

Evaluation Services to Facilitate the Re-engineering of a Performance and Outcomes Management System in Support of a Continuum of Services Model

Final Report 2009

Richard A. Rawson, Ph.D., Rachel Gonzales, Ph.D., Desiree Crèvecoeur-MacPhail, Ph.D., Cheryl Teruya, Ph.D., Diane Herbeck, M.A. and Karen Momoko Poulos, B.A. from UCLA ISAP

Prepared for the Department of Alcohol and Drug Programs,
California Health and Human Services Agency

UCLA

University of California, Los Angeles



Integrated Substance Abuse Programs

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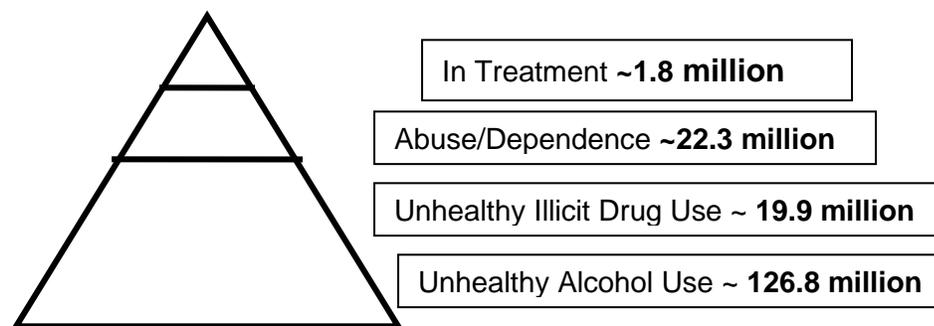
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Preface

An influential report on the management of chronic illnesses (including substance use disorders¹) by the Institute of Medicine (Institute of Medicine [IOM], 2001) stated that the “American health care delivery system is in need of fundamental change.” This report questions the service delivery system for substance abuse disorders, finding that care is often delivered in a fragmented way that “does not meet the needs of clients and is not based on the scientific evidence” (IOM, 2001).

Figure 1² displays system challenges for the alcohol and other drug (AOD) treatment field. The figure illustrates the relative proportion of American adults who use various amounts/intensities of alcohol and other drugs. The current data capture system in the United States only captures the small triangle at the pinnacle of the pyramid representing the approximately 1.8 million individuals nationally who enter publicly funded treatment programs each year (Substance Abuse and Mental Health Services Administration [SAMHSA] Treatment Episode Data Set [TEDS], 2009). As shown by the other sections of the pyramid, there is a striking disconnect between the proportions of individuals receiving treatment and those who are either diagnosed with substance abuse or dependence or shown to be current unhealthy substance users (SAMHSA Office of Applied Science [OAS], 2008). Unhealthy use is defined as any non-medical use of alcohol or illicit substances (including marijuana, cocaine/crack, heroin, hallucinogens, inhalants, or prescription type psychotherapeutics). As shown, an estimated 19.9 million Americans aged 12 or older were current (past month) illicit drug users and 126.8 million were current drinkers of alcohol in 2007 (SAMHSA OAS, 2008).

Figure 1 – Severity of Substance Use and Number of Adults Affected



The prevalence of substance use, abuse, and dependence rises through the teen years, peaking at around 20% between the ages 18 and 20, then declines gradually over the next four decades (Dennis & Scott, 2007). Of the approximately 24.3 million adolescents (age 12-17) in the United States, approximately 16.6% have used alcohol in the past month (10.3% to the point of intoxication), 9.8% have used illicit drugs (6.7% marijuana), and 8.0% self-report criteria for substance abuse or dependence in the past year (SAMHSA, 2007a). Of the approximately 32.4 million young adults (age 18-25) in the United States, approximately 61.9% have used alcohol in the past month (42.2% to the point of intoxication), 19.8% have used illicit drugs (16.3% marijuana), and 21.3% self-report criteria for substance abuse or dependence in the past year (SAMHSA, 2007). Yet it is estimated that less than 1 in 6 adolescents (1.4% of the population) and 1 in 12 young adults with abuse or dependence (1.7% of the population) received any kind of addiction treatment in the past year (SAMHSA, 2007a).

Previous substance abuse treatment studies indicate that the individuals in the “pinnacle group” constitute by far the most severe, chronic, and complicated cases, and they may need chronic care for long periods of time (Anglin, Hser, & Grella, 1997; McLellan et al., 2000). Research has established that substance

¹ Substance use disorders are defined as abuse and dependence by the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (American Psychiatric Association, 1994). Abuse and dependence refer to any continued pathological use of a substance non-medically. Although there are ongoing debates on the exact distinctions between abuse and dependence, the current practice standard distinguishes between the two by defining dependence in terms of physiological and behavioral symptoms of substance use, and abuse in terms of the social consequences of substance use.

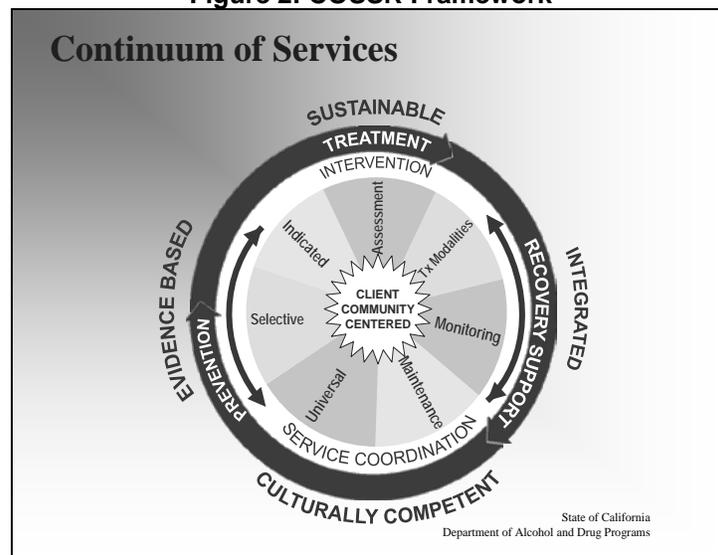
² Adapted from Institute of Medicine, 1990.

use disorders progress through complex repeated cycles of cessation, abstinence, and relapse that occur over a lengthy trajectory (Hser, Longshore, & Anglin, 2009) and require continuous monitoring and management over extended periods, and perhaps the lifetime, for most individuals³ (Cacciola et al., 2008; McKay, 2005). Specifically, the majority of longitudinal treatment studies report most clients undergo three to four episodes of care before reaching a stable state of abstinence (Grella & Joshi, 1999; Hser, Anglin, Grella, Longshore, & Prendergast, 1997; Hser, Grella, Chou, & Anglin, 1998) and within 12 months after a given treatment episode, 25–35% of clients return to treatment on their own—with the rates growing closer to 50% after 2–5 years (Hubbard et al., 1989; Peterson, et al., 1994; Simpson & Savage, 1980a,b; Simpson et al., 2002). Ideally, according to patient placement criteria standards developed by the American Society for Addiction Medicine (2001), detoxification, residential care, and intensive outpatient care should be followed by treatment at a less intensive level of care (i.e., outpatient or continuing care); however, it has been estimated that only about 1 in 5 individuals in need of such step-down care actually receive it (Godley et al., 2002; McKay, 2001). The chronic nature of AOD problems necessitates that publicly funded systems of care provide a comprehensive continuum of services for substance abusers. Public health and mental health literature provides useful models for bringing about system-of-care change in the alcohol and other drug (AOD) treatment system. These models are based on comprehensive reviews of relevant literature, collection of scientific input related to the foundation and transformation of a system of care (current and future policy applications and funding strategies), and the use of demonstration projects to examine the feasibility and outcomes of specific system changes.

Continuum of Services System Re-engineering

In an effort to move toward a continuum-of-services platform that recognizes AOD problems as falling under a chronic illness model, the California Department of Alcohol and Drug Programs (ADP) established the Continuum of Services System Re-engineering (COSSR) Task Force in May 2006 (for the task force report, see California ADP, 2008). This effort focuses on “developing a comprehensive, integrated, continuum of AOD services that includes prevention, intervention, treatment and recovery” (see Figure 2). This reengineering effort is consistent with the 2006 update of the Institute of Medicine’s Quality Chasm report, which recommends that “substance use disorder treatment move toward building its standards of care, performance measurement and quality, information and cost measures, upon a chronic illness model rather than the current, acute illness-based, fragmented and deficient system of health care.”

Figure 2: COSSR Framework



³ Substance abuse is more likely to be diagnosed among those who have just begun drug-taking and is often an early symptom of substance dependence. However, substance dependence can appear without substance abuse, and substance abuse can persist for extended periods of time without a transition to substance dependence (APA, 1994).

UCLA Integrated Substance Abuse Programs –ADP Work Plan Objectives

As part of this effort, ADP initiated a contract with UCLA Integrated Substance Abuse Programs (ISAP) to facilitate research and evaluation services addressing core objectives of the COSSR initiative. The main objective was to *“Develop useful data information systems and standards for prevention, treatment, and recovery support services.”* A sub-objective was to⁴ *“Identify and apply evidence-based practices for AOD prevention, treatment, and recovery from AOD problems.”*

For the purposes of addressing these COSSR-related objectives, UCLA addressed the following three objectives over the course of the past year (2008-09):

- *Objective 1:* Development of a Framework for a Performance and Outcome Measurement/Management System
- *Objective 2:* Identification of Performance and Outcome Measurement in Support of a Continuum-of-Services Model
- *Objective 3:* Putting It All Together: Planning for the Redesign of the System in Support of a Continuum of Services

Addressing these three objectives is essential for identifying a performance and outcome measurement framework for the state that accommodates the system-of-care change that COSSR seeks to bring about across the AOD treatment system—manage and monitor substance use disorders as a chronic illness. Implementing such a system change entails a fundamental paradigmatic shift and transformation of the current acute-based data capturing system to include performance measures that allow for an assessment of program processes that achieve significant levels of improvement in quality service delivery. In other words, the new system would move away from evaluating the impact of services that are delivered in discrete episodes on client outcomes (symptom elimination) to a continuity-of-services paradigm. This paradigm must include a data capturing system that monitors how programs are performing with respect to critical elements of a chronic illness model—engaging, retaining, and transferring clients between appropriate levels of care, with wellness and long-term self-sustainable recovery as outcomes.

Organization of the Final Report

This final report is divided into eight chapters that address the three objectives. Chapters 1 through 3 provide comprehensive literature reviews on performance measurement and management. Chapter 4 reviews standards of performance measurement for adoption in California. Chapters 5 and 6 present goals and objectives related to performance measurement and management from the state and local levels. The last two chapters (7 and 8) conclude with key recommendations from research and policy experts as well as lessons learned from a selected group of single state agency directors.

⁴ A COSSR objective that was partially integrated into this work as a sub-objective.

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Chapter 1: Framework for Performance and Outcome Measurement

As part of an effort to address Objective 1: *Development of a Framework for a Performance and Outcome Measurement/Management System*, this chapter reviews and synthesizes the relevant literature (published and unpublished) and other available materials (e.g., reports, presentation slides, and documents accessed via the Internet) on performance measurement. The first section contextualizes performance measurement within the field of substance abuse as well as in relationship to the general healthcare field. The second section focuses on performance measurement models, with emphasis on identifying models and measures currently established and recommended across the substance abuse treatment community. The third section describes the extent to which performance measurement differs in specific treatment settings and for special populations, including adolescents, persons with co-occurring substance abuse and mental disorders, women, persons who are homeless, ethnic/racial minorities, and drug-involved offenders. The chapter concludes with a brief summary and conclusion.

