed to support the broad range of service supports needed by many clients to sustain long-term recovery. As momentum builds to shift addiction treatment from a focus on acute biopsychosocial stabilization to long-term recovery management, there will be growing pressure to rethink how such services are best funded. Current discussions of alternatives include "capitated rate," "case-rate," payment for performance, and incentive models that use proximal and distal recovery outcomes as a basis for baseline or enhanced reimbursement.[118]

Financial Stewardship

The shift to a focused recovery orientation creates the ultimate criterion for organizational decisions related to the allocation of available resources: Will spending these dollars on this project enhance the recovery outcomes for the individuals, families, and communities we serve? As recovery representation increases at policy levels within the field, greater accountability will ensue related to financial stewardship. The resulting controversies related to everything from executive compensation to contracting practices have the potential to injure particular organizations and the field as a whole.

118. Michael Flaherty, personal communication, June 6, 2008; Ken Ramsey, personal communication, May 19, 2008.

Workforce Stability and Composition

Specialized addiction treatment in the United States is delivered by more than 130,000 full-time and more than 45,000 part-time staff.[119] That workforce is marked by low morale (via high caseloads, excessive paperwork, and low pay), high future intent to change jobs (76%), and high rates of annual staff turnover (ranging from as low as 13% to as high as 50-60%). Many treatment organizations are plagued by a "culture of turnover" and limitations on service capacity imposed by unfilled service positions and difficulties in recruiting qualified persons.[120]

Workforce characteristics, including the feminization of a field serving a predominately male clientele and the fact that a predominately White staff is serving a growing population of non-White clients (now 43% of incoming clients), are also of concern. The workforce is also aging, with the average age of clinical staff ranging from 45-55, while the average age of clients entering treatment is declining.[121] If current trends continue, a predominately White, middle-aged female staff will be counseling a predominately young, non-White male clientele.

A December, 2007 NAADAC survey of 6,241 of its 9,500 members revealed that 79% of respondents were over 50 and less than 6% were under 40.[122] While these survey data may not reflect total NAADAC membership or all addiction counselors in the country, they confirm the trend toward an aging workforce documented in multiple regional and state workforce surveys (e.g., workforce surveys of the Addiction Technology Transfer Centers).

Other workforce concerns include the following:

- As many as 25% of direct service staff do not possess any professional credentials and are not in the process of obtaining such credentials.[123]
- Studies note wide variations in treatment completion and post-treatment recovery outcomes across counselors,[124] but studies of staff turnover do not reveal whether the addiction treatment field is losing its most or least effective counselors.
- Most addiction treatment programs use medical metaphors to conceptualize the addiction, treatment, and recovery processes, but most people undergoing addiction treatment in the United States have little contact with physicians, nurses, or other medical personnel during their treatment, and only slightly more than half undergo a physical exam as part of their treatment.[125]
- Those with the greatest clinical experience in the treatment field serve in administrative and supervisory positions that afford little if any contact with individuals and families seeking services.[126]

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119. Kaplan, L. (2003). Substance abuse treatment workforce environmental scan. Rockville, MD: Center for Substance Abuse Treatment.

120. Evans, W.N., & Hohenshil, T.H. (1997). Job satisfaction of substance abuse counselors. *Alcoholism Treatment Quarterly*, *15*, 1-13; Roman, P.M., Ducharme, L.J., & Knudsen, H.K. (2006). Patterns of organization and management in private and public substance abuse treatment programs. *Journal of Substance Abuse Treatment*, *31*, 235-243; DíAunno, T. (2006). The role of organization and management in substance abuse treatment: Review and roadmap. *Journal of Substance Abuse Treatment*, *31*, 221-233; Kaplan, L. (2003). Substance abuse treatment workforce environmental scan. Rockville, MD: Center for Substance Abuse Treatment.

121. Kaplan, L. (2003). Substance abuse treatment workforce environmental scan. Rockville, MD: Center for Substance Abuse Treatment; Kimerly, J.R., & McLellan, A.T. (2006). The business of addiction treatment: A research agenda. *Journal of Substance Abuse Treatment*, *31*, 213-219; McLellan, A.T., & Meyers, K. (2004). Contemporary addiction treatment: A review of systems problems for adults and adolescents. *Biological Psychiatry*, *56*(10), 764-770; Evans, W.N., & Hohenshil, T.H. (1997). Job satisfaction of substance abuse counselors. *Alcoholism Treatment Quarterly*, *15*, 1-13.

122. NAADAC. (2007). NAADAC Demographics, December 31, 2007. Personal communication, February 20, 2008.

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124. McLellan, A.T., Woody, G.E., Luborsky, L., & Goehl, L. (1988). Is the counselor an ìactive ingredientî in substance abuse rehabilitation? An examination of treatment success among four counselors. *Journal of Nervous and Mental Disorders*, *176*(7), 423-430; Blaney, T., & Craig, R.J. (1999). Methadone maintenance: Does dose determine differences in outcome? *Journal of Substance Abuse Treatment*, *16*(3), 221-228.

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126. Kaplan, L. (2003). Substance abuse treatment workforce environmental scan. Rockville, MD: Center for Substance Abuse Treatment.

Studies have not been conducted that measure the effects of service team composition and characteristics on long-term recovery outcomes. For example, substantial investments have been made in the development of special credentials (e.g., certification or licensure) for physicians, psychologists, and counselors specializing in addiction treatment, but no existing studies document the assertion that clients achieve better recovery rates if they have been treated by certified rather than non-certified service staff. The professionalization of the addiction treatment workforce rested on the assumption that such professionalization would enhance treatment outcomes, but this assumption has yet to be empirically tested.[127]

Technological Capabilities

Surveys of addiction treatment programs reveal weak technological capabilities in the field, with only a minority of programs having integrated clinical information systems available for use by clinical staff. Some programs (20%) lack even voicemail or email capabilities.[128] Managing the course of a disorder over time requires far greater technological sophistication in terms of information management than managing a self-encapsulated episode of brief care. The move to an RM model of care will require substantial efforts to upgrade the technological capabilities of the field.

Adaptive Capacity: Infrastructure Weakness as an Obstacle to Systems Transformation

The above-noted infrastructure concerns raise the question of whether addiction treatment organizations and the field as a whole possess the capabilities to undertake, sustain, and successfully complete a fundamental redesign of addiction treatment. That concern extends to both private and public addiction treatment programs, with each sector bringing its own resources and constraints. For example, private programs are more likely to be larger, accredited, staffed with master's-educated counselors, and to employ pharmacotherapies; but public programs are more likely to provide ancillary services and methods that are critical to long-term recovery management, e.g., transportation and day care, mental health counseling, and voucher-based motivational incentives.[129]

The infrastructure problems of the addiction treatment field are being recognized, and efforts are underway in several key areas, particularly in leadership and workforce development initiatives.[130] Efforts are also underway to identify particular management practices linked to enhanced retention of direct service staff (e.g., increased job autonomy, rewards for job performance).[131]

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128. McLellan, A.T., Carise, D., & Kleber, H.D. (2003). The national addiction treatment infrastructure: Can it support the public's demand for quality of care? *Journal of Substance Abuse Treatment*, *78*, 125-129.

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TABLE 1: RECOVERY-LINKED INFRASTRUCTURE PERFORMANCE MEASURES

PERFORMANCE ARENA	SAMPLE OF RECOVERY-LINKED PERFORMANCE MEASURES
Recovery Orientation	Recovery-focused mission statement Articulation of core recovery values Philosophy of choice that acknowledges multiple recovery pathways
Recovery Representation	Recovery representation on Governing Board Recovery advisory group Inclusion of Consumer Council and Alumni Association in organizational decision-making Recovery representation among staff and volunteers
Cultural/Political Status	Departmental level of state organization (direct access to the Governor/Legislature) Per-capita funding in relationship to other health and behavioral problems Surveys of public perception of addiction, addiction treatment, and recovery
Organizational & Leadership Stability	Turnover rate at executive and senior clinical levels Up-to-date succession plans for key leaders Stability of organizational ownership Ownership of service facilities Cash reserves
Funding Level & Diversity	Five-year funding trajectory Number of funding sources Percentage of budget coming from a single funding source Availability of funding for pre-treatment, in-treatment, and post-treatment recovery support services
Workforce Composition & Stability	Annual turnover rate of direct service staff Comparison of client and staff demographics

Chapter Five

Who Receives Addiction Treatment?

The Variability of AOD Problems and Their Patterns of Resolution

■ SUMMARY OF KEY POINTS ■

- There are marked differences between AOD problems seen in the larger community and those seen in specialty-sector addiction treatment settings.
- Those with AOD problems seen in clinical settings are marked by greater personal vulnerability; greater problem severity, complexity, and chronicity; and lower levels of recovery capital.
- Strategies of natural recovery, moderated resolution of AOD problems, and resolution of AOD problems through brief intervention that are quite viable in community populations have less utility with the clinical population now entering addiction treatment in the United States.
- The effective treatment of AOD problems requires a clear formalization and delineation of strategies distinguishing transient and less severe AOD problems from AOD problems of great severity, complexity, and chronicity.
- The most fundamental issue facing the field of addiction treatment is whether the field claims ownership of all AOD-related problems (and changes its treatment philosophies and service practices to fulfill that claim) or claims only a portion of AOD-related problems (e.g., only substance use disorders or only substance dependence), leaving less severe AOD problems to other social institutions.

Before examining key recovery-focused process measures for addiction treatment, we will outline the variability of AOD problems and the ways in which their resolution strategies differ along five critical factors:

- personal vulnerability (e.g., family history of AOD problems, age of onset of regular AOD use, traumatic victimization),
- problem severity (subclinical AOD problems, *substance abuse, substance dependence,* and variability of levels of severity within these categories),

- problem complexity (polydrug use, presence of co-occurring medical psychiatric disorders, obstacles to recovery),
- problem course (short, moderate, or prolonged AOD-use careers), and
- recovery capital (the total intrapersonal, interpersonal, and community resources that can be brought to bear on the initiation and maintenance of recovery).[132]

The data presented will document the following finding: a large percentage of persons in the community who meet criteria for substance abuse and dependence achieve remission with low relapse rates, but this pattern of resiliency is obscured by the 10-25% of persons with AOD problems who experience chronic and severe courses of such problems.[133]

The Life Course of AOD Problems in the United States

Patterns of alcohol and drug use vary markedly across the life cycle. Such patterns exist on a continuum demarcated by non-use, minimal use, regular use, episodic heavy use, risky use (dosages, combinations, and contexts that threaten self or others), and regular heavy use.[134] Severe alcohol and other drug problems have been diagnostically classified in terms of *substance abuse and substance dependence* based on factors of severity and duration.[135] Substance abuse is on the increase in the United States, while the prevalence of substance dependence is decreasing.[136] There also is a much wider span of problematic AOD use not captured within these diagnostic classifications.[137]

Not all alcohol and other drug problems constitute chronic disorders.[138] Alcohol and drug problems are often portrayed as having an inevitably "progressive" nature, but evidence from community population studies suggests the opposite. There is, for example, no inevitable progression from *alcohol abuse to alcohol dependence.*[139] Sustained alcohol or drug use without acceleration is common, as is the movement toward deceleration of alcohol and drug problems with age-related maturation.[140] This latter pattern is historically underestimated[141] and constitutes the most common pathway of AOD problem resolution.[142]

Figure 1 illustrates how AOD problems rise through adolescence, peak in early adulthood, decelerate in mid-adulthood, and migrate toward abstinence and reduced regular use in late adulthood. We will explore the differences between those who fit this norm and those for whom AOD problems persist in duration and severity.

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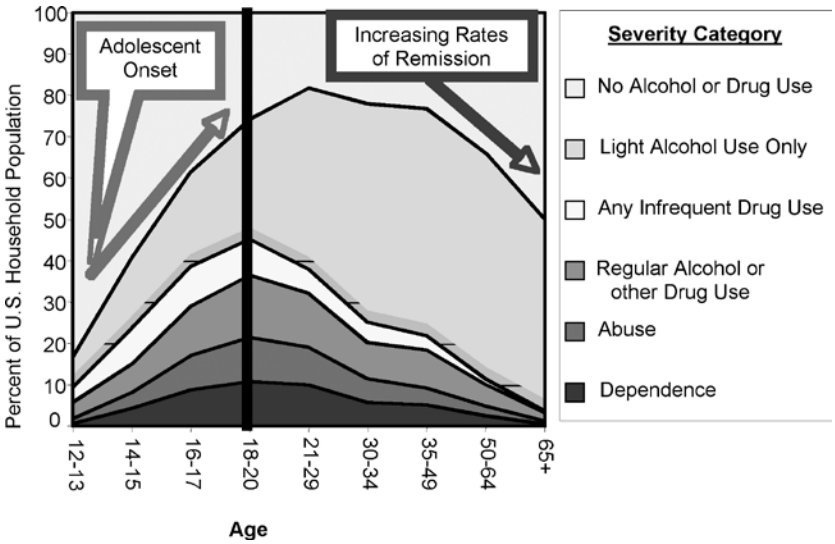
FIGURE 1:

DISTRIBUTION OF AOD USE/PROBLEMS BY AGE IN GENERAL U.S. POPULATION

Source: Dennis & Scott, 2007 & OAS, 2002, reprinted with permission[143]



Natural Recovery

Many persons experiencing AOD problems resolve these problems on their own, particularly when the problems are of later onset and lower severity.[144] The resolution of alcohol and other drug problems without professional assistance or formal recovery support group involvement has been christened with many terms in the research literature: *maturing out,*[145] *autoremission*,[146] *self-initiated change,*[147] *unassisted change*,[148] *spontaneous remission*,[149] *de-addiction,*[150] *self-change,*[151] *natural recovery*,[152] *self-managed change*[153] and *quantum change.*[154]

Natural recovery may contain multiple populations: those who achieve sustained abstinence, those who achieve sustained moderated AOD use, those who continue to have subclinical AOD problems

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that no longer meet criteria for substance abuse or substance dependence, and those who move in and out of these patterns.[155]

A study of Vietnam veterans revealed that only 1% of soldiers addicted to heroin in Vietnam continued this addiction upon their return to the United States. Most stopped using heroin without any formal treatment.[156] A long-term (11-year) follow-up study of a network of cocaine users found diverse cocaine-use career outcomes: 1) continuous controlled use, 2) controlled use to heavy use to controlled use, 3) controlled use to heavy use to abstinence, 4) controlled use to abstinence, and 5) continued heavy use.[157] In the trajectory of cannabis use from high school into adulthood, less than 25% of moderate-risk adolescent users progress to high-risk use in adulthood. Weekly or more frequent cannabis use in adolescence multiplies the odds of daily cannabis use in adulthood sevenfold and doubles the risk of high-risk drinking in adulthood.[158]

In studies of the factors that contributed to natural recovery from AOD problems, natural recovery from AOD problems might constitute:

- the outcome of a deliberate self-evaluation of developing problems and/or life aspirations;[159]
- a pattern of maturing out of AOD use in the transition from adolescence to young adulthood or to middle adulthood, particularly in persons with considerable physical and psychological resiliency and family and social support;[160]
- a shift in behavior triggered by a transitional life event (e.g., completing school, starting a career, entry into or exit from marriage, becoming a parent) that alters personal identity and lifestyle and generates increased recovery capital;[161]
- a culturally prescribed pathway of recovery unique to particular ethnic communities;[162] or
- a behavioral shift accompanying environmental change, e.g., remission of addiction in the transition from a combat environment to a civilian environment, as occurred with most heroin-addicted soldiers returning from Vietnam.[163]

Many individuals who experience AOD problems in community populations also resolve these problems through brief intervention outside the arena of specialized addiction treatment. These brief interventions may be conducted by other health and human service professionals or by trained non-professionals in recovery.[164] Brief interventions have been designed and evaluated primarily with non-dependent populations,[165] but recent studies suggest that these interventions may also have utility with dependent drinkers.[166]

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In spite of substantial scientific documentation of their existence, public surveys suggesting the possibility of natural recovery or moderated resolution of alcohol or drug problems (other than nicotine addiction) are often greeted with skepticism.[167] Reports of moderated resolution of AOD problems have also triggered heated professional controversy.[168]

Community versus Clinical Populations

The documentation of both transient and chronic patterns of AOD use and related problems sparked interest in AOD-use career trajectories. Epidemiologic studies attempted to distinguish non-problem drinkers, transient early problem drinkers, early problem drinkers who progressed to late-life drinking problems, and persons who experienced late-life onset of alcohol problems.[169] The dominant conclusion drawn from these studies is that those seeking specialized addiction treatment differ markedly from the larger pool of individuals experiencing and naturally resolving AOD problems within the community.[170] These differences constitute what have been referred to as the "two worlds" of alcohol and other drug problems.[171]

The knowledge that addiction professionals acquire working with clinical populations does not, as was long thought, provide a knowledge base with which to talk about the larger arena of AOD problems in their communities. This mistaken view that AOD problems in the community are the same as those seen in treatment settings reflects what has been called "Berkson's Fallacy" or the "Clinician's Illusion."[172] The science is unequivocal on this point: conclusions drawn from studies of persons in addiction treatment cannot be indiscriminately applied to the wider pool of AOD problems in the community, nor can findings from community studies be indiscriminately applied to the population of treatment seekers.[173] Studies of AOD problems in the general population reveal distinct subtypes of persons with AOD problems, only a small, non-representative sample of whom are seen in specialty sector addiction treatment.[174]

Compared to persons experiencing and resolving AOD problems in community samples, adults and adolescents entering specialized addiction treatment are distinguished by:

- greater personal vulnerability (e.g., family history of substance use disorders, child maltreatment, early pubertal maturation, early age of onset of AOD use, personality disorders during early adolescence, substance-using peers, and greater cumulative lifetime adversities);

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162. Hill, T.W. (1974). From hell-raiser to family man. In J.L. Spradely & G.W. McCurdy (Eds.)., *Conformity & conflict: Reading in cultural anthropology* (2nd edition). Boston: Little Brown & Company; Jilek, W.G. (1978). Native renaissance: The survival of indigenous therapeutic ceremonials among North American Indians. *Transcultural Psychiatric Research, 15*, 117-147; Kunitz, S.J., & Levy, J.E. (1994). *Drinking careers: A twenty-five year study of three Navaho populations*. New Haven, CT: Yale University Press; Coyhis, D., & White, W. (2006). *Alcohol problems in Native America: The untold story of resistance and recoveryóThe truth about the lie*. Colorado Springs, CO: White Bison, Inc.; Torres Stone, R.A., Whitebeck, L.B., Chen X., Johnson, K., & Olson, D.M. (2006). Traditional practices, traditional spirituality, and alcohol cessation among American Indians. *Journal of Studies on Alcohol*, *67*, 236-244; Mudar, P., Kearns, J.N., & Leonard, K.E. (2002). Transition to marriage and changes in alcohol involvement among Black couples and White couples. *Journal of Studies on Alcohol*, *63*(5), 568-576.

163. Robins, L.N. (1993). Vietnam veterans; rapid recovery from heroin addiction: A fluke of normal expectation? *Addiction*, *88*, 1041-1054.

164. Wutzke, S.E., Conigrave, K.M., Saunders, J.B., & Hall, W.D. (2002). Long-term effectiveness of brief interventions for unsafe alcohol consumption: A 10-year follow-up. *Addiction*, *97*(6), 665-675; Edwards, G., Orford, J., Egert, S., Guthrie, S., Hawker, A., Hensman, C., Mitcheson, M., Oppenheimer, E., & Taylor, C. (1977). Alcoholism: A controlled trial of "treatment" and "advice." *Journal of Studies on Alcohol*, *38*(5), 1004-1031; Fleming, M.F., Barry, K.L., Manwell, L.B., Johnson, K., & London, R. (1997). Brief physician advice for problem drinkers. *Journal of the American Medical Association*, *277*, 1039-1045; Fleming, M.F., Mundt, M.P., French, M.T., Manwell, L.B., Stauffacher, E.A., & Barry, K.L. (2002). Brief physician advice for problem drinkers: Long-term efficacy and benefit-cost analysis. *Alcoholism: Clinical and Experimental Research*, *26*, 36-43; Bien, T., Miller, W., & Tonigan, J. (1993). Brief intervention for alcohol problems: A review. *Addiction*, *88*(3), 315-336; Bernstein, J., Bernstein, E., Tassiopoulos, K., Hereen, T., Levenson, S., & Hingson, R. (2005). Brief motivational intervention at a clinic visit reduces cocaine and heroin use. *Drug and Alcohol Dependence, 77*, 49-59; De Bruijn, C., van den Brink, W., de Graaf, R., & Vollebergh, W.A.M. (2006). The three year course of alcohol use disorders in the general population: DSM-IV, ICD-10 and the Craving Withdrawal Model. *Addiction*, *101*(3), 385-392.

165. Freyer-Adam, J., Coder, B., Baumeister, S.E., Bischof, G., Riedel, J., Paatsch, K., Wedler, B., Rumpf, H.J., John, U., & Hapke, U. (2008). Brief alcohol intervention for general hospital inpatients: A randomized controlled trial. *Drug and Alcohol Dependence*, *93*, 233-243.

166. Guth, S., Lindberg, S.A., Badger, G.J., Thomas, C.S. Rose, G.L. & Helzer, J.E. (2008). Brief intervention in alcohol-dependent versus nondependent individuals. *Journal of Studies on Alcohol and Drugs*, *69*, 243-250.

167. Cunningham, J.A., Sobell, L.C., & Chow, V.M.C. (1993). What's in a label? The effects of substance types and labels on treatment considerations and stigma. *Journal of Studies on Alcohol*, *54*, 693-699.

168. Sobell, M.B., & Sobell, L.C. (1995). Controlled drinking after 25 years: How important was the great debate? *Addiction*, *90*, 1149-1153.

169. Fillmore, K.M. (1974). Drinking and problem drinking in early adulthood and middle age. *Quarterly Journal of Studies on Alcohol*, *35*, 819-840; Schutte, K., Byrne, F., Brennan, P., & Moos, R. (2001). Successful remission of late-life drinking problems: A 10-year follow-up. *Journal of Studies on Alcohol, 62,* 322-334.

- greater severity (longer duration of use, dependence, polysubstance use, opiate dependence) and intensity (frequency, quantity, high-risk methods of ingestion, and high-risk contexts) of use and greater AOD-related related consequences;
- greater AOD-related legal problems;
- higher rates of developmental trauma and posttraumatic stress disorder;
- higher co-occurrence of other medical/psychiatric illness;
- greater personal and environmental obstacles to recovery; and
- lower levels of recovery capital.[175]

Those individuals needing professionally directed addiction treatment suffer from more than a singular, encapsulated problem with alcohol or other drugs. Need for addiction treatment—particularly prolonged or repeated treatment—is often a proxy for cultural marginalization and the need for sustained guidance into full cultural participation.[176]

Even within those diagnosed with substance use disorders, there is a broad range of variability. There is considerable variation across substance abuse and substance dependence categories (suggesting potentially different etiological pathways) as well as marked variability of severity and complexity within each of these diagnostic categories.[177] Substance dependence often has a prolonged, chronic course, but this is often not the case with substance abuse. Most individuals who meet substance abuse criteria do not progress to substance dependence and often no longer meet *abuse* criteria at a year or more follow-up.[178] Even the minority of studies that have noted such a progression do not find such progression across all drug choices.[179]

Natural recovery is the predominant pathway of resolution for transient substance-related problems and less severe substance use disorders, whereas professionally directed treatment is the dominant pathway of entry into recovery from substance dependence.[180]

This variability of alcohol and other drug problems and their pathways of resolution have been increasingly recognized in the professional literature. In a recent text on addiction science and public policy, William Miller and Kathleen Carroll note:

> *The diagnostic criteria for classifying people with "drug abuse" and "drug dependence" represent arbitrary cut points along a gradual continuum. This means that, as with other conditions,*

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170. Dawson, D.A. (1996). Correlates of past-year status among treated and untreated persons with former alcohol dependence: United States, 1992. *Alcoholism: Clinical and Experimental Research*, *20*(4), 771-779.

171. Storbjork, J., & Room, R. (2008). The two worlds of alcohol problems: Who is in treatment and who is not? *Addiction Research and Theory*, *16*(1), 67-84.

172. Willenbring, M.L. (2008). Heavy drinking & alcohol dependence: Remission & recovery. Presented at the Recovery Symposium, Institute for Research, Education and Training in Addictions, May 2, 2008.

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174. Moos, H.B., Chen, C.M., & Yi, H-Y. (2007). Subtypes of alcohol dependence in a nationally representative sample. *Drug and Alcohol Dependence, 91*, 149-158.

175. Edens, E.L., Glowinski, A.L., Grazier, K.L., & Bucholz, K.K. (2008). The 14-year course of alcoholism in a community sample: Do men and women differ? *Drug and Alcohol Dependence*, *93*, 1-11; Warner, L.A., White, H.R., & Johsnon, V. (2007). Alcohol initiation experiences and family history of alcoholism as predictors of problem-drinking trajectories. *Journal of Studies on Alcohol*, *68*, 56-65; King, K.M., & Chassin, L. (2007). A prospective study of the effects of age of initiation of alcohol and drug use in young adult substance dependence. *Journal of Studies on Alcohol and Drugs*, *March*, 256-265; Grant, B.F. (1996). Toward an alcohol treatment model: A comparison of treated and untreated respondents in a general population sample. *Alcoholism: Clinical and Experimental Research*, *20*, 372-378; Grant, B.F. (1997). Barriers to alcoholism treatment: Reasons for not seeking treatment in a general population sample. *Journal of Studies on Alcohol*, *58*, 365-371; Bischof, G., Rumpf, H., Myer, C., Hapke, U., & John, U. (2004). What triggers remission without formal help from alcohol dependence? Findings from the TACOS-Study. In P. Rosenqvist, J. Blomqvist, A. Koski-Jannes, & L. Ojesjo (Eds.), *Addiction and life course. NAD Monograph No. 44* (pp. 85-101). Helsinki Finland: Nordic Council for Alcohol and Drug Research; Kadri, A. M., Bhagylaxmi, A., & Kedia, G. (2003). Study of socio-demographic profile of substance users attending a de-addiction centre in Ahmadabad city. *Indian Journal of Community Medicine*, *28*(2), 74-76; Grella, C.E., & 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; Grella, C.E., Hser, Y.I.., & Hsieh, S-C. (2003). Predictors of drug treatment re-entry following relapse to cocaine use in DATOS. *Journal of Substance Abuse Treatment*, *25*, 145-154; Ross, H.E., Lin, E., & Cunningham, J. (1999). Mental health service use: A comparison of treated and untreated individuals with substance use disorders in Ontario. *Canadian Journal of Psychiatry*, *44*(6), 570-577; Costello, E.J., Sung, M., Worthman, C., & Angold, A. (2007). Pubertal maturation and the development of alcohol use and abuse. *Drug and Alcohol Dependence*, *88*(S), S50-S59; Granfield, R., & Cloud, W. (1999). *Coming clean: Overcoming addiction without treatment*. New York: New York University Press; Schmidt, L.A., & Weisner, C.M. (2005). Private insurance and the utilization of chemical dependency treatment. *Journal of Substance Abuse Treatment, 28*, 67-76; Duffy, S.Q., Cowell, A.J., Council, C., & Shi, W. (2006). Formal treatment, self-help, or no treatment for alcohol use disorders? Evidence from the National Household Survey on Drug Abuse. *Journal of Studies on Alcohol*, *May*, 363-372; Leichtling, G., Gabriel, R.M., Lewis, C.K., & Vander Ley, K.J. (2006). Adolescents in treatment: Effects of parental substance abuse on treatment and entry characteristics and outcomes. *Journal of Social Work Practice in the Addictions*, *6*(1/2), 155-174; Norman, S.B., Tate, S.R., Anderson, K.G., & Brown, S.A. (2007). Do trauma and PTSD symptoms

society needs to address a wide array of problem severity, and that interventions appropriate to one region of the continuum may be unhelpful or even counterproductive at another level of development.[181]

Moderated Resolution of AOD Problems: Community versus Clinical Populations

Studies of the resolution of alcohol problems among community populations reveal a substantial portion of individuals who resolve these problems through decelerated patterns of alcohol use.[182] In a recent study, the remission subgroups within the total sample consisted of 18.2% abstainers, 17.7% low risk drinkers, and 11.8% asymptomatic drinkers.[183] At one-year follow-up in Project MATCH, 7-12% of clients had achieved moderate drinking outcomes.[184] However, there is evidence from long-term follow-up studies that moderated recoveries may be less stable over time than abstinence-based recoveries. In a 16-year follow-up study of treatment—naïve individuals seeking information for decreasing their alcohol use, researchers concluded:

Thus, only a relatively small proportion of individuals initially achieved non-problem drinking following a period of problem alcohol use, and fewer than half of these individuals remained free of alcohol problems over the long-term.[185]

Those who did achieve sustained moderated recoveries began with less severe alcohol problems and greater personal resources.[186] Given the greater difficulty of sustaining moderation in comparison to abstinence among those with AOD problem severity, it is not surprising that individuals choosing a moderation goal in treatment often shift this goal to abstinence at a later point in time.[187]

Persons with severe substance use disorders may achieve transient periods of reduction in AOD use and related problems, but this moderated pattern is more difficult to sustain than a pattern of sustained abstinence.[188] For persons who are alcohol dependent, where post-treatment abstinence at year one following treatment is associated with abstinence at year-three follow-up, a post-treatment moderate drinking outcome at year one is not associated with positive outcomes at year-three follow-up.[189] A sixty-year follow-up study of men with alcohol problems found that moderated drinking among those previously dependent upon alcohol tended to migrate toward abstinence or relapse to alcohol-related problems over time.[190]

The goal of addiction treatment continues to be the subject of debate,[191] and that debate will intensify if the treatment field extends its services to encompass a broader spectrum of problem severity—as

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influence addiction relapse context? *Drug and Alcohol Dependence*, *90*, 89-96; Schutte, K.K., Moos, R.H., & Brennan, P.L. (2006). Predictors of untreated remission from late-life drinking problems. *Journal of Studies on Alcohol, 67*, 354-362; Hamburger, M.E., Leeb, R.T. & Swahn, M.H. (2008). Childhood maltreatment and early alcohol use among high-risk adolescents. *Journal of Studies on Alcohol and Drugs*, 69, 292-295; Lloyd, D.A., & Turner, R.J. (2008). Cumulative lifetime adversities and alcohol dependence in adolescence and young adulthood. *Drug and Alcohol Dependence, 93*, 217-226. Hingson, R.W., Heeren, T., & Edwards, E.M. (2008). Age at drinking onset, alcohol dependence, and their relation to drug use and dependence, driving under the influence of drugs, and motor-vehicle crash involvement because of drugs. *Journal of Studies on Alcohol and Drugs*, *69*, 192-201; Moos, H.B., Chen, C.M., & Yi, H-Y. (2007). Subtypes of alcohol dependence in a nationally representative sample. *Drug and Alcohol Dependence, 91*, 149-158; Cohen, P., Chen, H., Crawford, T.N., Brook, J.S., & Gordon, J. (2007). Personality disorders in early adolescence and the development of later substance use disorders in the general population. *Drug and Alcohol Dependence*, *88S*, S71-S84.

176. Storbjork, J., & Room, R. (2008). The two worlds of alcohol problems: Who is in treatment and who is not? *Addiction Research and Theory*, *16*(1), 67-84.

177. Hasin, D.S., Hatzenbuehler, M., Smith, S., & Grant, B.F. (2005). Co-occurring DSM-IV drug abuse in DSM-IV drug dependence: Results from the National Epidemiologic Survey on Alcohol and Related Conditions. *Drug and Alcohol Dependence, 80*, 117-123; Hoffmann, N.G., & Hoffmann, T.D. (2003). Construct validity for alcohol dependence as indicated by the SUDDS-IV. *Substance Use and Misuse, 38*, 293-306.

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180. Dawson, D.A., Grant, B.F., Stinson, F.S., & Chou, P.S. (2006). Estimating the effect of help-seeking on achieving recovery from alcohol dependence. *Addiction*, *101*, 824-834; Cunningham, J.A., Lin, E., Ross, H.E., & Walsh, G.W. (2000). Factors associated with untreated remission from alcohol abuse or dependence. *Addictive Behaviors*, *25*, 317-321. Price, R.K., Risk, N.K., & Spitznagel, E.L. (2001). Remission from drug abuse over a 25-year period: Patterns of remission and treatment use. *American Journal of Public Health*, *91*, 1107-1113.

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182. Schutte, K.K., Nichols, K.A., Brennan, P.L., & Moos, R.H. (2003). A ten-year follow-up of older former problem drinkers: Risks of relapse and implications of successfully sustained remission. *Journal of Studies on Alcohol*, *64*, 367-374.

183. Dawson, S.A., Grant, B. F., Stinson, F.S., Chou, P.S., Huang, B., & Ruan, W.J. (2005). Recovery from DSM-IV alcohol dependence: United States, 2001-2002. *Addiction*, *100*(3), 281-292.