Background of Performance Measurement in the Substance Abuse Field

The need to improve the accountability and ensuring the quality of publicly funded substance abuse treatment provided in the United States (U.S.) has been increasingly emphasized at the federal, state, and local levels, and underscored by the seminal Institute of Medicine reports on improving health care in the United States (IOM, 2006). Pressures for cost containment and improved outcomes have directed federal, state, and county treatment agencies toward the use of performance and outcomes management data systems, evidence-based practices, and quality improvement strategies.

Over the last 100 years, ideologies concerning addiction have gone through a wave of different conceptualizations, ranging from demonization, criminalization, medicalization, and more recently (*within the past decade*) chronicification. These viewpoints have been largely influenced by competing values and interests concerning morality, law, and medicine/health. Given the illegal nature of most substances, it is not difficult to envision substance use as “immoral,” “sinful,” or “criminal,” particularly for the lay public. President Bush, for example stated: “we must reduce drug use for one great moral reason - over time, drugs rob men, women, and youth of their dignity and of their character...illegal drugs are enemies of ambition and hope, so when we fight against drugs, we fight for the souls of our fellow Americans” (The White House, 2002).

The medicalization of addiction as an “acute disease” during the late 1920s provided the medical profession with authority over establishing the nature of addiction and its treatment, as recognized by both the American Medical Association (AMA) in 1954 and World Health Organization (WHO) Expert Committee in 1957. Defining addiction as a “psychological disorder” in the 1950s complemented the medical disease model of addiction by identifying specific clinical symptoms of abuse and dependence or what is now referred to as “substance use disorders” in the *International Classification of Diseases (ICD-10)* and the *Diagnostic and Statistical Manual of Mental Disorders (DSM-IV; APA, 1994)* manuals. The main tenets underlying these disease-disorder oriented models include: (1) loss of control; (2) physiological dependence, as manifested through tolerance (or the need to increase drug dose to experience the same effect) and withdrawal upon drug cessation; and (3) psychological dependence (also referred to as “craving”), characterized as a strong preoccupation to have the drug (Goodman, 1990). Moreover, under a medical/psychiatric framework, notions of disease imply that addiction can be cured. Traditionally, treatment responses underlying these models have, for the most part, focused on finding the “magic bullet” or “quick fix” solution for addiction. This acute-oriented medical model has dominated the addiction field for several decades.

This underlying medical philosophy has influenced the way services and data capturing systems address substance-related problems. Specifically, the performance and accountability of virtually all alcohol and other drug (AOD) treatment programs since the 1970s have focused solely on changes in client outcomes⁵ from short-lived treatment (typically 90 days or less; McLellan, Chalk, & Bartlett, 2007). This treatment model also defines success as “treatment completion” from such acute care, with the

⁵ Three primary outcomes include: alcohol and drug use, criminal activity, and employment (productivity).

fundamental assumption being that “addiction is acutely treatable or curable,” and that once addicted individuals complete one treatment, they will no longer use drugs and will return to “normal health” with lifetime immunity to drug use (Dennis et al., 2006). Hser and others (1997) argue that the current treatment system leads many to develop “treatment careers,” which entail having a number of relatively short treatment episodes over time, which are typically not integrated in any way. McLellan and others (2005) also contend that this tendency has led many to conclude that treatment is not effective, since the majority of individuals entering treatment do not result in “successful completion.” Furthermore, Stitzer and colleagues (1983) assert that the therapeutic success of this acute-based treatment strategy is counterproductive. Research demonstrates that successful completion of such interventions will result in only temporary symptom reduction (McLellan et al., 2005) and that without engagement into continuing care or some form of social support venue/activity, prolonged success will be virtually unobtainable, unless it is intended that the individual will never return to external environments.

With the advent of neuroscience and longitudinal research, views of addiction as an acute medical disease evolved. Advances in neuroscience and technology, including brain imaging techniques, for instance, have resulted in the discovery that addiction stems from specific chemical and molecular processes and functional changes in the brain (Betz et al., 2000; Ilyina et al., 1998; Nestler et al., 1993). These scientific discoveries led to the re-conceptualization of addiction as a brain disease (Leshner, 1999; Leshner, 2001), as promulgated by the National Institute on Drug Abuse (NIDA). Similarly, findings from longitudinal research studies have reframed addiction as a chronic and relapsing disorder (Anglin, Hser, & Grella, 1997; Hser et al., 1997). Under this framework, researchers (e.g., McLellan et al., 2000) have looked to other areas of public health for insight into the chronic and relapsing nature of substance use disorders, and why such disorders have seemed so resistant to acute-disease-based treatment. McLellan et al. (2000) uncovered many similarities between addiction and chronic illnesses, including: (1) genetic, behavioral, and social influences, (2) similar treatment response patterns, and (3) high relapse rates posttreatment, giving way to the chronification of such disorders.

Given the conceptual shift in viewing addiction as an episodic curable disorder to a relapsing and chronic health problem that tends to re-occur over time (McLellan, 2002), it seems more appropriate to treat and evaluate substance use disorders under a public health chronic illness framework. Some therapeutic models of treatment have already been designed to address addiction as a chronic illness, including (1) methadone maintenance, especially for opiate addiction, which maintains addicted patients in a more stable and functional state over time, rather than cure them (Ball & Ross 1991); (2) therapeutic communities and other long-term residential programs, which take the position that some addicts require treatment over an extended period of time (De Leon, et al. 2000); and (3) self-help therapeutic programs, which assert that recovery is a life-long process and therefore urge substance-dependent individuals to remain active in these programs for considerable periods of time (Humphreys, 2004). Chapter 2 goes into more detail related to the chronic nature of addiction and appropriate treatment responses.

In addition, a public health chronic illness framework for measuring the effectiveness of interventions suggests that rather than focusing on client outcomes, a better way of estimating treatment success is on measuring program performance or factors related to improved client outcomes, including immediate treatment access; treatment engagement (Garnick et al., 2007; Simpson et al., 2007); treatment retention (DATOS studies - Hubbard et al., 2001; Simpson et al., 2004); use of evidence-based practices, including both psychotherapy and pharmacotherapy (NQF, 2006; Power et al., 2005); supplemental/ancillary services for medical, psychiatric, and/or family problems (McLellan et al., 2008); participation in mutual self-help groups (McKay, 2005); and continuity of care post-initial treatment (Dennis et al., 2006; Godley et al., 2008), all of which have been identified as critical performance measures.

In light of the findings concerning treatment effectiveness and the challenges associated with the AOD acute-based service and data capture system, researchers and policy makers alike are beginning to shift their attention toward understanding the role of performance measurement that focuses on the “program milieu” in the AOD treatment system for producing long-term positive outcomes (McKay, 2005). Implementing such a system change entails a fundamental paradigmatic shift and transformation of the current acute-based service delivery system and data capturing system to include performance measurement models that allow for an assessment of program processes, with the goal being to achieve

significant levels of improvement in service quality. In other words, a system is needed that moves away from evaluating the impact of services (that are delivered in discrete episodes) on client outcomes (symptom elimination), which is “removed from the program milieu context,” to a continuity-of-care paradigm of data capture that monitors how programs are performing with respect to critical elements of a chronic care model—that is, their success with access, engagement, retention, evidence-based practices, and continuity of care, with wellness and long-term self-sustainable recovery as the client outcomes (McLellan, Chalk, & Bartlett, 2007).

An integral component of performance measurement is performance management,⁶ which refers to processes for establishing performance measures, and obtaining, reporting, and using these data to determine satisfactory performance, improve services, and inform decisions for improving the quality of care (Durman, Lucking, & Robertson, 2008). Performance management and measurement are integral parts of health care (IOM, 2001) that ensure that standards of quality are adhered to and that safety and wellness are promoted (Durman et al., 2008). Numerous terms have been used when referring to performance measurement and management, including “performance measures and indicators,” “performance monitoring,” “quality improvement,” “pay-for-performance,” and “quality management.” Performance measures represent constructs for specific indicators, or numeric expressions, of performance measurement constructs. For example, retention in treatment is a performance measure, and the indicator of retention is the length of time (in weeks) spent in treatment. The above terms are described in more detail in Chapter 3 on performance management.

Performance Measurement in the General Healthcare Field

Multiple and diverse efforts have been underway in the general healthcare field to measure, monitor, improve, incentivize, and reward quality at the local, state, and national levels, partly in response to the trend toward managed care, and most recently, in response to the IOM reports on improving health care (IOM, 2000; IOM, 2001; IOM, 2006) which challenges healthcare systems in the United States to improve processes related to the delivery of care. Performance measures have been used for purposes of accreditation, regulatory oversight, contracting for services, competition, and quality improvement (IOM, 2001) and have largely been focused on financial aspects of the delivery of health care; however, non-financial measures of performance are increasingly emphasized (Bartlett, Chalk, Manderschied, & Wattenberg, 2005). Health plans, such as Medicaid, have implemented incentive programs to foster improvement in health care processes and clinical outcomes (Highsmith et al., 2006), and most commercial managed care agencies (e.g., health maintenance organizations, preferred provider organizations, point-of-service plans) are using performance indicators, including patient satisfaction surveys, evidence-based practices, and, less frequently, clinical outcome assessments (Merrick, Garnick, Horgan, & Hodgkin, 2002). Further, the Commission on the Accreditation of Rehabilitation (CARF; www.CARF.org) was one of the agencies at the forefront of focusing on performance monitoring to foster quality care; the Joint Commission on the Accreditation of Health Care Organization (JCAHO; www.JCAHO.org) requires all of its inpatient behavioral health care programs to use an accredited performance and outcome monitoring vendor and since 1999 has required that they report on both clinical performance measures and outcomes. There has also been a shift toward using performance measurement as part of pay-for-performance systems at various levels (e.g., national, state). For example, in 2005, the National Quality Forum (NQF), a non-profit organization established to develop and implement a strategy for healthcare measurement and reporting at the national level, convened a conference to begin developing consensus standards to be used in pay-for-performance initiatives (Wu, Nishimi, Kizer, 2005). As another example, the Integrated Healthcare Association (IHA), through a collaborative effort among key stakeholders, designed and developed the California Pay for Performance program, which includes standard performance measures across multiple health plans, physician groups, and patient populations (Integrated Healthcare Association, 2006), with the intent to bring about greater program accountability and safer health care.

⁶ Chapter 3 presents a systematic and in-depth review on performance management.

Performance Measurement Models in Substance Abuse Treatment

In general, the substance abuse field has lagged behind the general healthcare field in terms of measuring and managing performance (Garnick et al., 2002; McLellan, Bartlett & Chalk, 2007). However, performance measurement and management initiatives across national, state, and local levels have been recently launched and are gaining momentum. The first among these initiatives includes the Government Performance and Results Act (GPRA) of 1993, which began requiring federal agencies to develop performance standards to improve accountability and improve effectiveness. Measures that have gained widespread use, and thus provide an initial framework for a common set of measures for the substance abuse field are those developed by the Washington Circle and the National Quality Forum. (Chapter 4 provides information on ratings of these and other performance measures.)

Washington Circle Group

The Substance Abuse and Mental Health Services Administration's (SAMHSA) Center for Substance Abuse Treatment (CSAT) in 1998 supported the development of the Washington Circle, a multidisciplinary group of service providers, researchers, managed care representatives, and policymakers, charged with identifying and establishing a set of performance measures for substance abuse treatment (McCorry et al. 2000). The Washington Circle group initially developed seven performance measures. Three of the measures were specifically designed for managed care organizations using administrative databases (e.g., Health Plan Employer Data and Information Set [HEDIS[®]]), and they evaluated the success of programs in educating patients about AOD disorders, identification of enrollees with a substance abuse problem, initiation of treatment, linkage of AOD plan services, treatment engagement, interventions for family members/significant others, and maintenance of treatment effects (McCorry et al., 2000; Garnick et al., 2002). These performance measures represent a core set of measures that specify treatment services patients receive across the four stages in the continuum of care: prevention (education), intervention (identification), treatment (initiation and engagement), and recovery (maintenance).