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it has done in recent decades. Recovery from severe alcohol dependence is achieved primarily through complete and sustained abstinence, whereas the resolution of less severe alcohol problems is achieved primarily through altered drinking patterns, e.g., reduced frequency and quantity of drinking and altering drinking contexts.[192] Suggestions to use reduction in heavy drinking as a potential treatment goal and a treatment outcome measure[193] are increasing in the wake of studies finding that a significant portion of treated clients fail to achieve uninterrupted abstinence but dramatically reduce alcohol consumption and alcohol-related problems.[194]

The future of such suggestions will depend on how the treatment field ultimately defines itself. If the field claims its purview to include only severe substance dependence, then exclusively abstinence-based philosophies will continue to dominate the field. If the field claims cultural ownership of the whole spectrum of AOD-related problems (as it is recently prone to do), then we will likely see a broadening of treatment philosophies and methods appropriate and attractive to people with less severe alcohol or other drug problems—those who do not see themselves as "alcoholics" or "addicts" and those experiencing AOD problems that do not meet DSM-IV criteria for substance use disorders.

Acute versus Chronic AOD Problems

The viability of AC models of intervention vary across clinical settings. In treatment settings that serve high-functioning populations presenting with low-to-moderate problem severity and high recovery capital, the AC model may well serve most of these clients—primarily because the client's own internal and external assets sustain the transition from recovery initiation to recovery maintenance. But as we shall soon see, the AC model fails critical performance benchmarks when treating clients with severe, complex, and chronic AOD problems. As the addiction treatment field evolves, there will be growing pressure to treat a broader spectrum of AOD problems. This will require two quite distinct changes: 1) the development of a broader service philosophy and service menu for those with less severe AOD problems, and 2) the development of models that allow addiction treatment programs to manage the long-term course of recovery from severe AOD dependence (to include continuity of support for the most severely impaired clients across multiple episodes of treatment). If the field continues to restrict its focus to severe AOD problems, a shift from AC to RM models of care is warranted. If the field broadens the scope of AOD problems within its purview, as it has tended to do, then it will need to distinguish those clients appropriate for the traditional AC model from those who need the sustained RM approach.

185. Ilgen, M.A., Wilbourne, P.L., Moos, B.S., & Moos, R.H. (2008). Problem-free drinking over 16 years among individuals with alcohol use disorders. *Drug and Alcohol Dependence, 92*, 116-122.

186. Ilgen, M.A., Wilbourne, P.L., Moos, B.S., & Moos, R.H. (2008). Problem-free drinking over 16 years among individuals with alcohol use disorders. *Drug and Alcohol Dependence, 92*, 116-122.

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192. Sobell, M.B., & Sobell, L.C. (1995). Controlled drinking after 25 years: How important was the great debate? *Addiction*, *90*, 1149-1153.

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In the next chapter we will explore who is attracted to and who has access to addiction treatment in the United States.

TABLE 2: RECOVERY-LINKED SERVICE POPULATION PERFORMANCE MEASURES: WHO RECEIVES ADDICTION TREATMENT?

PERFORMANCE AREA	SAMPLE RECOVERY-LINKED PERFORMANCE MEASURES
Problem Diversity	Ratio of dependence and abuse diagnoses Percentage of clients with prior AOD treatment Percentage of clients readmitted to a service organization or service unit in the year following discharge Percentage of clients who are admitted for services within five years of onset of AOD problems Percentage of clients with high recovery capital measured in dimensions of family stability, housing, employment, and pro-recovery social support
Response to Subclinical AOD Problems	Audit of service responses to clients determined not to meet DSM-IV diagnostic criteria Audit of responses of those with lower problem severity to existing treatment methods, e.g., evidence of differential goal-setting and service menu choices by problem severity
Indigenous Support as Alternative to Treatment	Percentage of intakes referred to indigenous recovery support institutions and monitoring as an alternative to treatment admission

Chapter Six

Treatment Attraction and Access

■ SUMMARY OF KEY POINTS ■

- Only 10% of persons meeting criteria for substance use disorders receive specialty-sector addiction treatment in any year, and only 25% of persons meeting criteria for substance use disorders will receive such specialized treatment in their lifetime.
- Multiple factors impede help-seeking for AOD problems: misperceptions of the severity of AOD problems, misjudgments regarding capability of self-resolving AOD problems, the cost of professional treatment; treatment-related social stigma, the lack of critical treatment supports such as transportation or day care, and resistance to complete abstinence as the only proffered treatment goal.
- The AC model **voluntarily** attracts only a small percentage of persons admitted to addiction treatment, with most persons entering treatment under external coercion at late stages of problem development.
- High pre-treatment drop-out rates (initial contact without service initiation—ranging from 25-50%) are linked to personal ambivalence, lack of geographical or financial access, waiting lists, and personal obstacles to participation.
- Promising practices related to increased attraction and access include social marketing of AOD problem-resolution options and successes, assertive models of outreach, lowered thresholds of engagement, interim services for those on waiting lists, short-term case management to enhance engagement, regular check-ups for those resisting immediate service entry, telephone prompts through the early engagement process, family mobilization strategies, extended clinical hours, and delivery of services in non-stigmatized sites.

The timing of treatment initiation for any chronic disease exerts a profound influence on the long-term course and outcome of the disorder. This principle may have special applicability to the addiction arena, where earlier treatment initiation is linked to an improved prognosis for long-term recovery and a lessening of harm inflicted on the family and the community. In this chapter, we will review

1) the ability of the acute-care system of addiction in the United States to attract individuals and families experiencing AOD problems, 2) the stage of problem development at which such assistance is sought, and 3) the ability of the treatment system to voluntarily attract individuals before forces in their environment conspire to coerce them into treatment. Strategies will also be catalogued that appear promising in shortening addiction careers and extending recovery careers.

Ratio of Needed to Received Treatment

Only a small portion of those who need specialized addiction treatment in community and institutional populations receive such treatment,[195] and the percentage of persons with substance use disorders receiving treatment declined between 1992 and 2002.[196] At present, only 10.8% of U.S. citizens meeting DSM-IV criteria for *substance abuse or substance dependence* receive specialized addiction treatment each year,[197] and only 25% will receive an episode of such care in their lifetime.[198] Of the 23.6 million persons identified in the 2006 National Survey on Drug Use and Health meeting criteria for a substance use disorder, only 2.5 million persons received help at a specialized addiction treatment facility.[199]

Problems of attraction are magnified for:

- African Americans and Hispanic populations, who are less likely than White Americans to seek addiction treatment;[200]
- women, who are more likely to seek treatment for substance-related problems in primary health care or mental health service settings;[201] and
- those with less severe AOD problems.[202]

Of those who do enter specialty-sector addiction treatment, most do so 10 years after the onset of the substance use disorder.[203] Such delays have enormous implications for the personal, family, and social costs related to these disorders and for the long-term prognosis for recovery.

Role of Coercion in Treatment Admission

Addiction treatment as currently constituted voluntarily attracts only a small portion of those who are experiencing severe substance use disorders in the United States. Referrals from coercive institutions to the nation's 13,200 specialized addiction treatment programs have risen dramatically

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199. Substance Abuse and Mental Health Services Administration. (2007). *Results from the 2006 National Survey on Drug Use and Health: National Findings* (Office of Applied Studies, NSDUH Series H-32, DHHS Publication No. SMA 07-4293). Rockville, MD.

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202. Tucker, J.A., & Gladsjo, J.A. (1993). Help-seeking and recovery by problem drinkers: Characteristics of drinkers who attended Alcoholics Anonymous or formal treatment or who recovered without assistance. *Addictive Behaviors*, *18*, 529-542; Tucker, J.A., Vuchinich, R.E., & Rippens, P.D. (2004). A factor analytic study of influences on patterns of help-seeking among treated and untreated alcohol dependent persons. *Journal of Substance Abuse Treatment*, *26*, 237-242.

203. Hasin, D.S., Stinson, F.S., Ogburn, E., & Grant, B.F. (2007). Prevalence, correlates, disability, and comorbidity of DSM-IV alcohol abuse and dependence in the United States. *Archives of General Psychiatry*, *64*(7), 830-842.

in the past two decades. Referrals from the criminal justice system increased from 38% of total referrals in 1990 to 59% of referrals in 2004. During the same time period, referrals from welfare and child protection systems increased from 8% to 16%. Addiction treatment's disconnection from mainstream health care is indicated by the fact that only 3% of referrals to addiction treatment come from hospitals or physicians.[204]

Those who seek specialized addiction treatment generally do so at late stages of problem development[205] and do so primarily under the influence of external coercion via the threat of alternative consequences (e.g., jail, divorce, loss of custody of children, loss of employment, loss of government benefits) from families, the criminal justice system, professional licensing bodies, employers, the public welfare system, the child protection system, and educational institutions.[206]

The point here is not that external coercion into treatment is inherently bad in terms of outcomes. Those coerced into treatment have recovery outcomes as good as or better than those entering treatment without an identifiable coercive agent.[207] The point is that coercion reflects intervention at a very late stage of problem development.

Reasons for Not Seeking Treatment

Persons experiencing AOD problems identify the following reasons for not seeking treatment:

- reluctance to give up the drug;
- reluctance to admit the need for help;
- perception that the problem is not severe enough to warrant treatment;
- perception that they can manage the problem by themselves, without professional help;
- lack of knowledge about treatment;
- inability to afford treatment;
- belief that treatment would not be helpful;
- lack of transportation or day care; and
- scheduling difficulties.[208]

204. McLellan, A.T. (2006). *Addiction is changing: How changes in systems and customers may affect the Betty Ford Institute.* Presentation to Betty Ford Institute Executive Council, February, Rancho Mirage, CA.

205. Hser, Y., Anglin, M., Grella, C., Longshore, D., & Prendergast, M. (1997). Drug treatment careers: A conceptual framework and existing research findings. *Journal of Substance Abuse Treatment, 14*(3), 1-16.

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208. Cunningham, J.A., Sobell, L., Sobell, M., Agrtawal, S., & Toneatto, T. (1993). Barriers to treatment: Why alcohol and drug abusers delay or never seek treatment. *Addictive Behaviors*, *18*, 347-353; Grant, B.F. (1997). Barriers to alcoholism treatment: Reasons for not seeking treatment in a general population sample. *Journal of Studies on Alcohol*, *58*, 365-371; Tucker, J.A., Vuchinich, R.E., & Rippens, P.D. (2004). A factor analytic study of influences on patterns of help-seeking among treated and untreated alcohol dependent persons. *Journal of Substance Abuse Treatment*, *26*, 237-242; Ellingstad, T.P., Sobell, L.C, Sobell, M.B., Eickleberry, L., & Golden, C.J. (2006). Self-change: A pathway to cannabis abuse resolution. *Addictive Behaviors*, *31*, 519-530; Wechsberg, W.M., Zule, W.A., Riehman, K.S., Luseno, W.K., & Lam, W.K. (2007). African-American crack abusers and drug treatment initiation: Barriers and effects of a pretreatment intervention. *Substance Abuse Treatment, Prevention and Policy, 2*(10), 1-18.

Fear of social stigma also discourages help-seeking,[209] and there is evidence that such fear is justified. The majority of people entering addiction treatment report that: 1) they have heard disparaging and offensive comments about people who have been treated for addiction, 2) it was rare for family and friends to provide support for their decisions to enter treatment, and 3) they worry about what others will say about their having gone to treatment.[210] The role stigma plays in discouraging help-seeking may be particularly intense for those dependent upon drugs that are the targets of cultural drug panic (e.g., the current social alarm regarding methamphetamine) and those who have failed to remain abstinent following previous treatment.[211]

There are also obstacles to the attraction of people to specialized addiction treatment at lower levels of problem severity—obstacles that include the treatment system's singular and pre-defined goal of abstinence, fear of being labeled an alcoholic or addict, social stigma, and the fear that the time required for treatment will disrupt family and professional responsibilities.[212]

Access to Treatment

Rapid access to addiction treatment influences treatment outcomes.[213] Persons who seek treatment and immediately receive it have better recovery outcomes than those who seek treatment and either fail to receive treatment or receive delayed treatment.[214] In general, the longer the delay in entering addiction treatment, the greater the dropout rate.[215] Those who drop out of treatment before it begins have worse outcomes than those who initiate and stay in treatment.[216] One measure of access is the percentage of persons admitted for acute detoxification who are linked to ongoing treatment. Such linkage is important in that detoxification by itself has little role in recovery initiation. Those who experience treatment following detoxification have much better long-term recovery outcomes than those who only undergo detoxification.[217] A study of such linkage processes revealed that only 49% of persons discharged from detox had any continuing care services and that those who did received only an average of 3.5 visits following discharge.[218]

209. Cunningham, J.A., Sobell, L., Sobell, M., Agrtawal, S., & Toneatto, T. (1993). Barriers to treatment: Why alcohol and drug abusers delay or never seek treatment. *Addictive Behaviors*, *18*, 347-353.

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214. Moos, R.H., & Moos, B.S. (2006a). Rates and predictors of relapse after natural and treated remission from alcohol use disorders, *Addiction*, *101*, 212-222.

215. Donovan, D.M, Rosengren, D.B., Downey, L., Cox, G.B., & Sloan, K.L. (2001). Attrition prevention with individuals awaiting publicly funded drug treatment. *Addiction, 96*(8), 1149-1160.

216. Gottheil, E., Sterling, R.C., & Weinstein, S.P. (1997b). Pretreatment dropouts: Characteristics and outcomes. *Journal of Addictive Diseases*, *16*, 1-14.

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Obstacles to Access

Similar to attraction, treatment access is inhibited by:

- the ambivalence that those with substance use disorders experience when they consider altering their relationship with alcohol and other drugs (and the absence of system-wide pre-treatment engagement services to enhance motivation for change);
- the lack of geographically accessible, financially affordable treatment services;
- long waiting lists to be admitted to addiction treatment (and high—25-50%— dropout rates of persons on such lists); and
- personal/family/environmental obstacles to treatment initiation (and the lack of case management services to resolve such obstacles).[219]

These factors combine to generate pre-treatment dropout rates (people who schedule but fail to show for their first appointment) from 25-50%.[220]

Financial obstacles to treatment include a lack of health insurance coverage, insurance coverage that does not include addiction treatment, insurance with high deductibles, insurance with limits on length of treatment or number of episodes of treatment, and public service providers requiring an advance on fees prior to service initiation.[221] A recent study reported that lack of insurance was not an obstacle for admission into addiction treatment[222]—a partial testament to the widespread availability of publicly funded addiction treatment—but this finding does not extend to all client groups and communities, particularly ethnic communities.[223]

Persons with disabilities face significant obstacles (e.g., parking, restroom facilities, lack of accessible hallways and doors, absence of ramps and elevators, etc.) in accessing specialized addiction treatment, in spite of research findings that persons with disabilities are at equal or increased risk of developing AOD-related problems.[224] Women face greater obstacles entering addiction treatment than do men (e.g., greater problem severity and complexity, stigma, lack of financial resources, child care responsibilities, fear of losing custody of children, lack of support for treatment involvement from intimate partners or family members, and lack of transportation).[225] As a result, women seek specialized addiction treatment less often than do men[226] and are more likely to seek help for AOD problems in medical or psychiatric service settings.[227]

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219. Little Hoover Commission. (2003, March). *For our health and safety: Joining forces to defeat addiction*. State of California. Retrieved from http://www.adp.cahwnet.gov/report169.pdf; Stark, M.J., Campbell, B.K., & Brinkerhoff, C.V. (1990). "Hello, may I help you?" A study of attrition prevention at the time of the first phone contact with substance-abusing clients. *American Journal on Drug and Alcohol Abuse*, *16*(1-2), 67-76; Hser, Y.I., Maglione, M., Polinsky, L, & Anglin, M.D. (1998). Predicting drug treatment entry among treatment-seeking individuals. *Journal of Substance Abuse Treatment, 15*(3), 213-220; Donovan, D.M, Rosengren, D.B., Downey, L., Cox, G.B., & Sloan, K.L. (2001). Attrition prevention with individuals awaiting publicly funded drug treatment. *Addiction, 96*(8), 1149-1160.

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227. Weisner, C., & Schmidt, L. (1992). Gender disparities in treatment for alcohol problems. *Journal of the American Medical Association, 268*(14), 1872-1876.

African American crack cocaine users experience obstacles related to attraction and access that can be reduced through special pre-treatment interventions.[228]

Attraction, Access, and the Management of Chronic Disease

Issues of attraction and access differ across acute and chronic illnesses. Help-seeking for acute disorders does not have to be sold, because the immediacy and severity of distress often send one running for help even where service access is a problem (as any reader will know who has recently visited a hospital emergency room). In contrast, the often slow and insidious nature of chronic illnesses can make it difficult to decide when, if ever, to seek help until the onset of an acute episode of great severity.

Access to care for chronic illness is also not an issue of point-in-time access, as it is for acute illness. Chronic illness requires a safety net of long-term access to ensure stabilization of acute flare-ups within the prolonged ebb and flow of symptoms. In managing chronic disorders other than addiction, patients are encouraged to seek help early to stabilize such flare-ups and are welcomed back into service and praised for these timely decisions. In contrast, those seeking re-entry into addiction treatment are often shamed, treated with contempt (e.g., the source of such pejorative terms as "frequent flyer" and "retread"), and potentially denied admission based on their history of prior treatments.

The following principles, drawn from available studies and the author's observations, underscore the importance of attraction and access for severe and prolonged substance use disorders.

1. The earlier the age of onset of the first treatment episode, the shorter the addiction career and the greater the prognosis for recovery:[229] Those who enter treatment in the first decade of use shorten their addiction career by as much as 50%.[230]
2. The earlier the initiation of treatment, the greater the level of recovery capital available to aid the transition from recovery initiation to stable, long-term recovery maintenance.
3. The greater the social stigma attached to AOD problems, the later the onset of help-seeking behavior.
4. Addiction careers lengthen and become more severe and complex in tandem with increases in treatment-related social stigma and higher thresholds of service engagement; recovery careers begin earlier and lengthen as treatment-related social stigma declines and thresholds of service engagement are lowered.

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228. Wechsberg, W.M., Zule, W.A., Riehman, K.S., Luseno, W.K., & Lam, W.K. (2007). African-American crack abusers and drug treatment initiation: Barriers and effects of a pretreatment intervention. *Substance Abuse Treatment, Prevention and Policy, 2*(10), 1-18.

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5. The earlier the stage of problem development at which treatment begins, the less the long-term injury to families and communities.
6. Access of family and friends to recovery-focused information and support can enhance their own health and speed help-seeking of those dependent upon alcohol and other drugs.[231]
7. Reaching a broader population of persons in need of treatment services is predicated on understanding the multiple and diverse reasons people seek changes in their relationships with alcohol and other drugs.[232]

Treatment Attraction and Access:
Potential Strategies to Enhance Recovery Outcomes

- Disseminate data on drinking and drug-use norms across age, ethnic, and gender groups.[233]
- Conduct public education strategies aimed at reducing stigma attached to seeking treatment for substance use disorders.[234]
- Take inventory of policies and service practices that may contribute to the stigma experienced by those seeking addiction treatment.[235]
- Provide adolescents access to programs that do not require parental consent for service initiation.[236]
- Target youth high in sensation seeking with educational and early intervention strategies as they move away from home into community and college environments.[237]
- Target females (of all races) and Black males aged 18-29 for special outreach, education, and intervention programs.[238]
- Use a choice philosophy related to abstinence vs. moderation goals.[239]
- Explore service models that bridge the polarized debate between abstinence-oriented addiction treatment and harm-reduction strategies.[240]
- Provide specialized treatment and recovery support services for persons with disabilities.[241]
- Offer treatment services through non-stigmatized service sites (e.g., mainstream health care and counseling agencies).[242]

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234. Luoma, J.B., Twohig, M.P., Waltz, T., Roget, N., Padilla, M., & Fisher, G. (2007). An investigation of stigma in individuals receiving treatment for substance abuse. *Addictive Behaviors, 32*, 1331-1346.

235. Luoma, J.B., Twohig, M.P., Waltz, T., Roget, N., Padilla, M., & Fisher, G. (2007). An investigation of stigma in individuals receiving treatment for substance abuse. *Addictive Behaviors, 32*, 1331-1346.

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- Provide telephone counseling of patients screened for alcohol use disorders at primary health care clinics.[243]
- Provide early intervention services to those with AOD problems through sexually transmitted disease clinics.[244]
- Use telecounseling or televideo counseling to reach those with AOD problems in rural areas.[245]
- Offer free, mailed self-help materials and computer-based and Internet-based personal assessment and feedback for people concerned about their alcohol or drug use.[246]
- Provide ambivalent marijuana users personalized feedback in the context of a series of marijuana check-ups.[247]
- Offer free self-evaluation and self-help materials combined with a free personal evaluation with feedback.[248]
- Work with families via "encourage to change" strategies for substance-impacted adults[249] and adolescents.[250]
- Engage those in need of services via drop-in centers[251] or street outreach programs.[252]
- Engage and link opiate addicts to detox via needle exchange programs.[253]
- Deliver coupons for free detoxification and treatment via street outreach workers.[254]
- Disseminate information to the general population and opiate user populations to counter common myths related to methadone and methadone maintenance.[255]
- Build strong linkages to primary treatment and primary recovery support services from modalities that in isolation have minimal effect on long-term recovery outcomes (e.g. detoxification).[256]
- Utilize early engagement strategies (e.g., assertive waiting list management, role induction activities, interim service contact using motivational interviewing, case management, brief family interventions, and contingency management).[257]
- Train all reception staff in warm welcoming techniques
- Provide escort services and incentive payments for movement from detoxification to primary treatment.[258]
- Use telephone prompts to re-engage clients who miss their first appointment.[259]
- Extend clinic hours and streamline intake procedures.[260]

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TABLE 3: RECOVERY-LINKED SERVICE POPULATION PERFORMANCE MEASURES: ATTRACTION AND ACCESS

PERFORMANCE AREA	SAMPLE RECOVERY-LINKED PERFORMANCE MEASURES
Attraction	Average time from onset of use (or problem onset) to first treatment admission.
	Percentage of clients without prior AOD specialty treatment
	Percentage of clients entering treatment not under external coercion
	Average time from onset of use (or problem onset) following treatment discharge to readmission
	Comparison of demographics of treatment admissions with demographics of local AOD-related casualty data, e.g., deaths, ER admissions, arrests
Access	Average number of clients per month on waiting lists for service entry
	Average length of time on waiting lists before service initiation
	Average length of time from intake to first appointment
	Percentage of clients who drop out between first call and first appointment
	Average length of time between lapse, relapse, and readmission to treatment

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Chapter Seven

Screening, Assessment, and Level-of-Care Placement

■ SUMMARY OF KEY POINTS ■

- Early screening and brief interventions for AOD problems are effective strategies for reaching persons with AOD problems who are involved in non-specialized community-based service settings, particularly primary health care settings.
- RM models of assessment differ from the AC models in key dimensions. Assessment processes: are global rather than categorical; define the individual, family, and community as the unit of assessment rather than just the individual; are asset-based rather than problem- or deficit-based; and constitute a continuing process rather than a point-in-time (intake) event.
- Where level-of-care decisions in the AC model focus primarily on problem severity and complexity, such decisions in the RM model are heavily influenced by the assessment of personal, family, and community recovery capital.
- Promising practices related to screening, assessment, and placement include AOD problem screening in primary care settings, Internet-based screening services, use of standardized global assessment instruments, family-focused assessment protocols, and regular recovery community resource mapping.

Screening

Effective screening and early interventions for acute illnesses are often precluded by the rapid onset and progression and short course of such disorders, but the gradual onset and prolonged course of most severe substance use disorders provide windows of opportunity for screening and early intervention.

Considerable progress has been made in developing quick screening instruments for alcohol and other drug-related problems. The alcohol screening instruments include the CAGE questionnaire, the Alcohol Use Disorders Identification Test (AUDIT), the TWEAK questionnaire, the T-ACE questionnaire, the Rapid Alcohol Problems Screen (RAPS4), the Michigan Alcoholism Screening Test (MAST), the Fast Alcohol Screening Test (FAST), the Paddington Alcohol Test, the Self-Administered

Alcoholism Screening Test (SAAST), the Young Adult Alcohol Problems Screening Test (YAAPST), the College Alcohol Problems Scale (CAPS-r), and the Rutgers Alcohol Problem Index (RAPI). Instruments used to evaluate those arrested for driving under the influence of alcohol also include the Mortimer-Filkins, the Driver Risk Inventory (DRI-II), the Adult Substance Use and Driving Survey (ASUDS), the MacAndrews Alcoholism Scale-Revised (MAC-R), the Substance Abuse Life Circumstances Evaluation (SALCE) , the Substance Use Disorder Diagnostic Schedule (SUDDS), and the Global Appraisal of Individual Need Short Screener (GAIN-SS). There are also laboratory tests that provide objective markers for alcohol problems, including elevated levels of gamma-glutamyl transferase (GGT), carbohydrate-deficient transferase (CDT), and mean corpuscular volume (MCV). Fatty acid ethyl esters (FAEEs) also constitute markers of prenatal alcohol exposure.[261]

Drug screening instruments include the Drug Abuse Screening Test (DAST), Drug Use Screening (DUS), Drug Use Screening Inventory-Revised (DUSI-R), the Addiction Potential Scale (APS), the Adverse Consequences of Substance Use Scale (ACSUS), the Simple Screening Instrument for Substance Abuse (SSI-SA), and the Global Appraisal of Individual Need Short Screener (GAIN-SS).

Population-wide screening and targeted screening of at-risk groups are highly effective strategies for the community-wide management of chronic health disorders, as indicated by the growing presence of online screening tools and health screening at health fairs and other community events. Screening of alcohol and drug use and related problems outside the addiction treatment arena has six primary goals:

1) helping individuals and their health care providers identify and assess the magnitude of an individual's risk for future development of a substance use disorder;
2) devising prevention strategies through which at-risk individuals can prevent or delay onset of substance use disorders by avoiding a priming dose of symptom activation;
3) encouraging the development of problem-solving and self-management strategies at early stages of problem development;
4) providing professional supports to facilitate the resolution of early-stage problems;
5) assertively linking individuals with more advanced problems to further professional assessment and the potential provision of specialized treatment and recovery support services; and

261. National Institute on Alcohol Abuse and Alcoholism. (2002). Screening for alcohol problems-An update. *Alcohol Alert, 56.*

6) identifying those individuals whose AOD-related problems pose substantial threats to public health and public safety, and who may require sustained external monitoring to minimize these risks (e.g., the "hard-core drinking driver").[262]

Substantial progress is being made in increasing early screening for substance use disorders in the United States. The Center for Substance Abuse Treatment has invested considerable resources in its Screening, Brief Intervention, and Referral to Treatment (SBIRT) initiative. This initiative has focused on screening individuals at risk for substance-related problems in physicians' offices, hospitals, and educational institutions, and in mental health and other social service settings. To-date (August, 2007), more than a half million individuals have been screened through this initiative.

Early problem identification, encouragement of self-management strategies (via motivational interviewing, goal setting, education, and skills training), peer-based support, and professional monitoring are important strategies within the recovery management model. These strategies are intended to shrink the total population of persons experiencing severe substance use disorders and, where problems already exist, to lower the aggregate severity of these problems. As with most chronic disorders, the principle is a clear one: the earlier the stage of intervention, the better the prognosis for long-term recovery.

Categorical versus Global Assessment

Assessment and treatment planning constitute a mainstream component of the AC model of addiction treatment in the United States.[263] Mainstream assessment procedures have several distinguishing characteristics.

Assessment procedures in the AC model are categorical rather than global, with a singular focus on the primary problem that has generated the present crisis. As in a hospital emergency room, the focus is on the wounded part, not the whole person. Similarly, little depth of information is collected on the family and social environment in which AOD problems are nested and in which recovery efforts will succeed or fail. Information gathered on the individual is based almost exclusively on self-report and focused on AOD use patterns, consequences, and past resolution efforts. Calls for more rigorous assessments are growing, and comprehensive assessments are increasing within American addiction treatment (from 37% in 2000 to 63% in 2005).[264]

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262. White, W., & Gasperin, D. (2007). The ìhard core drinking driverî: Identification, treatment and community management. *Alcoholism Treatment Quarterly*, *25*(3), 113-132.

263. Alexander, J.A., Nahra, T.A., Lemak, C.H., Pollaco, H., & Campbell, C.I. (2008). Tailored treatment in the outpatient substance abuse treatment sector: 1995-2005. *Journal of Substance Abuse Treatment*, *34*, 282-292.

264. Alexander, J.A., Nahra, T.A., Lemak, C.H., Pollaco, H., & Campbell, C.I. (2008). Tailored treatment in the outpatient substance abuse treatment sector: 1995-2005. *Journal of Substance Abuse Treatment*, *34*, 282-292.

Intervention options are restricted by the scope of the assessment process. More than 45% of clients entering addiction treatment do not receive physical exams as part of the assessment or admission process, only 45% receive any primary health care as part of their treatment, few receive a comprehensive mental status review, and only 29% receive any collateral mental health services.[265] The singular focus on AOD problems is challenged by the fact that individuals and families presenting with multiple, complex problems and prolonged service careers within categorically segregated service systems are increasingly the norm in public and private addiction treatment programs.[266]

The course of prolonged AOD problems is significantly influenced by the presence and severity of collateral problems, the family and extended family network, and the client's natural physical and social environment. Where two or more problems co-exist, remission of either problem is often contingent upon remission of the other. For example, studies of the long-term effects of major depression on the course of alcoholism reveal that the remission of each condition is linked to remission of the other.[267] The whole scope of personal, family, and environmental problems must be assessed for long-term recovery planning.

The trend in the emerging recovery management model is toward the use of comprehensive (global) assessment instruments and multiple assessment media.[268] There is also a shift from viewing the individual as the unit of service to viewing the "family," kinship network, and community (as defined by the client) as the unit of assessment and intervention.

Deficit-based versus Asset-based Assessment

Assessment procedures in the AC model of addiction treatment also tend to be pathology-focused. Assessment data collection procedures are designed to generate a problem list, which is then used to generate a treatment plan. Given the growing severity, complexity, and chronicity of problems presented by clients seeking addiction treatment, such pathology-focused assessment interviews can be demoralizing to clients, families, and staff. Missing from current assessment protocols is an evaluation of personal, family, and community recovery capital. Recovery capital was defined earlier as including all the intrapersonal, interpersonal, and community resources that can be brought to bear on the initiation and maintenance of recovery.[269]

A primary function of screening and assessment procedures in addiction treatment is to make level-of-care decisions. Most patient placement classification systems rely primarily upon problem

265. D'Aunno, T. (2006). The role of organization and management in substance abuse treatment: Review and roadmap. *Journal of Substance Abuse Treatment, 31*, 221-233.

266. White, W. (1998). *Slaying the dragon: The history of addiction treatment and recovery in America.* Bloomington, IL: Chestnut Health Systems; Hser, Y.I., Grella, C.E., Hubbard, R.L., Hsieh, S., Fletcher, B.W., Brown, B.S., & Anglin, M.D. (2001). An evaluation of drug treatments for adolescents in 4 US cities. *Archives of General Psychiatry, 58*, 689-695.

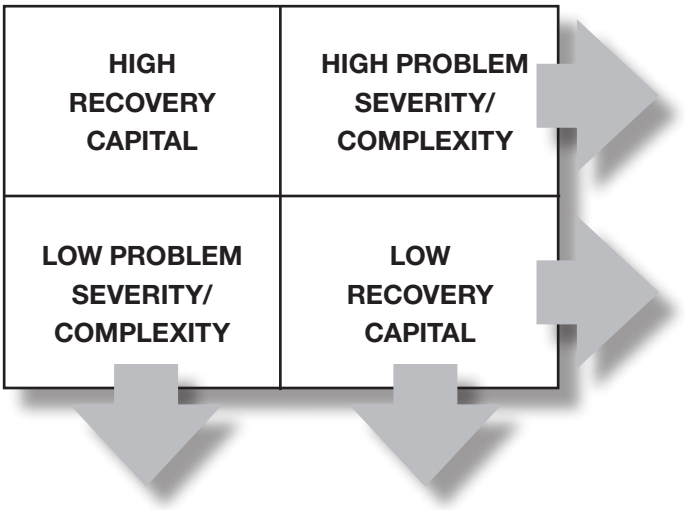
267. Hasin, D.S., Wei-Yuan, T., Endicott, J., Mueller, T., Coryell, W., & Keller, M. (1996). The effects of major depression on alcoholics. *The American Journal of Addictions, 5*(2), 144-155.

268. White, W., Boyle, M., & Loveland, D. (2002). Alcoholism/addiction as a chronic disease: From rhetoric to clinical application. *Alcoholism Treatment Quarterly, 20*(3/4), 107-130.

269. Granfield, R., & Cloud, W. (1999). *Coming clean: Overcoming addiction without treatment.* New York: New York University Press.

severity and complexity data to dictate a particular level of care. The general assumption is that, the greater the problem severity and complexity, the greater the restrictiveness and potential duration of treatment. But comprehensive assessments of recovery capital can alter such decisions considerably (See figure below).

FIGURE 2: PROBLEM SEVERITY/RECOVERY CAPITAL MATRIX



Here are two examples. Many individuals with moderate-to-high problem severity might warrant inpatient placement of some duration, but those who bring high levels of recovery capital may initiate and sustain recovery, receiving much lower levels of care and lower intensity of post-treatment monitoring. In contrast, an individual at early stages of addiction with many vulnerability factors (e.g., family history of AOD problems, early age of onset, traumatic victimization) and extremely low personal recovery capital who also lives in a community lacking significant recovery support resources may warrant placement at a high level of care and require higher-intensity post-treatment monitoring

and support. The assessment of personal, family, and community recovery capital is essential to long-term recovery management.[270]

Point-in-time versus Continual Assessment

Current AC Model assessment procedures constitute a single point-in-time evaluation that is completed as part of the initial intake and service-planning process. Such procedures are appropriate for acute disorders that resolve themselves naturally or through brief intervention, but are quite inadequate for conditions whose symptoms ebb and flow over a protracted period of time and are exacerbated by the tandem ebb and flow of collateral problems.

There is a growing body of scientific literature positing stage theories of addiction recovery.[271] These studies suggest that:

- Addiction recovery, like the active process of addiction, is often characterized by predictable stages and milestones.
- The movement through the stages of recovery is a time-dependent process.
- Within each stage of recovery are developmental tasks, skills to be mastered, certain perspectives to be developed, and certain issues to be addressed before movement to the next stage can occur.
- The nature of the developmental stages of recovery is shaped by the characteristics of the individual; the nature, intensity, and duration of drug use; and the social milieu within which recovery occurs.
- Developmental stages of recovery, while highly similar within subpopulations of addicts, may differ widely from subpopulation to subpopulation.
- Treatment interventions must be strategically selected to resolve key issues and achieve mastery over key developmental tasks inherent within each individual's current stage of recovery.
- Treatment interventions appropriate to one stage of recovery may be ineffective or pose iatrogenic risks when utilized in another stage of recovery.

Some stages-of-change theories have come under recent attack for their lack of empirical foundation,[272] but virtually all long-term studies of recovery acknowledge recovery as a stage-dependent

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270. White, W. & Cloud, W. (in press). Recovery capital: A primer for addiction professionals. *Counselor*.

271. DeLeon, G. (1996). Integrative recovery: A stage paradigm. *Substance Abuse, 17*(1), 51-63; DeLeon, G. (2007). Therapeutic community treatment in correctional settings: Toward a recovery-oriented integrated system. *Offender Substance Abuse Report, 7*(6), 81-96; Frykholm, B. (1985). The drug career. *Journal of Drug Issues, 15*, 333-346; Wadorf, D. (1983). Natural recovery from opiate addiction: Some social-psychological processes of untreated recovery. *Journal of Drug Issues, 13*, 237-280; Waldorf, D., Reinarman, C., & Murphy, S. (1991). *Cocaine changes: The experience of using and quitting*. Philadelphia, PA: Temple University; Shaffer, H.J., & Jones, S.B. (1989). *Quitting cocaine: The struggle against impulse*. Lexington, MA: Lexington Books; Klingemann, H. (1991). The motivation for change from problem alcohol and heroin use. *British Journal of Addiction, 86*, 727-744; Prochaska, J., DiClimente, C., & Norcross, J. (1992). In search of how people change. *American Psychologist, 47*, 1102-1114.

272. West, R. (2005). Time for a change: Putting the transtheoretical (stages of change) model to rest. *Addiction*, *100*, 1036-1039.

process. If we posit that long-term recovery is marked by such stages and that service needs change across these stages, then how can assessment be limited to an intake activity? In the chronic disease model, assessment is a continual process, and any significant change in the status of a client signals formal re-evaluation.

Assessment of Family and Community Recovery Capital

Developing recovery-oriented systems of care requires the long-term development and mobilization of community recovery capital. This calls for a formal assessment of community recovery assets as well as such assets of individuals and families. We will discuss this issue of community recovery capital in more depth later in the monograph.

Screening and Assessment: Potential Strategies to Enhance Recovery Outcomes

- Provide screening, brief intervention, and linkage to treatment on a community-wide basis.[273]
- Encourage the availability of online screening and self-guided recovery management materials.[274]
- Define the "family" (as defined by the client) as the unit of assessment.
- Use a standardized global assessment instrument such as the Addiction Severity Index (ASI) or the Global Appraisal of Individual Needs (GAIN).
- Use assessment media beyond those involving self-report, e.g., physical exams, laboratory tests, criminal records verification.
- Use a strengths-based assessment process such as the ETP Strengths Assessment.[275]
- Redefine assessment as a continual process and conduct regular within-treatment assessment updates, including within-treatment indicators that trigger formal multi-disciplinary reassessment.[276]
- Regularly survey community recovery resources.

273. National Institute of Alcohol Abuse and Alcoholism. (2002). Screening for alcohol problems—An update. *Alcohol Alert, 56*; National Institute of Alcohol Abuse and Alcoholism. (2005). Screening for alcohol use and alcohol related problems. *Alcohol Alert, 65*.

274. Kurtz, E., & White, W. (2007). *Telephone- and Internet-based recovery support services*. Chicago, IL: Great Lakes Addiction Technology Transfer Center.

275. Siegal, H.A., Rapp, R.C., Kelliherm C.W., Fisher, J.H., Wagner, J.H., & Cole, P.A. (1995). The strengths perspective of case management: A promising inpatient substance abuse treatment enhancement. *Journal of Psychoactive Drugs*, *27*(1), 67-72.

276. Brown, T.G., Topp, J., & Ross, D. (2003). Rationales, obstacles, and strategies for local program monitoring systems in substance abuse treatment settings. *Journal of Substance Abuse Treatment*, *24*, 31-42.

TABLE 4: POTENTIAL RECOVERY-LINKED PERFORMANCE MEASURES: SCREENING, ASSESSMENT, AND LEVEL-OF-CARE PLACEMENT

PERFORMANCE AREA	SAMPLE RECOVERY-LINKED PERFORMANCE MEASURES
Screening	Number of screenings performed per quarter Number of hits per quarter on local screening website Number of training sessions per quarter on screening for other health and human service professionals
Individual/family Assessment	Percentage of intakes that include family collateral interview Percentage of parent assessments that include child assessment data
Assessment of Community Recovery Capital	Date of last community recovery needs assessment and recovery resource mapping survey

Chapter Eight

Composition of the Service Team

■ SUMMARY OF KEY POINTS ■

- The extension of AC models of addiction treatment to RM models entails increased involvement of medical, psychiatric, and other allied professionals and the development of peer-based recovery support services.
- There are growing numbers of individuals and families with long, complex service careers within multiple systems who, despite the massive investment of dollars in crisis stabilization, exhibit minimal progress towards long-term recovery.
- RM models of care emphasize multi-agency models of intervention and embrace a larger goal of breaking intergenerational cycles of problem transmission, thus providing a framework for the integration of primary prevention, early intervention, treatment, and long-term recovery support strategies.
- Promising practices that enhance service team composition include providing primary medical/psychiatric care in tandem with addiction treatment, the use of recovery coaches to provide continuity across levels of care, increased use of volunteers, and the creation of multi-agency, multi-disciplinary service teams.

The primary workforce of the specialized field of addiction treatment is made up of certified addiction counselors and non-certified direct service personnel. As the field is currently constituted, most individuals undergoing addiction treatment in the United States will spend little face-to-face time with physicians, nurses, psychologists, or social workers.[277] Many clients will also undergo addiction treatment without significant involvement of other helping organizations in their care, although this has changed recently with the growing trend toward co-sponsorship and co-location of service programs. The shift from an exclusively acute-care to a more sustained recovery management model of addiction treatment alters staffing and organizational configurations in three critical ways.

277. McLellan, A.T., Carise, D., & Kleber, H.D. (2003). The national addiction treatment infrastructure: Can it support the public's demand for quality of care? *Journal of Substance Abuse Treatment, 78*, 125-129.

Medical/Psychiatric and Allied Professional Staff

The acute and often undiagnosed health problems of persons presenting for addiction treatment and the high post-treatment morbidity and mortality rates (later summarized in Chapter Fourteen) warrant a more medicalized system of assessment and ongoing health care management. We will discuss some options for integrating primary health care and addiction treatment in Chapter Eleven. The issue of medical staff inclusion is not limited to the scope of medical needs at the time of admission, but also includes the potential role of medical staff as allies in the long-term recovery process. The issue is the same for psychologists, social workers, and other allied professionals.

There is growing evidence that the period of greatest need for these professionals may be following the period of initial sobriety. This is confirmed by studies finding that emotional distress in recovery peaks, not in the earliest days and weeks of recovery, but between one and three years of recovery.[278] Studies are also confirming the destabilizing effects that recovery exerts on the family as a system.[279] Growing interest in the personality reconstruction and emotional/spiritual growth that occurs in late (often after 5 years of sobriety) stages of recovery,[280] and the complete lack of research on the dynamics of late-stage relapse (relapse following 10 or more years of continuous sobriety), raise the possibility that the greatest contributions of traditionally trained professionals to the recovery process may be in facilitating these transitional stages of later recovery.

Peer-based Recovery Support Services (P-BRSS)

P-BRSS in the addictions arena are part of a long "wounded healer" tradition positing that those who have experienced and survived an ordeal may have special insights available to those facing similar circumstances.[281] Persons providing P-BRSS, rather than being legitimized through traditionally acquired educational credentials, tend to be legitimized based on *experiential knowledge and experiential expertise.*[282]

> *It is not the experience of having been wounded or having transcended such wounds that constitutes a credential. It is the extraction of lessons from that experience that can aid others, and a new ethic that transforms that learning into service to others. Experiential knowledge requires wisdom gained about a problem from close up-first-hand versus second-hand knowledge. Experiential expertise requires the ability to use this knowledge to affect sustainable change in self or others. It requires the ability to separate the experience of the helper from that of the person being helped. The dual credentials of experiential knowledge and experiential expertise*

278. Dennis, M.L., Foss, M.A., & Scott, C.K. (2007). An eight-year perspective on the relationship between the duration of abstinence and other aspects of recovery. *Evaluation Review, 31*(6), 585-612.

279. Brown, S., & Lewis, V. (1999). *The alcoholic family in recovery: A developmental model.* New York & London: Guilford Press.

280. Larsen, E. (1985). *Stage II recovery: Life beyond addiction.* New York: HarperCollins Publishers; Tessina, T. (1991). *The real thirteenth step: Discovering confidence, self-reliance and autonomy beyond the 12-Step programs.* Los Angeles, CA: Jeremy P. Tarcher, Inc.; Picucci, M. (2002). ìAn Interview with Dr. Michael Picucciî and iTerms and Definitions.î Retrieved on February 20, 2008 from http://www.stagedrecovery.com

281. Jackson, S.W. (2001). The wounded healer. *Bulletin of the History of Medicine, 75*, 1-36.

282. Borkman, T. (1976). Experiential knowledge: A new concept for the analysis of self-help groups. *Social Service Review, 50*(3), 443-456.

are granted through the addiction/recovery community "wire"/"grapevine" via storytelling. It is bestowed only on those who offer sustained living proof of their expertise as a recovery guide within the life of the community.[283]

The history of the use of paid peer helpers (people in recovery hired to serve as guides for others seeking recovery) in the addictions arena spans recovered and recovering people working as temperance missionaries (1840s-1890s); aides ("jag bosses") and managers of inebriate homes (1860s-1900); Keeley Institute physicians (1890-1920); "friendly visitors" within the Emmanuel Clinic in Boston (1906); lay alcoholism psychotherapists (1912-1940s); managers of "AA farms" and "AA rest homes" (1940s-1950s); halfway house managers (1950s); "paraprofessional" alcoholism counselors and professional "ex-addicts" (1960s-1970s); credentialed addiction counselors; detoxification technicians, residential aids, outreach workers, and case managers (1970s-1990s); and, more recently, "recovery coaches," "recovery mentors," and "recovery support specialists."[284]

Peer-based services have expanded under the influence of CSAT's Recovery Community Services Program and Access to Recovery program, and through state and urban treatment system-transformation efforts that are systematically including P-BRSS as part of a reconfigured continuum of addiction treatment services care. The expansion and positive evaluation of P-BRSS within the mental health field[285] and the growth of treatment programs for co-occurring substance use and psychiatric disorders are speeding the expansion of P-BRSS in the addiction field.[286] A distinguished addiction treatment researcher recently reflected on the potential value of such natural supports.

There is no compelling conceptual reason to distinguish between the influence of an AA sponsor, a source or partner, and a relative or friend, versus that of a counselor or psychotherapist on an addicted individual. The cognitive and social processes that underlie the resolution of addictive problems are common to formal and informal help, and the other dynamics of change are likely to be similar, regardless of the context in which they occur.[287]

Peer support is becoming an integral component in the management of all chronic diseases, and there is growing scientific support for such inclusion. Peer-based services, even when delivered as brief interventions, have been found effective in helping persons with severe AOD problems achieve abstinence.[288] An extensive body of research exists on the effectiveness of peer-facilitated models of change,[289] particularly within the arena of addiction recovery.[290] Such evidence includes randomized trials that included faith- and peer-based models of support.[291] Peer-based models also draw support from studies finding that recovering counselors are rated by clients as having more positive

283. White, W., & Sanders, M. (in press). Recovery management and people of color: Redesigning addiction treatment for historically disempowered communities. *Alcoholism Treatment Quarterly, 26*(3).

284. White, W. (1998). *Slaying the dragon: The history of addiction treatment and recovery in America.* Bloomington, IL: Chestnut Health Systems; White, W. (2000a). Addiction as a disease: The birth of a concept. *Counselor, 1*(1), 46-51, 73; White, W. (2000b). *Toward a new recovery movement: Historical reflections on recovery, treatment and advocacy.* Presented at Recovery Community Support Program (RCSP) Conference, April 3-5, 2000. Retrieved July 31, 2004 from http://www.facesandvoicesofrecovery.org/pdf/toward_new_recovery.pdf; White, W. (2000c). The history of recovered people as wounded healers: I. From Native America to the rise of the modern alcoholism movement. *Alcoholism Treatment Quarterly, 18*(1), 1-23.

285. Mowbray, C., Moxley, D., Jasper, C., & Howell, L. (1997). *Consumers as providers in psychiatric rehabilitation.* Columbia, MD: International Association of Psychosocial Rehabilitation Services.

286. Davidson, L., White, W., Sells, D. Schmutte, T., O'Connell, M., Bellamy, C., & Rowe, M. (submitted for publication). Enabling or engaging? The nature and role of recovery support services in addiction recovery. *American Journal of Alcohol and Drug Abuse.*

287. Moos, R.H. (2003). Addictive disorders in context: Principles and puzzles of effective treatment and recovery. *Psychology of Addictive Behaviors*, *17*, 3-12.

288. Bernstein, J., Bernstein, E., Tassiopoulos, K., Hereen, T., Levenson, S., & Hingson, R. (2005). Brief motivational intervention at a clinic visit reduces cocaine and heroin use. *Drug and Alcohol Dependence, 77*, 49-59.

289. Durlak, J. (1979). Comparative effectiveness of professional and paraprofessional helpers. *Psychological Bulletin*, *86*, 80-92; Hattie, J.A., Sharpley, C.F., & Rogers, H.J. (1984). Comparative effectiveness of professional and paraprofessional helpers. *Psychological Bulletin*, *95*(3), 534-541; Riessman, F. (1990). Restructuring help: A human service paradigm for the 1990s. *American Journal of Community Psychiatry, 18*(2), 221-230; Riessman, F. (1965). The "helper" therapy principle. *Social Work*, *April*, 27-32.

290. Connett, G. (1980). Comparison of progress of patients with professional and paraprofessional counselors in a methadone maintenance program. *The International Journal of the Addictions*, *15*(4), 585-589; Galanter, M., Castaneda, R., & Salamon, I. (1987). Institutional self-help therapy for alcoholism: Clinical outcome. *Alcoholism: Clinical and Experimental Research*, *11*(5), 424-429; Blum, T., & Roman, P. (1985). The social transformation of alcoholism intervention: Comparison of job attitudes and performance of recovered alcoholics and non-alcoholic alcoholism counselors. *Journal of Health and Social Behavior*, *26*(4), 365-378; White, W. (in pressc). "With a Little Help from my Friends": The development and mobilization of community resources for the initiation and maintenance of addiction recovery. *Journal of Substance Abuse Treatment.*

291. Stahler, G.J., Kirby, K.C., & Kerwin, M.E. (2007). A faith-based intervention for cocaine-dependent black women. *Journal of Psychoactive Drugs*, *39*(2), 183-190.

therapeutic alliance than counselors who are not in recovery[292] and studies finding that clients in programs with a higher percentage of recovering staff report greater participation in treatment and more problem improvement.[293]

P-BRSS specialists operate under numerous titles (recovery coach/mentor/guide, recovery support specialist, peer specialist, peer leader, escort). They are serving many functions, including pre-treatment engagement; assertive linkage to treatment; enhancement of treatment quality and retention; assertive linkage to communities of recovery; and post-treatment monitoring, recovery coaching, early re-intervention, and recovery community resource development. They may also be playing a broader historical role within the evolution of addiction treatment.

> *P-BRSS are also an attempt to humanize a system that, after decades of assault by reimbursement and regulatory authorities, is perceived by recovery advocates as more preoccupied with income than outcomes and more focused on the quality of service documentation than the quality of service relationships. Put simply, the service milieus of addiction treatment institutions have cooled through their maturation. P-BRSS constitute one effort to warm them back up.*[294]

There is an inevitable tension between addiction professionals who have valiantly fought to establish their credibility and turf and a new generation of peer specialists. The following principles have been suggested as a foundation for collaboration between these two groups.[295]

- P-BRSS and professionally directed addiction treatment services are complimentary rather than competitive.
- P-BRSS and treatment services must be integrated into a single, seamless continuum of services.
- P-BRSS specialists and treatment specialists must recognize and respect the special contributions each can make to the recovery process.
- Both P-BRSS specialists and treatment specialists must accurately represent and practice within the boundaries of their education, training, and experience.[296]
- The goal is to have all services—professional and peer—become person oriented, family oriented, and recovery oriented.

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292. Meir, P.S., Donnall, M.C., Barrowclough, C., McElduff, P., & Heller, R.F. (2005). Predicting the early therapeutic alliance in the treatment of drug misuse. *Addiction, 100*, 500-511.

293. Moos, R.H., King, M.J., Burnett, E.B., & Andrassy, J.M. (1997). Community residential program policies, services and treatment orientations influence patients' participation in treatment. *Journal of Substance Abuse, 9*, 171-187; Mavis, B.E., & Stoffelmayr, B.E. (1994). Program factors influencing client satisfaction in alcohol treatment. *Journal of Substance Abuse, 6*, 345-354.

294. White, W. (in pressc). "With a Little Help from my Friends": The development and mobilization of community resources for the initiation and maintenance of addiction recovery. *Journal of Substance Abuse Treatment.*

295. White, W. (in press). Non-clinical addiction recovery support services: History, rationale, models, potentials and pitfalls. *Alcoholism Treatment Quarterly.*

296. This must be based on mutual respect and the recognition that some services are best provided by traditionally trained professionals while others are best provided by peer specialists. The expectation of respect for boundaries of competence applies to both roles.

Multi-agency Collaborations

The modern history of health and human services has been marked by two trends: the movement toward specialized agencies and service professions organized around a single problem focus and a more recent trend toward service integration.[297] The first trend set up a collision between the characteristics of clients and families presenting with multiple concurrent and sequential problems and the organization of services into categorical silos. The result was a history of exclusion, extrusion, and poor outcomes for the individuals and families, as well as growing calls to create more effective, multi-disciplinary, multi-agency models of intervention. These trends have exerted a direct effect on parallel calls to extend addiction treatment from an AC to an RM model of care.

This document has already documented the problem severity and complexity of most persons entering specialized addiction treatment in the United States and will shortly summarize the problems these clients experience related to retention and post-treatment relapse. The AC Model is ill suited to treat those in greatest need of treatment, and the AC model has struggled to adapt itself to these client characteristics. Until recently, most of these efforts have involved adding service appendages (e.g., outreach or case management programs) or specialized programs that had key elements of the RM model (e.g., women's programs, child welfare initiatives, or drug court programs). These efforts have been positive and point the way to future directions for transformation of the whole treatment system. Structural elements that are likely to be incorporated into the recovery management model through these earlier initiatives include:

- multi-agency, multi-disciplinary service teams;
- integrated or aligned funding streams;
- cross training and frequent case conferences that include clients and families;
- coordinated, consistent communication of client/family expectations across all service organizations;
- an integrated assessment process;
- use of a single service plan across agencies; and
- rigorous monitoring and early re-intervention.

297. Rapp, L.A., Dulmas, C.N., Wodarski, J.S., & Feit, M.D. (1998). Integrated human service delivery system: Public welfare model. *Journal of Applied Social Sciences*, *22*(2), 151-160; White, W. (1998). *Slaying the dragon: The history of addiction treatment and recovery in America.* Bloomington, IL: Chestnut Health Systems.

The integration of mental health and addiction treatment for persons with co-occurring disorders is more effective than either parallel or sequential models of treatment,[298] and it is likely we will find the same related to other co-occurring problems.

THE SERVICE TEAM:
POTENTIAL STRATEGIES TO ENHANCE RECOVERY OUTCOMES

- Expand delivery of primary medical services in tandem with addiction treatment.
- Assertively link each client to a primary care physician and integrate primary care physicians into treatment teams.
- Train primary care physicians to conduct regular ongoing health-focused recovery check-ups.
- Develop formal peer volunteer programs, Consumer Councils, and Alumni Associations.[299]
- Use Consumer Council and Alumni Association member teams to provide street outreach in high-dope-copping neighborhoods.[300]
- Use clients in senior status to orient and serve as guides for newly entering clients.[301]
- Develop integrated models for the treatment of co-occurring disorders.[302]

298. Mangrum, L.F., Spence, R.T., & Lopez, M. (2006). Integrated versus parallel treatment for co-occurring psychiatric and substance use disorders. *Journal of Substance Abuse Treatment*, *30*, 79-84.

299. Leigh, G., Hodgins, D.C., Milne, R., & Gerrish, R. (1999). Volunteer assistance in the treatment of chronic alcoholism. *American Journal of Drug & Alcohol Abuse*, *25*(3), 543-559; Johnson, R., Martin, N., Sheahan, T., Way, F., & White, W. (2008). Recovery resource mapping: Results of a Philadelphia recovery home survey. Philadelphia: Department of Behavioral Health and Mental Retardation Services.

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301. Johnson, R., Martin, N., Sheahan, T., Way, F., & White, W. (2008). Recovery resource mapping: Results of a Philadelphia recovery home survey. Philadelphia: Department of Behavioral Health and Mental Retardation Services.

302. Drake, E.E., Mercer-McFadden, C., Mueser, K.T., McHugo, G.J., & Bond, G.R. (1998). Review of integrated mental health and substance abuse treatment for patients with dual disorders. *Schizophrenia Bulletin*, *24*, 589-608.

TABLE 5: POTENTIAL RECOVERY-LINKED PERFORMANCE MEASURES: COMPOSITION OF THE SERVICE TEAM

PERFORMANCE AREA	SAMPLE RECOVERY-LINKED PERFORMANCE MEASURES
Primary Care	Percentage of clients who receive a physical exam Percentage of clients linked to primary care during or following treatment for identified health care needs Percentage of clients screened for infectious diseases Percentage of clients with a primary physician at point of discharge
Psychiatric Care	Percentage of clients referred for psychiatric evaluation Percentage of referred clients with co-occurring disorders who receive integrated addiction treatment and psychiatric services
Other Ancillary Services	Percentage of clients receiving the following services ___ Case Management Services ___ Transportation ___ Day Care ___ Housing Services ___ Financial Counseling ___ Educational Services ___ Vocational Services ___ Legal Counseling

Chapter Nine

Service Relationship (Engagement and Retention)

■ SUMMARY OF KEY POINTS ■

- Pre-treatment dropout rates in addiction treatment exceed 50% of those who initially call regarding services.
- Less than half of persons admitted to addiction treatment successfully complete treatment.
- The percentage of clients administratively discharged from addiction treatment, most for confirming their diagnosis (using alcohol or other drugs while in treatment), has ranged from 10-16% in recent years—between 200,000 and 320,000 individuals per year.
- Those persons who do not complete addiction treatment, both those who drop out and those who are extruded, constitute those who are in greatest need of such treatment.
- In the transition from the AC model to the RM model, the service relationship shifts from that of professional expert to that of sustained recovery consultant.
- Promising practices in enhancing engagement and retention include the use of motivational interviewing, using most senior staff to induct new enrollees into treatment, participation incentives, altering administrative discharge policies and practices, using a choice philosophy to expand the range of client decision-making, increasing the focus on therapeutic alliance in training and supervision, and monitoring engagement indicators by service unit and by individual counselors.

In this chapter, we will examine the degree to which the current AC model of addiction treatment can engage and retain clients who present with high problem severity and compromised recovery capital. When various treatments for substance use disorders are compared, therapeutic alliance and treatment attendance outweigh differences in treatment philosophies and techniques in predicting recovery outcomes.[303] Therapeutic alliance involves multiple dimensions (empathy, rapport, safety, comfort, and hopefulness) and is not predicted by such counselor-client matching features as gender or race.[304]

303. Morgenstern, J., Blanchard, K.A., Morgan, T., Labouvie, E., & Hayaki, J. (2001). Testing the effectiveness of cognitive-behavioral treatment for substance abuse in a community setting: Within treatment and posttreatment findings. *Journal of Consulting and Clinical Psychology*, *69*(6), 1007-1017; Joe, G.W., Simpson, D.D., Dansereau, D.F., & Rowan-Szal, G.A. (2001). Relationships between counseling rapport and drug abuse treatment outcomes. *Psychiatric Services*, *52*, 1223-1229; Martin, D.J., Garske, J.P., & Davis, M.K. (2000). Relation of therapeutic alliance with outcomes and other variables: A meta-analytic review. *Journal of Consulting and Clinical Psychology*, *68*, 438-450.

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Pre-treatment Drop-out Rates

Several measures reflect the initiation and maintenance of a therapeutic alliance between a client and the treatment institution and treatment professional. The first measure is the ability to rapidly engage and retain clients in the ongoing service process. This begins with the first contact with the agency, often by telephone. Dropout rates between the call for an appointment at an addiction treatment agency and the first treatment session range from 50-64%.[305] Over 40% of this fail-to-show group can be re-engaged by a follow-up phone call procedure,[306] but such calls are not routine in addiction treatment.

Non-completion of Treatment

A second measure of therapeutic alliance is service retention, which can in turn be measured by such indicators as discharge status. The desired length of treatment involvement varies from individual to individual, but should ideally reach a point of successful completion of treatment components—a status consistently linked with improved long-term recovery outcomes for adults[307] but with mixed findings for adolescents.[308] Illustrated below is discharge status data for two years for those entering publicly funded addiction treatment.

Discharge Status	2002	2004
Completed Treatment	41%	40%
Dropped Out of Treatment	27%	22%
Terminated by facility (administrative discharge)	16%	8%
Other or unknown (death, transfer, incarceration)	16%	30%

Sources: SAMHSA, 2005; http://www.oas.samhysa,gov/TEDSdischarges/2K4/TEDSD2k4chp2.htm [309]

More than half of clients admitted to addiction treatment do not successfully complete their course of treatment, with most studies noting 50% dropout rates in the first month following treatment admission.[310] Even higher dropout rates are noted in certain clinical populations, e.g., 55%-77% for those admitted for cocaine or methamphetamine dependence.[311]

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305. Gottheil, E., Sterling, R.C., & Weinstein, S.P. (1997b). Pretreatment dropouts: Characteristics and outcomes. *Journal of Addictive Diseases*, *16*, 1-14.

306. Gottheil, E., Sterling, R.C., & Weinstein, S.P. (1997b). Pretreatment dropouts: Characteristics and outcomes. *Journal of Addictive Diseases*, *16*, 1-14.

307. Wallace, A.E., & Weeks, W.B. (2004). Substance abuse intensive outpatient treatment: Does program graduation matter? *Journal of Substance Abuse Treatment*, *27*, 27-30; Grella, C., Joshi, V., & Hser, Y.I. (2000). Program variation in treatment outcomes among women in residential treatment. *Evaluation Review*, *24*, 364-383; Hubbard, R.L., Craddock, S.G., & Anderson, J. (2002). Overview of 5-year follow-up outcomes in the Drug Abuse Treatment Outcome Studies (DATOS). *Journal of Substance Abuse Treatment*, *25*, 125-134.

308. Winters, K.C., Stinchfield, R.D., Opland, E., Willer, C., & Latimer, W.W. (2000). The effectiveness of the Minnesota model approach in the treatment of adolescent drug abusers. *Addiction*, *95*(4), 601-612; Godley, M.D., Godley, S.H., Funk, R.R., Dennis, M.L., & Loveland, D. (2001). Discharge status as a performance indicator: Can it predict adolescent substance abuse treatment outcome? *Journal of Child & Adolescent Substance Abuse*, *11*(1), 91-109.

309. Substance Abuse and Mental Health Services Administration, Office of Applied Studies. (2005). Treatment Episode Data Set (TEDS): 2004 Treatment Discharges. Retrieved January 30, 2008, from http://www.oas.samhsa.gov/TEDSdischrages/2k4/TEDSsk4chp2.htm

310. Substance Abuse and Mental Health Services Administration, Office of Applied Studies. *Treatment Episode Data Set (TEDS): 1992-2000. National Admissions to Substance Abuse Treatment Services*, DASIS Series: S-17, DHHS Publication No. (SMA) 02-3727, Rockville, MD, 2002. http://wwwdasis.samhsa.gov/teds00/TEDS_2K_Highlights.htm; http://www.dasis.samhsa.gov/teds00/TEDS_2K_Chp6.htm#Length of Stay; Stark, M. (1992). Dropping out of substance abuse treatment: A clinically oriented review. *Clinical Psychology Review*, *12*, 93-116; Samantaray, P.K., Ray, R., & Chandiramani, K. (1997). Predictors of inpatient treatment completion of subjects with heroin dependence. *Indian Journal of Psychiatry*, *39*(4), 282-287.

311. Shearer, J. (2007). Psychosocial approaches to psychostimulant dependence: A systematic review. *Journal of Substance Abuse Treatment*, *32*, 41-52.

Characteristics of Treatment Dropouts

Treatment non-completion is associated with being younger, unemployed, female, African American, self-referred, and involved with drugs other than alcohol, and not having had prior treatment.[312] Those who drop out of treatment are also characterized by lower levels of education, greater AOD problem severity, cigarette smoking, a high prevalence of psychiatric co-morbidity, greater past histories of perpetration of violence, higher-risk family living environments, lower levels of motivation for recovery, weaker therapeutic alliances, and worse long-term recovery outcomes than those who complete treatment.[313] In a study that compared residential completion rates for women by presence and severity of co-occurring psychiatric illness, women who had no co-occurring disorder completed treatment at more than twice the rate of women with a high-severity co-occurring disorder.[314] In short, **those who drop out of treatment or who are administratively discharged from treatment are those who need treatment the most.**

Also noteworthy is the role organizational factors can play in attrition. In a recent study of clients who failed to complete detoxification, those with an AMA (leaving against medical advice) discharge were more likely not to have had a single assigned physician following their care, compared to those who successfully completed.[315]

Predictors of Engagement/Retention

Individual characteristics (e.g., psychiatric illness) can contribute to early exit from addiction treatment, but seen as a whole, those factors that contribute to early exit reflect more programmatic differences than client differences. A 2008 study of early exit from addiction treatment programs reported that clients in the worst-performing programs were 7.1 times more likely to drop out early than those in the best-performing programs. Lengthy and repeated assessment processes, multiple appointments before treatment begins, failure to give clients the treatment they requested, inadequate methadone doses, and mixing clients at differing stages of readiness for change were cited as contributors to early drop-out.[316]

The best single predictor of retention and dropout is the quality of therapeutic alliance established between the therapist and the client.[317] Retention rises in tandem with quality of therapeutic relationship.[318] Rates of client retention for therapists vary dramatically (14-81% in one well-controlled study). Such differences exist even when patient characteristics (e.g., problem severity) and therapist

312. Substance Abuse and Mental Health Services Administration, Office of Applied Studies. (2007). Trends in rates of treatment completion. Retrieved on February 20, 2008 from http://www.oas.samhsa.gov/TXtrends.htm; Substance Abuse and Mental Health Services Administration, Office of Applied Studies. (2006). Discharges who left against professional advice: 2003. *DASIS Report, 28*. Retrieved February 20, 2008 at http://www.oas.samhsa.gov/2k6/leftTX/leftTX.htm; Substance Abuse and Mental Health Services Administration, Office of Applied Studies. (2002). *Treatment Episode Data Set (TEDS): 1992-2000. National Admissions to Substance Abuse Treatment Services*, DASIS Series: S-17, DHHS Publication No. (SMA) 02-3727, Rockville, MD. Retrieved February 20, 2008, from http://wwwdasis.samhsa.gov/teds00/6.3a.htm

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315. Blondell, R.D., Amadasu, A., Servoss, T.J. & Smith. S.J. (2005). Differences among those who complete and fail to complete inpatient detoxification. *Journal of Addictive Diseases*, *25*(1), 94-104.