Below is a description of these performance measures.

- *Educating Patients about AOD Disorders*: percentage of adult patients with primary care visits who are advised or given information about AOD disorders.
- *Identification*: percentage of adult enrollees with a substance abuse claim, defined as containing a diagnosis of substance abuse or dependence or a specific substance abuse-related service, on an annual basis.
- *Treatment Initiation*: percentage of adults with an index diagnosis of AOD abuse or dependence who receive any additional AOD services within 14 days following identification.
- *Linkages to Detoxification and AOD Plan Services*: percentage of patients with an index detoxification who initiated AOD plan services within 14 days following detoxification.
- *Treatment engagement*: percentage of adults diagnosed with AOD disorders that receive three plan-provided AOD services within 30 days of the initiation of care (or two additional substance abuse services within 30 days of the initiation of care).
- *Interventions for Family Members/Significant Others*: percentage of adults diagnosed with AOD disorders who report family members/significant others who received preventive interventions.
- *Maintenance of Treatment Effects*: percentage of adults with AOD disorder who report specific services provided and or monitored by the plan to promote and sustain positive treatment outcomes post-discharge.

Adoption and Dissemination of the Washington Circle Performance Measures

The Washington Circle measures have been adopted by a number of national, state, and local entities. For example, the National Committee for Quality Assurance (NCQA), a private not-for-profit organization founded in 1990 that was created to improve health care quality, adopted the Washington Circle identification, initiation, and engagement measures for inclusion in its Health Plan Employer Data and

Information Set (HEDIS[®]) in 2004 (Garnick et al., 2006; NCQA, 2007, 2009), which is the most widely used set of quality measures in the nation's managed health care sector (Harris et al., 2008).

Recently, important and practical health services research by Gustafson and colleagues has shown that incorporating performance measurement and changes in administrative and clinical procedures (performance management such as Network for the Improvement of Addiction Treatment [NIATx]) can dramatically improve engagement and retention rates in existing treatments (Capoccia et al., 2008; McCarty et al., 2007). The Strengthening Access and Retention (STAR) grants, funded by the SAMHSA Center for Substance Abuse Treatment and the Robert Wood Johnson Foundation (RWJF) are among such initiatives that use Washington Circle measures as part of their reporting requirements. Further, the two funding agencies provide support for the STAR State Implementation project (STAR-SI), which helps substance abuse treatment agencies develop and implement process improvement techniques, and sustain the infrastructure focused on the Washington Circle and other performance measures established to enhance access (reduce wait time) between a client's first request for services and their first treatment session, increase admissions, reduce client no shows/increase engagement, and increase the treatment continuation rate between the first and fourth treatment sessions. The Network for the Improvement of Addiction Treatment (NIATx), which also uses measures of the Washington Circle group (e.g., engagement) is focused on improving the early stages of treatment (Garnick et al., 2008) and provides the tools for improving organizational performance to increase quality of care (Garnick et al., 2009; McCarty et al., 2007; www.niatx.net). Participating STAR-SI states include Florida, Illinois, Iowa, Maine, Montana, New York, Ohio, Oklahoma, Wisconsin, and South Carolina.

Veterans Affairs (VA), the largest integrated health system in the nation, began its transformation in 1995 from a system with a reputation for inefficiency and poor health care to a success story in terms of providing overall quality care (Oliver, 2007), and serves as another performance measurement model using Washington Circle measures. VA facilities are organized into regional networks and are held accountable for managing patient care, which has been shifted from inpatient to more outpatient settings, and the VA's automated information system has been improved to allow for provider access and entry of patient information using centralized electronic records (Kerr & Fleming, 2007; Tiet, Byrnes, Barnett, & Finney, 2006). These and other changes have enabled the VA to establish quality standards for health care delivery, monitor performance, and link compensation to performance measures (Harris, Humphreys, Bowe, Kivlahan, & Finney, 2009). Key components that have been effective in facilitating service change (and improvement) include clinically and evidence-based practices, as well as competition among regions and directors (incentivizing performance; Kerr & Fleming, 2007). Specifically, the VA's Program Evaluation and Resource Center has also adopted three Washington Circle performance measures (identification, initiation, and engagement) to evaluate the quality and effectiveness of substance use disorder treatment at its facilities (Harris, Humphreys, & Finney, 2007).

To date, research studies examining the relationship between Washington Circle performance measures and substance abuse treatment outcomes have been limited. Garnick and colleagues have conducted studies demonstrating the efficacy of performance measures in predicting client outcomes—specifically that increased initiation and engagement leads to decreased criminal involvement and substance use (Garnick et al., 2007; Garnick et al., 2009). There have also been several studies conducted at the VA to examine the Washington Circle performance measures of initiation and engagement in relationship to patient outcomes. One of the studies examined the degree to which these performance measures were associated with facility-level client improvement on clinical outcomes 7 months posttreatment (Harris et al., 2007). Harris et al., (2007), utilizing case-mix adjustment, observed that higher initiation rates were *not associated* with facility-level improvement in Addiction Severity Index (ASI)⁷ alcohol composite scores but were modestly related to increased improvement in ASI drug composite scores; identification and engagement rates *were unrelated* to improvements in client clinical outcomes. The authors of the study suggest that the Washington Circle indicators that target performance or processes early in treatment may not be sufficient to impact post treatment outcomes and that other process supplemental measures should be considered when examining treatment effectiveness. A second VA study found that VA

⁷ The ASI is a standard instrument used for treatment planning and to measure changes in addiction severity across seven domains: alcohol, drug, legal, medical, psychiatric, social, and family.

patients meeting the engagement indicator improved significantly more in the alcohol, drug, and legal domains of the ASI than patients who did not engage (Harris et al., 2008). A third study by Harris et al. (in press) reported that VA patients having contact with substance use disorder specialty treatment had higher rates of initiation and engagement compared to patients in psychiatric or other medical locations. The authors suggest that the performance measures—initiation and engagement—might actually measure facility performance rather than the quality of the substance use disorder specialty care itself, and thus recommend caution when combining inpatient and outpatient performance on these measures. McCarty (2007) proposes that the somewhat mixed findings from some studies examining the association of Washington Circle performance measures with improvements in outcomes (e.g., Garnick et al., 2007; Harris et al., 2008) may be due to differences in methodology (testing different aspects of performance measurement systems) rather than the measures themselves, and implies that caution should be exercised in their interpretation. McCarty (2007) also indicated that performance measurement will remain a mainstay in monitoring and improving the performance of the AOD treatment system.

Other Models of Performance Measurement in Substance Abuse Treatment

Substance Abuse and Mental Health Services Administration (SAMHSA)

At the federal level, a major goal of the Substance Abuse and Mental Health Services Administration (SAMHSA) National Outcome Measures (NOMs) is also to “improve service efficiency through the use of indicators of program accountability and performance” (SAMHSA, 2005), which entails the assessment and reporting of performance measures in the following domains:

- Treatment capacity (admissions)
- Access to services
- Retention
- Use of evidence-based practices (EBPs)

SAMHSA has developed the National Registry of Evidence-Based Programs and Practices (NREPP) (SAMHSA, 2005), a rich repository of evidence-based practices and programs, as well as recently established a Forum on Performance Measures for Behavioral Health and Related Service Systems (known as the *Forum on Performance Measures*), a collaborative effort among the Adult Mental Health Workgroup, the Child/Adolescent Mental Health Workgroup, the Mental Health Statistical Improvement Program, and the Washington Circle group to coordinate efforts across mental health and substance abuse service systems to identify and develop common indicators focusing on quality care. One performance measure identified by the group that has been tested and validated is the “Clients’ Perception of Care” (Bartlett et al., 2005). This measure of client perceptions is being assessed by the Modular Survey, which includes 17 items (12 items addressing quality in terms of social connectedness and client perception of care and 5 for perceived outcomes; Bartlett et al., 2005). See the Washington Circle Web site at www.washingtoncircle.org for more information about the Modular Survey.

National Quality Forum (NQF)

Recent quality improvement efforts at the national level also use a performance measurement framework. Specifically, the National Quality Forum (NQF) developed a set of consensus standards for addiction treatment related to quality/performance measurement. The NQF is a non-profit organization established to develop and implement a national strategy for health care quality measurement and reporting and whose members come from the health care system. In 2007, the NQF, with support from the Robert Wood Johnson Foundation, issued voluntary consensus standards for service quality related to substance use conditions (see the NQF Web site at www.qualityforum.org). These standards are intended to guide providers on how to achieve desired outcomes, purchasers in making reimbursement and coverage policies, and patients in making decisions about services (NQF, 2007). Capoccia (2008) has organized these nationally endorsed standards into the following domains, which have direct parallels to performance measures, especially the Washington Circle measures and SAMHSA’s NREPP.

Quality Treatment Domain 1: Identification of substance use conditions

There are two performance measures that address this domain: (1) screening and (2) assessment and diagnoses for positive screens.

This domain highlights the importance of screening and assessment to bring about greater system accountability for delivering quality services. There is wide agreement across the AOD treatment field on the need to use standardized screening tools (e.g., Substance Abuse Severity Screening Inventory - SASSI) and multidimensional assessment instruments, such as the Addiction Severity Index, or placement criteria tools, i.e., the American Society of Addiction Medicine (ASAM) levels of care. There is also strong support for ensuring that the “treatment components” or ingredients of treatment, within the levels of care are appropriate. In other words, there should be practice standards in place that require programs to have an appropriate array of services or treatment components available within each level of care to be able to take the necessary action(s) needed when AOD problems are identified.

Quality Treatment Domain 2: Initiation and Engagement in Treatment

There are essentially five performance measures that address this domain: (1) access, (2) initiation, (3) engagement, (4) withdrawal management, and (5) retention. Below is a brief description of each (with further discussion of these measures in the proceeding sections).

- Access: Service providers should ensure timely access to needed services (based on screening and assessment).
- Initiation/Engagement in Treatment: Providers should systematically promote initiation of care and engagement in ongoing treatment for substance use problems. Persons with substance use problems or dependency should receive supportive services to facilitate their participation in ongoing treatment.
- Withdrawal Management: Based on a systematic assessment of the symptoms and risk of serious adverse consequences related to the withdrawal process, support (including pharmacotherapy where indicated) should be provided to manage the symptoms and adverse consequences of withdrawal. Withdrawal management alone does not constitute treatment for dependence and should be linked with ongoing treatment for substance use.
- Retention: Service providers should periodically re-evaluate a client’s treatment plan and status to support retention in treatment.

Quality Treatment Domain 3: Therapeutic Interventions to Treat Substance Use Illness

There is one performance measure that addresses this domain—the use of evidence-based practices. This measure has three essential components of care: (1) pharmacotherapy/medications, (2) psychosocial interventions, and (3) case management as described above under Domain 1.

Components of care are essentially evidence-based clinical practices, including

- medications (which a program should have the capability to provide either on-site or through consultation with a medical clinic) including
 - Buprenorphine and Naltrexone for opiate addiction
 - Naltrexone for alcohol addiction – e.g. Revia, Trexan, Vivitrol
 - Topiramate (Topimax) for cocaine treatment, and
 - Anti-smoking medications (Chantrix, Nicotine patch)
- psychosocial therapies—a program should have someone trained to provide at least one of the following individual therapies
 - Motivational Enhancement Therapy [MET]
 - Cognitive Behavioral Therapy [CBT]
 - Twelve Step Facilitation Therapy [TSF] and
 - Community Reinforcement and Family Training)
- case management—a program should have the ability to provide a client a case manager who can link them to health and social services to promote employment, education and training, and continuing care services, e.g., drug-free housing, etc).

Based on several interviews with state directors of AOD treatment programs (as described in Chapter 8), some clients who seek treatment will not need most levels of care or most components of care within any level, although others will require a full continuum of care to prevent their relapse to AOD abuse. For example, a client entering outpatient treatment may be drug-free for a month, get a job, and stay drug-free for another two weeks while in treatment, but the client's first pay check may trigger a relapse or binge that will require treatment program action. If the relapse is severe and the client rapidly loses control, the individual may need a period (i.e., a week) in a drug-free residential or detoxification setting.

Quality Treatment Domain 4: Continuing Care Management of Substance Use Illness

There are two performance measures that address this domain: (1) long-term continuing care management and (2) recovery support services.

This domain stresses the importance of clients receiving continuing care services post-discharge from a given treatment episode and that recovery services should be coordinated to address the management of their substance use problems over time (as well as any co-occurring mental or social conditions). See Chapter 2 for a more detailed discussion of these measures.

Texas Christian University (TCU) Group

A group at Texas Christian University (TCU) has made a large contribution to developing a conceptual model of the treatment process to understand treatment functions and client outcomes. The TCU model was primarily developed to address the high and very rapid rates of client drop-out during the initial month of admission (Simpson et al., 2007). The TCU viewed the drop-out issue as a matter of lack of engagement by clients due to two general factors: (1) the program milieu—clients are either pushed away by a “precipitating force” within the program (i.e., lack of client-program fit); and (2) the clients’ external environments—clients are “pulled” away by an outside force (triggers for drug use in the external environment, including a job or unreliable employment, school, a significant other, involvement with the criminal justice system elsewhere, or other issues, such as lifestyle instability). To understand some of the programmatic issues related to high client drop-out, Simpson, Joe, Dansereau, and Chatham (1997) and Simpson, Joe, Rowan-Szal, and Greener (1997) developed an engagement performance measure to focus on key client attributes that have been found to affect treatment engagement, including cognitions or thoughts related to treatment motivation and readiness. TCU has found through previous studies that these elements are important determinants of engagement in AOD treatment, which are in turn related to program completion and other core treatment outcomes, such as reduced drug use, involvement in social support, and reduced criminal activity (Joe et al. 1998; Prochaska, et al. 1992; Stahler, et al. 1993; Simpson, Joe, Rowan-Szal, 1997; Simpson, 2004). Another focus of the TCU group is “organizational performance,” which takes into account the organizational factors that affect the treatment process, including the “specific operations, procedures, and conditions” of the organization that define the treatment process (Joe et al. 1994). For instance, the organizational performance model emphasizes a focus on treatment program characteristics that are relatively stable, including size, location, physical plant, philosophy and goals, operational structure, staff, client composition, and use of evidence-based practices and standards, as well as other treatment events or procedures and actions by staff, including services provided, dosage, take-home privileges, and drug testing.

The aforementioned initiatives have, at best, only partially succeeded in establishing standard performance measures for the AOD treatment field. There is still a substantial amount of work being done (McCorry et al., 2000) to identify the most useful performance measures, establish performance measurement criteria, and address the difficulties associated with performance measurement (see Chapter 4 for more details). However, these initiatives are useful in developing an initial framework for performance and outcome measurement.

Why is performance measurement often reported as difficult to implement? The idea behind performance-based measurement is both simple and powerful: programs can work to improve a client's outcomes. Therefore, to determine a program's quality, we can identify the desired interventions and strategies to be used to engage or retain a client and measure the rates at which the desired outcomes occur. As straightforward as this might appear, many problems can make the use of performance

measures extremely difficult. One problem is that almost all client outcomes are highly probabilistic. Positive outcomes do not always occur when a program does the right thing, and they can occur even when a program does the wrong thing. This makes the measurement of quality of treatment fundamentally different from quality measurement in most other industries. Specifically, although we can see individual outcomes, such as “Mr. Smith” having a heart attack, we cannot draw the same types of causal conclusions that we would if we saw a toaster burning a slice of bread. Another problem is the long delays in seeing the “impact” or successful outcomes of treatment, which has been well-established in the substance abuse treatment outcome research. Another problem is that a program cannot fully control client outcomes as outcomes are largely a byproduct of not only the program milieu, but also client characteristics and the greater social and cultural world that the client enters post-treatment. Overall, performance measures are more direct measures of program quality than client outcome measures as they are collected frequently, they allow for immediate program changes and improvement, and they are controllable at the program level.

Other Performance Measures Used in the AOD Treatment Field

Continuity of Care

Because of the chronic and relapsing nature of substance use disorders, clients are frequently transferred between levels of care after their initial phase of treatment has ended. As a performance measure, this is referred to as continuity of care, which focuses on the extent to which clients are receiving appropriate levels of care within the treatment continuum. Basically, the idea of continuity of care is that clients will be transferred from an intensive or high level of care (i.e., detoxification or residential services) to a less intensive or lower level of care (i.e., outpatient or continuing care). Specific continuity-of-care performance measures have been recently developed by the Washington Circle Group (Garnick et al., 2009). Table 1 presents these measures by different levels of care (treatment type/modality). The Washington Circle continuity-of-care measures are currently being pilot tested, and several studies have already been completed. In one published study examining the feasibility of the measures using existing state and local administrative data, Garnick and colleagues (2009) reported that state agencies were able to make the calculations but found wide variation across states. In another study that tested the validity of the continuity-of-care measures among adolescents discharged from residential treatment, Godley and colleagues (in press) found that continuity-of-care measures were adaptable into adolescent treatment settings to predict client outcomes, such as abstinence from both alcohol and drugs.

Other efforts to develop continuity-of-care measures include those by the Joint Commission and the American Society of Addiction Medicine (ASAM). The Joint Commission, an independent, non-profit organization that accredits and certifies more than 15,000 health care organizations and programs in the United States, established new requirements in 2006 that expanded its behavioral health care standards to include services that support a recovery-oriented philosophy and approach to care, treatment, and services (www.jointcommission.org). The continuity-of-care performance measure has been integrated into its 2006-2007 Comprehensive Accreditation Manual for Behavioral Health Care with a focus on care coordination and community integration. On the other hand, ASAM has developed essential criteria that support the notion of care continuity, especially for detoxification as it is not considered to be a stand-alone “treatment” but rather requires additional treatment post medical detoxification.

Importance of Specific Performance Measures

Access

One of the factors impeding treatment entry is waiting time—the period when individuals seeking treatment are delayed in receiving services or even denied referral for a service of interest (Appel et al., 2004; Farabee et al., 1998; Rotstein & Alter, 2006). The likelihood of treatment-seeking substance abusers actually entering treatment any time after assessment is often less than 50% (Stark et al., 1990). In part, this is related to substance abusers' limited tolerance for treatment wait time, with longer waits associated with higher rates of pretreatment attrition (Hser et al., 1998; Kaplan & Johri, 2000). Access is a priority performance measure among several states across the county, given that substance users who

wait for treatment services are less likely to enter treatment and often continue to use drugs, placing them and society at increased risk for major public health problems (Chawdhary et al., 2007; Donovan et al., 2001; Hser et al., 1998; Pollini et al., 2006).

Access is particularly important for special populations, including highly severe drug users such as injection users, pregnant women, and homeless populations. In fact, there are federal mandates placed upon every state to provide priority access to the first two, including pregnant women who inject. Among injection drug users who attempted to enter treatment, the majority (67%) do not go to their first visit because of being placed on a waiting list (Pollini, McCall, Mehta, Vlahov, & Strathdee, 2006). Waiting time has also been shown to negatively affect treatment engagement and retention (Simpson et al., 1997; Claus & Kindleberger, 2002), although its effect is inconsistent as other studies have not supported this relationship (Addenbrooke & Rathod, 1990; Deck et al., 2000). Some studies indicate that waiting lists undermine the opportunity to reach substance abusers during a possible “teachable moment” (Carlson, 2006). Furthermore, in addition to service availability, there are other barriers to treatment access, including program proximity; lack of transportation, day care, and availability of gender- or culturally responsive services, and a client’s fluctuating motivation that should be considered when measuring access.

Currently, performance definitions for treatment access are complex.⁸ Waiting time has been described as “a function both of whether prospective clients can get into the queue and how quickly they get off the queue and into treatment” (Friedmann, Lemon, Stein, & D’Aunno, 2003). Wait time has also been characterized as the period between clinic intake assessment and actual program admission (Schottenfeld, O’Malley, Abdul-Salaam, & O’Connor, 1993; Best et al., 2002). More recent conceptualizations of waiting time have included the time substance abusers must wait to initially present for treatment services once they or others recognize a problem, which includes phone screenings in addition to intake assessments (Chawdhary et al., 2007; Rotstein & Alter, 2006). According to several state directors, access should be captured both in terms of wait time from first call for screening to assessment and wait time from first assessment to first treatment session, thereby making it important to collect the date of encounters.

Initiation/Engagement

From a clinical perspective, treatment initiation and engagement are important performance measures, given that they have been identified as important treatment process factors related to one of the greatest problems that interfere with treatment effectiveness—early treatment drop-out (Anglin & Hser, 1990; Simpson et al., 2007; Stahler, et al. 1993). High rates of early treatment drop-out serve as an indicator of the failure of a program to “engage” a client; however, the exact measurement of engagement is open for discussion/debate. Different measures of engagement have been used in the substance abuse field over the past 3 decades, and they have mainly focused on drop-out during the initial month after treatment entry, with some focusing in on the first 2 weeks of the initial month. The Washington Circle Group recently developed an operational definition for the measurement of engagement, incorporating “initiation” into the computational procedure used (i.e., algorithm). Like other research, this measure is limited to the 30 days of initiation of treatment, and engagement is defined as when individuals who enter treatment receive at least two additional visits after initiation (total of four sessions). As discussed earlier, the TCU group has defined engagement by client motivation, readiness, and participation in treatment during the first month post admission.

Retention

Like engagement, previous investigations into the treatment process have found that longer stays in treatment (retention) is among the few consistent predictors of better post treatment outcomes (Anglin & Hser 1990; Hubbard, Craddock, Flynn, Anderson & Ethridge 1997). Results from several national treatment evaluation studies with adults have concluded that there is an important relationship between treatment retention (length of time in treatment) and treatment outcomes, such as decreased drug use or

⁸ At the national level, although waitlist information is required, there is no standard way to collect it.

decreased criminal involvement (Dennis et al., 2006; Garner et al., 2009; Gossop et al., 2003; Hubbard et al., 2003; Simpson, 1979, 1981; Simpson et al., 1997).

Use of Evidence-Based Practices (EBPs)

A goal of the California Department of Alcohol and Drug Programs' Continuum of Services System Re-Engineering (COSSR) effort is to provide a comprehensive and integrated continuum of alcohol and other drug services, which are "effective, high quality, client and community centered, sustainable and culturally competent." This definition of services fits within the rubric of evidence-based practices (EBPs). While there has been a wave of performance improvement initiatives that have included the use of EBPs as a mechanism to improve service delivery and client outcomes, difficulties remain (Ganju, 2006; Glasner-Edwards & Rawson, in press; Herbeck, Hser, & Teruya, 2008; Lamb, Greenlick & McCarty, 1998).