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backgrounds (e.g., education, recovery status, and years of experience) are controlled.[319]

Many people entering treatment are ambivalent about their addiction and the prospects of sustained abstinence,[320] but a strong therapeutic relationship can overcome low motivation for treatment and recovery.[321] In fact, positive therapeutic alliance is more important to long-term recovery outcomes for low-motivated clients than for highly motivated clients.[322] This finding challenges the practice of excluding or extruding people from addiction treatment due to perceived low motivation.

Engagement is also influenced by program type. Treatment completion varies by modality, e.g., 61% for short term residential, 51% for detoxification, 41% for intensive outpatient, 34% for outpatient, 33% for long-term residential, and 14% for methadone.[323] Engagement rates are higher in smaller, accredited programs characterized by staff confidence in their skills, a positive work environment, and a high level of involvement in a wider professional community.[324] Engagement and retention rates in methadone maintenance programs are higher in programs that utilize higher methadone doses and provide psychosocial support services.[325] Dropout rates in methadone treatment are influenced by clients' misconceptions about methadone and by negative attitudes toward MMT in their communities.[326]

Treatment retention for women can be enhanced by gender-specific treatment programming, but such gender-specific services are not a part of mainstream treatment.[327] Adolescents are more likely to complete treatment and to have higher post-treatment abstinence rates if they are treated in adolescent programs, rather than in programs serving all ages,[328] and when their families participate in the treatment process.[329] Similarly, Native American and African American clients treated in culture-specific programs have higher completion rates than those treated in general population programs.[330]

Recent studies have also linked family and social support outside of treatment to the quality of the therapeutic alliance within the treatment setting.[331] This finding is significant in light of the erosion of family-based programming in addiction treatment following the onset of managed care in the late 1980s.

A final point to be made regarding therapeutic alliance involves the stages at which therapeutic alliance influences outcomes. Therapeutic alliance during addiction treatment is a predictor of proximal outcomes such as retention, in-treatment abstinence and in-treatment and post-treatment gains in emotional health, but therapeutic alliance during treatment is not a consistent predictor of

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Institute on Drug Abuse Collaborative Cocaine Treatment Study. *Journal of Consulting and Clinical Psychology*, *69*, 119-124; Meir, P.S. Donmall, M.C., McElduff, P., Barrowclough, C., & Heller, R.F. (2006). The role of the early therapeutic alliance in predicting drug treatment dropout. *Drug and Alcohol Dependence*, *83*, 57-64.

318. Meir, P.S. Donmall, M.C., McElduff, P., Barrowclough, C., & Heller, R.F. (2006). The role of the early therapeutic alliance in predicting drug treatment dropout. *Drug and Alcohol Dependence*, *83*, 57-64.

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post-treatment substance use outcomes at treatment follow-up.[332] This suggests that the counselor relationship may play a critical role in recovery initiation, but that extra-treatment factors are more influential in achieving long-term recovery maintenance.

Service Relationship and the Role of the Service Consumer

Studies in primary health care have found that health programs that utilize a patient self-management philosophy achieve superior outcomes and cost savings in the treatment of chronic illness. Such programs focus on enhancing the self-efficacy of the patient, improving problem solving skills, and empowering each patient as the expert on how self-management strategies can be refined to fit his or her own lifestyle. The burden of disease management shifts from the health care professional to the patient and his/her family, with the professional serving as an ongoing consultant in tandem with patient peers who have achieved self-management success.[333] Persons with alcohol and other drug problems generally prefer self-selection of their own treatment goals, but those at highest problem severity prefer therapist-set goals—perhaps reflecting their lost confidence in personal decision-making.[334]

Physicians in the primary health care setting who specialize in the treatment of chronic illnesses assume a "collaborative care" or "partnership" approach to working with their patients.[335] In this chronic-care relational model, each patient is empowered to assume responsibility for the long-term management of his or her disorder, and the physician becomes a consultant in this process.[336]

The extension of the AC Model to a RM model of care in addiction treatment will similarly alter the service relationship between addiction professionals and the individuals and families they serve. The role of "expert" who "treats" the client will give way to a teaching and consultation role (focused on self-management skill development) and a long-term recovery support alliance.[337] This role will be supported by a "choice philosophy" emphasizing the importance of clients' setting their own treatment goals and formulating their own recovery action plans.[338] This philosophy of choice and self-direction is based on studies concluding that clients who are more active in their treatment rate their treatment experience (services, primary counselor, and treatment organization) more positively, remain in treatment longer, and achieve better post-treatment recovery outcomes.[339] This choice philosophy is also congruent with calls for greater consumer voice in treatment agency policy and in broader AOD-related social policies.[340]

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330. Harrison, P.A., & Asche, S.E. (2001). Outcomes monitoring in Minnesota: Treatment implications, practical implications. *Journal of Substance Abuse Treatment*, *21*, 173-183.

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The service relationship within AC and RM models of addiction treatment also has implications for service providers. The level of personal and professional satisfaction that addiction counselors experience in working with clients and families has declined in tandem with reduced duration of the service relationship over the past 30 years. This restricted period of contact means that counselors are repeatedly exposed to the worst pathologies of addiction, but are denied exposure to the blessings that individuals and families experience in long-term recovery. It is little wonder that addiction counselors become demoralized and flee the field under such circumstances. In RM models of care, counselors maintain contact with those in longer-term recovery and can draw on these rich experiences to convey hope to those entering treatment at the latest stages of addiction, many of whom cannot even envision a life in recovery.

SERVICE RELATIONSHIP (ENGAGEMENT AND RETENTION): POTENTIAL STRATEGIES TO ENHANCE RECOVERY OUTCOMES

- Enhance client expectations of positive outcomes for treatment prior to their entry into treatment.[341]
- Involve family members in the treatment process.[342]
- Utilize motivational enhancement techniques in initial contacts with each client/family,[343] particularly with clients low in motivation.[344]
- Increase percentage of direct service staff with personal recovery backgrounds.[345]
- Conduct an initial motivational interviewing session to prepare each client for treatment.[346]
- Use the most experienced, charismatic staff to conduct induction seminars for new clients.[347]
- Minimize and clinically process staff absences.[348]
- Correct any client misperceptions about treatment and their role in it.[349]
- Use an orientation-to-treatment videotape as part of the treatment induction process.[350]
- Maintain continuity of contact over time for monitoring, support, and as-needed consultation.[351]
- Assess the quality of the therapeutic alliance throughout the treatment process.[352]
- Measure and publish a report comparing treatment programs on clients' level of satisfaction with treatment services.[353]

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- Evaluate client perception of services, counselor, and treatment organization at multiple points in the service process.[354]
- Shift from expert relational model to a partnership/alliance/consultation model.[355]
- Provide financial incentives for retention of counselors.[356]
- Provide self-management education to increase self-efficacy, problem-solving skills, and medical self-management.[357]
- Increase client choice of treatment goals, treatment methods, and recovery maintenance frameworks and strategies.[358]
- Provide decisional support at times of crisis.[359]
- Alter policies related to administrative discharge.[360]
- Provide treatment readiness training as a pre-induction process for criminal justice clients referred to addiction treatment.[361]
- Reduce staff-client ratio.[362]
- Provide case management services to eliminate obstacles to continued treatment participation.[363]
- Use contingency management procedures to elevate retention and in-treatment abstinence rates.[364]
- Formally assess early fit between the client and the right level of care, the right treatment philosophy and methods, the right provider organization, and the right counselor/team.[365]
- Utilize telephone calls, reminder notes, letters, or emails to strengthen engagement following any missed appointments.[366]
- Develop special treatment tracks for adolescents with conduct disorder or other externalizing disorders.[367]
- Provide external incentives for treatment participation, e.g., vouchers, coupons.[368]
- Provide gender-specific treatment with broad array of ancillary medical, psychiatric, and social services.[369]

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- Disseminate information to new MMT staff to counter myths and medical misinformation related to methadone and methadone maintenance.[370]
- Provide a "Methadone: Myths and Misconceptions" orientation for all clients and their family members enrolled in MMT.[371]
- Use training to reduce negative attitudes of addiction treatment staff toward sustained methadone maintenance (e.g., view that methadone should be time limited and that recovery begins only when methadone treatment is terminated).[372]
- Manage negative countertransference of service providers via clinical supervision.[373]
- Increase energy and goal-directedness of staff.[374]
- Utilize positive influence of court mandates to enhance retention of clients with antisocial personality disorder.[375]
- Fund research to evaluate strategies for managing treatment fatigue.

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TABLE 6: POTENTIAL RECOVERY-LINKED PERFORMANCE MEASURES: SERVICE RELATIONSHIP (ENGAGEMENT AND RETENTION)

PERFORMANCE AREA	SAMPLE RECOVERY-LINKED PERFORMANCE MEASURE
Engagement	Average primary counselor-client ration
	Average amount of 1-to-1 time per week per client
	Percentage of clients who drop out in first 7 days of residential/IP care or after first OP visit
	Ratings of therapeutic alliance over time
	Percentage of clients with positive urine screens during treatment (or who surpass a set threshold of positive urine screens)
	Number of client/family grievances by service unit/worker
	Percentage of clients in detoxification linked to another level of care
	Percentage of clients who positively evaluate their service experience
Retention	Percentage of clients who receive services over a span of 90 days or more
	Percentage of clients who successfully complete each level of care (and analysis of discharges for those who do not)
	Number of administrative discharges per month and grounds for discharge; Percentage of AD as portion of total discharges
	Percentage of clients who participated in 80% or more of scheduled sessions (for OP Modalities)
Transition	Percentage of clients assertively linked to another level of care following completion of a level of care

Chapter Ten

Service Dose, Scope, and Quality

■ SUMMARY OF KEY POINTS ■

- Length of service contact is the best single predictor of post-treatment addiction recovery status.
- Length of time in treatment has decreased through the modern evolution of addiction treatment, rendering ever briefer the service relationship within the AC model of treatment.
- The majority of clients discharged from addiction treatment in the United States receive less than the 90 days of service contact recommended by the National Institute on Drug Abuse.
- Expanding the scope of ancillary medical, psychiatric, and recovery support services in addiction treatment can elevate long-term recovery outcomes, but such service comprehensiveness is not the norm within the addiction treatment service sector.
- Progress is being made integrating evidence-based practices within mainstream addiction treatment, but treatment methods continue that are ineffective or potentially harmful.
- Promising practices related to the dose, scope, and quality of addiction treatment services include greater use of stepped care, more assertive linkage to recovery support groups and post-treatment recovery support institutions (e.g., recovery homes, recovery schools, and recovery ministries), co-location of medical/psychiatric/social services, increased emphasis on evidence-based treatments, increased monitoring of fidelity to preferred service methods via clinical supervision, and increased communication between clinicians and researchers.

Service Dose

The concept of service dose encompasses the total quantity of treatment and recovery support services provided to an individual/family, the total span of time over which such services are delivered, and the relative volume of each service ingredient (e.g., length of an individual or group counseling session, medication dosage).

The best single predictor of post-treatment outcome across all modalities is length of time in treatment.[376] There is a dose effect of both treatment and recovery mutual aid participation, with recovery outcomes improving as dose increases.[377] The exception to this finding is that "unusually long" stays in residential and non-methadone outpatient treatment are linked to less successful outcomes—perhaps as a proxy for high problem severity and complexity.[378]

Service dose is particularly important for those clients with greater problem severity and complexity, whereas those with low-to-moderate problem severity can exhibit substantial improvement with lower doses of services.[379] The concept of "minimal retention threshold" is an important principle in elevating treatment outcomes.[380] Dose seems particularly important for more intractable patterns of drug dependence. In a five-year follow-up study of opiate addicts treated in 18 outpatient methadone clinics, those clients who had a longer period of initial treatment were more likely to be in stable recovery at follow-up.[381]

Based upon a review of treatment outcome research, the National Institute on Drug Abuse defined a threshold of approximately 90 days (for residential and outpatient drug-free treatments) as the treatment duration below which recovery outcomes began to deteriorate for most clients.[382] The median length of stay for all discharged non-methadone clients treated in the United States is far below that goal (52 days for outpatient, 42 days for intensive outpatient, 33 days for long-term residential, 21 days for short-term residential, 10 days for hospital residential, and 3 days for detoxification).[383] The effectiveness dose for methadone maintenance is at least one year of participation.[384] In 2002, the average length of time from admission to discharge in outpatient methadone maintenance was 175 days.[385]

Treatment duration in methadone and non-methadone treatment units has declined nationally in the past decade.[386] Clients with shorter lengths of stay have poorer rates of post-treatment abstinence and higher treatment readmission rates.[387] In a recent interview, Dr. Douglas Anglin, a pioneer in the study of "addiction careers," lamented the lost understanding of the importance of treatment dose.

> *It has been very disappointing in recent decades to see both in-patient and out-patient services stripped down to what I consider clearly sub-threshold levels for many chronic drug problems; currently, such programs are typically capable of producing only a short-term blip in behavior and personal recovery trajectories.*[388]

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This concern about dose even applies to those modalities that extend over more sustained periods of time. Compared to those with less time in treatment, the odds of positive outcomes at one-year follow-up are five times greater for clients who remain involved in treatment for more than a year.[389] This duration-of-involvement principle also applies to methadone maintenance treatment (MMT). The improvements associated with MMT participation often dissipate when individuals stop treatment.

The majority of persons leaving MMT quickly relapse, and up to two-thirds later return to treatment—often for repeated episodes of treatment.[390] Such outcomes are even worse for clients who only receive opiate detoxification. Detoxification clients experience high aftercare dropout rates, high readmission rates, and high death rates in the year following discharge.[391]

Treatment cycling in MMT is all too often the norm when methadone is delivered within an acute-care model. Such models are characterized by staff ambivalence or negativity toward methadone, low methadone dosages, pressure for detoxification, high dropout and administrative discharge rates, and a pervasive view that recovery does not begin until methadone detoxification is completed.

The importance of volume of each service unit can be illustrated by briefly reviewing the research on methadone dosage. There is a direct relationship between methadone dosage and the odds of continued heroin use in MMT.[392] Based on a review of the scientific literature and a survey of methadone treatment programs, Pollack and D'Aunno[393] estimate that two-thirds of MMT clients receive inadequate daily dosages of methadone—dosages below 80 mg/day. They further report that methadone doses did not change between 2000 and 2005, in spite of growing evidence that higher dosages reduce rates of opiate relapse, reduce secondary drug use, and contribute to global recovery outcomes.[394]

Dosage can also be thought of in terms of the percentage of recommended doses that are consumed. For example, in a study of naltrexone adherence in the treatment of alcohol dependence, short-term relapse rates varied from 14% to 50% depending on whether naltrexone was used regularly or less than 10% of the prescribed doses were consumed.[395] Medication adherence and adherence to other recommended self-management protocols are major problems in the treatment of all chronic disorders.[396]

The shift from an acute-care model of addiction treatment to a model of sustained recovery management seeks an adequate dose of services within each level of care and an adequate dose

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of each service ingredient within each level of care. However, RM is more than the usual lament that residential programs need longer lengths of stay and outpatient counselors need more sessions. Recovery management is focused on increasing and integrating the total dose of clinical and recovery support services across levels of care.

Service Scope

The combinations of ingredients that spark and sustain recovery vary by problem severity. This suggests the limitations of single-service settings and the potential advantages of programs that offer multiple service components and delivery media.[397] Studies consistently reveal that providing a greater number of collateral services (e.g., medical, psychiatric, family, employment services) during addiction treatment can increase outcomes across multiple domains by as much as 25-40%.[398] The lack of integrated (concurrent, co-located) care for co-occurring substance use and psychiatric disorders has been linked to poor recovery outcomes and cost ineffectiveness,[399] and integrated models of care have been linked to improved post-treatment recovery rates,[400] yet only a little more than half of specialized addiction treatment programs provide such integrated care.[401]

Utilization of ancillary services is dramatically increased when services are provided on-site at addiction treatment facilities, compared to services accessed through referral processes,[402] but on-site service comprehensiveness is the exception rather than the rule in addiction treatment.[403] Providing a wider range of medical, psychiatric, and social services is associated with accreditation by the Joint Commission on Accreditation of Health Care Organizations (JCAHO), but less than a third of specialized addiction treatment providers are JCAHO accredited.[404]

Within MMT programs, concerns include staff beliefs about methadone that may inadvertently or purposely encourage termination of MMT,[405] the limited availability of pharmacotherapy alternatives to methadone (e.g., buprenorphine and naltrexone), and the need for enriched drug counseling and ancillary health and social services (e.g., HIV/AIDS- and Hepatitis C-related services, linkage to employment or vocational services).[406] Such services are associated with improved MMT outcomes via reduced heroin and cocaine use.[407] There is also concern that opiate-dependent clients treated in non-MMT modalities lack evidence-based services linked to improved long-term recovery outcomes.[408]

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407. Gossop, M., Stewart, D., & Marsden, J. (2006). Effectiveness of drug and alcohol counseling during methadone treatment: Content, frequency, and duration of counseling and association with substance use outcomes. *Addiction*, *101*, 404-412; Ball, J.C., & Ross, A. (1991). *The effectiveness of methadone maintenance treatment: Patients, programs, services and outcomes*. New York: Springer Verlag.

The need for linkage and integration between AOD treatment and primary care is a particularly important issue for long-term recovery. There are more than 70 medical conditions requiring hospitalization that are related to excessive AOD consumption,[409] and substance-dependent individuals often present at hospitals with one or more other chronic illnesses and without a primary care physician.[410] It is therefore surprising that little attention has been given to integrating medical care within the sustained process of addiction treatment and recovery. Studies of such integration have found that the provision of primary care during addiction treatment can be effectively achieved and reduces emergency room visits and days of inpatient hospitalization in the year following treatment.[411] And yet, as noted earlier, clients in mainstream addiction treatment will spend little time with physicians or other primary health care professionals as part of their treatment experience.

The percentage of addiction programs offering ancillary medical, psychiatric, and social services declined in the 1980s and then remained static throughout the 1990s, with two exceptions: an increase in physicals in the early 1990s and an increase in financial counseling in the late 1990s.[412]

The Quality of Treatment and Support Services

The question of the quality of addiction treatment has been a subject of considerable focus in recent years.[413] Here we will touch on only a few issues related to quality to show how the larger arena of quality improvement fits into the movement toward a recovery management model.

Any discussion of the quality of addiction treatment quickly leads to the gap between clinical research and clinical practice within the addictions field. In 1987, Dr. Enoch Gordis, then Director of the National Institute on Alcohol Abuse and Alcoholism, offered the following as an opening salvo on this troubling dichotomy.

> *Our whole treatment system, with its innumerable therapies, armies of therapists, large and expensive programs, endless conferences, innovation and public relations activities is founded on hunch, not evidence, and not on science...Yet the history of medicine demonstrates repeatedly that unevaluated treatment, no matter how compassionately administered, is frequently useless and wasteful and sometimes dangerous or harmful. The lesson we have learned is that* ***what is plausible may be false and what is done sincerely may be useless or worse****.*[414]

408. Ducharme, L.J., Knudsen, H.K., & Roman, P.M. (2006). Availability of integrated care for co-occurring substance abuse and psychiatric conditions. *Community Mental Health Journal*, *42*(4), 363-375.

409. D'Onofrio, G., Bernstein, E., Bernstein, J., Woolard, R.H., Brewer, P.A., Craig, S.A., & Zink, B.J. (1998). Patients with alcohol problems in the emergency department, part 1: Improving detection. *Academic Emergency Medicine*, *5*(12), 1200-1209.

410. DeAlba, I., Samet, J.H., & Saitz, R. (2004). Burden of medical illness in drug- and alcohol-dependent persons without primary care. *The American Journal on Addictions*, *13*(1), 33-45.

411. Samet, J.H., Larson, M.J., Horton, N.J., Doyle, K., Winter, M., & Saitz, R. (2003). Linking alcohol- and drug-dependent adults to primary medical care: A randomized controlled trial of a multi-disciplinary health intervention in a detoxification unit. *Addiction*, *98*, 509-516; Friedmann, P.D., Hendrickson, J., Gerstein, D.R., Zhang, Z. and Stein, M. (2006). Do mechanisms that link addiction treatment patients to primary care influence subsequent utilization of emergency and hospital care? *Medical Care*, *44*(1), 8-15; Gourevitch, M.N., Chatterji, P., Deb, N., Schoenbaum, E.E., & Turner, B.J. (2007). On-site medical care in methadone maintenance: Associations with health care use and expenditures. *Journal of Substance Abuse Treatment*, *32*, 143-151.

412. Friedmann, P.D., Lemon, S.C., Durkin, E.M., & D'Aunno, T.A. (2003). Trends in comprehensive service availability in outpatient drug abuse treatment. *Journal of Substance Abuse Treatment*, *24*, 81-88.

413. Institute of Medicine. (2006). *Improving the quality of health care for mental and substance-use conditions*. Washington, DC: National Academy Press.

414. Gordis, E. (1987). Accessible and affordable health care for alcoholism and related problems: Strategy for cost containment. *Journal of Studies on Alcohol, 48*(6), 579-585.

Calls for "enhanced quality of care," "evidence-based treatment," "technology transfer," and "performance measurement" have increased in the addiction treatment arena since Dr. Gordis's challenge.[415] The future of addiction treatment may well be determined by our ability to close this gap between science and practice.[416]

Progress has been made in this area, including SAMHSA's National Registry of Effective Programs and Practices, the emphasis on evidence-based training within CSAT's Addiction Technology Transfer Centers, CSAT's Treatment Improvement Protocols (TIPS), the growing use of manual-guided therapies in addiction treatment,[417] and the efforts of private groups (e.g., the National Network for the Improvement of Addiction Treatment, the Betty Ford Institute, the Washington Circle Group) to translate research into models that articulate clinical practice implications. But there are many obstacles to evaluating and applying the available evidence within different demographic and clinical populations, service settings, and service roles,[418] first of which is the lack of consensus on what constitutes "evidence" and how to interpret conflicting findings across studies.[419]

One factor contributing to this challenge is that researchers and clinicians in the field of addiction treatment live and travel in their own professional silos, with each group speaking a specialized argot and communicating through conferences and publications that rarely cross the divide.[420] Researchers charge that clinicians lack knowledge of basic addiction science and employ practices that lack empirical support or that have been proven ineffective or even harmful.[421] Clinicians contend that researchers address clinically irrelevant questions; fail to make their findings accessible; and offer implications of their studies that have no face experiential value or, even worse, are viewed by clinicians as harmful to clients, families, and communities.[422] All too often clinicians and researchers live in separate worlds, each viewing the other from a position of distance and condescension (if not contempt)—each feeling in possession of truths to which the other is blind.

We will look quite specifically at the outcomes of addiction treatment in Chapter 14, but some introductory remarks from that body of research are warranted here. Perhaps the place to begin is to acknowledge that addiction treatment is not a homogenous entity.

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415. Lamb, S., Grenlick, M.R., & McCarty, D. (Eds.). (1998). *Bridging the gap between practice and research: Forging partnerships with community-based drug and alcohol treatment.* Washington D.C.: National Academy Press; McLellan, A.T. (2002). Have we evaluated addiction treatment correctly? Implications from a chronic care perspective. *Addiction*, *97*, 249-252; McGovern, M.P., & Carroll, K.M. (2003). Evidence-based practices for substance use disorders. *Psychiatric Clinics of North America*, *26*, 991-1010; McLellan, A.T., Chalk, M., & Bartlett, J. (2007). Outcomes, performance, and quality—What's the difference? *Journal of Substance Abuse Treatment*, *32*, 331-340.

416. Lamb, S., Grenlick, M.R., & McCarty, D. (Eds.). (1998). *Bridging the gap between practice and research: Forging partnerships with community-based drug and alcohol treatment.* Washington D.C.: National Academy Press.

417. Godley, S.H., White, W., Diamond, G., Passetti, L., & Titus, J. (2001). Therapist reactions to manual-guided therapies for the treatment of adolescent marijuana users. *Clinical Psychology: Science and Practice*, *8*(4), 405-417.

418. McGovern, M.P., & Carroll, K.M. (2003). Evidence-based practices for substance use disorders. *Psychiatric Clinics of North America*, *26*, 991-1010.

419. McLellan, A.T., Chalk, M., & Bartlett, J. (2007). Outcomes, performance, and quality—What's the difference? *Journal of Substance Abuse Treatment*, *32*, 331-340.

420. Miller, W.R.. Sorensen, J.L., Selzer, J.A., & Brigham, G.S. (2006). Disseminating evidence-based practices in substance abuse treatment: A review with suggestions. *Journal of Substance Abuse Treatment*, *31*, 25-39.

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422. Margolis, R., Kirkpatrick, A., & Mooney, B. (2000). A retrospective look at long-term adolescent recovery: Clinicians talk to researchers. *Journal of Psychiatric Drugs*, *31*(1), 117-125.

Organizational Influences on Outcomes

Addiction treatment organizations differ considerably in their effectiveness,[423] and even a program's public reputation is not a good measure of service quality and long-term recovery outcomes.[424] Across programs, post-treatment abstinence rates vary by as much as 42%.[425] Most of these differences represent variability unique to the individual program rather than broad categorical differences (e.g., urban versus rural programs), which are often less than what one might expect.[426] One categorical difference that has been noted is that private programs are more likely than public programs to operate on a "for-profit basis," to treat a predominately alcohol-dependent client population, to utilize counselors with advanced degrees, to utilize pharmacotherapy as part of the treatment regimen, and to offer treatment for other problems (e.g., eating disorders, pathological gambling), but are less likely to provide ancillary services (e.g., transportation, child care).[427] There has been no definitive analysis, however, comparing treatment outcomes of private and public programs.

The differences in outcomes between programs seem to represent variations within rather than across particular treatment philosophies. Differences between treatments have been found to be minimal in well designed, multi-site clinical trials comparing promising evidence-based treatments aimed at dependence on alcohol,[428] cocaine[429] methamphetamine,[430] and cannabis.[431] While the outcomes of treatment-matching studies have been disappointing, there is evidence that mismatches between clients and treatment methods can compromise positive outcomes, e.g., poorer outcomes when clients with medium-to-high levels of anger were involved in therapies with higher confrontation strategies[432] and poorer outcomes in family therapy with adolescents whose parents have substance-related problems.[433]

When such mismatches can be avoided, differences in outcomes appear to be linked to two primary in-treatment factors: the differential skills of individual counselors and the effectiveness of particular program service ingredients. The findings of positive treatment effects in controlled trials without significant differential effects by level of care or theoretical orientation add credence to the potential for common factors of effectiveness[434] that are shared by major treatment modalities and that encompass both organizational factors (e.g., philosophical concordance within and between treatment organization units)[435] and helper factors (e.g. therapist traits).[436]

423. McLellan, A.T., Grissom, G.R., Brill, P., Durell, J., Metsger, D.S., & O'Brien, C.P. (1993). Private substance abuse treatments: Are some programs more effective than others? *Journal of Substance Abuse Treatment*, *10*, 243-254; Miller, W., Taylor, C., & West, J. (1980). Focused versus broad-spectrum behavior therapy for problem drinkers. *Journal of Consulting and Clinical Psychology*, *48*, 590-601; Valle, S. (1981). Interpersonal functioning of alcoholism counselors and treatment outcome. *Journal of Studies on Alcohol*, *42*, 783-790; McLellan, A.T., Woody, G.E., Luborsky, L., & Goehl, L. (1988). Is the counselor an "active ingredient" in substance abuse rehabilitation? An examination of treatment success among four counselors. *Journal of Nervous and Mental Disorders*, *176*(7), 423-430; Najavits, L.M., & Weiss, R.D. (1994). Variations in therapist effectiveness in the treatment of patients with substance use disorders: An empirical review. *Addiction*, *89*, 679-688; Moos, R.H., Finney, J.W., & Cronkite, R.C. (1990). *Alcoholism treatment: Context, process and outcome*. New York: Oxford University Press; Project MATCH Research Group. (1998b). Therapist effects in three treatments for alcohol problems. *Psychotherapy Research*, *8*, 455-474; Magura, S., Nwakeze, P.C., Kang, S.Y., & Demsky, S. (1999). Program quality effects on patient outcomes during methadone maintenance: A study of 17 clinics. *Substance Use & Misuse*, *34*, 1299-1324.

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427. Roman, P.M., Ducharme, L.J., & Knudsen, H.K. (2006). Patterns of organization and management in private and public substance abuse treatment programs. *Journal of Substance Abuse Treatment*, *31*, 235-243.

428. Project MATCH Research Group. (1997). Matching alcoholism treatment to client heterogeneity: Project MATCH posttreatment drinking outcomes. *Journal of Studies on Alcohol*, *58*, 7-29.

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Staff Influence on Outcomes

Individual addiction counselors also vary widely when the counseling process is evaluated on such critical variables as engagement, retention, discharge status, participation in continuing care activities, and post-treatment abstinence.[437] Differences in clinician effectiveness account for more variation in treatment outcomes than do differences in treatment philosophies and techniques or baseline characteristics of clients.[438]

In general, **long-term** recovery outcomes are not shaped by the recovery status of the counselor, although some earlier-cited studies found that addiction professionals in recovery did have better proximal recovery measures (e.g., alliance) than addiction professional not in recovery.[439] What does seem to matter in terms of recovery outcomes are key counselor traits: low level of hostility; hope, optimism, and confidence; a high degree of empathy; respect; genuineness; concreteness; minimal wish to control; and enjoyment in helping those with AOD problems.[440]

The Role of Evidence-based Ingredients

Addiction treatment can have beneficial, neutral, or harmful effects.[441] Variability of outcome by program and counselor is influenced by the particular service ingredients they employ.

Many treatment professionals oppose the increased use of modalities that have substantial scientific support, e.g., community reinforcement approach, methadone maintenance, and other pharmacotherapies.[442] There are a growing number of pharmacological adjuncts in the treatment of addiction (most aimed at treating alcohol or opiate dependence).[443] These medications include:

- aids in detoxification, e.g., benzodiazepines (e.g., Valium), used to facilitate the safe elimination of substances from the body;
- stabilization agents such as methadone and buprenorphine that enhance metabolic stability, reduce post-detoxification cravings, and reduce relapse;
- aversive agents such as Antabuse (disulfram), which provide a chemical shield against impulses to use by eliciting toxic reactions (e.g., flushing, nausea/vomiting, increased heart rate) to even a small intake of alcohol;
- neutralizing agents (antagonists), such as naltrexone when it is used in the treatment of opiate addiction, which neuter the ability of opiates to induce euphoric effects;

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432. Karno, M.P., & Longabaugh, R. (2005). An examination of how therapist directiveness interacts with patient anger and reactance to predict alcohol use. *Journal of Studies on Alcohol, November*, 825-832; Karno, M.P., & Longabaugh, R. (2007). Does matching matter? Examining matches and mismatches between patient attributes and therapy techniques in alcoholism treatment. *Addiction*, *102*, 587-596.

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434. Hubble, M.A., Duncan, B.L., & Miller, S.D. (Eds.). *The heart and soul of change*. Washington D.C: American Psychological Association.

435. Melnick, G., Wexler, H.K., & Cleland, C.M. (2008). Client consensus on beliefs about abstinence: Effects of substance abuse treatment outcomes. *Drug and Alcohol Dependence, 93*, 30-37.

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438. Najavits, L.M., Crits-Christoph, P., & Dierberger, A. (2000). Cliniciansí impact on substance abuse treatment. *Substance Use & Misuse*, *35*, 2161-2190.

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

Access to new medications to treat addiction can be limited by combinations of public and professional attitudes and patient ambivalence about the pharmacotherapeutic treatment of addiction.[444] It should also be noted that there are at the moment of this writing (July, 2008) no viable medications for dependence on cocaine, methamphetamine, or cannabis dependence. The established effectiveness of certain medications and the future potential of new medications' innovative delivery systems (e.g., aerosols, transdermal patches, high-speed injection, implantable pumps, and very long-acting implants) in the treatment of addiction[445] will have to be balanced against the long history of iatrogenic insults (treatment-caused harm) resulting from pharmacological approaches to such treatment.[446]

There is widespread research support for family involvement and family-based therapies, but the unit of service in addiction treatment remains the individual. When available, family- and couples-based therapies are often based on approaches lacking scientific evidence of their effectiveness.[447] Widely praised treatments such as cognitive behavioral approaches have earned substantial evidence of their efficacy but have been subject to criticism for their ineffectiveness with historically disempowered groups such as the poor or homeless.[448] The failure of the research community to adapt science-based treatments to real-world applications has slowed the adoption of key evidence-based practices.[449]

Addiction treatment programs continue to utilize methods that lack evidence of their scientific effectiveness or that have been found to be potentially harmful.[450] A recent historical and scientific review of the use of confrontation techniques in addiction treatment drew the following conclusion.

> *It is time to declare a final moratorium on the use of harsh, humiliating confrontational techniques in addiction treatment. It is time to lay to rest once and for all the arrogant notion that we should or even can dismantle other human beings and then put them back together in better*

443. Morgan, M.Y., Landron, F., & Lehert, P. (2004). Improvement in quality of life after treatment for alcohol dependence with acamprosate and psychosocial support. *Alcoholism: Clinical and Experimental Research*, *28*(1), 64-77; Volpicelli, J.R. (2001). Alcohol abuse and alcoholism: An overview. *Journal of Clinical Psychiatry*, *62*(suppl 20), 4-10; Senay, E. (1998). *Substance abuse disorders in clinical practice.* NY: W.W. Norton & Co; Volpicelli, J.R., Rhines, K.C., Rhines, J.S., Volpicelli, L.A., Alterman, A.I., & O'Brien, C.P. (1997). Naltrexone and alcohol dependence: Role of subject compliance. *Archives of General Psychiatry*, *54*, 737-742.

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448. Shearer, J. (2007). Psychosocial approaches to psychostimulant dependence: A systematic review. *Journal of Substance Abuse Treatment*, *32*, 41-52.

449. White, W., & Sanders, M. (in press). Recovery management and people of color: Redesigning addiction treatment for historically disempowered communities. *Alcoholism Treatment Quarterly*, *26*(3).

450. Miller, W.R., Wilbourne, P.L., & Hettema, J.E. (2003). What works? A summary of alcohol treatment outcome research. In R.K. Hester, & W.R. Miller, (Eds), *Handbook of alcoholism treatment approaches: Effective alternatives* (3rd ed., pp. 13-63). Boston, MA: Allyn & Bacon; Miller, W.R., Zweben, J., & Johnson, W. (2005). Evidence-based treatment: Why, what, where, when, and how? *Journal of Substance Abuse Treatment*, *29*(4), 267-276; Miller, W.R.. Sorensen, J.L., Selzer, J.A., & Brigham, G.S. (2006). Disseminating evidence-based practices in substance abuse treatment: A review with suggestions. *Journal of Substance Abuse Treatment*, *31*, 25-39; White, W., & Miller, W. (2007). The use of confrontation in addiction treatment: History, science and time for change. *Counselor*, *8*(4), 12-30; Miller, W.R., Benefield, R.G., & Tonigan, J.S. (1993). Enhancing motivation for change in problem drinking: A controlled comparison of two therapist styles. *Journal of Consulting and Clinical Psychology*, *61*, 455-461.

and wiser form. With impressive consistency, research tells us that authoritarian confrontation is highly unlikely to heal and may well do harm, particularly to the more vulnerable among those we serve. Within this context, such confrontational treatment is professionally unethical, and is doubly problematic when used with coerced populations such as court-ordered or employer-mandated populations.

American addiction treatment took an aberrant detour and went far afield with confronting in aggressive and even cruel ways. This created a self-fulfilling cycle whereby clients became defensive, thus reinforcing the belief that still more forceful confrontation was required. It is time to conduct a historical self-inventory of such practices, admit that these practices were ill-chosen, end their use, make amends where we can to those injured by such practices, and embrace different practices that are more effective and more respectful.[451]

While addiction professionals espouse support for the goal of using research to improve the quality of addiction treatment, a substantial percentage of those surveyed support increased use of methods that have been found to be lacking in scientific support or found to be ineffective and potentially harmful.[452] There is, however, recent survey evidence that some of these attitudes are changing[453] compared to those revealed in earlier studies.[454]

There have been some notable successes during the past two decades. Recent studies suggest that the long-term recovery outcomes of women may be enhanced when they are treated in gender-specific treatment settings and women-focused therapy groups.[455] Gender-specific addiction treatment services grew dramatically in the 1980s and early 1990s, as did programs specifically designed for other historically disempowered groups, but such tailored treatment practices then declined between 1995 and 2005.[456]

Spirituality and Recovery from Chronic Illness

Spirituality entails many critical dimensions, including: confidence that life has meaning, the experience of interconnectedness with others, the experience of transcendence (connection with power outside the self), and a belief in the sacredness of life.[457] The potential role of spirituality in addiction recovery and recovery from other chronic illnesses has been well documented in the scientific literature[458] but has only recently been subjected to randomized trials.[459]

451. White, W., & Miller, W. (2007). The use of confrontation in addiction treatment: History, science and time for change. *Counselor*, *8*(4), 12-30.

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459. Miller, W.R., Forcehimes, A., O'Leary, M., & LaNoue, M.D. (in press). Spiritual direction in addiction treatment: Two clinical trials. *Journal of Substance Abuse Treatment.*

460. Miller, W.R. (1998). Researching the spiritual dimensions of alcohol and other drug problems. *Addiction, 93*(7), 979-990; Miller, W.R. (1999). *Integrating spirituality and treatment.* Washington D.C.: American Psychological Association.

461. Arnold, R.M., Avants, S.K., Margolin, A., & Marcotte, S.J. (2002). Patient attitudes concerning the inclusion of spirituality into addiction treatment. *Journal of Substance Abuse Treatment, 23*, 319-326.

Spirituality is an underutilized dimension of addiction treatment[460] in spite of the desire of most clients to have spirituality as a component of their addiction treatment experience,[461] findings that spiritual orientation/experiences can enhance recovery outcomes[462] and findings that spiritual components of treatment can be beneficial regardless of a client's degree of or lack of spiritual orientation prior to admission.[463]

Recovery Management models, because they focus on sustained recovery over the life course, place considerable emphasis on spirituality, life meaning and purpose, and quality of life.[464]

DOSE, SCOPE, AND QUALITY OF SERVICES: POTENTIAL STRATEGIES TO ENHANCE RECOVERY OUTCOMES

- Increase the number of active ingredients in the service menu.[465]
- Educate staff on the natural history of chronic heroin addiction and the long-term value of MMT.[466]
- Provide treatment for PTSD concurrent with treatment for substance use disorders.[467]
- Provide family-focused treatment that significantly involves family members in the treatment process.[468]
- Co-locate medical and psychiatric services within primary addiction treatment settings[469] or establish effective linkages for such services.[470]
- Develop long-term care and recovery support plans for clients with multiple prior episodes of service utilization.[471]
- Provide on-site delivery of ancillary medical and psychosocial services.[472]
- Provide vocational training and assistance as a post-treatment recovery support service.[473]
- Provide assertive linkage to outpatient treatment and peer-based recovery support groups following residential treatment.[474]

462. Flynn, P.M., Joe, G.W., Broome, K.M., Simpson, D.D., & Brown, B.S. (2003). Recovery from opioid addiction in DATOS. *Journal of Substance Abuse Treatment*, *25*(3), 177-86; Carroll, S. (1993). Spirituality and purpose in life in alcoholism recovery. *Journal of Studies on Alcohol, 54*, 297-301.

463. Sterling, R.C., Weinstein, S., Hill, P., Gottheil, E., Gordon, S.M., & Shorie, K. (2006). Levels of spirituality and treatment outcome: A preliminary examination. *Journal of Studies on Alcohol*, *July*, 600-606.

464. Laudet, A.B., Becker, J., & White, W. (in press). Don't wanna go through that madness no more: Quality of life satisfaction as predictor of sustained substance use remission. *Substance Use and Misuse*; White, W., & Laudet, A. (2006). Spirituality, science and addiction counseling. *Counselor, 7*(1), 56-59; Laudet, A., Morgen, K., & White, W. (2006). The role of social supports, spirituality, religiousness, life meaning and affiliation with 12-step fellowships in quality of life satisfaction among individuals in recovery from alcohol and drug use. *Alcoholism Treatment Quarterly*, *24*(102), 33-73; White, W.L., Laudet, A.B., & Becker, J.B. (2006). Life meaning and purpose in addiction recovery. *Addiction Professional, 4*(4), 18-23.

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466. Kang, S.Y., Magura, S., Nwakese, P., & Demsky, S. (1997). Counselor attitudes in methadone maintenance. *Journal of Maintenance in the Addictions*, *1*, 41-58.

467. Ouimette, P.C., Moos, R.H., & Finney, J.W. (2003). PTSD treatment and 5-year remission among patients with substance use and posttraumatic stress disorders. *Journal of Clinical and Consulting Psychology*, *71*, 410-414.

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469. Samet, J.H., Larson, M.J., Horton, N.J., Doyle, K., Winter, M., & Saitz, R. (2003). Linking alcohol- and drug-dependent adults to primary medical care: A randomized controlled trial of a multi-disciplinary health intervention in a detoxification unit. *Addiction*, *98*, 509-516; Gourevitch, M.N., Chatterji, P., Deb, N., Schoenbaum, E.E., & Turner, B.J. (2007). On-site medical care in methadone maintenance: Associations with health care use and expenditures. *Journal of Substance Abuse Treatment*, *32*, 143-151.

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TABLE 7: POTENTIAL RECOVERY-LINKED PERFORMANCE MEASURES

PERFORMANCE AREA	SAMPLE RECOVERY-LINKED PERFORMANCE MEASURE
Dose of Services	Percentage of clients who receive services over a span of 90 days or more Percentage of MMT clients who are engaged in treatment for a minimum of one year Average percentage of scheduled OP sessions attended prior to discharge Percentage of detoxification clients assertively linked to another level of care Percentage of inpatient and residential clients assertively linked to OP services Percentage of MMT clients receiving doses below 80 mg per day
Scope of Services	Percentage of clients who received a physical exam Percentage of clients with a primary care physician involved in their treatment or follow-up Percentage of clients receiving concurrent mental health services Volume of ancillary services delivered per month
Quality of Services	Client ratings of therapeutic alliance Client/family ratings of organization, services, and primary service provider Fidelity to evidence-based practice ratings by clinical supervisors
Services Focusing on Quality of Life	Percentage of clients who have completed a master recovery plan at discharge Percentage of clients participating in alumni association events within 90 days following discharge Percentage of clients agreeing to post-treatment recovery check-ups Inclusion of quality-of-life measures in all treatment follow-up and long-term recovery studies

473. Magura, S. (2003). The role of work in substance dependency treatment: A preliminary overview. *Substance Use & Misuse*, *38*(11-13), 1865-1876; Magura, S., Staines, G.L., Blankertz, L., & Madison, E.M. (2004). The effectiveness of vocational services for substance users in treatment. *Substance Use & Misuse*, *39*(13&14), 2165-2213.

474. Timko, C., Moos, R.H., Finney, J.W., Moos, B.S., & Kaplowitz, M.S. (1999). Long-term treatment careers and outcomes of previously untreated alcoholics. *Journal of Studies on Alcohol*, *60*(4), 437-447.

Chapter Eleven

Locus of Service Delivery:

Influence on Post-treatment Recovery Environment

■ SUMMARY OF KEY POINTS ■

- Most addiction treatment services are institution based; service providers have little contact with the natural environments of the individuals and families who consume their services.
- Post-treatment family and social environments play significant roles in the long-term recovery process.
- Recovery can potentially destabilize intimate and family relationships that have survived the wounds inflicted by addiction.
- Families can benefit from extended post-treatment monitoring and support.
- Clients deeply enmeshed in drug cultures face special challenges in transitioning from recovery initiation in institutional settings to recovery maintenance in their natural environments.
- Greater attention needs to be focused on the ecology of long-term recovery.
- Promising practices related to locus of service delivery and shaping the post-treatment recovery environment include assertive linkage to communities of recovery, home- and neighborhood-based services, abstinence-based social clubs, recovery support centers, development and/or use of recovery homes and recovery schools, use of indigenous healers and institutions (e.g., folk healers, recovery ministries), and use of consumer council and alumni association members to conduct street outreach and recovery coaching.

As noted earlier, the prospect of achieving stable recovery is determined in part by one's "recovery capital." The type of recovery capital needed for successful recovery changes in the transition from recovery initiation through the stages of recovery maintenance, with early recovery capital mobilized to remain abstinent and later recovery capital utilized to build a life in the community, and then to enhance personal growth, life meaning, and service to others.[475] In this chapter, we will review the shift in focus from the service environment to the natural environment of the client, as treatment

475. Laudet, A.B., & White, W.L. (2008). Recovery capital as prospective predictor of sustained recovery, life satisfaction and stress among former poly-substance users. *Substance Use and Misuse, 43*(1), 27-54; Laudet, A.B., Becker, J., & White, W. (in press). Don't wanna go through that madness no more: Quality of life satisfaction as predictor of sustained substance use remission. *Substance Use and Misuse.*

programs extend acute-care models of intervention into more embracing models of sustained recovery management.

The principle underlying this chapter has been stated simply and eloquently as follows: "ongoing environmental factors can augment or nullify the short-term influence of an intervention".[476] There is a growing movement to understand the *ecology of addiction recovery*[477] and to take a more systems-based approach to treatment design.

> *...treatment outcomes are impacted by social institutions (including the organizational attributes of the treatment agency), role-related interactions with family and friends, and normative pressures from society and culture. The type of systems perspective helps emphasize that therapeutic process represents more than just a "clinical intervention."* [478]

Locus of Service Delivery

Modern addiction treatment grew out of a tradition of isolating addicted persons from their natural physical and social environments. Individuals entering treatment were historically required to sever their family and social connections and enter a closed therapeutic environment (e.g., hospital, sanatorium, faith-based religious colony, residential treatment program, therapeutic community). This trend toward seeing clients in isolation from their natural environments increased as treatment evolved into a more acute intervention. It is typical of all acute-care models not to view the environment as a major concern, for four reasons: 1) acute distress is considered to have its source within, and to arise from, the individual; 2) the environment is viewed as a stage on which individual recovery decisions are made, but not as an active ingredient in the recovery process; 3) the unit of intervention is the individual; and 4) the distress caused by acute illnesses tends to disappear (at least temporarily) without any environmental intervention.

In contrast with those of acute disorders, the course and outcome of chronic disorders are heavily influenced by the physical and social environment. In the addiction context, recovery can be initiated in an artificial environment, but recovery stabilization and successful recovery maintenance can be achieved only in a natural community environment. The traditional engagement question of the acute-care model ("How do we get the client from his or her world to our world—the treatment center?") is reframed as ("How do we firmly nest the process of long-term recovery within the natural environment of the client, or, failing that, create an alternative recovery-conducive living environment within the larger community?").

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476. Moos, R.H. (2003). Addictive disorders in context: Principles and puzzles of effective treatment and recovery. *Psychology of Addictive Behaviors*, *17*, 3-12.

477. White, W. (in press). "With a Little Help from my Friends": The development and mobilization of community resources for the initiation and maintenance of addiction recovery. *Journal of Substance Abuse Treatment*.

478. Simpson, D.D. (2004). A conceptual framework for drug treatment process and outcomes. *Journal of Substance Abuse Treatment*, *27*, 99-121.

The Problem of Transfer of Learning

The acute-care model of addiction treatment in the United States can safely detoxify and facilitate brief biopsychosocial stabilization more effectively than at any time in the country's history. The problem with this model is that it mistakes respite (brief sobriety sampling experiments within an addiction career) for sustainable recovery. Chapter 14 will provide overwhelming evidence that most people discharged from addiction treatment are fragilely balanced between recovery continuation and relapse in the days, months, and—yes—years following their discharge. The challenge is the transfer of knowledge from the institutional environment to the natural environment of each client/family and the acquisition of new recovery maintenance skills that work in that environment.

Factors in the environment may tip the scales toward recovery or re-addiction as much as individual factors do. The greater the physical, psychological, social, and cultural distance between the treatment environment and the natural environment of the client, the greater will be this transfer-of-learning challenge. This problem can be minimized through recovery management models that emphasize the inclusion of indigenous healers and institutions within the treatment process and a greater emphasis on delivering home- and neighborhood-based (e.g., health clinics, neighborhood centers) addiction treatment and recovery support services. Below we will explore the role of environment in recovery in greater depth.

Role of Family Environment in Relapse/Recovery

Family environment exerts a great influence as a source of support or sabotage of addiction recovery.[479] Family members can play a significant role in prompting persons with AOD problems to seek treatment.[480] Family participation in treatment and family support of recovery efforts exert significant influence on long-term recovery outcomes for adults[481] and adolescents.[482]

Alcohol-dependent persons with spouses or other family members high in emotional expression (high levels of criticism, hostility, and emotional enmeshment) are at higher risk of relapse, relapse sooner, and have more drinking days in the year following treatment than clients whose spouses and family members are more encouraging and less controlling.[483] Adolescent clients entering addiction treatment whose parents have substance use disorders enter treatment with greater problem severity and greater obstacles to recovery.[484] Frequent substance use within a client's living environment can serve to sabotage recovery efforts.[485] Post-treatment recovery outcomes of adolescents are

479. White, W., & Savage, B. (2005). All in the family: Alcohol and other drug problems, recovery, advocacy. *Alcoholism Treatment Quarterly, 23*(4), 3-38.

480. Hingson, R., Mangione, T., Meyers, A., & Scotch, N. (1982). Seeking help for drinking problems: A study in the Boston metropolitan area. *Journal of Studies on Alcohol*, *43*(3), 273-288.

481. Isaacson, E.B. (1991). Chemical addiction: Individuals and family systems. *Journal of Chemical Dependency Treatment*, *4*(1), 7-27.

482. Risberg, R.A., & Funk, R.R. (2000). Evaluating the perceived helpfulness of a Family Night program for adolescent substance abusers. *Journal of Child & Adolescent Substance Abuse, 10* (1), 51-67.

483. O'Farrell, T.J., Hooley, J., Fals-Stewart, W., & Cutter, H.S. (1998). Expressed emotion and relapse in alcoholic patients. *Journal of Consulting and Clinical Psychology, 66*, 744-752.

484. Leichtling, G., Gabriel, R.M., Lewis, C.K., & Vander Ley, K.J. (2006). Adolescents in treatment: Effects of parental substance abuse on treatment and entry characteristics and outcomes. *Journal of Social Work Practice in the Addictions*, *6*(1/2), 155-174.

485. Catalano, R.F., Hawkins, J.D., Wells, E.A., Miller, J.L., & Brewer, D.D. (1991). Evaluation of the effectiveness of adolescent drug abuse treatment, assessment of risks for relapse, and promising approaches for relapse prevention. *International Journal of the Addictions, 25*(9A-10A), 1085-1140; Godley, M.D., Kahn, J.H., Dennis, M.L., Godley, S.H., & Funk, R.R. (2005). The stability and impact of environmental factors on substance use and problems after adolescent outpatient treatment for cannabis use or dependence. *Psychology of Addictive Behaviors, 19*(1), 62-70.

enhanced in homes in which alcohol and other drugs are not present.[486] In spite of these findings, family-oriented services are the exception in addiction treatment.

Family Recovery

Research on the effects of addiction recovery on the family challenges the expectation that families rapidly regain health following recovery initiation.[487] Family structure, roles, relationships, rules, and rituals are dramatically altered through the process of addiction and must be abandoned and reformed in recovery.[488] This stressful family readjustment process has been depicted as the "trauma of recovery."[489] The chaotic family environment of the addiction years continues into the early years of recovery. Without support, this adjustment threatens both the marital relationship and family stability.[490]

The destabilizing effects of early recovery on family life are confirmed by subsequent studies noting high rates of depression and anxiety among family members and reports that "Early recovery was much worse than the drinking".[491] Children of parents dependent upon alcohol and other drugs demonstrate varied patterns of dysfunction and resilience, with the latter increasing as an effect of parental recovery.[492] Such research studies confirm the need for family-oriented models of treatment and family-focused post-treatment monitoring, support, and early re-intervention services.

The intergenerational transmission of substance use disorders is well established in the research literature via multiple mechanisms, e.g., genetic vulnerability, prenatal alcohol/drug exposure, early age of onset of AOD use, modeling of excessive AOD use, drug culture socialization, defective parenting, physical/emotional trauma, exposure to domestic violence, abandonment, and isolation from extra-familial support.[493] What we as a field do not know from the standpoint of science is how the recovery of a grandparent, parent, sibling or other family member influences the future resistance to or resolution of AOD problems among other family members, particularly children. This question is not part of the existing addiction research agenda, and yet constitutes one of the most important concerns facing individuals in recovery.[494]

Living Environment and Recovery

The scales of post-treatment recovery versus post-treatment relapse are mediated in part by environmental risks (e.g., substance use in the home, substance-using friends) and environmental

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486. Godley, M.D., Kahn, J.H., Dennis, M.L., Godley, S.H., & Funk, R.R. (2005). The stability and impact of environmental factors on substance use and problems after adolescent outpatient treatment for cannabis use or dependence. *Psychology of Addictive Behaviors, 19*(1), 62-70.

487. Brown, S., & Lewis, V. (1999). *The alcoholic family in recovery: A developmental model.* New York & London: Guilford Press.

488. White, W., & Savage, B. (2005). All in the family: Alcohol and other drug problems, recovery, advocacy. *Alcoholism Treatment Quarterly, 23*(4), 3-38.

489. Brown, S., & Lewis, V. (1999). *The alcoholic family in recovery: A developmental model.* New York & London: Guilford Press.

490. Brown, S., & Lewis, V. (1999). *The alcoholic family in recovery: A developmental model.* New York & London: Guilford Press.

491. Rouhbakhsh, P., Lewis, V., & Allen-Byrd, L. (2004). Recovering alcoholic families: When is normal not normal and when is not normal healthy? *Alcoholism Treatment Quarterly*, *22*(2), 35-53.

492. Billings, A.G., & Moos, R.H. (1983). Psychosocial processes of recovery among alcoholics and their families: Implications for clinicians and program evaluators. *Addictive Behaviors, 8*, 205-218.

493. Capone, C. & Wood, M.D. (in press). Density of familial alcoholism and its effects on alcohol use and problems in college students. *Alcoholism: Clinical and Experimental Research*; Nature Neuroscience (multiple authors). (2005). Focus on Neurobiology of Addiction [special issue]. *Nature Neuroscience, 8*(11). Retrieved July 12, 2007 from http://www.nature.com/neuro/focus/addiction/index.html; Grant, B.F., & Dawson, D.A. (1997). Age at onset of alcohol use and its association with DSM-IV alcohol abuse and dependence. *Journal of Substance Abuse, 9,* 103-110; Merikangas, K.R., Stolar, M., Stevens, D.E., Goulet, J., Preisig, M.A., Fenton, B., Zhang, H., O'Malley, S.S., & Rounsaville, B.H. (1998). Familial transmission of substance use disorders. *Archives of General Psychiatry*, 55, 973-979; Miles, D.R., Stallings, M.C., Young, S.E., Hewitt, J.K., Crowley, T.J., & Fulker, D.W. (1998). A family history and direct interview study of familial aggregation of substance abuse: The adolescent substance abuse study. *Drug and Alcohol Dependence*, *49*, 105-114.

494. White, W.L., & Chaney, R.A. (2008). Generational patterns of resistance and recovery within families with histories of alcohol and other drug problems: What we need to know. Posted at www.facesandvociesofrecovery.org

495. Dennis, M.L., Foss, M.A., & Scott, C.K. (2007). An eight-year perspective on the relationship between the duration of abstinence and other aspects of recovery. *Evaluation Review*, *31*(6), 585-612; Humphreys, K., Moos, R.J., & Cohen, C. (1997). Social and community resources and long-term recovery from treated and untreated alcoholism. *Journal of Studies on Alcohol*, *58*(3), 231-238; Scott, C.K., Foss, M.A., & Dennis, M.L. (2005b). Pathways in the relapse—treatment—recovery cycle over 3 years. *Journal of Substance Abuse Treatment*, *28*(Suppl 1), S63-S72; Schutte, K., Byrne, F., Brennan, P., & Moos, R. (2001). Successful remission of late-life drinking problems: A 10-year follow-up. *Journal of Studies on Alcohol 62,* 322-334; Bromet, E., & Moos, R. (1977). Environmental resources and the posttreatment functioning of alcoholic patients. *Journal of Health & Social Behavior*, *18*, 326-338.

protective factors (e.g., stable marital status, stable employment, availability of recovery support groups, recovery support by family and peers).[495] The AOD use of spouses/partners, parents, and siblings within one's living environment exerts an enormous influence on treatment/recovery outcomes, and sustained addiction or recovery influences the AOD use patterns of those in one's family and social environment.[496] In situations in which intimate partners are both addicted, the post-treatment recovery or re-addiction of one partner is predictive of the recovery or addiction of the other partner.[497]

Sobriety-supportive living environments, such as the Oxford Houses or collegiate recovery communities, can elevate long-term recovery outcomes.[498] There is a dose effect of recovery homes, with longer lengths of stay associated with better long-term recovery outcomes.[499] Homelessness is a factor that dictates a poor prognosis for recovery until this condition can be altered.[500]

Social Mediation of Recovery

The risk of relapse in the year following treatment rises in relationship to the number of heavy drinkers in a person's post-treatment social network.[501] Conversely, recovery stability is enhanced by social networks that support abstinence.[502] The role of family and social supports in enhancing or hindering recovery is particularly pronounced among adolescents.[503] One of the best predictors of the course of AOD problems is the ratio of the density of AOD-using relationships to that of recovery support relationships in one's social environment.[504]

Recovery is enhanced by both general and abstinence-specific social support, but abstinence-specific support is most critical to long-term recovery.[505] The problem with general support alone is that this category of support may include people who will enable drug use and inadvertently undermine recovery prospects.[506] Interventions that focus on creating physical and social environments conducive to recovery enhance long-term recovery outcomes.[507]

Participation in recovery support groups and identification with a larger recovery community can play significant roles in successful recovery.[508] Participation in groups such as Alcoholics Anonymous is most effective for those with a higher density of drinkers in their social network, suggesting that those with natural recovery supports may have less need for sustained A.A. involvement, whereas those with few natural recovery supports may need the regular inoculating effects of A.A. participation.[509] (See Chapter Twelve for a more detailed discussion of recovery support groups).

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496. McCrady, B.S. (2004). To have but one true friend: Implications for practice of research on alcohol use disorders and social networks. *Addictive Behaviors*, *18*(2), 113-121; McAweeney, M.J., Zucker, R.A., Fitzgerald, H.E., Puttler, L.I., & Wong, M.M. (2005). Individual and partner predictors of recovery from alcohol use disorder over a nine-year interval: Findings from a community sample of married men. *Journal of Studies on Alcohol*, *66*(2), 220-228; Godley, M.D., Kahn, J.H., Dennis, M.L., Godley, S.H., & Funk, R.R. (2005). The stability and impact of environmental factors on substance use and problems after adolescent outpatient treatment for cannabis use or dependence. *Psychology of Addictive Behaviors, 19*(1), 62-70; Laudet, A., Morgen, K., & White, W. (2006). The role of social supports, spirituality, religiousness, life meaning and affiliation with 12-step fellowships in quality of life satisfaction among individuals in recovery from alcohol and drug use. *Alcoholism Treatment Quarterly*, *24*(102), 33-73.

497. McAweeney, M.J., Zucker, R.A., Fitzgerald, H.E., Puttler, L.I., & Wong, M.M. (2005). Individual and partner predictors of recovery from alcohol use disorder over a nine-year interval: Findings from a community sample of married men. *Journal of Studies on Alcohol*, *66*(2), 220-228.

498. Humphreys, K., Moos, R.H., & Finney, J.W. (1995). Two pathways out of drinking problems without professional treatment. *Addictive Behaviors*, *20*(4), 427-441; King, M.P., & Tucker, N. (1998). Natural resolution of alcohol problems without treatment: Environmental contexts surrounding the initiation and maintenance of stable abstinence or moderation drinking. *Addictive Behaviors*, *23*, 537-541; Jason, L., Davis, M., Ferrari, J., & Bishop, P. (2001). Oxford House: A review of research and implications for substance abuse recovery and community research. *Journal of Drug Education, 31*(1), 1-27; Cleveland, H.H., Harris, K.S., Baker, A.K., Herbert, R., & Dean, L.R. (2007). Characteristics of a collegiate recovery community: Maintaining recovery in an abstinence-hostile environment. *Journal of Substance Abuse Treatment*, *33*, 13-23.

499. Groh, D.R., Jason, L.A., Davis, M.I., Olson, B.D., & Farrari, J.R. (2007). Friends, family, and alcohol abuse: An examination of general and alcohol-specific social support. *The American Journal on Addictions*, *16*, 49-55; Jason, L.A., Olson, B.D., Farrari, J.R., & Lo Sasso, A.T. (2006). Communal housing settings enhance substance abuse recovery. *American Journal of Public Health, 96*, 1727-1729.

500. Westermeyer, J. (1989). Nontreatment factors affecting treatment outcome in substance abuse. *American Journal of Drug and Alcohol Abuse*, *15*, 13-29.

501. Bond, J., Kaskutas, L.A., & Weisner, C. (2003). The persistent influence of social networks and Alcoholics Anonymous on abstinence. *Journal of Studies on Alcohol*, *64*(4), 579-588.

502. Bond, J., Kaskutas, L.A., & Weisner, C. (2003). The persistent influence of social networks and Alcoholics Anonymous on abstinence. *Journal of Studies on Alcohol*, *64*(4), 579-588.

503. Godley, M.D., & Godley, S.H. (in press). Continuing care following residential treatment: History, current practice, and emerging approaches. In N. Jainchill (Ed.), *Understanding and treating adolescent substance use disorders*. Kingston, New Jersey: Civic Research Institute.

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Cultures of Addiction and Recovery

The journey from addiction to recovery can be a journey between two distinct and well developed cultures.[510] Many clients entering addiction treatment in the United States are enmeshed in deeply anchored roles, relationships, and daily rituals within local drug cultures. Acute treatment provides little more than a brief (hours or days) respite from contact with these cultures, the brief nature of which can trigger a return to active alcohol or drug use, during treatment or shortly after treatment contact is broken.[511]

Community Recovery Capital

Community recovery resources, as much as individual factors, tip the balance between recovery maintenance and relapse. For example, the prospect of personal involvement in a recovery support group rises in tandem with the geographical density of recovery support groups in one's community environment.[512] The availability of broader community supports also influences addiction and recovery careers. Studies of recovering ex-offenders re-entering the community have found that relapse rates are highest during times of reduced employment opportunities.[513] Strategies designed to nurture the development of local recovery support groups and recovery support services and to facilitate lifestyle reconstruction can widen the doorway of entry into recovery and elevate long-term recovery support group participation rates.[514]

The Native American Wellbriety Movement has a vivid metaphor to describe the acute-care model of addiction treatment. These movements see such treatment as analogous to digging up a sick tree, transplanting and nurturing it back to health, and then returning it to the same soil in which it became sick. In the Native worldview, such separation of individual, family, and tribe is unthinkable. They call for the creation of a "healing forest," through which a renewed community provides a balm for the wounds of its members. In this view, the individual, family, and community must all be treated.[515]

Such a view applied to recovery management suggests the use of community development and recovery community organization strategies to supplement traditional clinical interventions. One of the goals of recovery management is to increase community recovery capital to the point where recovery becomes socially contagious. This calls for the inclusion of indigenous healers and institutions within the treatment process and a greater emphasis on delivering home- and neighborhood-

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based (e.g., health clinics, neighborhood centers) addiction treatment and recovery support services within local communities.

Future models of addiction treatment are likely to define the way family and community systems can be wounded by AOD problems and experience parallel recovery processes.[516]

> *If the prevailing paradigm is found wanting, we may see the emergence of a new perspective that emphasizes naturalistic longitudinal observation, the epidemiology and social manifestations of a disorder, community-based participatory research, and the value of interventions in improving the health of communities instead of just individuals.*[517]

THE RECOVERY ENVIRONMENT:
POTENTIAL STRATEGIES TO ENHANCE RECOVERY OUTCOMES

- Coach spouses and family members on how to support recovery without high emotionality and efforts to control.[518]
- Provide relapse prevention training for couples.[519]
- Encourage the development of alternative recovery support groups within the local community.[520]
- Promote or support local recovery celebration events.
- Encourage the development of recovery homes and establish close linkages between homes and primary treatment organizations.[521]
- Establish loan programs to aid the start-up of self-directed recovery homes.[522]
- Promote abstinence-based social clubs and recovery support centers.[523]
- Place special emphasis on recovery support group involvement for persons enmeshed in heavy AOD-using social networks.[524]
- Provide guided assistance in restructuring social networks.[525]
- Use community organizations and community development strategies to increase local recovery community resources.[526]
- Confront AOD promotional forces in the local community.
- Provide opportunities for client involvement in community service activities.

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TABLE 8: POTENTIAL RECOVERY-LINKED PERFORMANCE MEASURES

PERFORMANCE AREA	SAMPLE RECOVERY-LINKED PERFORMANCE MEASURES
Locus of Service Delivery	Number of home visits per service unit Number of service units delivered off-site in non-treatment settings Number of visits per month to clients by sponsors or other community recovery support representatives
Family Environment	Percentage of clients with family members involved in treatment process Percentage of families assertively linked to family support groups Percentage of families involved in post-treatment continuing care activities
Community Environment	Number of local recovery mutual aid societies Number of local recovery support meetings per week Number of local recovery homes Total local recovery home capacity

Chapter Twelve

Assertive Linkage to Communities of Recovery

■ SUMMARY OF KEY POINTS ■

- Participation in recovery mutual aid groups can elevate long-term recovery outcomes for diverse populations.
- The effects of recovery mutual aid involvement reflect multiple mechanisms of change and vary in terms of the number of meetings in early recovery, duration of participation, and intensity of participation.
- Combining addiction treatment and recovery mutual aid for persons with severe substance use disorders is more effective than either used alone.
- The positive effects of recovery mutual aid groups are compromised by weak linkage and a progressive attrition in participation over time.
- Half of all clients completing treatment do not participate in recovery support groups after discharge, and of those who do, 40-60% discontinue participation within a year of treatment discharge.
- Assertive linkage to a recovery support group is more effective than passive referral (verbal encouragement to attend), but the linkage process in most treatment programs is of the passive variety.
- Participation in other recovery community institutions (e.g., recovery homes, recovery schools, recovery industries, recovery support centers, recovery ministries/churches) may enhance long-term recovery, but evaluation of this potential is at an early stage.
- Promising practices related to linkage to communities of recovery include enhanced institutional linkages between treatment institutions and communities of recovery; use of assertive linkage procedures; orientation and linkage to Internet-based recovery support groups; and expansion of treatment philosophies to embrace diverse religious, spiritual, and secular pathways of recovery.