Foremost, there is no consensus on procedures or criteria for determining what constitutes EBPs (Glasner-Edwards & Rawson, in press). A review of the existing literature suggests that consensus regarding the optimal procedures to identify and measure practices with sufficient empirical foundation to be considered "evidence-based" has not yet been reached (Miller et al., 2005). The American Psychiatric Association's (APA, 2006) most recently published practice guidelines for the treatment of addiction comprise an in-depth book chapter that synthesizes research evidence in the form of both a literature review and clinical recommendations to guide the selection of appropriate modalities, levels of care, and practices for each of the major substances of abuse. A very different model for addressing this issue has been developed by the National Institute on Drug Abuse (NIDA). The NIDA "Blue Book," describes a set of 13 overarching principles that characterize the most effective drug abuse treatments (NIDA, 1999). These principles include broad concepts such as "effective treatment attends to multiple needs of the individual, not just his/her drug use," and are intended to help clinicians make empirically informed decisions about treatment. In addition, a comprehensive set of 47 consensus-based Treatment Improvement Protocols (TIPs), referred to as "best practice guidelines" have been set forth by CSAT. These are conceptually similar to practice guidelines, although distinguished by a subtle qualitative difference. Rather than serving as a guide for clinicians and patients, their intended purpose is to guide treatment program planning and outline processes that facilitate dissemination of research-based intervention strategies into clinical settings (Lacroix, 2002). Meanwhile, some states have legislated lists of EBPs (e.g., Oregon and Wyoming), which include treatments that have met sufficient standards of evidence quantity and quality. Although these lists offer one method for promoting awareness and use of EBPs, using specific lists of recommended practices may be premature, since the field is still trying to develop clearer and more standard definitions of what constitutes EBPs, especially psychosocial interventions and case management; and may limit the array of treatments needed to serve a diversity of treatment populations.

The Addiction Technology Transfer Center refers to EBPs as "interventions that show consistent scientific evidence of being related to preferred client outcomes." To date, progress has been made in determining the specific pharmacological and behavioral approaches and interventions that are considered to be evidence-based for effectively treating substance use disorders (SAMHSA, 2005; McGovern & Carroll, 2003; Miller & Wilbourne, 2002), including:

- Has a high quality evaluation design and methodology;
- Has been replicated by other researchers;
- Has a manual available;
- Has been validated by some form of documented scientific evidence;
- Integrates best practice evidence with clinical expertise and client values; and
- Has consistent scientific evidence showing improved client outcomes.

Although there have been a wide array of interventions and programs for substance use disorders that have been supported empirically, as listed by SAMHSA's NREPP (SAMHSA, 2005), critics argue that what constitutes evidence-based can vary and can constrain practitioner and client choice (Chambless & Ollendick, 2001). Furthermore, while the treatments that are considered to be effective are established through empirical research, the absence of efficacy or effectiveness studies on particular interventions

does not mean that they are ineffective (Miller et al., 2005). This important argument underscores one of the problems with reliance upon well-studied interventions in shaping the treatment system: interventions that have not had the opportunity to accumulate evidence in support of their use may be excluded.

Given the variability that exists in understanding EBPs for substance use disorders, how should a state adequately define and measure its use of such practices for federal reporting requirements (e.g., NOMs)? As noted by the NQF, medications are relatively easy to define and measure (i.e., either a program uses methadone, buprenorphine, naltrexone, etc, or not); however, it is much more difficult to measure non-pharmacological interventions and practices. A recent investigation of substance abuse state agencies across the country found that the dissemination of EBPs and model program information to substance abuse treatment agencies is largely insufficient and that the implementation of science and organizational principles is not adequately incorporated into treatment settings (Rieckmann et al., in press). Another study of state requirements for the training of substance abuse counselors demonstrates that only one state (out of 31) mandated coursework in research and evaluation. This is limiting given that established criteria for advancing skills in clinical expertise with EBPs entails having the ability to review and understand research evidence (IOM, 2001). Furthermore, there are no standardized curricula in the United States for teaching about substance use disorders and their treatment, nor is there systematic education or training given to practitioners on how to adapt EBPs that have been scientifically studied on certain populations to other client populations (APA, 2006).

Despite advances in identifying the EBPs available to treat substance use disorders, there has been relatively little systematic study in how these EBPs should be implemented. Given that the transfer and diffusion of EBPs can be a slow and multistage process (Roman & Johnson, 2002) and that the substance abuse treatment infrastructure is weak (McLellan et al., 2003; Rieckmann et al., in press), there is a particular need for understanding how organizational structure and institutional environment (culture/climate) affect the adoption and implementation of EBPs in treatment settings. Organizational structure generally refers to attributes of the organization that are “fixed or non-behavioral,” including its age and size, authority hierarchy, division of labor, and the nature of its relationships to other organizations (Grella et al., 2007). These structural agents, especially age, often play a significant role in whether the organization adopts EBPs (Roman & Johnson, 2002). Organizations also have an institutional environment, which includes its “culture” and “climate” (Roman & Johnson, 2002). In this setting, “culture” refers to shared views about “how things are done” in the organization (e.g., mission, expected behaviors, and values), whereas, climate is the shared perceptions about “how the organization would be impacted” by a particular innovation and the extent to which “the innovation would be supported and accepted” (Hemmelgarn, Glisson, & James, 2006). Because culture and climate are proximal to the treatment process and agents of adoption and implementation of EBPs, they may be important factors for policymakers and researchers to consider. For example, the culture of the organization will determine whether the EBP is a proper “fit” with the way things are done in the organization, and the climate will determine whether a “supportive environment” exists for the adoption and implementation of such practices.

According to Simpson’s treatment process and organizational performance models, it is also necessary to consider the readiness of an organization for adopting, implementing, and sustaining EBPs. Diffusion of innovations theory explains the process by which an innovation (EBP) is communicated to and adopted by individuals within a social system (i.e., organization; Rogers, 2003). Innovation adoption is largely a function of several perceptions by would-be adopters (organizational staff), including: (1) relative advantage of the innovation relative to the status quo; (2) compatibility of the innovation with existing norms, values, beliefs, and needs; (3) perceived complexity of the innovation; (4) “trialability,” or the degree to which the innovation is tested; and (5) “observability,” or the degree to which the benefits of an innovation are readily visible. These perceptions are strongly influenced both by an organization’s culture and climate. Research has documented a positive relationship between organizational readiness and efficient adoption and implementation of EBPs in treatment programs. Studies suggest that the adoption of EBPs requires the support of administration and management, sufficient financial and human resources, and an organizational culture that values scientifically based practice, problem-solving/creativity, and systems change (Fuller et al., 2005; Knudsen et al., 2005; Rieckmann et al., in press; Thomas et al., 2003). Conversely, organizational culture and/or climate may create resistance to

change due to an intensification of “ideology, myth, and belief” among staff when they are faced with the uncertainty of a new practice (McCabe, 2004). Several studies have documented that increased awareness and familiarity of existing research on EBPs (Forman et al., 2001; Knudsen & Roman, 2004; Willenbring et al., 2004), positive clinical attitudes toward use of EBPs (McGovern et al., 2004), higher perceived treatment effectiveness associated with use of EBPs (Borrelli et al., 2001; McGovern et al., 2004), and higher levels of staff education and training with the use of EBPs (Aarons, 2004; Ball et al., 2002; Knudsen et al., 2005; Rieckmann et al., 2007) are associated with more positive attitudes toward the use of various treatments and increased adoption/implementation rates of EBPs. Overall, the system of care for substance abuse, in particular, has been observed to struggle with inefficient organizational structures, including fragmented levels of care and inadequate performance expectations, limited financial resources (Capoccia, 2008), and program instability in terms of staff turnover and staff competencies (McLellan, Carise, & Kleber, 2003). Evidence showing that organizational context and functioning are relevant to the quality of treatment services is growing. Moos and Moos (1998) found that a supportive and goal-directed treatment program climate is related to improved client treatment participation, greater satisfaction with care, and better treatment outcomes.

Client Perception of Care

The importance of the consumer perspective in evaluating the quality of services and care is an area that has long been recognized (McCorry 2007; Doucette, 2008). However, while satisfaction surveys are important in measuring whether a person liked what they received, research has found that satisfaction is not closely associated with measuring client perceptions of care in terms of the quality of the services they received (Bartlett et al., 2005). The Modular Survey is the most widely used measurement of client perceptions of care in substance abuse treatment settings. There are other methods for collecting client perceptions of treatment care besides consumer surveys. For example Miller, Duncan, and colleagues (2005) have developed a method for collecting client feedback and providing clinicians with information about their sessions that can be used immediately to make modifications. Forman and colleagues (2007) recently tested the feasibility of a Web-based performance improvement system for outpatient substance abuse treatment providers, which involved providing clinicians with real-time client feedback on therapeutic alliance, treatment satisfaction, and substance use.

Continuity of Care

Continuity of care as a performance measure has high importance in terms of demonstrating quality services for treating addiction as a chronic and relapsing disorder. There is considerable agreement throughout the treatment and research communities that for most individuals, the treatment of substance use disorders is complex and may require a vast array of different services (including detoxification, residential, intensive outpatient, regular outpatient, and narcotic programs) to achieve successful progress toward recovery (McLellan et al., 2003). Several studies conducted with adult substance-dependent populations demonstrate that substance use disorders are characterized by repeated cycles of remission and resumption of use for longer than 3 months, and continued treatment re-entry (Hubbard, 1992; Lash et al., 2001; McGlothlin et al., 1977; McLellan et al., 2000; Scott et al., 2004; Sells, 1974; Simpson, et al., 1986;; Simpson et al., 1997; Vaillant, 1996). Furthermore, it has been established that the risk of relapse does not appear to optimally abate until after exposure to multiple levels of care (at least 3 to 4; Anglin et al., 1997; Hser et al., 1998). Most of this research argues against the use of acute episodic interventions and suggests that substance use disorders be managed as chronic health problems that require continuous and coordinated management (McKay, 2005).

Performance Measurement in Different Treatment Settings

The identification of efficient performance measures for substance abuse treatment is still in the developmental phase, and as such, the Washington Circle measures are being further adapted and specified (Garnick et al., 2009) especially by different treatment type/modality as shown in Table 1 below (Garnick et al., 2006; 2009).⁹ In general, there is a suggested core set of performance measures for assessing service delivery, including access, initiation, engagement, retention, continuity of care, and use of evidence-based practices across all treatment types/modalities. The original initiation and engagement measures of the Washington Circle group have been improved and expanded upon based on testing among publicly funded substance abuse treatment settings

⁹ It is important to note that “episode of care” is defined differently for outpatient and intensive outpatient services in that they include only clients who are starting new episodes of treatment, whereas this is not a requirement for the continuity of care measures (Garnick et al., 2009).