"The benefits to be realized from developing strong social networks in support of drug-free functioning appear to provide the potential for maintaining and extending the gains from treatment."

— Conclusion of a five-year follow-up study of treated opiate addicts[527]

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Limited but Expanding Scope of Research

American communities of recovery have existed for more than 250 years and are currently growing in size, philosophical diversification (religious, spiritual, secular, abstinence-based, moderation-based), membership characteristics (age, gender, ethnicity, primary drug choice), and meeting formats (face-to-face meetings, meetings for special populations, and online meetings/resources).[528] (See http://www.facesandvoicesofrecovery.org/resources/support_home.php for a regularly updated guide to addiction recovery support groups in the United States.)

Most of what we know from the standpoint of science about recovery mutual aid groups is based on studies of Twelve Step support groups, Alcoholics Anonymous and to a lesser extent Narcotics Anonymous.[529] Early AA studies drew criticism in terms of the methods in which they were conducted,[530] but the number and methodological rigor of studies of AA have increased dramatically. Keith Humphreys summarizes:

> *Strong views about AA one way or the other will always survive, no matter what evidence accumulates, but the studies of the past 15 years have established beyond any reasonable doubt that high-quality AA trials are possible, and that such studies usually reinforce rather than undermine the excellent reputation the fellowship enjoys around the world.*[531]

Caution is indicated in applying research findings from studies of AA to other groups or to persons in recovery who do not participate in recovery support groups. AA members are a select subset of the total pool of persons with AOD problems,[532] and even studies of AA are based primarily on AA members in their early years of recovery who completed professional treatment.[533]

Few studies have been conducted of other recovery support groups or of Twelve Step members in long-term recovery.[534] The preliminary reports in the scientific and professional literature on groups such as Women for Sobriety, Rational Recovery,[535] Secular Organization for Sobriety,[536] and LifeRing Secular Recovery[537] are descriptive rather than controlled outcome studies. Given these limitations, we will proceed cautiously in summarizing what is known about peer-based recovery support groups. The extent to which findings about AA can be extended to other groups is at this time unknown.

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Summary of Effects across Diverse Populations

Research on Alcoholics Anonymous and other recovery mutual aid groups confirms their ability to enhance long-term recovery outcomes for a broad spectrum of individuals.[538] Participation in groups such as AA also reduces alcohol-related mortality rates,[539] particularly that of alcoholism-related suicide.[540]

While criticisms of AA include references to its foundational experience with White, middle-aged men in late stages of alcoholism, recent studies have confirmed its potential effectiveness with:[541]

- women,[542]
- people of color,[543]
- young people,[544]
- people with co-occurring psychiatric disorders (including those on medication),[545]
- people without religious or spiritual orientation,[546] and
- people who use drugs other than alcohol.[547]

Women participate more and benefit more from recovery support groups following treatment than do men.[548] Similarly, African Americans are more likely to participate in AA following treatment than Caucasians.[549] There is growing evidence that drug choice is not a clear predictor of affiliation with a particular mutual aid group. In NIDA's Collaborative Cocaine Treatment Study, 83.9% of those who regularly attended support meetings attended Alcoholics Anonymous; only 24.6% had ever attended a meeting of Cocaine Anonymous.[550]

Recovery support groups (particularly AA and NA) have the advantage of being geographically accessible to most individuals, and they are available without cost (other than token contributions) and without a potentially stigma-laden medical diagnosis or life-disrupting treatment protocol.[551]

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Dose Effects

The positive effects of peer-based recovery support groups rise in tandem with dose (the number of meetings attended).[552] Clients who attend a greater number of recovery support meetings during treatment go on to participate in a greater number of such meetings after treatment.[553] This positive dose and timing principle of mutual aid participation applies primarily to early stages of recovery, as research has documented a later style of recovery in which AA members decrease or stop meeting participation but continue their sobriety and other recovery-related activities.[554] Good recovery outcomes are also reported for at least some "non-attending participators" in early recovery (individuals who do not attend meetings but participate in other recovery-supportive activities).[555]

Intensity Effects

In general, recovery rates improve and alcohol and drug problem severity declines as involvement with recovery support groups and intensity of participation increase (e.g., applying concepts to daily problem solving, reading recovery literature, sober socializing, service work).[556]

Duration Effect

There is also a duration effect of AA participation: those who continue to participate in AA after the first year of involvement have better long-term recovery rates than those who did not participate in AA or those who or reduce or stop participation after year-one involvement.[557]

Combining Treatment and Recovery Support Group Participation

Combining addiction treatment and recovery mutual aid groups is more predictive of long-term recovery than either activity alone, suggesting an additive or synergistic effect of combining these two recovery support activities.[558] Clients who attend mutual aid groups do better following treatment than clients who do not attend such groups, regardless of the type of treatment they originally received.[559] Those who participate in both treatment and AA are less likely to drop out of AA than those who participate only in AA.[560]

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Mutual aid by itself is not an effective substitute for treatment for populations characterized by high problem severity/complexity.[561] Post-treatment participation in Twelve Step groups may be more important than continued outpatient counseling in sustaining recovery,[562] and such participation has the added benefit of reducing continuing care costs[563] and post-treatment health care costs.[564] Linking clients from treatment to indigenous recovery support groups and recovery community institutions is even more important in light of the diminished access to treatment and diminished dose of treatment produced by the recent fiscal austerity and aggressive gatekeeping of managed behavioral health care.[565]

Timing of Linkage

Clients who attend recovery support meetings during treatment, are exposed to Twelve Step literature, and are expected to build Twelve Step-related friendships and a sponsorship relationship during treatment are more likely to attend Twelve Step meetings after treatment than those who are simply referred to support meetings at the end of treatment.[566] Again, patterns of meeting attendance established during treatment tend to be sustained after treatment.[567]

Variability of Response

Patterns of response to mutual aid exposure include the patterns of those who fully respond, those who partially respond, and those who do not respond at all.[568] In a study of clients linked to AA as part of their treatment experience, the proportion of responses to AA included 31% optimal response, 42.7% partial response, and 22.3% non-response, with the non-responders having the worst post-treatment recovery outcomes.[569] The documented variability of response and the growing recognition of multiple pathways of long-term recovery underscore recommendations for addiction treatment programs to expose their clients to a wide spectrum of secular, spiritual, and religious frameworks of long-term recovery support.[570]

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Mechanisms of Change

Participation in recovery mutual aid groups exerts a positive influence on recovery outcomes through multiple mechanisms of change. Some of the most potent of such mechanisms identified in the research literature include the following:

- self-appraisal of harm and commitment to abstinence,[571]
- ongoing self-monitoring,[572]
- sustained remotivation for abstinence,[573]
- spirituality,[574]
- enhanced coping skills,[575]
- increased self-efficacy,[576]
- social support that offsets the influence of pro-drinking social networks,[577]
- 24-hour availability,[578]
- helping other alcoholics,[579]
- recognition of high-risk situations and stressors,[580]
- role modeling and experience-based advice on how to stay sober,[581] and
- participation in rewarding activities.[582]

Sponsoring others appears to be a particularly potent ingredient, with some long-term post-treatment follow-up studies noting over 90% remission rates in persons who sponsored others throughout the follow-up period.[583]

Other Recovery Community Involvement

Affiliation with recovery support groups and other recovery community institutions (e.g., recovery homes, recovery schools, recovery industries, recovery support centers) may work by helping individuals transition from a dependency on drugs to a "prodependency" on people.[584]

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Problems of Weak Linkage and Attrition

The positive findings of AA and other recovery mutual aid involvement are offset by weak relationships between treatment institutions and local mutual aid groups,[585] passive rather than assertive linkage to such groups by addiction professionals,[586] and high (40-70%) progressive dropout rates from such groups in the first year.[587]

As many as 50% of clients who complete primary treatment for a substance use disorder do not attend a single recovery support meeting following discharge from treatment,[588] and 40-60 % of clients who begin participation in Twelve Step groups discontinue participation in the 9-12 months following treatment discharge.[589] The post-treatment outcomes of individuals who stop attending support meetings, or who only attend them sporadically, descend to the levels of outcome of those who report never regularly attending.[590]

> *Given that more than 80% of individuals who obtained help eventually participated in AA, but that about half of them dropped out, interventions should focus on enhancing continuation in AA and on identifying other mutual help groups that may provide similar benefit.*[591]

Problems of linkage and engagement are particularly pronounced for young people.[592] Studies of post-treatment adolescent participation in Twelve Step groups report similar attrition problems.[593] Adults leaving addiction treatment are twice as likely to attend Twelve Step meetings in the first three months than are adolescents discharged from addiction treatment.[594] Peer-based recovery support services provide a connecting bridge between professional treatment and indigenous recovery communities.

Assertive linkage to communities of recovery early in the treatment process can increase affiliation and participation rates for adults[595] and adolescents[596] following treatment, but such assertive procedures do not constitute a mainstream treatment practice.

Linking clients to particular recovery support groups and meetings has been recommended[597] and is indicated by studies finding that adolescents who attend recovery support groups with higher proportions of young people in attendance have higher meeting attendance rates and better long-term recovery outcomes than adolescents attending groups with primarily adult members.[598] Clients also differ in their degree of religiosity and spiritual orientation and can benefit from being matched with programs that are congruent with their degree of, or absence of, such orientation.[599]

Medicine, *21*(1), 54-60; Kaskutas, L.A., Bond, J., & Humphreys, K. (2002). Social networks as mediators of the effects of Alcoholics Anonymous, *Addiction*, *97*(7), 891-900.

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Role of Clinician Attitudes

Clinician attitudes play a critical role in determining whether clients in treatment initiate participation in recovery support groups.[600] Counselors may, however, overestimate their understanding of mechanisms of change involved in Twelve Step recovery because of the ubiquitous presence of references to Twelve Step groups and Twelve Step slogans.[601] Given their varied preparatory pathways and high turnover rates, addiction counselors may lack in-depth knowledge of Twelve Step programs and even a general understanding of alternative recovery support groups and recovery support institutions.[602]

LINKAGE TO COMMUNITIES OF RECOVERY: POTENTIAL STRATEGIES TO ENHANCE RECOVERY OUTCOMES

- Emphasize the critical nature of mutual aid participation for persons with heavy alcohol/drug-using social networks.[603]
- Demonstrate "informational parity" by distributing information on the full range of recovery mutual aid alternatives.[604]
- Orient clients to the varieties of support groups, inform them of research findings on their role in recovery, and educate them on what to expect in such meetings.[605]
- Engage clients in discussions of responses to various meeting formats, application of program principles to current circumstances, status of sponsorship relationships, and fellowship-related service and social activities.[606]
- Focus on youth and adults with the most severe AOD problems for intensified linkage, monitoring, and support related to their mutual aid involvement.[607]
- Use "systematic encouragement" (call by the client to recovery support group in the presence of the counselor, mutual introduction between the client and group member over the phone to arrange transport to the first meeting, with the same group member calling before the meeting to encourage attendance) rather than passive referral (verbal encouragement to attend and provision of a list of meetings).[608]

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- Encourage sampling of recovery support groups and meeting formats.[609]
- Maintain a list of local recovery support group members willing to transport and guide a client into his or her first meeting experience.[610]
- Assertively linking clients to recovery support groups during treatment, rather than at the end of or following treatment.[611]
- Matching clients to groups based on gender, age, attitude toward spirituality, smoking status, and drug choice.[612]
- Resolve any obstacles to ongoing participation, e.g., transportation, child care.[613]
- Host on-site recovery support meetings at treatment facilities.[614]
- Facilitate involvement in activities beyond meeting attendance, e.g., reading literature, getting a sponsor, initiating sober friendships, participating in social events such as dances and parties, service work.[615]
- Improve supportiveness and goal-directedness of organizational work environment.[616]

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TABLE 9: POTENTIAL RECOVERY-LINKED PERFORMANCE MEASURES

PERFORMANCE AREA	SAMPLE RECOVERY-LINKED PERFORMANCE MEASURES
Support Group Availability	Number of local recovery mutual aid societies Number of local recovery support meetings per week Number of recovery volunteers
Staff Knowledge of Recovery Support Groups	Percentage of direct service staff who have attended a local recovery support meeting in past 90 days Documentation of staff training on alternative recovery pathways Review the clinical chart of each client to verify use of philosophy of choice
Institutional Linkages to Communities of Recovery	Number of meetings between local recovery mutual aid group service committees in past quarter Number of volunteers from local recovery support groups who have participated in in-treatment client education in the past month
Effectiveness of Linkage Procedures	Percentage of clients who report recovery support group participation 3 months, 6 months, and 12 months following treatment Number of clients linked to alternative meetings or support societies after exposure to their initial choice

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614. Laudet, A., & Sands, B. (2007). An exploration of the effect of on-site 12-Step meetings on post-treatment outcomes among polysubstance-dependent clients. *Evaluation Review*, *31*(6), 613-646.

615. Kelly, J.F., & Moos, R. (2003). Dropout from 12-step self-help groups: Prevalence, predictors, and counteracting treatment influences. *Journal of Substance Abuse Treatment, 24*(3), 241-250; Weiss, R.D., Griffin, M.L., Gallop, R.G., Najavits, L.M., Frank, A., Crits-Christoph, P., Thase, M.E., Blaine, J., Gastfriend, D.R., Daley, D., & Luborsky, L. (2005). The effect of 12-step self-help group attendance and participation on drug use outcomes among cocaine-dependent patients. *Drug and Alcohol Dependence, 77*, 177-14.

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Chapter Thirteen

Post-treatment Monitoring, Support, and Early Re-intervention

■ SUMMARY OF KEY POINTS ■

- Post-treatment monitoring and support can significantly elevate long-term recovery outcomes.
- Only a small percentage (20-36%) of adolescents and adults completing addiction treatment receive post-treatment continuing care.
- RM models of continuing care are distinguished from AC models by several critical factors: Post-treatment monitoring and support is provided to all clients, not just those discharged; responsibility for continued contact lies with the service staff rather than the client; saturated support is provided in the first 90 days following discharge from treatment; and "recovery check-ups" are provided for an extended period of time (up to five years).
- The timing and duration of post-treatment support exert a greater influence on long-term recovery outcomes than the total number of support contacts or the length of each support contact.
- The telephone and the Internet constitute two underutilized media for post-treatment monitoring, support, and early re-intervention.
- Promising practices related to post-treatment monitoring and support include enhancements aimed at participation (behavioral contracts, prompts, escorts, financial incentives); removing barriers to participation; extending time-span of support via recovery check-ups, telephone- and Internet-based systems of continuing care; and expanding the range of environments in which continuing care occurs, e.g., home- and work-based follow-up.

The most dramatic difference between acute-care and recovery management models of addiction treatment is the span of time over which the service relationship is expected to extend. In the AC model, the span of involvement is expected to be short and is lengthened only by default, via the repeated relapse and readmission of clients. Treatment providers participate in the illusion of recovery stability by "graduating" clients with prolonged, severe substance use and related problems following short periods of treatment and sobriety. Yet two pervasive themes in long-term follow-up studies are that **treatment effects diminish over time** and that **relapse rates are high**.[617] This raises the

617. McKay, J.R., & Weiss, R.V. (2001). A review of temporal effects and outcome predictors in substance abuse treatment studies with long-term follow-ups: Preliminary results and methodological issues. *Evaluation Review, 25*, 113-161; Hubbard, R.L., Craddock, S.G., & Anderson, J. (2002). Overview of 5-year follow-up outcomes in the Drug Abuse Treatment Outcome Studies (DATOS). *Journal of Substance Abuse Treatment, 25*, 125-134.

question of how long addiction professionals should remain involved in the lives of their clients. The extended length of involvement advocated within the recovery management model is based on the following principle:

> *Health care professionals should remain involved and available to those they serve until long-term recovery of the condition being treated can be self-managed by the patient, family and extended support network.*

For conditions such as minor trauma or mild infection, this period of involvement can and should be relatively brief, but what about addiction? As the next chapter will document, most clients are fragilely balanced between recovery and re-addiction in the weeks, months, and early years following their discharge from addiction treatment.[618] This fragility is particularly marked for adolescents and young persons aged 18-24 seeking recovery.[619] In studies of the stability of substance use status over time, 20-40% of treated clients continue to alternate between periods of abstinence and periods of use.[620]

Timing of Recovery Stability

The brief period of professional contact that characterizes most addiction treatment conflicts with research findings on recovery stability. Stability of alcoholism recovery—the point at which the risk of future lifetime relapse following recovery initiation drops below 15%—is not reached until four to five years of sustained remission.[621] Relapse is rare among individuals previously dependent upon alcohol who achieve seven years of continuous abstinence.[622] Stability of recovery from other drug addictions (e.g., heroin addiction) may require even longer periods of time.[623]

The core principle upon which service designs should be based is that recovery becomes more solidified and sustainable and the risk of relapse declines with the passage of time in recovery.[624] Short periods of abstinence constitute natural respites in long-term addiction careers and are best understood as processes of brief dormancy rather than sustainable recovery.[625] *The available data suggest a period of post-stabilization monitoring; stage-appropriate recovery education; active recovery coaching; and, when needed, early re-intervention for a period of at least five years.* Interestingly, this is approximately the same time period often targeted for professional monitoring of other chronic, relapse-prone conditions, e.g., cancer.

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618. Scott, C.K., Foss, M.A., & Dennis, M.L. (2005b). Pathways in the relapse—treatment—recovery cycle over 3 years. *Journal of Substance Abuse Treatment*, *28*(Suppl 1), S63-S72.

619. Dawson, D.A., Goldstein, R.B., & Grant, B.F. (2007). Rates and correlates of relapse among individuals in remission from DSM-IV alcohol dependence: A 3-year follow-up. *Alcoholism: Clinical and Experimental Research*, *31*(12), 2036-2045.

620. McKay, J.R., & Weiss, R.V. (2001). A review of temporal effects and outcome predictors in substance abuse treatment studies with long-term follow-ups: Preliminary results and methodological issues. *Evaluation Review*, *25*, 113-161.

621. De Soto, C.B., O'Donnell, W.E., & De Soto, J.L. (1989). Long-term recovery in alcoholics. *Alcoholism: Clinical and Experimental Research*, *13*, 693-697; Vaillant, G.E. (1996). A long-term follow-up of male alcohol abuse. *Archives of General Psychiatry, 53*(3), 243-249; Nathan, P., & Skinstad, A. (1987). Outcomes of treatment for alcohol problems: Current methods, problems and results. *Journal of Consulting and Clinical Psychology, 55*, 332-340; Dawson, D.A. (1996). Correlates of past-year status among treated and untreated persons with former alcohol dependence: United States, 1992. *Alcoholism: Clinical and Experimental Research*, *20*(4), 771-779; Jin, H., Rourke, S.B., Patterson, T.L., Taylor, M.J., & Grant, I. (1998). Predictors of relapse in long-term abstinent alcoholics. *Journal of Studies on Alcohol, 59*, 640-646; Dennis, M.L., Foss, M.A., & Scott, C.K. (2007). An eight-year perspective on the relationship between the duration of abstinence and other aspects of recovery. *Evaluation Review*, *31*(6), 585-612; Schutte, K., Byrne, F., Brennan, P., & Moos, R. (2001). Successful remission of late-life drinking problems: A 10-year follow-up. *Journal of Studies on Alcohol, 62,* 322-334.

622. Vaillant, G.E. (2003). A 60-year follow-up of alcoholic men. *Addiction*, *98,* 1043-1051.

623. Simpson, D.D., & Marsh, K.L. (1986). Relapse and recovery among opioid addicts 12 years after treatment. In F. Tims & C. Luekefeld, *Relapse and recovery in drug abuse* (NIDA Monograph 72). Rockville, MD: National Institute on Drug Abuse; Hser, Y.I., Hoffman, V., Grella, C., & Anglin, D. (2001). A 33-year follow-up of narcotics addicts. *Archives of General Psychiatry, 58*, 503-508.

624. Finney, J.W., Moos, R.H., & Timko, C. (1999). Course of treated and untreated substance use disorders: Remission and resolution, relapse and morality. In B.S. McCarty & E.E. Epstein (Eds.), *Addictions: A comprehensive guidebook* (pp. 30-49). New York: Oxford University Press.

625. Simpson, D.D., Joe, G.W., Lehman, W.E.K., & Sells, S.B. (1986). Addiction careers: Etiology, treatment, and 12-year follow-up outcomes. *Journal of Drug Issues, Winter*, 107-122.

626. Dennis, M.L., Foss, M.A., & Scott, C.K. (2007). An eight-year perspective on the relationship between the duration of abstinence and other aspects of recovery. *Evaluation Review*, *31*(6), 585-612; Gunter, T.D., Black, D.W., Zwick, J., & Arndt, S. (2004). Drug and alcohol treatment services effective for methamphetamine treatment. *Annals of Clinical Psychiatry, 18*, 195-200; Pettinati, H.M., Sugerman, A.A., & Maurer, H.S. (1982). Four year MMPI changes in abstinence and drinking alcoholics. *Alcoholism: Clinical and Experimental Research*, *6*(4), 487-494.

This particular finding suggests, not longer episodes of primary treatment, but an extended period of check-ups and support. Even for the highest-functioning and most stable clients, this would include an annual recovery check-up.

Post-treatment Emotional Support and Mental Health Service Needs

There may be specific emotional support and mental health service needs after treatment that were not present during initial treatment. Post-treatment mental health problems actually increase during years one to three and then decrease thereafter.[626] The delivery of concurrent or post-treatment mental health care enhances addiction treatment outcomes.[627] This suggests the need for sustained post-treatment monitoring of mental health service needs-monitoring that is not currently a mainstream practice in addiction treatment.

Current Status of Post-treatment Continuing Care

Continuing care following discharge from a level of primary treatment can enhance long-term recovery outcomes,[628] but only one in five adults in the United States receives such care,[629] and only 36% of adolescents receive any continuing care following discharge from residential or outpatient treatment.[630] The aspirational ideal of the treatment system is stepped care from higher to lower intensity of service contact through an integrated continuum of care and support,[631] but this goal is achieved for only a minority of clients.[632] Such achievement varies by modality and clinical population. For example, compared to women completing mixed-gender treatment, women who complete gender-specific treatment programs have twice the rate of linkage to continuing care services.[633]

Weak linkages to continuing care are also prevalent among institutional systems of care, e.g., transitions of prisoners with addiction histories from prison to the community with no transitional treatment or recovery support services.[634] Studies on the transition from in-prison treatment programs to the community note that relapse often occurs quickly upon re-entry, and that those who have transition treatment have better recovery outcomes than those who receive only in-prison treatment and then return to the community.[635]

Obstacles to continuing care in the mainstream treatment system include "treatment burnout" (lack of motivation for continued services), geographical inaccessibility of continuing care groups, lack of transportation or child care, and resumption of AOD use.[636]

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627. Moos, R.H., Finney, J.W., Federman, E.B., & Suchinsky, R. (2000). Specialty mental health care improves patientsí outcomes: Findings from a nationwide program to monitor the quality of care for patients with substance use disorders. *Journal of Studies on Alcohol*, *61*, 704-713.

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629. McKay, J.R. (2001). Effectiveness of continuing care interventions for substance abusers: Implications for the study of long-term treatment effects. *Evaluation Review, 25*(2), 211-232.

630. Godley, S.H., Godley, M.D., & Dennis, M.L. (2001). The assertive aftercare protocol for adolescent substance abusers. In E. Wagner & H. Waldron (Eds.), *Innovations in adolescent substance abuse interventions* (pp. 311-329). New York: Elsevier Science Ltd.

631. Sobell, L.C., & Sobell, M.B. (2000). Stepped care as a heuristic approach to the treatment of alcohol problems. *Journal of Consulting and Clinical Psychology*, *68*, 573-579.

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633. Claus, R.E., Orwin, R.G., Kissin, W., Krupski, A., Campbell, K., & Stark, K. (2007). Does gender-specific substance abuse treatment for women promote continuity of care? *Journal of Substance Abuse Treatment*, *32*, 27-39; Stevens, S.J., & Patton, T. (1998). Residential treatment for drug addicted women and their children: Effective treatment strategies. *Drugs & Society*, *13*, 235-249.

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636. Donovan, D. (1998). Continuing care: Promoting maintenance of change. In W. R. Miller & N. Heather (Eds.), *Treating addictive behaviors* (2nd ed., pp. 317-336). New York: Plenum Press; Schnitt, S.K., Phibbs, C.S., & Piette, J.D. (2003). The influence of distance on utilization of outpatient mental health aftercare following inpatient substance abuse treatment. *Addictive Behaviors*, *28*, 1183-1192.

Evidence of Effectiveness of Sustained Recovery Monitoring and Support

There is a growing body of scientific evidence suggesting that post-treatment monitoring (recovery check-ups) and support can elevate recovery outcomes for adults[637] and adolescents.[638] Even follow-up interviews for research purposes may have hidden therapeutic effects that positively influence recovery outcomes.[639]

The effectiveness of monitoring and re-intervention seems to span all treatment modalities. A recent study of the use of outreach case management to re-engage relapsed clients following discharge from methadone maintenance showed that this intervention successfully re-engaged 29% of those who had relapsed following discharge.[640] This is a very important finding, given the treatment-related reductions in mortality associated with methadone maintenance and the post-discharge increases in morbidity and mortality associated with terminating methadone maintenance.[641]

Assertive Approaches to Continuing Care

More sustained and assertive styles of monitoring and support following completion of inpatient or outpatient treatment mark a transition in thinking from *aftercare* (or *follow-up*) to *continuing care*[642]—from treatment *intensity* (short-term/high intensity) to treatment *extensity* (long-term/low intensity).[643] Assertive approaches to continuing care constitute one of the hallmarks of RM models of care and share several key characteristics. Such assertive approaches:

- encompass all admitted clients/families, not just those who successfully "graduate";
- place primary responsibility for post-treatment contact on the treatment institution, not the client;
- involve both scheduled and unscheduled contact;
- capitalize on temporal windows of vulnerability (saturation of check-ups and support in the first 90 days following treatment) and increase monitoring and support during periods of identified vulnerability;
- individualize (increase and decrease) the duration and intensity of check-ups and support based on each client's degree of problem severity and the depth of his or her recovery capital;
- utilize assertive linkage rather than passive referral to communities of recovery;

637. Donovan, D. (1998). Continuing care: Promoting maintenance of change. In W. R. Miller & N. Heather (Eds.), *Treating addictive behaviors* (2nd ed., pp. 317-336). New York: Plenum Press. McKay, J. R. (2001). Effectiveness of continuing care interventions for substance abusers: Implications for the study of long-term treatment effects. *Evaluation Review, 25*(2), 211-232; Dennis. M.L., Scott, C.K., & Funk, R. (2003). An experimental evaluation of recovery management check-ups (RMC) for people with chronic substance use disorders. *Evaluation and Program Planning, 26*(3), 339-352; Scott, C.K., Dennis, M.L., & Foss, M.A. (2005a). Recovery management checkups to shorten the cycle of relapse, treatment re-entry, and recovery. *Drug and Alcohol Dependence*, *78*, 325-338.

638. Godley, S.H., Godley, M.D., & Dennis, M.L. (2001). The assertive aftercare protocol for adolescent substance abusers. In E. Wagner & H. Waldron (Eds.), *Innovations in adolescent substance abuse interventions* (pp. 311-329). New York: Elsevier Science Ltd.

639. Gallen, M. (1974). Toward an understanding of follow-up research with alcoholics. *Psychological Reports, 34*, 877-878; Sobell, L.C., & Sobell, M.B. (1981). Frequent follow-up as data gathering and continued care with alcoholics. *International Journal of the Addictions, 16*, 1077-1086; Clifford, P.R., Maisto, S.A., Franzke, L.H., Longabaugh, R., & Beattie, M.C. (2000). Alcohol treatment research follow-up interviews and drinking behaviors. *Journal of Studies on Alcohol, 61*(5), 736-743.

640. Coviello, D.M., Zanis, D.A., Wesnoski, S.A., & Alterman, A.I. (2006). The effectiveness of outreach case management in re-enrolling discharged methadone patients. *Drug and Alcohol Dependence, 85*, 56-65; See also, Goldstein, M.F., Deren, S., Kang, S-Y, Des Jarlais, D.C., & Magura, S. (2002). Evaluation of an alternative program for MMTP dropouts: Impact of treatment re-entry. *Drug and Alcohol Dependence*, *70*, 193-200.

641. Clausen, T., Ancherson, K., & Waal, H. (2008). Mortality prior to, during and after opioid maintenance treatment (OMT): A national prospective study. *Drug and Alcohol Dependence, 94*, 151-157.

642. White, W., & Godley, M. (2003). The history and future of "aftercare." *Counselor, 4*(1), 19-21.

643. Stout, R.L., Rubin, A., Zwick, W., Zywiak, W., & Bellino, L. (1999). Optimizing the cost-effectiveness of alcohol treatment: A rationale for extended case monitoring. *Addictive Behaviors, 24*(1), 17-35; Humphreys, K., & Tucker, J.A. (2002). Toward more responsive and effective interventions for alcohol-related problems. *Addiction*, *97*, 126-132.

- incorporate multiple media for sustained recovery support, e.g., face-to-face contact, telephone support, and mailed and emailed communications;
- emphasize support contacts with clients in their natural environments;
- may be delivered by counselors, recovery coaches, or trained volunteer recovery support specialists; and
- emphasize continuity of contact and service (rapport building and rapport maintenance) in a primary recovery support relationship over time.[644]

Longitudinal research has yielded technologies for engaging and sustaining contact with clients for years following their discharge from addiction treatment.[645] These technologies might be adapted for use in the development of systems for prolonged post-treatment monitoring and support and can be delivered by paid professional staff or by paid or volunteer peers in recovery.[646]

While the question of the ideal duration of continuing care remains unanswered, preliminary studies have established the principle that the duration of continuing care is more important to long-term recovery outcomes than the number of support contacts or the length of each contact that occurs over that period.[647] If duration of contact were guided by the earlier-reviewed recovery stability data, then an ideal duration of continuing care contact would be a minimum of four to five years following primary treatment. The duration of contact (more extended years of contact) and the timing of contact (more intense during the first 90 days) seem to be more important influences on long-term recovery outcomes than the total number of such contacts or the length of each contact.[648]

Media for Delivery of Post-treatment Monitoring and Support[649]

Traditional continuing care service following addiction treatment has involved step-down care (e.g., scheduled outpatient appointments following inpatient or residential treatment, weekly aftercare groups available to all clients who have successfully completed treatment). According to a recent review,[650] two media—the telephone and the computer—are likely to play an increasingly important role as delivery mechanisms for post-treatment recovery support services.

Early studies of telephone-based post-treatment monitoring and support revealed that telephone-based contact was as potent in supporting continued recovery as participation in traditional aftercare groups.[651] The use of telephone-based continuing care gained greater credence after

644. White, W., & Kurtz, E. (2006b). *Linking addiction treatment and communities of recovery: A primer for addiction counselors and Recovery Coaches*. Pittsburgh, PA: Northeast Addiction Technology Transfer Center.

645. Scott, C.K., & Dennis, M.L. (2000). A cost-effective approach to achieving over 90% follow-up in outcome monitoring with substance abuse treatment clients. *Drug and Alcohol Dependence*, *60*(Suppl 1), s200.

646. Gardner, S.E. (1979). The use of volunteers in drug abuse aftercare. In B.S. Brown (Ed.), *Addicts and aftercare: Community integration of the former drug user* (pp. 167-182). Beverly Hills: SAGE Publications.

647. Ritsher, J.B., McKellor, J.D., Finney, J.W., Otilingam, P.G., & Moos, R.H. (2002a). 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., & Finney, J.W. (2002). Relationship of treatment orientation and continuing care to remission among substance abuse patients. *Psychiatric Services*, *53*(5), 1300-1311.

648. Ritsher, J.B., Moos, R.H. & Finney, J.W. (2002). Relationship of treatment orientation and continuing care to remission among substance abuse patients. *Psychiatric Services*, *53*(5), 595-601.

649. Abstrated from Kurtz, E., & White, W. (2007). *Telephone- and Internet-based recovery support services*. Chicago, IL: Great Lakes Addiction Technology Transfer Center.

650. Kurtz, E., & White, W. (2007). *Telephone- and Internet-based recovery support services*. Chicago, IL: Great Lakes Addiction Technology Transfer Center.

651. Fitzgerald, M.A., & Mulford, H.A. (1985). An experimental test of telephone aftercare contacts with alcoholics. *Journal of Studies on Alcohol*, *46*, 418-424; Foote, A., & Erfurt, J.C. (1991). Effects of EAP follow-up on prevention of relapse among substance abuse clients. *Journal of Studies on Alcohol*, *52*, 241-248.

its utility in the treatment of nicotine addiction was confirmed both in the primary care setting (via reductions in clinic visits, hospitalizations, and fewer total hospital days)[652] and as a form of post-treatment support.[653]

One of the best-designed studies of the utility of telephone-based continuing care[654] randomly assigned alcohol- and/or cocaine-dependent participants of an intensive outpatient treatment program to one of three conditions: telephone-based continuing care, a face-to-face (F-2-F) relapse prevention group, or F-2-F Twelve Step group counseling. Participants who had been dependent on cocaine or both cocaine and alcohol did as well in telephone-based continuing care as in F-2-F groups, but those who were dependent only on alcohol actually did better in the telephone-based intervention. In follow-up reports on the same study,[655] the effects of telephone-based support did not deteriorate more rapidly than those of the F-2-F interventions. However, participants who did not achieve significant progress in intensive outpatient treatment had better long-term outcomes in F-2-F sessions than in telephone-based support.

Brief (15-minute) but sustained telephone monitoring following primary treatment has been shown in other studies to increase abstinence rates, reduce heavy drinking (by as much as 50%), postpone and shorten relapse episodes, reduce emergency room visits, and reduce the need for further primary treatment.[656] Telephone-based outreach programs have been effectively utilized to counsel and re-engage discharged methadone patients who had returned to illicit opiate use.[657] Telephone-based extended case monitoring has been demonstrated to be an effective tool with diverse populations, including adolescents,[658] American Indians, and individuals living in remote geographical areas.

An early model of extended case monitoring used a protocol that included an initial 30-minute interview with a case manager as the client neared discharge, monthly calls for three months, calls every six weeks from two contacts, and calls every two months for another nine months (resulting in 15 contacts over two years). If a client relapsed, the protocol began anew. Where available, a significant other of each client was also contacted by the case monitor on the same schedule.[659]

Typical of the new generation of telephone-based services is the Focused Continuing Care (FCC) program at the Betty Ford Center. The FCC provides telephone-based monitoring and support of patients discharged from the Center, with a focus on linking graduates to Twelve Step meetings. Calls begin a week after discharge and are sustained monthly. At one year, 88% of those being

652. Wasson, J., Guadette, C., Whaley, F., Sauvigne, A., Barbibeau, P., & Welch, H.G. (1992). Telephone care as a substitute for routine clinic follow-up. *Journal of the American Medical Association*, *267*(13), 1788-1793.

653. Rabius, V., McAlister, A.L., Geiger, A., Huang, P., & Todd, R. (2004). Telephone counseling increases cessation rates among young adult smokers. *Health Psychology, 23*(5), 539-541.

654. McKay, J.R., Lynch, K.G., Shepard, D.S., Ratichek, S., Morrison, R., Koppenhaver, J., & Pettinati, H.M. (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.

655. McKay, J.R., Lynch, K.G., Shepard, D.S., Morgenstern, J., Forman, R.F., & Pettinati, H.M. (2005b). Do patient characteristics and initial progress in treatment moderate the effectiveness of telephone-based continuing care for substance use disorders? *Addiction, 100*(2), 216-226; McKay, J.R., Lynch, K.G., Shepard, D.S., & Pettinati, H.M. (2005c). The effectiveness of telephone-based continuing care for alcohol and cocaine dependence. *Archives of General Psychiatry, 62*(2), 199-207.

656. Stout, R.L., Zwick, W, Lason, M., & Shephard, D. (2001). Case monitoring for alcoholics: One year clinical and health care cost effects. *Alcoholism: Clinical and Experimental Research*, *25*(1), 133-134; Stout, R.L., Zywiak W., & Shepard, D.S. (2003). Case monitoring for alcoholics: Three year clinical and health cost effects. *Alcoholism: Clinical and Experimental Research*, *27*(5, Suppl), 178A; Horng, F.F., & Chueh, K.H. (2004). Effectiveness of telephone follow-up and counseling in aftercare for alcoholism. *Journal of Nursing Research*, *12*(1), 11-20.

657. Coviello, D.M., Zanis, D.A., Wesnoski, S.A., & Alterman, A.I. (2006). The effectiveness of outreach case management in re-enrolling discharged methadone patients. *Drug and Alcohol Dependence, 85*, 56-65.

658. Kaminer, Y., & Napolitano, C. (2004). Dial for therapy: Aftercare for adolescent substance use disorders. *Journal of the American Academy of Child and Adolescent Psychiatry*, *43*(9), 1171-1174.

659. Stout, R.L., Rubin, A., Zwick, W., Zywiak, W., & Bellino, L. (1999). Optimizing the cost-effectiveness of alcohol treatment: A rationale for extended case monitoring. *Addictive Behaviors*, *24*(1), 17-35.

called report ongoing sobriety, and 78% report attending Twelve Step meetings.[660] Telephone-based support following treatment is also a feature of the continuing care services offered by Hazelden and Caron Treatment Centers.

A peer-based telephone recovery support pilot project has recently been completed by the Connecticut Community of Addiction Recovery (CCAR) and Community Prevention and Addiction Services, Inc. (CPAS). In this model, trained CCAR volunteers met with clients graduating from treatment at CPAS and then monitored their status by phone for 90 days following treatment. Sixty-five individuals received an average of four calls during the pilot, with 29% receiving ten or more calls. At the end of the pilot, 78% had sustained sobriety through this vulnerable period, while those who had relapsed were re-linked to treatment and/or recovery mutual aid groups.[661]

One recent innovation in post-treatment support has been the use of interactive voice response (IVR) programs. IVR systems allow clients to call in daily and respond to automated voice prompts asking key questions related to their mood and activities, leave voice messages, or have a call forwarded to their counselor or case manager.[662] IVR program participation rates can be enhanced by automated phone prompts or personal calls from counselors in response to failure to call the IVR 1-800 number.[663] Telephone-based continuing care and IVR systems may be particularly well-suited for media for continuing care with adolescents.[664] Using an IVR system as a tool of post-treatment continuing care with programmed early intervention responses would seem to have great utility for the future. Both the Addiction Severity Index and the Teen-Addiction Severity Index have been recently adapted and validated for use with IVR systems.[665]

Advantages of Telephone-based Continuing Care

Telephone-based continuing care support following primary addiction treatment may foster less dependence on the service provider than traditional aftercare programs and be less disruptive to the life of the service recipient (e.g., no travel or childcare concerns or expense, reduced time demands).[666] A recent review[667] noted other potential advantages of telephone-based support (TBS).

- TBS can increase the frequency of support, with easy variability in duration of contact (as little as five minutes), potentially increasing the number of people being served.
- TBS can increase physical safety, where F-2-F services require that clients travel in high-risk environments.

660. Betty Ford Center. (2006). *Focused continuing care: One-year, extended care at Betty Ford Center.* Retrieved on July 30, 2008 from http://www.bettyfordcenter.org/news/innews/narticle.php?id=16

661. Broffman, T., Fisher, R., Gilbert, B., & Valentine, P. (2006). Telephone recovery support & the recovery model. *Addictions Professional,* March-April, Retrieved June 19, 2007 from http://www.addictionpro.com/ME2/Segents/Publications/Print/asp?Module=Publications.htm

662. Hall, J.A., & Huber, D.L. (2000). Telephone management in substance abuse treatment. *Telemedicine Journal and e-Health*, *6*(4), 401-407; Mundt, J.C., Moore, H.K., & Bean, P. (2006). An interactive voice response program to reduce drinking relapse: A feasibility study. *Journal of Substance Abuse Treatment, 30*(1), 21-29; Simpson, T.L., Kivlahan, D.R., Bush, K.R., & McFall, M.E. (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.

663. Kranzler, H.R., Abu-Hasaballah, K., Tennen, H., Feinn, R., & Young, K. (2004). Using daily interactive voice response technology to measure drinking and related behaviors in a pharmacotherapy study. *Alcoholism: Clinical and Experimental Research, 28*(7), 1060-1064.

664. Kaminer, Y., Litt, M.D., Burke, R.H., & Burleson, J.A. (2006). An interactive voice response (IVR) system for adolescents with alcohol use disorders: A pilot study. *American Journal of Addiction, 15*(Suppl 1), 122-125.

665. Brodey, B.B., Rosen, C.S., Brodey, I.S., Sheetz, B.M., Steinfeld, R.R., & Gastfriend, D.R. (2004). Validation of the Addiction Severity Index (ASI) for internet and automated telephone self-report administration. *Journal of Substance Abuse Treatment, 26*(4), 253-259; Brodey, B.B., Rosen, C.S., Winters, K.C., Brodey, I.S., Sheetz, B.M., Steinfeld, R.R., & Kaminer, Y. (2005). Conversion and validation of the Teen-Addiction Severity Index (T-ASI) for Internet and automated-telephone self-report administration. *Psychology of Addictive Behaviors, 19*(1), 54-61.

666. McKay, J.R., Lynch, K.G., Shepard, D.S., Ratichek, S., Morrison, R., Koppenhaver, J., & Pettinati, H.M. (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.

667. Kurtz, E., & White, W. (2007). *Telephone- and Internet-based recovery support services.* Chicago, IL: Great Lakes Addiction Technology Transfer Center.

- TBS can extend services into remote areas where few services are available.
- TBS can be directed to those who have made substantial progress in primary treatment, freeing F-2-F time for those who have not made similar progress in primary treatment.
- TBS might add a potent ingredient to F-2-F contact, resulting in stronger therapeutic alliance, lower dropout rates, and better recovery outcomes.
- Data collected in TBS can also be used to evaluate program effectiveness.[668]

Internet-based Recovery Support Services

Online services to support addiction recovery have grown in tandem with the rise of the Internet and now include a rapidly growing network of online secular, spiritual, and religious recovery support group meetings; online personal assessment of AOD problems; online therapy; online recovery coaching; and web-based continuing care following discharge from treatment.[669]

There is a growing interest in the potential for Internet-based systems of continuing care. Hazelden, for example, has recently launched a plan to offer all of its patients a web-based continuing care option. This program would combine weekly contacts with a recovery coach with a personalized web-based home page offering learning and self-assessment modules that will guide each individual through early recovery. Unique in this program is a flagging system that alerts the recovery coach of warning signs of relapse revealed in the online self-assessment exercises.[670]

Summary and Conclusions

Given the overwhelming evidence in support of post-treatment monitoring and support, the addiction treatment field will soon be faced with the question, not whether such services should be provided, but who can best provide these services.[671] There are several choices for such service delivery: 1) the same organization that delivers primary addiction treatment, 2) a peer-based recovery community organization,[672] 3) primary care physicians or local health care clinics, or 4) allied professionals, e.g., interventionists or employee assistance professionals providing this specialty service. It will be important to determine if recovery outcomes differ in general and for specific client populations when post-treatment monitoring and support are offered through these different delivery sites. Further research is needed to clarify whether recovery rates differ by

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669. Kurtz, E., & White, W. (2007). *Telephone- and Internet-based recovery support services*. Chicago, IL: Great Lakes Addiction Technology Transfer Center.

670. Duda, M. (2005). Hazelden to launch unique continuing care program. *Hazelden Voice, Summer*. Retrieved on July 30, 2008 from http://www.hazelden.org/web/public/vcsum5contcare.page

671. McKay, J.R. (2005a). Is there a case for extended interventions for alcohol and drug use disorders? *Addiction*, *100*(11), 1594-1610.

672. Valentine, P., White, W., & Taylor, P. (2007). The recovery community organization: Toward a definition. Posted at http://www.facesandvoicesofrecovery.org/pdf/valentine_white_taylor_2007.pdf

the organizational context out of which post-treatment support services are delivered, by professional- or peer-based delivery models, by frequency and duration of support, or by contact media (F-2-F, telephone, Internet), and whether or not variations in effectiveness exist across different demographic and clinical populations.

The most important finding related to early re-intervention following treatment is this: for those individuals who are not abstinent at short-term follow-up following addiction treatment, the best predictor of their abstinence at long-term (five-year) follow-up is readmission to treatment.[673] From an addictions/treatment/recovery careers perspective, the challenge is how to speed re-entry into treatment and other sources of recovery support, to shorten the duration of addiction careers and extend the duration of recovery careers. Post-treatment monitoring and support via recovery management check-ups have been found to speed this re-entry process and diminish the need for future treatment.[674]

Ritsher, Moos, and Finney summarize the emerging view on the importance of post-treatment recovery support services.

> *For this chronic, relapsing disorder, remission tends to be unstable, so the availability of sustained—but not necessarily intensive—therapeutic support is important at each stage of achieving, maintaining, and reestablishing remission.*[675]

POST-TREATMENT CONTINUING CARE: POTENTIAL STRATEGIES TO ENHANCE RECOVERY OUTCOMES

- Enhance brief interventions in primary care settings with telephone-based interactive voice response post-intervention monitoring.[676]
- Transition from professionally directed treatment plans to client-directed recovery plans.677
- Have each client assess his or her own post-treatment relapse risk level (which is more predictive of actual risk than counselor predictions).[678]
- Give each client choices related to continuing care options and arrange continuing care in congruence with these choices.[679]
- Involve family members in the continuing care planning process.[680]

673. Mertens, J.R., Weisner, C.M., & Ray, G.T. (2005). Readmission among chemical dependency patients in private, outpatient treatment: Patterns, correlates and role in long-term outcome. *Journal of Studies on Alcohol*, *66*(6), 842-847; Weisner, C., Ray, G.T., Mertens, J.R., Satre, D.D., & Moore, C. (2003). Short-term alcohol and drug treatment outcomes predict long-term outcome. *Drug and Alcohol Dependence*, *71*, 281-294.

674. Dennis. M.L., Scott, C.K., & 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.

675. Ritsher, J.B., Moos, R.H., & Finney, J.W. (2002). Relationship of treatment orientation and continuing care to remission among substance abuse patients. *Psychiatric Services*, *53*(5), 595-601.

676. Helzer, J.E., Rose, G.L., Badger, G.J., Searles, J.S., Thomas, C.S., Lindberg, S.A., & Guth, S. (2008). Using interactive voice response to enhance brief alcohol intervention in primary care settings. *Journal of Studies on Alcohol & Drugs*, *69*, 251-258.

677. Borkman, T. (1998). Is recovery planning any different from treatment planning? *Journal of Substance Abuse Treatment*, *15*(1), 37-42.

678. Walton, M.A., Blow, F.C., & Booth, B.M. (2000). A comparison of substance abuse patients' and counselors' perception of relapse risk: Relationship to actual relapse. *Journal of Substance Abuse Treatment*, *19*, 161-169.

679. Brown, T.G., Seraganian, P., Tremblay, J., & Annis, H. (2002). Matching substance abuse aftercare treatments to client characteristics. *Addictive Behaviors*, *27*, 585-604.

680. O'Farrell, T.J., Murphy, M., Alter, J,. & Fals-Stewart, W. (2007). Brief family treatment intervention to promote aftercare among male substance abusing patients in inpatient detoxification: A quasi-experimental pilot study. *Addictive Behaviors*, *32*, 1681-1691; O'Farrell, T.J., Murphy, M., Alter, J., & Fals-Stewart, W. (2008). Brief family treatment intervention to promote continuing care among alcohol-dependent patients in inpatient detoxification: A randomized pilot study. *Journal of Substance Abuse Treatment, 34*, 363-369.

- Adapt follow-up technologies used in longitudinal research to achieve high rates of client participation in post-treatment check-ups and support.[681]
- Conduct further research to evaluate the best media (face-to-face, telephone, Internet, mail), best scheduling formats (frequency and duration of each contact), and the ideal course (span of time following primary treatment) of post-treatment monitoring and support.
- Extend the duration of post-treatment monitoring and support (to include at a minimum an annual recovery check-up) to at least five years following discharge from primary treatment.[682]
- Target those who experience the highest level of craving during treatment for the most extended and intense levels of continuing care services.[683]
- Use personal escorts and financial incentive payments to enhance linkage from inpatient to outpatient treatment.[684]
- Conduct relapse prevention training in a group-based continuing care format.[685]
- Manipulate the post-treatment environment to increase recovery support.[686]
- Provide transitional continuing care orientation and planning groups, to shift from professionally directed treatment to self-managed recovery.[687]
- Use behavioral contracts and calendar prompts to increase participation in continuing care groups.[688]
- Actively resolve barriers to participation, including the need for transportation, the need for child care, and scheduling conflicts.[689]
- Use post-treatment feedback on meeting attendance and telephone prompts to encourage participation in continuing care activities.[690]
- Increase the use of recovery homes and other sober transitional living environments.[691]
- Use e-mail communications to monitor progress between treatment sessions and as a continuing monitoring and support device.[692]
- Provide telephone-based post-treatment monitoring and support.[693]
- Use group-based continuing care followed by telephone support for clients at highest risk of relapse.[694]

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681. Scott, C.K., & Dennis, M.L. (2000). A cost-effective approach to achieving over 90% follow-up in outcome monitoring with substance abuse treatment clients. *Drug and Alcohol Dependence*, *60*(Suppl 1), s200.

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691. Donovan, D. (1998). Continuing care: Promoting maintenance of change. In W. R. Miller & N. Heather (Eds.), *Treating addictive behaviors* (2nd ed., pp. 317-336). New York: Plenum Press; Jason, L., Davis, M., Ferrari, J., & Bishop, P. (2001). Oxford House: A review of research and implications for substance abuse recovery and community research. *Journal of Drug Education, 31*(1), 1-27.

692. Collins, G.B., McAllister, M.S., & Ford, D.B. (2007). Patient-provider e-mail communication as an adjunctive tool in addiction medicine. *Journal of Addictive Diseases*, *26*(2), 45-52.

693. McKay, J.R., Lynch, K.G., Shepard, D.S., Ratichek, S., Morrison, R., Koppenhaver, J., & Pettinati, H.M. (2004). The effectiveness of telephone-based

- Use volunteers to deliver post-treatment monitoring and support.[695]
- Use assertive approaches to continuing care that involve case management and linkage to community support systems.[696]
- Conduct quarterly post-treatment recovery management check-ups.[697]
- Provide case management as an alternative to traditional aftercare.[698]
- Use performance measures to improve continuing care, e.g., the Network for Improvement of Addiction Treatment (NIATx).[699]
- Coordinate post-treatment support services across multiple systems of care.[700]
- Involve families in the continuing care service process.[701]
- Conduct home visits in clients' homes using nurses or recovery coaches.[702]
- Conduct treatment follow-up in the workplace via employee assistance professionals.[703]
- Provide structured substance-free leisure activities.[704]
- Expand development of local recovery support institutions, e.g., recovery homes, recovery schools, recovery industries, recovery ministries.[705]
- Provide couples relapse prevention sessions over the course of the year following discharge from primary treatment.[706]
- Enhance continuity of care across all levels of care via provider continuity, maintenance of client contact, linkage to community resources, and coordination of care.[707]
- Link adolescents to aftercare and peer support groups that contain other young people.[708]
- Provide specialized treatment tracks for clients with a history of multiple treatment admissions.[709]

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TABLE 10: POTENTIAL RECOVERY-LINKED PERFORMANCE MEASURES

PERFORMANCE AREA	RECOVERY-LINKED PERFORMANCE MEASURE
Post-treatment Continuing Care	Percentage of clients who receive five or more contacts in the first 90 days following discharge Percentage of clients who complete five years of post-treatment monitoring
Continuing Care Media	Percentage of clients who receive mailed recovery support flyers Percentage of clients who receive telephone- or Internet-based checkups

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Chapter Fourteen

Post-treatment Recovery Outcomes

■ SUMMARY OF KEY POINTS ■

- Reported treatment outcomes vary by definitions of key measures, e.g., abstinence, sobriety, recovery, lapse, relapse, success.
- Post-treatment evaluations consistently report improved odds of sustained abstinence, reduced AOD consumption by those who use, a reduction in AOD-related problems, and reductions in crime and risk of HIV infection.
- The majority (over half) of people completing specialized addiction treatment in the United States resume some AOD use in the year following treatment.
- Post-treatment relapse rates are higher for men, adolescents, persons dependent on opiates, and persons with co-occurring substance use and psychiatric disorders.
- Between one-fourth and one-third of all clients discharged from addiction treatment will be readmitted to treatment within one year, and 50% will be readmitted within two to five years.
- The majority (64%) of those entering publicly funded treatment in the United States already have one or more prior admissions, including 22% with three to four prior admissions and 19% with five or more prior admissions.
- Clients discharged from addiction treatment have high post-treatment mortality rates—1.6 to 4.7 times greater than age-matched populations without substance use disorders.
- Stable recovery can be preceded by years of cycling in and out of sobriety experiments.
- Evaluations of specialized addiction treatment also reveal the potential for iatrogenic (harmful) effects of treatment.
- The potential for long-term recovery from substance use disorders is affirmed by population studies noting recovery rates of 50% or higher, but the process of achieving such recoveries is more complex than often portrayed.

Earlier chapters of this monograph have summarized data on the nature of alcohol and other drug problems (particularly the severity, complexity, and chronicity of such problems in clinical populations) and examined process measures that exert influence on long-term recovery outcomes. This review underscored the inability of the acute-care model of addiction treatment to effectively attract, engage, or retain those needing and seeking services or to provide an adequate dose and range of services, link clients to local communities of recovery, or provide recovery-focused continuing care services for the majority of clients. This final chapter presents data that answer the ultimate question: What percentage of clients achieve sustained recovery following treatment within the current acute-care model of addiction treatment in the United States? Any proposal to sustain or to transform the prevailing system of addiction treatment must begin with this question. But for those working on the frontlines of addiction treatment, this may be difficult to answer, in part because most addiction professionals provide services that are only part of a sequenced service process.[710] For example, how do we measure "treatment outcome" for a client whose treatment consisted of a sequence of detoxification, residential treatment, intensive outpatient treatment, outpatient treatment, and continuing care groups provided by different staff and organizations? If there are beneficial or harmful effects of these aggregate services, to which of these services or combinations of services do we attribute the effects?

Ambiguity of Outcome Definitions

Reported addiction treatment outcomes vary by definitions of abstinence (or sobriety), recovery, lapse, relapse, moderation, controlled drinking, and non-problematic drinking.[711] This makes comparison of outcomes across studies difficult. It is hoped that recent consensus conferences on defining such concepts as *recovery* will improve this situation.[712]

Outcomes vary by developmental age,[713] gender,[714] and ethnicity,[715] and by the presence or absence of co-occurring psychiatric illness.[716] And such outcomes vary by the rigor of the research methodology: in general, reported abstinence rates decline as the follow-up rates increase and the duration of the follow-up period lengthens.[717] In spite of such limitations, several broad conclusions can be stated about what happens to people following addiction treatment.

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Acute and Chronic-care Frameworks of Evaluation

Acute-care interventions are measured by their ability to produce long-term outcomes following a brief period of intervention, e.g., complete "cure" of a bacterial infection following completion of a short course of antibiotics. Chronic-care interventions are measured by their ability to reduce or suppress symptoms while the treatment is underway, without expectation of permanent "cure"; for example, the effectiveness of insulin is measured only for the time period in which insulin treatment is active. It has been suggested that evaluating treatment of severe AOD problems using an acute-care framework rather than a chronic-care framework misjudges the role of professional treatment (and, I would add, of peer-based recovery support groups) in the long-term recovery process.[718]

Positive Treatment-related Recovery Outcomes

As stated in the opening chapter, addiction treatment has positive measurable effects: the lives of most persons treated will be better after treatment than if they had received no treatment. Post-treatment remissions average about one third of clients discharged, overall AOD use decreases by more than 80% in the months following discharge,[719] and substance-related problems decrease by 60% in the months following treatment.[720] (There are studies reporting continuous abstinence rates higher than one third following treatment, but such studies often have low-below 60%-follow-up rates, and the reported outcomes are based on the percentage of those former clients who could be located and returned a mailed survey or accepted a telephone call, rather than on the total population treated.[721]) Treatment completion is also linked to other gains such as enhancements of global (physical, emotional, relational) health, reductions in injection drug use and sharing of injection equipment, reductions in illegal activity and illegal income, and increases in social stability and productivity.[722] Such gains bolster addiction treatment's claim to legitimacy as a social institution.

New or recycling patterns of drug dependence that emerge (e.g., cocaine, methamphetamine, prescription opiates) are often accompanied by public and professional claims that the casualties of this "new" drug "epidemic" are untreatable, but subsequent scientific studies reveal that participants in these drug surges respond to treatment at levels comparable to earlier clients involved in mainstream treatment.[723]

718. McLellan, A.T. (2002). Have we evaluated addiction treatment correctly? Implications from a chronic care perspective. *Addiction*, *97*, 249-252.

719. Reduced use of alcohol and drugs is an often reported (unintended and unexpected) outcome of treatment even within the most abstinence-oriented of treatment programs. See Stinchfield, R., & Owen, P. (1998). Hazelden's model of treatment and its outcome. *Addictive Behaviors*, *23*(5), 669-683.

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Reviews of treatment effectiveness typically end with conclusions such as the following:

> *...the findings from this meta-analysis indicate that drug abuse treatment, as it is practiced in the United States, is effective in reducing drug use and crime....it would seem appropriate to cease asking whether treatment for drug abuse is effective and begin asking instead how treatment can be improved and how it can be tailored to the needs of different types of clients.*[724]

When treatment outcomes are evaluated on more than the elimination of pathology, there is evidence that a shift in treatment design might also enhance the quality of life in recovery for many of our success stories. For example, studies of clients with late-onset alcohol problems who achieve successful remission continue to experience depression, chronic health problems, financial and interpersonal stressors, and lower levels of family and social support for the first decade of recovery.[725] Such findings suggest that even our "successes" might benefit from sustained professional monitoring, support, and assertive linkage to professional and indigenous recovery support resources throughout the early years of recovery.

In-treatment AOD Use

In discussing post-treatment outcomes, it is usually assumed that the biopsychosocial stabilization of clients has been achieved, but the amount of in-treatment AOD use and the degree of such stabilization at the time of discharge have not been subjected to rigorous evaluation. The one study on the prevalence of in-treatment drinking reported that 17% of clients treated in an abstinence-based program drank at least once during treatment, and that 87% of these clients withheld that information from treatment staff for fear that they would be discharged from treatment.[726] What is labeled "relapse" may, for some clients, constitute the continuation of sustained pattern of AOD use that was not interrupted by treatment involvement.

Post-treatment Lapse/Relapse Rates

The majority (more than 50%) of people completing specialized addiction treatment in the U.S. resume AOD use in the year following treatment,[727] most within 90 days of discharge from treatment.[728] Such use can range between a slip/lapse (single episode of use), a binge (time-limited but high-intensity period of use), a relapse (return of pre-treatment pattern of use), and regression to

724. Prendergast, M.L., Podus, D., Chang, E., & Urada, D. (2002). The effectiveness of drug abuse treatment: A meta-analysis of comparison group studies. *Drug and Alcohol Dependence*, *67*, 53-72.

725. Schutte, K.K., Brennan, P.L., & Moos, R.H. (1994). Remission of late-life drinking problems: A 4-year follow-up. *Alcoholism: Clinical and Experimental Research*, *18*(4), 835-844; Schutte, K., Byrne, F., Brennan, P., & Moos, R. (2001). Successful remission of late-life drinking problems: A 10-year follow-up. *Journal of Studies on Alcohol, 62,* 322-334; Schutte, K.K., Nichols, K.A., Brennan, P.L., & Moos, R.H. (2003). A ten-year follow-up of older former problem drinkers: Risks of relapse and implications of successfully sustained remission. *Journal of Studies on Alcohol*, *64*, 367-374.

726. Mitchell, D. (2006). Within treatment drinking and surreptitious drinking during brief substance abuse treatment. *Journal of Addictive Disease*, *25*(3), 35-43.

727. Anglin, M.D., Hser, Y.I., & 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; Institute of Medicine. (1998). *Bridging the gap between practice and research: Forging partnerships with community-based drug and alcohol treatment.* Washington, D.C.: National Academy Press; Wilbourne, P., & Miller, W. (2002). Treatment of alcoholism: Older and wiser? In T. McGovern & W. White (Eds.), *Alcohol Problems in the United States: Twenty Years of Treatment Perspective* (pp. 41-59). New York: Haworth Press.

728. Hubbard, R.L., Flynn, P.M., Craddock, G., & Fletcher, B. (2001). Relapse after drug abuse treatment. In F. Tims, C. Leukfield & J. Platt (Eds.), *Relapse and recovery in addictions* (pp. 109-121). New Haven: Yale University Press.

compulsive use (return or magnification of pre-treatment use-related problems).[729] These variations are often merged under the generic heading of "relapse." Concern about timely responses to post-treatment relapse are underscored by a study of relapse following alcohol dependence that found the median time to re-establishment of dependence following relapse to be 7 days.[730]

Post-treatment recovery rates erode over time for both treatment-naïve clients and clients with prior treatment admissions.[731] The worst post-treatment outcomes occur for those adolescents and adults who presented with the most severe AOD problems before treatment—a finding that would argue for identification and targeting of this group for intensive post-treatment monitoring and support.[732]

Gender and Relapse

Women begin treatment functioning more poorly than men, but go on to achieve better post-treatment recovery outcomes than men in spite of such obstacles as developmental and adult victimization, greater psychiatric impairment, unemployment, child care responsibilities, and living with another person with an alcohol or drug problem.[733] Post-treatment relapse for women is significantly influenced by living with another person who has an alcohol or other drug problem.[734]

Adolescent Relapse Rates

First-year post-treatment relapse rates (at least one episode of AOD use) for adolescents range from 60-70%.[735] At least one-third of adolescents leaving treatment relapse in the first 30 days following discharge, and the proportion who relapse increases at each subsequent follow-up point.[736] Within five years following treatment, more than 90% of adolescents will have used alcohol or drugs,[737] with worse outcomes for adolescents with co-occurring externalizing disorders and those who move away from home.[738] When multiple follow-up points are used through five or more years, prior-year abstinence at all points is "rare," although the treatment group shows greater improvement in problem severity than waiting list and control groups.[739] The most common positive treatment outcome is reduction of drinking to non-problematic levels at three-to-five-year follow-up, with this pattern remaining stable for some and later escalating to renewed problem development for others.[740]

729. DeLeon, G. (1996). Integrative recovery: A stage paradigm. *Substance Abuse, 17*(1), 51-63.

730. Besancon, F. (1993). Time to alcohol dependence after abstinence and first drink. *Addiction*, *88*, 1647-1650.

731. Cacciola, J.S., Dugosh, K., Folz, C., Leahy, P., & Stevens, R. (2005). Treatment outcomes: First time versus treatment-experienced clients. *Journal of Substance Abuse Treatment*, *28*(Suppl 1), S13-S22.

732. Cacciola, J.S., Dugosh, K., Folz, C., Leahy, P., & Stevens, R. (2005). Treatment outcomes: First time versus treatment-experienced clients. *Journal of Substance Abuse Treatment*, *28*(Suppl 1), S13-S22.

733. Hser, Y.I., Evans, E., & Huang, Y-C. (2005). Treatment outcomes among women and men methamphetamine abusers in California. *Journal of Substance Abuse Treatment*, *28*, 77-85; Timko, C., Finney, J.W., & Moos, R.H. (2005). The 8-year course of alcohol abuse: Gender differences in social context and coping. *Alcoholism: Clinical and Experimental Research*, *29*(4), 612-621.

734. Grella, C.E., Scott, C.K., & Foss, M.A. (2005). Gender differences in long-term drug treatment outcomes in Chicago PETS. *Journal of Substance Abuse Treatment*, *28*(Suppl 1), S3-S12.

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736. Brown, S.A., & Ramo, D.E. (2006). Clinical course of youth following treatment for alcohol and drug problems. In H.A. Liddle & C.L. Rowe (Eds.), *Adolescent substance abuse: Research and clinical advances* (pp. 79-103). Cambridge: Cambridge University Press.

737. Chung, T., Martin, C.S., Grella, C.E., Winters, K.C., Abrantes, A.M., & Brown, S.A. (2003). Course of alcohol problems in treated adolescents. *Alcoholism: Clinical and Experimental Research*, *27*(2), 253-261; Godley, S.H., Dennis, M.L., Godley, M.D., & Funk, R.R. (1999). Thirty-month relapse trajectory cluster groups among adolescents discharged from out-patient treatment. *Addiction*, *99*(Suppl 2), 129-139.

738. Brown, S.A., & Ramo, D.E. (2006). Clinical course of youth following treatment for alcohol and drug problems. In H.A. Liddle & C.L. Rowe (Eds.), *Adolescent substance abuse: Research and clinical advances* (pp. 79-103). Cambridge: Cambridge University Press.

739. Winters, K.C., Stinchfield, R., Latimer, W.W., & Lee, S. (2007). Long-term outcome of substance-dependent youth following 12-step treatment. *Journal of Substance Abuse Treatment, 33*, 61-69.

740. Chung, T., Maisto, S.A., Cornelius, J.R., & Martin, C.S. (2004). Adolescents' alcohol and drug use trajectories. *Journal of Studies on Alcohol*, *65*, 105-114.