Table 1: Washington Circle Performance Measure Definitions by Treatment Type/Modality

Treatment Type/Modality	Performance Measure	Index Service Definition (new treatment episode)	Measure Formula
Outpatient (OP)	Initiation	New episode of OP with a 60-day service-free period. Can have assessment or detoxification during service-free period.	Individuals with an OP index service who received a second service within 14 days after index service
			Individuals with an OP index service
	Engagement	New episode of OP with 60-days service-free. Can have assessment or detoxification during service-free period.	Individuals who initiated OP treatment and received two additional services within 30 days after initiation
			Individuals with an OP index service
Intensive Outpatient (IOP)	Initiation	New episode of IOP with a 60-day service-free period. Can have assessment or detoxification during service-free period	Individuals with an IOP index service who received a second service within 14 days after the index service
			Individuals with an IOP index service
	Engagement	New episode of IOP with a 60-day service-free period. Can have assessment or detoxification during service-free period.	Individuals who initiated IOP treatment and received two additional services within 30 days after initiation
			Individuals with an IOP index service
Detoxification	Continuity of care	Any detoxification, no need for a service-free period	Individuals with a detoxification service who received another service within 14 days after discharge
			Individuals with a detoxification service
Short-term residential (STR)	Continuity of care	Discharge from any STR service, no need for a service-free period	Individuals who had a STR service that was followed by another service within 14 days after discharge
			Individuals discharged from a STR stay
Long-term residential (LTR)	Continuity of care	Discharge from any LTR service, no need for a service-free period	Individuals who had a LTR service that was followed by another service within 14 days after discharge
			Individuals discharged from a LTR stay
Inpatient (IP)	Continuity of care	Discharge from any IP service, no need for a service-free period	Individuals who had an IP service that was followed by another service within 14 days after discharge
			Individuals discharged from an IP stay

In addition, the availability of medication-assisted treatment has been promoted as an important performance/quality measure (NQF, 2006; CSAT, 2005). There is substantial evidence that prescription medications are effective as adjuncts for the treatment of opioid addiction and alcohol use/dependence (Garbutt, 2009). Currently, the Washington Circle is developing performance indicators for medication-assisted treatment limited to alcohol and opioid addiction that can be applied in treatment settings and includes the features below:

- Applies to adult clients
- A combined measure for opioid and alcohol dependence, with ability to report and analyze separately
- Excludes methadone (measures developed elsewhere)
- Measures initiation and duration
- Measures process of care
- Measures prescribing practices
- Useful for primary and specialty settings
- Counseling considered where data permits

Retention in Different Treatment Types/Modalities

Currently, there is considerable interest and discussion around thresholds of treatment, but only a scant amount of data exists. Thresholds for retention may differ for each treatment type/modality. The standard minimum dose varies by program types/modalities. Studies have identified minimum retention thresholds of approximately 90 days for outpatient and residential care, 23 days for short-term residential and approximately 1 year for methadone treatment. These clinical expectations or thresholds of minimum dosages of treatment exposure (retention) have been associated with a greater likelihood of the patient continuing in recovery beyond the initial treatment phase and treatment discharge (De Leon, 1991). Hser and colleagues (2001) have observed critical optimal doses of treatment retention for successful outcomes among adolescents: at least 90 days in outpatient or residential programs or 21 days in short-term residential.

Performance Measurement in Narcotic Treatment Programs (NTP)

A key performance measure for NTPs, as promoted by the NQF in its report on “Evidence-based Treatment Practices for Substance Use Disorders” (NQF 2005), is the use of medication-assisted treatment. Substantial evidence supports the use of prescription medications as an adjunct for treatment of opioid addiction and alcohol abuse and dependence. For alcohol abuse and dependence, medications that have been shown to be effective include naltrexone (Anton et al, 2006; CSAT 1998; O’Malley et al, 1992; Volpicelli et al, 1992), disulfiram (Chick et al, 1992; Fuller et al 1986), acamprosate (Tempesta et al, 2000; Mann et al, 2004), and extended-release naltrexone (Garbutt et al., 2005). For opioid addiction, office-based treatment with buprenorphine is effective (CSAT 2004; CSAT 2005; Fudala et al, 2003; Johnson et al., 1995; Ling et al, 1998). In each case, the specific performance measure being developed by the Washington Circle Group includes the following features:

- o Initiation and duration
- o Adherence to treatment
- o Measure of process of care (such as client perceptions of care)
- o Use of therapeutic, evidence-based counseling
- o Prescribing practices

In addition to the NQF consensus measures and the Washington Circle Group’s measures, there have been other performance measurement efforts that incorporate evidence-based medication-assisted buprenorphine treatment. For example, some states and counties are required to use nationally accepted evidence-based practices and widely accepted performance and accreditation measures and outcomes. Some legislatures and some criminal justice systems require payer-specific financial and clinical performance-based accountability reports that include GPRA measures, NOMs/CalOMS, and other reporting/performance measures. It is important to note, however, that challenges have been associated with performance measurement for medication-assisted treatment, including tracking and integrating

several funding sources and dealing with different providers over time for detoxification, medication, therapy/recovery support, and continuing care for the individual clients (Gelber, AVISA group).

Concerns over the quality of NTPs have prompted several national efforts to monitor and improve the effectiveness of these programs. Recent shifts in responsibilities for monitoring and evaluating NTPs from a federal regulatory model to an accreditation model were made in an effort to improve accountability and the quality of client care (Pelletier & Hoffman, 2001). The National Institute on Drug Abuse has supported the development of the Methadone Treatment Quality Assurance System (MTQAS). The MTQAS is a performance-based reporting and feedback system that regularly monitors individual client progress during treatment, then aggregates the information within the clinic on a quarterly basis (Ducharme & Luckey, 2000). A study with more than 70 methadone clinics in seven states using case-mix adjustment to compare performance across states and programs in in-treatment outcomes demonstrated the feasibility of the system and provided lessons for implementing such a system (e.g., leadership is critical, end-user support is essential, recognition and responsiveness to variation in clinical environments is necessary) (Ducharme & Luckey, 2000). In addition, the SAMHSA's CSAT developed the CSAT Guidelines for the Accreditation of Opioid Treatment programs (CSAT, 1999) and has provided funds for the development of standards for opioid addiction treatment through both the Rehabilitation Accreditation Commission (CARF) and the Joint Commission on the Accreditation of Healthcare Organizations. Additionally, Pelletier and Hoffman (2002) have proposed a set of performance measurement domains specifically for opioid treatment programs including: access, clinical status, availability of ancillary support services (e.g., daycare, vocational, and mental health), access to healthcare or necessary medical services, client satisfaction, and the availability of social support options.

Performance and Outcome Measurement with Special Populations

Understanding the application of performance measures for specific populations is paramount as long-term success has been empirically linked to different indicators based on the population. SAMHSA, for example advocates that AOD Single State Agencies consider priority populations when developing a core set of performance measures and identify specific standards that are different from general process standards. Inclusion of specific standards for priority populations can help states monitor quality service delivery and accountability relative to the special needs of such populations, including:

- Pregnant women and women with dependent children
- Homeless populations
- Intravenous drug users (IDUs)
- Clients infected with communicable diseases including tuberculosis (TB) and human immunodeficiency virus (HIV)
- Individuals with mental health and criminal co-occurring problems
- Youth populations
- Methadone clients

These data standards can be used to determine how successful state AOD treatment agencies are in providing services to priority populations. The following sections provide an overview of relevant literature addressing performance measures for special subpopulations seeking and receiving substance abuse treatment. Although the subpopulations are discussed separately, it is also important to consider that, in reality, they often overlap as many individuals have multiple and complex needs (e.g., women with co-occurring substance use and mental disorders, youth who are homeless, drug-involved offenders who have co-occurring disorders).

Adolescent Populations

It is important to understand that not all substance use disorders have a prolonged course requiring professional treatment or lifelong management (Burman, 1997; Cunningham, 2000; Granfield & Cloud, 1996; Hughes, 1996), especially for adolescent populations (Kandel & Raveis, 1989; Sobell et al., 2000). A central premise is that a good number of adolescents who experience substance use problems and either do or do not receive treatment will “outgrow” their problems (Peele, 1985; Toneatto et al., 1999),

supporting the notion of “natural recovery” (Humphreys et al., 1995). In contrast, Dennis and colleagues (2002) have demonstrated that over 90% of those who develop substance dependence in their lifetime started using under the age of 18 and half started using under the age of 15 (Dennis et al., 2002); thus, substance misuse is primarily an adolescent onset disorder, which, if not addressed, is likely to persist and become more severe over time, especially among those with co-occurring mental health conditions (Godley et al., 2002; Godley et al., 2004; Kaminer et al., 2006).

Furthermore, while some adolescents experience natural recovery and spontaneous remission, the longer their substance use persists, the more it can adversely pose long-lasting effects on their social and developmental functioning (Shane et al., 2003). Furthermore, the age of onset is related to the long-term course of addiction. Those who initiate substance use prior to age 15 are significantly more likely than those who start over the age of 18 to have symptoms of dependence as an adult an average of 20 years later (Dennis, Babor et al., 2002). Multiple investigations have suggested that in addition to the age of onset, gender and race are related to the rates of initiation, prevalence, and remission from substance use disorders (Dennis et al., 2007; Grant & Dawson, 1998; Rounds-Bryant et al., 2001; Van Etten & Anthony, 1999). While girls have similar rates of abuse and dependence as boys in the community (SAMHSA, 2007), on average, girls represent only about one third of the people who receive publicly funded treatment (SAMHSA, 2008). In addition, adolescents who develop substance use disorders over time are more likely to have a wide range of problems including mental health symptoms of depression, anxiety, attention deficit, and hyperactivity, and conduct disorders, dropping out of school, and illegal or criminal activity (Dennis & McGeary, 1999).

Empirically grounded findings from treatment outcome studies support the application of a chronic illness model to adolescents with substance use disorders. Approximately 60% to 70% of adolescents relapse in the first 90 days after treatment terminates (Brown et al., 1989; Godley et al., 2002), and the majority relapse by 12 months post treatment (Dennis et al., 2000). Most youth (two thirds) move in and out of treatment during the initial post treatment period (Dennis et al., 2004), warranting continued monitoring and services. Despite these issues, very few adolescents receive continued services (Godley et al., 2004; Kaminer, 2001). An issue to consider is that, to date, adolescent perceptions about the chronicity of substance use disorders are largely unknown. Researchers have pointed out that recovery for adolescents may be very different from recovery for adults—such that it is more than just stopping substance use behavior and stabilizing one’s functioning; rather it is “creating” a lifestyle filled with positive supportive networks, educational and career-related opportunities, and independent-living skills (Godley et al., 2004; Kaminer, 2001). In a recent poll, the majority (89%) of adolescents believed that people who abuse or are dependent on drugs are “not sick” and can go on to live healthier lives (Alcoholism & Drug Abuse Weekly, 2008).

Although treatment services for adolescents are increasing, there are relatively few specialty adolescent programs, and only a handful of states require adolescent-specific knowledge for licensure (McLellan & Meyers, 2004). Approximately 10% of adolescents who need treatment are actually admitted to treatment (SAMHSA, 2007). Adolescent and adult substance users differ in many ways (e.g., social, cognitive, psychological, physical development factors, substance use patterns), thus treatment programs and measures should address the unique needs of adolescents (Mark et al., 2006; Meyers et al., 1999; Muck et al., 2001; Winters, 2000). Having synthesized the literature on theoretical, research, and clinical issues on adolescent substance use, Meyers et al. (1999) suggest that because adolescent substance use may be a symptom of other underlying issues, it is critical that a comprehensive assessment using standardized measures cover the following areas (which are quite different from adult assessments): alcohol and other illicit drug use, tobacco use, mental health functioning, family relationships, educational involvement, peer relationships, stressful life events, use of leisure time, legal status/violence, sexual behavior, trauma, physical health, and individual strengths and protective factors (e.g., adult/community supports, self-esteem). This information should also inform the adolescent’s treatment needs (Winters, 1999b). The Center for Substance Abuse Treatment (CSAT) has developed Treatment Improvement Protocols (TIP) focusing on screening, assessing (TIP 31; Winters, 1999a), and treating (TIP 32; Winters, 1999b) adolescents with substance use disorders.

Over the last decade, several reviews of the literature on adolescent substance abuse treatment have been conducted. However, only recently has research focused exclusively on performance and outcome measures for adolescents (Muck et al., 2001). Titus and Godley (1999) cautioned that although research in this area is still emerging, program performance should include similar measures to those discussed above, including assessment, access, engagement, retention, continuity of care, use of evidence-based practices *for youth*, and youth perceptions of care. In terms of initiatives related to performance measures for adolescents, SAMHSA CSAT established the Washington Circle Subcommittee on Performance Measurement for Care of Adolescents with Substance Use Disorders (AWC) in 2002 to adapt the Washington Circle adult treatment measures for adolescents (Cavanaugh & Doucette, 2004) (See earlier sections for more information on these measures.) Two critical considerations in adapting the measures for adolescents were (1) the co-occurring nature of substance use and mental health disorders among adolescents, and (2) the financing and administrative issues associated with adolescent treatment (e.g., focused on application of measures to services paid through health insurance). Although the three Washington Circle measures—identification, initiation, engagement—were adopted for use with adolescent treatment services, the length of the “service-free period” and the diagnosis codes for initiation and engagement criteria were modified because of the evidence that diagnostic and service-use patterns for adolescents and adults differ. In a study pilot testing the Washington Circle measures of adolescents, researchers concluded that they are feasible for adolescents using administrative data routinely collected within public sector programs, and that such measures can be used to estimate the basic quality of care. Similar to tests of the measures with adults, the Washington Circle group found wide variability among states, but were not able to determine the reasons for the results (Garnick et al. 2007).

Another area related to performance and outcome measurement for youth is CSAT’s nine essential elements of effective adolescent treatment, which include the following measures of quality: assessment and treatment matching; comprehensive, integrated treatment approach; family involvement in treatment; developmentally appropriate program; engaging and retaining teens in treatment; qualified staff; gender and cultural competence; continuing care; and treatment outcomes. Brannigan et al. (2004) reported that most of 144 highly regarded adolescents substance abuse treatment programs studied across the United States were not adequately addressing the nine key elements of effective adolescent drug treatment. Another study examining adolescent-only substance abuse treatment programs’ adoption of these nine components found only a medium level of quality, with significantly higher quality among programs providing more intensive services (Knudsen, 2009). A larger study using data from the 2003 National Survey of Substance Abuse Treatment Services to examine these key elements among private and public facilities serving at least 10 adolescent clients found similar results with respect to the lack of these components of effective treatment (Mark et al., 2006). In terms of evidence-based practices for adolescent treatment programs, in a review of controlled studies of adolescent substance abuse treatment focused on family-based and multi-systemic interventions, behavioral therapy, cognitive behavioral therapy, and twelve-step approaches, the authors report that overall, the findings suggest that family-based approaches may be among the most effective for adolescent treatment. Because the majority of the studies examined did not use validated outcome measures, it is not clear that this approach is more effective than any other (Deas & Thomas, 2001). Winters’ (1999) summed up the empirical literature on treatment of adolescents with substance use disorders indicating that while “positive outcomes for adolescents are observable, no approach has been shown to be more effective, and comorbid psychiatric disorders are predictive of poor treatment retention” and emphasized that research is needed to determine which treatment approaches are most effective with which types of adolescents. More recently, Dennis (2004) reviewed the adolescent substance abuse literature and reported that treatment effectiveness was related with therapies that were manualized, involved quality assurance and clinical supervision, developed therapeutic alliances and positive outcomes early on, and engaged adolescents in aftercare, support groups, positive peer groups, and environments supportive of recovery.

It is noteworthy that in a study on measures of self-reported treatment outcomes and program performance among a sample of 1,463 clients from 10 adolescent treatment programs, findings suggest common inconsistencies in reporting recent substance use (Harris, Griffin, McCaffrey, & Morral, 2008). The authors underscore the importance of considering the potential impact of inaccuracies in the

reporting of substance use on outcome and performance measures, and recommends that methods to improve accuracy be developed.

A comprehensive review by Williams and Chang (2000) focusing on adolescent studies supports the important relationship between retention and treatment outcome (especially reduced drug use); however researchers have emphasized the need for further study to identify mechanisms of change that can provide more complete information about why particular treatments are successful for adolescent populations (Kazdin & Nock, 2003). For instance, a recent study by Dennis and colleagues (2004) found no difference in outcomes by varying lengths of stay and adolescent outcomes, although differences in outcomes were related to varying degree by "program variables," such as different treatment components. Garner and colleagues (2009) recently examined the mediational role of treatment components (frequency of sessions associated with treatment procedures) between retention and client outcome among adolescents. Findings support that treatment procedures (therapist delivering distinct sessions) mediated the relationship between retention and client outcome (substance use). Treatment procedures or program processes included components related to the treatment process such as assigning homework, group counseling, and crisis management, as well as teaching relapse prevention skills, relationship skills, problem-solving skills, job-seeking skills, etc.

Persons with Co-occurring Substance Abuse and Mental Disorders

Epidemiological studies have found high prevalence rates of co-occurring disorders (COD; Grant et al., 2004; Kessler et al., 1996) among substance abuse treatment client populations (Flynn & Brown, 2008). Persons with COD have been observed to have short treatment durations (poor retention), lower rates of treatment completion, and higher relapse and rehospitalization rates post treatment. The study also found that longer stays in residential treatment and continuing care services related to better post-treatment outcomes for this population (Grella & Stein, 2006). Further, substance use among individuals with severe mental illness and substance use problems has been associated with higher rates of treatment non-compliance, suicide, incarceration, hepatitis, HIV, homelessness, and aggression (Cleary, Hunt, Matheson, Siegfried, & Walter, 2009).

Recognizing the increasing need for a more in-depth understanding of co-occurring substance use and mental disorders and current state-of-the-art knowledge on how to effectively treat individuals with such disorders, SAMHSA CSAT (2005) developed the Treatment Improvement Protocol (TIP) 42, *Substance Abuse Treatment for Persons with Co-occurring Disorders* through a consensus process. While traditional substance abuse treatment methods may be effective with many substance abuse treatment clients with less serious mental disorders, those with more severe and persistent mental health problems require modified and/or additional interventions (Grella & Stein, 2006). The consensus panel developed six principles to guide the treatment of clients with COD, which are consistent with key components identified by others (e.g., National Alliance on Mental Illness, Drake et al., 1998, 2001), including:

1. Employ a recovery perspective (e.g., continuity of care)
2. Adopt a multi-problem viewpoint
3. Develop a performance-management phased approach to treatment (e.g., engagement, stabilization, appropriate levels of treatment, continuing care)
4. Integrate treatment and comprehensive services that address specific real-life problems early in treatment (e.g., housing, legal, and family matters)
5. Plan for the client's cognitive and functional impairments
6. Use support systems to maintain and extend treatment effectiveness (e.g., mutual self-help)
7. Address important related workforce development and staff support issues (e.g., clinicians' competencies, continuing professional development)

Further, the TIP recommends essential performance elements in COD programming for substance abuse treatment agencies that treat clients with COD: (1) access and full assessment, (2) screening, assessment, and referral; (3) mental and physical health consultation; (4) the use of a prescribing onsite psychiatrist; (5) medication and medication monitoring; (6) psycho-educational classes; and (7) offsite dual recovery mutual self-help groups.

While various studies measure different client outcomes, the Co-occurring Disorders: Integrated Dual Disorders Treatment Implementation Resource Kit (SAMHSA, 2003), published by a project sponsored by the SAMHSA Center for Mental Health Services (DMHS) with support from the Robert Wood Johnson Foundation, recommends that for reporting systems, the number of measures be kept small and concrete (related to functional impairment). Suggested measures are psychiatric or substance abuse hospitalization, incarceration, homelessness, independent living, competitive employment, educational involvement, and stage of substance abuse treatment, as described in the kit as being pre-engagement (i.e., treatment planning), active treatment (i.e., re-assessment), relapse prevention (i.e., use of evidence based cognitive behavioral strategies), post treatment (i.e., follow-up for monitoring progress), and recovery (i.e., promotion of involvement in recovery support). Other efforts have been underway to address and improve treatment quality and outcomes for individuals with COD, including SAMHSA's establishment in 2003 of the Co-Occurring Center for Excellence, which provides resources for the dissemination of knowledge and adoption of evidence-based practices in the systems and programs serving persons with COD, and SAMHSA CSAT's and CMHS' Co-Occurring Disorders State Incentive Grants (COSIG), which provide funding to states for infrastructure development/enhancement to increase their capacity to provide accessible, effective, comprehensive, coordinated/integrated, and evidence-based COD treatment services (see www.samhsa.gov). While promising practices or the use of evidence-based practices have been identified as recommended performance measures for treating persons with COD (e.g., motivational interviewing, assertive community treatment, contingency management), in a recent review based on the findings of 25 randomized controlled trials comparing psychosocial interventions for substance misuse with standard care among persons with serious mental illness, Horsfell, Cleary, and colleagues (2009) found no evidence to definitively support any one psychosocial treatment over another. The authors recommend that more trials are needed that adhere to standard randomization methods, use clinically useful, reliable and validated measurement scales, and accurately report data, including retention in treatment, relapse, hospitalization, and abstinence rates.

Ethnic & Racial Minorities

Research investigating the experiences of racial and ethnic minority groups in substance abuse treatment have raised some concerns and produced inconsistent results (Campbell & Alexander, 2002; Fosados, Evans, & Hser, 2007). For example, while some studies have reported ethnic/racial minorities have shorter stays in treatment (Agosti, Nunes, & Ocepeck-Welikson, 1996; Evans, Spear, Huang & Hser, 2006) receive fewer services (Jerrell & Wilson, 1997; Wells, Klap, Koike, & Sherbourne, 2001), are less likely to achieve recovery (Rebach, 1992), and have less access to drug treatment (Wu, El-Bassel, Gilbert, Piff, & Sanders, 2004; Lundgren, Amodeo, Gerguson, & Davis, 2001), other studies suggest that minority groups have better or equal access to and utilization of treatment services (Daley, 2005; Niv & Hser, 2006; Perron et al., 2009).

Efforts and discussions have been underway to address ways to reduce health disparities associated with drug abuse and addiction among ethnic/racial minority populations. For example, NIDA's Strategic Plan on Reducing Health Disparities focuses on understanding how to better address the gaps in knowledge and disparities in substance abuse prevention and treatment for ethnic/racial groups (NIDA, 2004). Other stakeholders in the substance abuse field have also been urging culturally competent treatment as a strategy to address the ethnic/racial disparities in service utilization and client outcomes (Finn, 1996; Simpson, 1997). However, the literature on culturally competent treatment for substance abuse is limited and there is a lack of agreed-upon definitions of what constitutes "cultural competence." The definition generally includes "having knowledge of and respect for different cultural perspectives, as well as being able to use skills effectively in cross-cultural situations" (Campbell & Alexander, 2002).

In a review of the literature on cultural competence in health care delivery settings, The Lewin Group (2001) found multiple examples of standards and guidelines but a limited number of measures that had been tested and validated. With respect to substance abuse treatment specifically, racial/ethnic matching between staff and clients (e.g., same-race therapist), language concordance (e.g., bilingual personnel), and cultural competency training are broad categories of cultural competency strategies identified in the literature. These may facilitate increased communication and trust between counselor and client and

enhance the counselor's understanding of the client's background, which may in turn, positively impact the assessment of client needs and client engagement and retention in treatment (Campbell & Alexander, 2002). While there are a number of cultural competency domains and measures proposed and being used in health care for performance measurement, there is insufficient empirical evidence of the effectiveness of culturally competent treatment (Campbell & Alexander, 2002). There is a need to develop a core set of standard measures for cultural competency in substance abuse treatment and to investigate their relationship with the utilization patterns and outcomes of specific minority groups, while being cognizant of the significant heterogeneity that exists within minority groups.¹⁰

Women

Research suggests that women, compared with men, have different treatment and recovery needs (Arfken, Klein, de Menza & Schuster, 2001; Marsh, Cao, & D'Aunno, 2004; Pelissier & Jones, 2005). Recently, the National Association of State Alcohol and Drug Abuse Directors (NASADAD), with assistance from the Women's Services Network and with support from SAMHSA CSAT, prepared a *Guidance to States: Treatment Standards for Women with Substance Use Disorders* (Mandell & Werner, 2008). The document is informed by and refers to Substance Abuse Treatment Standards for Women (CSAT, 2007), the State Substance Abuse Standards for Women (prepared by Children and Family Futures, 2007) and CSAT's Comprehensive Substance Abuse Treatment Model for Women and Their Children (Werner, Young, Dennis, & Amatetti, 2007). The standards address a continuum of services (e.g., treatment, clinical support, community support) for special populations of women, including pregnant women, women with children, and women involved in the criminal justice system. These treatment standards are intended to be modified by state and local entities to accomplish their goals and meet their needs, including performance and outcomes measurement. The 25 performance and outcome elements include: outreach; screening; assessment; engagement; substance abuse counseling/education; crisis intervention; treatment planning; coordinated case management; continuing care; medication-assisted treatment; drug monitoring; detoxification; medical care/primary health care; mental health services; care that is trauma/violence informed; services that promote life skill development, advocacy, and family strengthening, including parenting skills and child development education; housing supports and assistance; education and employment/vocational support; linkages with social services and the child welfare system; recovery and community support services; transportation; child care and child development services; and recreational services.