Adolescents with the poorest treatment outcomes are those with the highest levels of environmental exposure to alcohol and drugs and those least connected to recovery support groups such as AA or NA.[741]

Relapse and Psychiatric Co-morbidity

Persons with co-occurring substance use and psychiatric disorders can benefit from specialized addiction treatment, but outcomes may be compromised for those with the most severe psychiatric disorders.[742] Persons with PTSD and substance use disorders are less likely to participate in post-treatment continuing care activities and will relapse sooner and use more subsequent inpatient resources than persons with only substance use disorders. Clients with co-occurring psychiatric disorders are less likely to be in stable remission at follow-up after treatment than clients with only substance use disorders, suggesting the possible need for specialized treatment and continuing care strategies.[743]

Relapse by Primary Drug

Post-treatment relapse rates vary by primary drug. A study defining relapse as four days of use within any seven-day period in the six months following discharge found relapse rates as follows: cigarette smokers, 67%; alcohol-dependent clients, 90%; heroin-dependent clients, 92%.[744] Moore and Budney,[745] using the same definition, found a lapse (any use) rate of 71% for cannabis-dependent clients, with each of these reporting a lapse accelerating to full relapse. Simpson, Joe, & Broome[746] found that 58% of clients treated for cocaine dependency reported prior-year cocaine use at five-year follow-up. Hser and colleagues,[747] in a 12-year follow-up of treated cocaine-dependent individuals, found that 51.9% met criteria for long-term recovery (five years' or more abstinence from cocaine) but many who met this restricted definition of recovery continued to use alcohol and drugs other than cocaine. This pattern of drug substitution has a long history[748] and is a common pattern-particularly when it manifests as the use of alcohol by persons dependent upon drugs other than alcohol.[749]

741. Brown, S.A. (1993). Recovery patterns in adolescent substance abuse. In J. S. Baer, G.A. Marlatt & R.J. McMahon (Eds.), *Addictive behaviors across the life span: Prevention, treatment, and policy issues* (pp. 161-183). Newbury Park, CA: SAGE Publications.

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749. Ogborne, A.C., & Melotte, C. (1977). An evaluation of a therapeutic community for former drug users. *British Journal of Addiction*, *72*, 75-82.

Relapse following MMT

Relapse to heroin addiction is high following discharge from methadone maintenance treatment (in a recent study, 73% within 90 days of discharge).[750] This finding will be variably interpreted as a sign of MMT's failure or success, in that, like hypertensive medication, it is effective only during the period of medication adherence. Either interpretation argues for the importance of post-treatment monitoring and support following MMT.

The high relapse rates, particularly for opiate addiction, might be interpreted as evidence that opiate addicts really do not want to stop using, but that interpretation is challenged by continued help-seeking behavior reflected in terms of both attempts at home cure and readmissions to treatment.[751]

Fragility of Post-treatment Recovery

Individuals leaving addiction treatment are fragilely balanced between recovery and re-addiction in the hours, days, weeks, months, and years following discharge.[752] These individuals are making recovery and re-addiction decisions during a time in which treatment specialists have disengaged from their lives but many sources of recovery sabotage are present. To state that early post-treatment recovery is fragile is not to say that long-term recovery is not possible. The recovery prevalence rate for persons meeting lifetime criteria for substance use disorders ranges between 50-60%.[753] Fifty percent of AA members surveyed report six or more years of recovery,[754] and 51% of people self-identified as "in recovery" in the larger community also report recovery duration of six or more years.[755]

Factors related to post-treatment relapse of adults and adolescents include craving, interpersonal conflict, emotional distress, social pressure to use from peers, exposure to alcohol-/drug-using environments, initial use of a drug other than drug of choice, and a lessening in vigilance and recovery maintenance activities.[756]

Relapse is often embedded in the social interactions that occur after treatment support is withdrawn. There are two dimensions to such interactions: contact and communication with active users and contact and communication with non-addicts. The risk of relapse is high when the former offers a siren call to return to a world where so many of the addict's prior needs were met, and the latter includes expressions of hostility, skepticism, and distrust.[757]

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750. Coviello, D.M., Zanis, D.A., Wesnoski, S.A., & Alterman, A.I. (2006). The effectiveness of outreach case management in re-enrolling discharged methadone patients. *Drug and Alcohol Dependence*, *85*, 56-65.

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A meta-analysis of opiate treatment outcome research found post-treatment relapse associated with high levels of pre-treatment drug use, prior treatment, the lack of a prior period of abstinence, abstinence from alcohol, depression, high levels of stress, unemployment, association with drug-using peers, shorter length of treatment, and leaving treatment prior to completion.[758] Alcohol often plays a role in post-treatment relapse, regardless of drug of choice prior to treatment entry.[759]

Post-treatment Mortality

Individuals with alcohol and other drug problems who seek help for these problems have lower mortality rates than those who do not seek such assistance.[760] In spite of this good news, long-term follow-up studies of treated clients reveal high mortality rates (1.6 to 4.7 times greater) compared to age-matched populations without substance use disorders. These post-treatment deaths primarily are associated with post-treatment relapse[761] and most often are products of accidental poisoning/overdose, liver disease, cancer, cardiovascular disease, AIDS, suicide, or homicide.[762] Mortality rates revealed in follow-up studies of persons who relapsed after addiction treatment are quite high (21/2 times those of age-matched controls in a 10-year follow-up study),[763] and mortality rates are dramatically increased for tobacco smokers,[764] those with co-occurring psychiatric illnesses,[765] and those who concurrently consume alcohol and/or other drugs following treatment.[766]

Two studies of mortality rates following discharge from methadone maintenance treatment reported an 8% death rate within one year of discharge from MMT in the first study[767] and a 5% death rate at six months following MMT in the second study.[768] The increased mortality rate following cessation of opiate detoxification and drug-free treatment is linked directly to the loss of drug tolerance.[769] Such findings underscore the need for intense post-treatment monitoring, support, and early re-intervention with MMT clients.

The risk of premature death among alcoholics who have achieved stable remission is no greater than that of non-alcoholic control groups.[770] Stable abstinence predicts lower mortality rates, but achievement of lower frequency and quantity of alcohol intake does not.[771] Other factors associated with lower mortality rates include a longer course of treatment, achievement of early abstinence, and longer duration of participation in Alcoholics Anonymous.[772]

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Smoking, Relapse, and Mortality

Those with more severe nicotine dependencies have poorer outcomes for the treatment of other drug dependencies.[773] Persons in recovery from alcohol dependence who continue to smoke tobacco are at higher risk of relapse than those in recovery who do not smoke.[774] Smokers treated for alcohol and other drug dependencies also have higher post-treatment relapse rates than non-smokers.[775] Smoking-related diseases constitute a major cause of death for people who have successfully recovered from alcoholism/other drug dependence. Of those discharged from alcoholism treatment, more will later die from nicotine-related diseases than from alcohol-related diseases.[776]

Smoking might exert an independent effect on relapse rates or constitute a hidden marker for psychiatric illness. Indicators such as heavy smoking might be used to identify those individuals at highest risk of post-treatment relapse and mortality and to target such individuals for intensified post-treatment monitoring and support. Studies suggesting that delayed smoking cessation generated better long-term alcoholism recovery rates than concurrent treatment of smoking and other drug dependencies add further weight to this recommendation.[777]

Rates of Treatment Readmission

Between 25% and 35% of all clients discharged from addiction treatment will be readmitted to treatment within one year, and nearly 50% will be readmitted within two to five years.[778] The majority (64%) of those entering publicly funded treatment in the United States already have one or more prior admissions, including 22% with three to four prior admissions and 19% with five or more prior admissions.[779]

Prolonged addiction and treatment "careers" are associated with being male, early age of onset, longer duration of use before first treatment, failure to complete previous treatment, greater problem severity and complexity (e.g., polydrug use), and psychiatric co-morbidity.[780] Compared to first admissions, those readmitted to treatment five or more times are more likely to be unemployed, uninsured, and unmarried; to use opiates; and to have co-occurring psychiatric illness.[781]

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Cumulative Effects of Multiple Treatment Episodes

The odds of stable recovery increase with the accumulation of years of substance dependence.[782] Sustainable recovery is often preceded by years of cycling in and out of sobriety experiments[783] until multiple interventions generate enough cumulative recovery capital to tip the scales to stable recovery maintenance.[784] The majority of persons who recover from severe and persistent substance dependence do so after multiple treatment episodes occurring over a span of years.[785] However, there is a sizable population of people with three or more treatment admissions who do not improve following additional admissions to treatment as currently designed and delivered.[786]

In a long-term follow-up of those entering treatment in Chicago, the median period from first use to first year of achieved abstinence was 27 years, and the median time from first treatment admission to first year of abstinence spanned three to four treatment episodes over the average course of nine years.[787]

Iatrogenic Effects of Addiction Treatment

Addiction treatment, like innumerable medical and psychosocial interventions, has the potential for iatrogenic side effects (unintended treatment-caused harm). Harm done in the name of help has a long history in addiction treatment and includes surgical sterilization, lethal withdrawal procedures, prefrontal lobotomies, chemo- and electro-convulsive therapies, and drug insults of innumerable varieties (e.g., treating morphine addiction with pounds of prescribed cocaine in the 1870s).[788]

A recent review of studies reporting iatrogenic effects of addiction treatment concluded that between 7% and 15% of persons treated for addiction deteriorate rather than improve following such treatment.[789] This review noted particular psychosocial techniques that may produce harm (e.g., confrontation, criticism, and other techniques that spark high emotional arousal) and, of particular import to the theme of this monograph, also noted that persons with high problem severity are at high risk of injury when they are assigned to treatments of short duration. The mechanism of such harm appears to be one of demoralization following the escalation of hope.[790] Between 7% and 10% of Project MATCH participants experienced deterioration (substance use levels that exceeded pre-treatment levels) in the three months following treatment.[791] A separate study found that 13% of clients undergoing addiction treatment experienced an exacerbation of psychiatric symptoms

782. Dawson, D.A. (1996). Correlates of past-year status among treated and untreated persons with former alcohol dependence: United States, 1992. *Alcoholism: Clinical and Experimental Research*, *20*(4), 771-779.

783. Scott, C.K., Foss, M.A., & Dennis, M.L. (2005b). Pathways in the relapseótreatmentórecovery cycle over 3 years. *Journal of Substance Abuse Treatment*, *28*(Suppl 1), S63-S72; Bell, J., Burrell, T., Indig, D., & Gilmour, S. (2006). Cycling in and out of treatment; participation in methadone treatment in NSW, 1990-2002. *Drug and Alcohol Dependence*, *81*, 55-61.

784. 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*(Suppl 1), S51-S62; Hser, Y., Anglin, M., Grella, C., Longshore, D., & Prendergast, M. (1997). Drug treatment careers: A conceptual framework and existing research findings. *Journal of Substance Abuse Treatment, 14*(3), 1-16; Anglin, M.D., Hser, Y.I., & 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.

785. Anglin, M.D., Hser, Y.I., & 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; Dennis, M.L., Scott, C.K., & Hristova, L. (2002). The duration and correlates of substance abuse treatment careers among people entering publicly funded treatment in Chicago (abstract). *Drug and Alcohol Dependence, 66* (Suppl 1), S44; 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*(Suppl 1), S51-S62.

786. Zhang, S., Friedmann, P.D., & Gerstein, D.R. (2003). Does retention matter? Treatment duration and improvement in drug use. *Addiction*, *98*, 673-684; 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*(Suppl 1), S51-S62.

787. 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*(Suppl 1), S51-S62.

788. White, W. (1998). *Slaying the dragon: The history of addiction treatment and recovery in America*. Bloomington, IL: Chestnut Health Systems; Kleber, H., & Riordan, C. (1982). The treatment of narcotic withdrawal: A historical review. *Journal of Clinical Psychiatry, 43*(6), 30-34.

789. Moos, R.H. (2005). Iatrogenic effects of psychosocial interventions for substance use disorders: Prevalence, predictors, prevention. *Addiction*, *100*, 1240-1248.

790. Moos, R.H. (2005). Iatrogenic effects of psychosocial interventions for substance use disorders: Prevalence, predictors, prevention. *Addiction*, *100*, 1240-1248.

791. Ilgen, M., & Moos, R. (2005). Deterioration following alcohol-use disorder treatment in Project MATCH. *Journal of Studies on Alcohol*, *66*, 517-525.

during the course of such treatment.[792] There are also risks related to medical and pharmacological treatments for addiction. A recent review of pharmacological treatments for opiate dependence noted reports of deaths within 72 hours of ultra-rapid detoxification under anesthesia and the risk of fatal overdose during methadone induction.[793]

Harm can also result from exposure to the treatment milieu, through: exposure to infectious agents; injury or fatality related to seclusion or restraint procedures; financial, emotional, or sexual exploitation; clinical abandonment of clients by professional helpers; or involvement in a therapeutic cult. Concern about this broad span of potential harmful effects of treatment has prompted the development of guidelines that can help addiction professionals prevent such injuries.[794]

Evaluating and Reporting Local Program Outcomes

Addiction treatment professionals are often asked, "How successful is your program?" Responses to such questions may be drawn from independent studies of outcomes, internal client follow-up reports, estimates based on one's own clinical experience, or program marketing materials. It is not unusual for front-line addiction professionals to wonder why the recovery rates reported by local programs are so high and why those reported in the research literature are so low. The answer lies in the differences in methodologies used to arrive at such rates. The authors of a recent review[795] of such methodologies made the following recommendations to local programs wishing to formally evaluate long-term recovery outcomes of clients they serve.

- Vow to conduct the study in the most objective manner possible, using trained experts in clinical research methods to oversee your procedures from recruitment to treatment to follow-up to analysis and report writing.
- Define the active ingredients of the treatment that is to be evaluated, ensure that staff can and do competently deliver those critical ingredients, and report dosage (i.e., how much of the treatment each participant received).
- Report characteristics of clients upon whose experiences clinical outcomes are based.
- Use the Consort guidelines (http://www.nature.com/bdj/about/Consort.htm) to report client eligibility, recruitment, enrollment, and attrition; remember to use the "intent to treat" standard.
- Use as large a sample as possible, especially if you plan subgroup comparisons.
- Achieve at least an 80% follow-up rate, or be prepared to carefully limit your conclusions.

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792. Ilgen, M., & Moos, R. (2006). Exacerbation of psychiatric symptoms during substance use disorder treatment. *Psychiatric Services*, *57*(12), 1758-1764.

793. Kleber, H. (2007). Pharmacological treatments for opioid dependence: Detoxification and maintenance options. *Dialogues in Clinical Neuroscience*, *9*(4), 455-470; Scott R.T.A., Jay, M.J.H., Keith, R., Oliver, J.S., & Cassidy, M.T. (1999). A confidential enquiry into methadone-related deaths. *Addiction*, *94*(12), 1789-1794; Zador, D., & Sunjic, S. (2000). Deaths in methadone maintenance treatment in New South Wales, Australia 1990-1995. *Addiction*, *95*(1), 77-84.

794. White, W.L., & Kleber, H.J.D. (in press). Preventing harm in the name of help: A guide for addiction professionals. *Counselor*.

795. White, W., & Godley, M. (2005). Addiction treatment outcomes: Who and what can you believe? *Counselor*, *6*(3), 52-55.

- Except for pilot or preliminary investigations, report outcomes for the longest possible period you can afford. One year post-treatment is ideal, but longer is clearly better.
- Validate self-report data with collateral interviews and, whenever possible, chemical testing.
- Use independent interviewers rather than clinical staff who have pre-existing relationships with the study population.
- Evaluate outcomes across multiple dimensions (e.g., changes in quantity and frequency of primary and secondary drug consumption and related problems) and multiple measures of health and functioning, as might be found in the Global Appraisal of Individual Needs or the Addiction Severity Index.
- Be your own worst critic before someone else is—look for alternative explanations for the results obtained, and enlist experienced clinicians to help with this.
- Make all studies upon which success claims are made available for professional and public review.

Conclusion

The above findings document the frequently long course of substance dependence as experienced by individuals entering specialized addiction treatment in the United States. Great care must be taken in communicating these findings to referral sources, the public, and policy makers.[796] These findings do not support the contention of "once an addict, always an addict" or the charge that recovery is not possible, but they do underscore that recovery is frequently a more difficult, complex, and enduring process than our current treatment design would indicate.

One of the handicaps we are working under in this movement toward a long-term recovery perspective is that the field has a pathology-based and intervention-based foundation of research, but only fragments of research to inform models of long-term recovery and the ways in which such recoveries can best be supported. Initial findings on the neurophysiological processes of addiction recovery are encouraging,[797] but we need much more information to guide the development of stage-appropriate support services over the course of the recovery process. We need a fully developed recovery research agenda whose findings can guide future system-design efforts.

796. Brown, B.S. (1998). Drug use: Chronic and relapsing or a treatable condition? *Substance Use and Misuse*, *33*(12), 2515-2520; White, W., & McLellan, A.T. (in press). Addiction as a chronic disease: Key messages for clients, families and referral sources. *Counselor*.

797. Bartsch, A.J., Homola, G., Biller, A., Smith, S.M., Weijers, H.G., Wiesbeck, G.A., Jenkinson, M., De Stefano, N., Solymosi, L., & Bendszus, M. (2007). Manifestations of early brain recovery associated with abstinence from alcoholism. *Brain*, *130*(Pt 1), 36-47.

Chapter Fifteen

A Closing Reflection: Recovery, Science, and Systems Transformation

■ SUMMARY OF KEY POINTS ■

- Findings from scientific studies and systems-performance data support extending the acute-care model of intervention into severe AOD problems to a model of sustained recovery management.
- The findings support addiction treatment system redesign efforts focused on infrastructure enhancement; early intervention and improvements in service access and therapeutic engagement; improved systems of individual, family, and community assessment; broadening institutional and professional resources involved in service delivery; a shift in the service relationship to a partnership model; elevating the scope, duration, and quality of services; assertively linking individuals and families to communities of recovery; providing post-treatment monitoring, support, and early re-intervention services for all clients/families for up to five years following completion of primary treatment; and the systematic collection of long-term post-treatment recovery outcomes for all clients/families admitted to addiction treatment programs.
- Selected states, local communities, and addiction treatment institutions have already begun this recovery-focused systems-transformation process.
- Model components of the recovery management model (e.g., assertive outreach, enhanced service access, evidence-based service ingredients, and recovery check-up pilots) are already in operation and can be refined for system-wide implementation.
- An existing model of intervention and long-term support that incorporates many dimensions of the recovery management model is the network of Physician Health Programs in the United States, whose evaluations have revealed the highest long-term recovery rates reported in the scientific literature.
- It is time we proactively managed the prolonged course of addiction and recovery careers rather than focusing on self-encapsulated episodes of biopsychosocial stabilization.

■ A SUMMARY OF FINDINGS

Scientific research findings reviewed in this monograph support calls for a transformation in the structure and service processes in the United States from a model of acute intervention to a broader model of sustained recovery management. More specifically, the findings call for:

- strengthening the infrastructure of addiction treatment to ensure sustained continuity of support and accountability to the individuals, families, and communities served by addiction treatment institutions;
- more proactive systems of identifying, engaging, and ensuring service access for individuals and families at the earliest possible stage of AOD-related problem development;
- individual, family, and community needs-assessment protocols that are comprehensive, strengths-based, and ongoing;
- the utilization of multidisciplinary and multi-agency service models for supporting long-term recovery for those individuals, families, and neighborhoods experiencing severe, complex, and enduring AOD problems;
- the reconstruction of the service relationship from an expert model to a partnership model involving a long-term recovery support alliance;
- expanding the service menu, with an emphasis on evidence-based and recovery-linked service practices;
- ensuring each client and family an adequate dose and duration of pre-treatment, in-treatment, and post-treatment clinical and recovery support services;
- exerting a greater influence on the post-treatment recovery environment by shortening the physical and cultural distance between the treatment institution and the natural environments of those served, and by intervening directly to increase family and community recovery capital;
- assertive linkage of clients and families to recovery mutual aid groups and other indigenous recovery support institutions;
- models of post-treatment monitoring (recovery check-ups for up to five years following discharge from primary treatment), ongoing stage-appropriate recovery education, sustained recovery coaching, and, when needed, early re-intervention; and
- the systematic and system-wide collection and reporting of long-term post-treatment recovery outcomes for all individuals and families admitted to addiction treatment.

Do treatment programs exist anywhere that share these advocated core elements? Readers who work on the frontlines of addiction treatment will likely recognize treatment programs, including their own, that have developed or are moving toward the development of some of these key dimensions. There are, for example, innumerable leadership and workforce development initiatives under way by federal and state treatment agencies, private foundations, and professional associations, as well as institution-based workforce development efforts. One need only look at CSAT and a growing number of Single State Agencies to see efforts to increase recovery orientation and recovery representation in the field's decision-making. While many states and cities are implementing elements of the RM model, the State of Connecticut and the City of Philadelphia stand as the models for transforming behavioral health care services into recovery-oriented systems of care. These sites deserve extensive study for processes and strategies that can be replicated nationally.

At a programmatic level, there are many community education and outreach programs that could be widely emulated (the many outreach programs for women developed in the past two decades come quickly to mind). Global assessment instruments such as the ASI and GAIN are being used more widely in the field. Programs to increase the use of evidence-based practices are evident in most states. Major advances are being made in communities of color (particularly in Native American and African American communities) in linking addiction treatment to broader cultural revitalization and community development efforts. Many treatment agencies are moving deeper into the lives of their communities via home-based service models, satellite offices, and co-location efforts with other community service organizations. Private sector addiction treatment organizations are conducting research on new models of continuing care. These all represent positive developments, but they constitute silos of innovation within particular settings, rather than system-wide changes. The more important question is whether or not there are any widely disseminated models of service that share many of the characteristics we have identified as essential for systems-transformation efforts.

There are recent program innovations that are worthy of close study. For example, collaborative efforts between addiction treatment and the child welfare system have generated programs that combine aggressive outreach, external coercion, case management, gender-specific treatment of wide scope and long duration, family-based assessment and service design (e.g., parenting training/coaching, child-focused services), assertive linkage to communities of recovery, and sustained post-treatment monitoring and support.[798] Also of historical note is the drug court model, which has been repeatedly demonstrated to increase retention, treatment completion rates, and post-treatment

798. White, W., Woll, P., & Webber, R. (2003). *Project SAFE: Best practices resource manual*. Chicago, IL: Illinois Department of Human Service, Office of Alcoholism and Substance Abuse.

and post-supervision abstinence rates.[799] If there is one existing system that comes closest to the recovery management model being advocated in this monograph, it is the national network of Physician Health Programs in the United States.

A Model to Consider

Evaluations of Physician Health Programs (PHPs)—the network of programs sponsored by state medical societies to treat and monitor addicted physicians—report multi-year follow-up recovery rates of 70-96%.[800] The State Medical Society Physician Health Committees established in the 1970s grew into a national network of PHPs that were linked organizationally in 1990 via the formation of the Federation of State Physician Health Programs.

One could quickly argue that any model based on treatment of a high-status occupational group would have little relevance to the mainstream pool of persons entering publicly funded addiction treatment. After all, physicians enter treatment with considerably more recovery capital than most clients entering publicly funded addiction treatment. But before dismissing such potential, one should also consider that studies of physicians entering treatment reveal many factors that would portend a poor prognosis for recovery: family histories of addiction, multiple drug use, co-occurring medical/psychiatric disorders, continual occupational access to powerful psychoactive drugs, elaborate enabling systems, and entry into treatment at late stages of addiction.[801] So what potent ingredients do PHPs possess that offset such risk factors? Key ingredients of PHPs include the following:

- professional education programs that orient physicians to the purpose and elements of the PHP and allow PHP representatives to establish relationships of trust, relationships that attract some physicians prior to formal intervention;
- use of a motivational fulcrum of importance to the client, to initiate and sustain service involvement via contingency management;
- a PHP representative who serves as a combination case manager and recovery coach through the PHP service process;
- referral for a comprehensive (medical, psychiatric, psychosocial, addiction) assessment;
- linkage to a PHP-approved treatment institution;

799. Marinelli-Case, P., Gonzales, R., Hillhouse, M., Ang, A., Zweben, J., Cohen, J., Hora, P.F., Rawson, R.A., & Methamphetamine Treatment Project Corporate Authors. (2008). Drug court treatment for methamphetamine dependence: Treatment response and posttreatment outcomes. *Journal of Substance Abuse Treatment*, *34*, 242-248.

800. Talbott, G., Gallegos, K., Wilson, P., & Porter, T. (1987). The Medical Association of Georgia's impaired physicians' program: Review of the first 1000 physicians—analysis of specialty. *Journal of the American Medical Association*, *257*, 2927-2930; Gastfriend, D.R. (2005). Physician substance abuse and recovery: What does it mean for physicians—and everyone else? *Journal of the American Medical Association*, *293*(12), 1513-1515; Domino, K.B., Hornbein, T.F., Polissar, N.L., Renner, G., Johnson, J., Alberti, S., & Hankes, L. (2005). Risk factors for relapse in health care professionals with substance use disorders. *Journal of the American Medical Association*, *293*(12), 1453-1460.

801. Domino K.B., Hornbein T.F., Polissar N.L., Renner G., Johnson J., Alberti S., & Hankes L. (2005). Risk factors for relapse in health care professionals with substance use disorders. *Journal of the American Medical Association*, *293*(12), 1453-1460.

- recovery coaching, assertive linkage to peer-based recovery support meetings, and exposure to recovery role models of similar background;
- recovery-focused lifestyle modifications (e.g., personal/family lifestyle modifications), a change in medical specialty, prescribing restrictions, external monitoring of prescribing practices, or a change in institutional affiliation or work schedule;
- long-term (five years and longer) monitoring via urine testing and documentation of continuing care and peer-support participation; and
- aggressive early re-intervention at a higher and more prolonged level of care in response to a positive urine screen.[802]

It is noteworthy that PHPs constitute, not a treatment model, but a model of managing the long-term course of recovery.

In a recent and the most comprehensive (49 states) survey to-date of PHPs, high recovery rates of physicians involved in PHPs were supported by comprehensive assessment; a substantial dose of inpatient (30-60 days) and outpatient (60-90 days) treatment; involvement of family and colleagues in the treatment process; participation in Twelve Step support groups; and five years of extended monitoring (drug testing) and support, including an aggressive early response to any lapse or relapse.[803] The percentage of positive drug tests in the sample surveyed was 0.54%, and 78% of physicians did not test positive once during the multi-year course of their monitoring.[804]

This monograph has outlined the scientific conclusions and the systems-performance data supporting extension of the acute-care model of addiction treatment to a model of sustained recovery management. Elements of such a model have already been shown to enhance long-term recovery outcomes, and programs like the PHPs are demonstrating that these elements can be combined and sustained to generate exceptionally high rates of long-term recovery. It is time we proactively managed the prolonged course of addiction and recovery careers and stopped focusing on brief episodes of biopsychosocial stabilization. It is time for national, state, and local initiatives to create recovery-oriented systems of care that can promote this model of sustained recovery management within addiction treatment programs across the country.

802. White, W.L., DuPont, R.L., & Skipper, G.E. (2007). Physicians health programs: What counselors can learn from these remarkable programs. *Counselor*, *8*(2), 42-47.

803. DuPont, R.L., McLellan, A.T., Carr, G., Gendel, M., & Skipper, G. (in press). How are addicted physicians treated? A national survey of physician health programs. *Journal of Substance Abuse Treatment*.

804. DuPont, R.L., McLellan, A.T., White, W.L , Merlo, L.J., & Gold, M.S. (2007). Setting the standard for recovery: Physicians Health Programs. Presented at the Betty Ford Institute Consensus Conference: Extending the Benefits of Addiction Treatment: Practical Strategies for Continuing Care and Recovery, October 3-4, 2007, Rancho Mirage, CA.

Epilogue

The Great Lakes and the Northeast Addiction Technology Transfer Centers (ATTCs) again join to bring addictions and recovery workers and leaders worldwide what we believe to be best thinking on the critical topic of "Recovery Management and Recovery-oriented Systems of Care: Scientific Rationale and Promising Practices."

The completion of this monograph is the fifth effort in an ongoing series that will build and allow us to suggest better ways to carry our life-saving work to frontline staff and leaders working to build recovery and recovery-based models of care for those seeking help. As Dr. Evans notes in his Prologue, this is indeed a "seminal" event.

As ATTCs, we sincerely acknowledge and thank SAMHSA/CSAT for the opportunity that has allowed us to complete this important work. We would also like to thank our parent organizations, the Jane Addams College of Social Work, University of Illinois at Chicago (Great Lakes ATTC) and the Pittsburgh, PA-based Institute for Research, Education and Training in Addictions (Northeast ATTC), for recognizing the value of this material and providing the funding and/or resources to produce it. Most important, we are grateful to William White, author of this monograph, for his truly inspired scholarship and dedicated lifelong efforts to bring recovery and its "emerging science" to us all.

Earlier monographs addressed some of the formative issues surrounding the science of treatment and recovery. Indeed, while a few major researchers have longitudinally studied recovery and what might contribute to it, there has been no cohesive body of work that describes what can best lead to recovery, for whom, when, and how. In short, when someone says, "Treatment works" (and it does), we tend to ask—perhaps silently—"But how did it work this time? For whom? And why?"

As if to prove the simultaneity of "seminal" events, a number have unfolded parallel to this work. For example:

- SAMHSA/CSAT began conducting key Recovery Summits and focus groups across the country that achieved the focused attention of the White House in September, 2007.
- The Robert Wood Johnson Foundation launched its Advancing Recovery Initiative to better learn, among other things, how to support recovery in treatment, while SAMHSA/CSAT sought to improve the availability of such care through its Access to Recovery grants.

- Not by coincidence, states such as Connecticut, New Mexico, Alaska, Arizona, Florida, North Carolina, and New York and major cities like Philadelphia (home of Dr. Evans), Seattle, and Detroit have launched sweeping changes to their treatment approaches, incorporating into those approaches treatment recovery principles and supports, peer mentoring, recovery-specialized competencies/credentials, and new program designs.
- In Philadelphia on May 1st and 2nd, 2008, the Institute for Research, Education and Training in the Addictions hosted a Symposium entitled "Aligning Concepts, Practice, and Contexts to Promote Long-Term Recovery," co-sponsored by the Northeast and Great Lakes ATTCs, the Philadelphia Department of Behavioral Health/Mental Retardation Services, Faces & Voices of Recovery, Community Care Behavioral Health Organization, and Gateway Rehabilitation Center. The Symposium featured Bill White discussing this work and presentations by the foremost authorities and diverse leaders on recovery-oriented systems of care, and structured discussions to move the field forward. (For presentation materials or to view a video of the event, click on www.ireta.org/ireta_main/recovery-symposium.html.
- The SAMHSA/CSAT ATTC National Office and Network in July, 2008 launched a new web site with a special section devoted entirely to listing recovery resources. It can be seen at: http://www.attcnetwork.org/learn/topics/rose/resources.asp.
- A leading researcher, Alexandre Laudet, PhD, with the input of individuals from the recovery community, treatment providers, and researchers, produced a document (available at www.ireta.org) that calls for the now-needed additional scientific answers to questions submitted by these different stakeholder groups. Dr. Laudet's work is very relevant to this monograph, in which Mr. White sets forth a scientific rationale and framework that explains why and how today's clinical practice must have a broader perspective and the increased levels research needed to fully understand and convey the process of "healing" from addiction.

These are especially salient issues, since addiction treatment is often criticized and highly stigmatized. Both the criticism and the stigma could be mitigated somewhat if current practice were backed by a 21st-century science that integrates the best thinking in addressing chronic illness and, most important, includes the lived experiences of those in recovery. Mr. White and Dr. Laudet document well how this approach and the accompanying expanded understanding of treatment and recovery, based on significant early findings, promise to help practitioners in the field use science to better address the illness—and its recovery.

With our vision now focused on treatment and recovery and becoming grounded in scientific evidence, we can begin to see an emerging unified science, instead of science constricted at its base that does not adequately explain or describe the work, experience, and ultimate goal of treatment-recovery! Nevertheless, we must proceed with caution, as we still have much to learn, expectations are high, and resources are scarce. The scientific rationale in this monograph provides a foundation that can be used to pave the way along the path toward systems and clinical change that will document and support the success of new, promising practices and provide the context in which many more individuals and their families will have the opportunity to recognize, achieve, and maintain long-term recovery.

If you have read this monograph, it likely provoked strong reactions, or at least some thoughtful reflection. You may have compared it to your own work or experience and, based on that perspective, confirmed or challenged the validity or worth of this document. Whether you agreed or disagreed with the publication, we have achieved the goal of provoking that thought and experience—one of the main goals of this monograph and of those yet to come. Another equally important goal of this monograph is to set a foundation upon which researchers and practitioners can now further explore, verify, and confirm issues of implementation and aspects of defining and 'languaging' this new science, both quantitatively and qualitatively. This is indeed an amazing challenge and opportunity. This is an amazing time.

This is what we now know, but what is done with it will be up to you. Thanks to Mr. White's work, we have a solid foundation, and our vision of the future is much clearer.

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