Homeless

Persons who are chronically homeless typically have serious physical and mental health issues and multiple social needs that interplay with different service systems (e.g., mental health, social welfare, criminal justice, etc.). In a review of the literature on homeless individuals with substance use disorders, especially those with co-occurring mental health problems, Zerger (2003) suggests that client engagement and retention are particularly challenging for this population due to various factors including disaffiliation, distrust of authorities, mobility, and multiple needs. Performance strategies for engaging homeless individuals include outreach, housing/practical assistance, providing a safe and non-threatening environment, interventions that increase motivation, family-based interventions, and use of peer leaders. In addition, effective treatments for this population require interagency collaboration to meet the multiple needs of clients, particularly given limited community resources. Researchers suggest that effective treatment programs can address homeless clients' tangible needs (e.g., housing, employment) and substance use through flexible approaches that target specific needs of subpopulations (e.g., based on gender, age group, or diagnosis) and provide continuing care.

¹⁰ Through an extensive and fast track planning process, the California ADP has adapted and adopted the Culturally and Linguistically Appropriate Services (CLAS) standards developed by the Office of Minority Health, U.S. Department of Health and Human Services as the guiding document to develop a Cultural Competency Quality Improvement Strategic Plan to support CQI in the service delivery system. This plan will support the department's vision, mission, core programs, overall strategic goals and the implementation of the Continuum of Services System Re-engineering (COSSR) efforts.

As part of the document, *Blueprint for Change: Ending Chronic Homelessness for Persons with Serious Mental Illnesses and Co-Occurring Substance Use Disorders*, Policy Research Associates suggests the following outcome indicators for this vulnerable population: housing status, mental health status, substance use status, employment, income, health status, family relationships, criminal justice involvement, social supports, consumer satisfaction, and quality of life (SAMHSA, 2003). The Blueprint document also identifies system-level performance measures for programs serving this population, including access to services, quality of care, cost effectiveness, availability of comprehensive services, continuity of care, prevention activities, degree of client involvement; attention to those not in the system; cultural competence; and affordable housing options. Possible measures of systems integration include: number and type of formal interagency agreements; degree of blended funding; number of joint activities between and among providers; extent of staff cross-training; degree to which application procedures have been streamlined; and degree to which key stakeholders participate in program planning and development.

Criminal Offenders

Drug users, especially heavy users, commit a disproportionate amount of crime (Chaiken & Chaiken, 1982; Johnson et al., 1985). While research consistently demonstrates that substance abuse treatment results in declines in the substance abuse and criminal activity of drug offenders (Anglin & Perrochet, 1998; Farabee et al., 2001; Parker & Auerhahn, 1998; Wexler & Fletcher, 2007), most offenders do not receive treatment while in prison, and they often lack the knowledge, skills, and resources necessary to adjust to life in the community when released, which may increase the risk of relapse and recidivism (Leshner, 1997).

The literature on treating drug-involved offender populations has identified components of programs that are likely to decrease recidivism, including standardized substance abuse and risk assessment tools, cognitive behavioral programs and services, treatment matching, interventions that engage offenders in treatment services and increase their motivation to change, therapeutic community orientation, standardized behavioral modification approaches, services that address co-occurring medical and psychosocial disorders, family involvement in treatment, treatment duration of at least 90 days, systems integration and a continuum of care, routine drug testing, case management, ancillary services (e.g., housing, employment), and use of sanctions and incentives (Andrews et al., 1990; Butzin, Martin, & Inciardi, 2002; CSAT, 1998, 2005; Fletcher & Chandler, 2006; Friedmann, Saitz, & Samet, 2003; Friedmann, Taxman, & Henderson, 2007; Lurigio, 2000; Simpson, 2004; Simpson, Joe, & Brown, 1997; Taxman, Soule, & Gelb, 1999; Taxman & Thanner, 2006). For offender populations, evidence of treatment attendance (participation), readiness, and urine drug screen testing are three of the most relevant and valid indicators of offenders' progress and success (Joe et al., in press; Simpson et al., 2004).

Summary and Conclusions

This review of the relevant published and unpublished literature identifies a framework of the most important, empirically based performance measures: access, initiation, engagement, continuing care, use of evidence-based practices, and client perceptions of care, as well as how performance and outcome measures differ by special populations and different treatment types/modalities. Given that performance measurement is still in the development stages for the AOD treatment field, a comprehensive plan is needed to fully understand which measures work for the fairly diverse California AOD treatment system. Pilot projects testing the adaptability and suitability of various performance measures are one way to address this challenge in order to implement a sustainable performance and outcomes measurement and management system statewide.

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Chapter 2: Performance and Outcome Measurement under the Continuum-of-Services System Reengineering (COSSR) Effort

This chapter addresses Objective 2: *Identification of Performance and Outcome Measurement in Support of the Continuum of Services System Reengineering (COSSR) Effort* by presenting a synthesis of the relevant literature (published and unpublished) on measures established in the alcohol and other drug (AOD) treatment field that support a continuum-of-services model. Whereas Chapter 1 focused on performance and outcome measurement under the current acute, episodic care model of treatment, this chapter develops a framework for such measurement that addresses the new paradigm, which uses a chronic-care and continuity-of-care model for understanding and managing substance use disorders. Following an overview of the chronic care approach and a discussion of the construct of recovery, key areas of performance measurement are organized and presented along the continuum of services—prevention, intervention, treatment, and recovery support. Next, recovery-oriented systems of care, including recovery-oriented outcome measures and performance measurement are discussed. The chapter concludes with recommendations for performance and outcome measurement under a COSSR model.

Substance Use Disorders¹¹ as a Chronic Health Problem

Focus is increasingly shifting from an acute, episodic system paradigm toward a chronic illness model for understanding and managing substance use disorders (McLellan, O'Brien, Lewis, & Kleber, 2000; McLellan et al., 2005). The IOM report, *Improving the Quality of Health Care for Mental and Substance Use Conditions* (IOM, 2005), recommends that the chronic illness model used for chronic medical conditions (i.e., diabetes, hypertension, asthma) be applied to mental and substance use disorders. Through comparative reviews of substance use disorders with chronic illnesses (such as diabetes, hypertension, and asthma), researchers (e.g., McLellan et al., 2000; White, 2008) have identified many similarities, including:

- Genetic heritability and influenced by other personal, family, and environmental risk factors;
- Identified and diagnosed with validated screening questionnaires and diagnostic checklists;
- Begun by voluntary choice, but evolves into deeply ingrained behavioral patterns that are exacerbated by further neurobiological and physiological changes which weaken volitional control over destructive behaviors;
- Prolonged course that varies from person to person in intensity (mild to severe) and pattern (from constant to recurrent);
- Similar remission and relapse patterns with little expectation of cure;
- Profound pathophysiological risks, disability, and premature death;
- Psychological responses that include hopelessness, low self-esteem, anxiety, and depression; and
- Excessive demands on families and intimate social networks.

Other evidence suggests that substance use disorders can be compared to other chronic illnesses as they typically begin during adolescence (referred to as an adolescent onset disorder; Dennis et al., 2002), and last for several decades (Hser, Longshore & Anglin, 2007). This new paradigm presumes that the recovery from substance use disorders is a long-term process, with remissions in illness, but periodic exacerbations that may require continuous service system exposure over the lifetime for most individuals (Dennis et al., 2003, 2005; Dennis & Scott, 2007; Hser, Anglin, Grella, Longshore, & Prendergast, 1997; Hser et al., 2007; McLellan, 2002; McLellan & Weisner, 1996). Several studies conducted with adult dependent populations support the notion that substance use disorders are indeed chronic conditions, characterized by repeated cycles of remission and resumption of use greater than 3 months, as well as continued treatment re-entry over an extended period of time (Anglin et al., 1997; Godley et al., 2002;

¹¹ The American Psychiatric Association (APA, 2000) and World Health Organization (WHO, 1999) distinguish between two types of substance use disorders - dependence and abuse. The definition of substance dependence implies chronicity and requires treatment, whereas use and abuse generally results in referral to a brief intervention or brief treatment. Although it is important to also consider that substance dependence can appear without substance abuse, and substance abuse can persist for extended periods of time without a transition to substance dependence (APA, 1994).

Hubbard et al., 1997; McLellan et al., 2000; McKay et al., 1997; Simpson, et al., 2007; Scott & Dennis, 2004;). As with chronic illnesses, there are many complexities in the treatment of substance use disorders. It has been demonstrated that the risk of relapse does not appear to abate until 4 to 5 years of sustained abstinence (De Soto, O'Donnell, & De Soto, 1989; Nathan & Skinstad, 1987; Vaillant, 1996) which is said to occur with exposure to multiple treatment episodes (Anglin, Hser, & Grella, 1997; Hser et al., 1997; Hser, Grella, Chou, & Anglin, 1998). Dennis and Scott (2007) recently found that the median time from first treatment to a year of abstinence was 9 years, which included three to four episodes of treatment. Furthermore, like other chronic illnesses, there is no "cure" for substance use disorders, although many individuals who meet the criteria for substance use disorders at some point in their lives, do achieve sustained recovery (Cunningham, 1999). Under a chronic illness model, individuals with substance use problems may be required to make self-management lifestyle changes, take medications, keep regular follow-up appointments, undergo continuing care, and take steps to minimize risks from co-morbid complications.

The chronic illness approach for substance use disorders requires a continuum-of-services system model that shifts the emphasis away from acute symptom stabilization (episodic treatment) toward a continuum including prevention, intervention, treatment, and long-term recovery support (Flaherty, 2006; Kipnis & Killar, n.d.). This shift toward managing substance use problems as chronic health problems and taking a public health (as opposed to medical) approach is a national priority. In a September 2007 address, Terry Cline, Administrator at SAMHSA indicated that SAMHSA's mission includes helping prevention and treatment administrators and programs/providers develop ways to change their service systems to increase positive outcomes for their clients. There has been a recent push (and federal grants) devoted to helping states enhance their current systems to accommodate a chronic illness model. The National Conference of State Legislatures (NCSL), the National Association of State Alcohol and Drug Abuse Directors (NASADAD), the State Associations of Addiction Services (SAAS), and Faces & Voices of Recovery (Faces & Voices) have launched a joint project to educate state legislators and legislative staff about the chronic nature of substance use disorders and the need for systems that address a continuum-of-services approach. The primary goals of the project are to (a) prevent and intervene early with individuals with substance use problems, (b) support sustained recovery for those with substance use disorders; and (c) improve the health and wellness of individuals and families (www.attcnetwork.org). In other words, rather than addressing substance use disorders as acute problems via admission into treatment with the goal of discharge, the goal is to provide a continuous response to promote self-care and recovery. Enhancements to current treatment systems would involve¹² (Whitter, 2008):

- Ongoing prevention and early intervention;
- Chronic care approaches (e.g., continuing care and recovery management);
- Recovery support services (including clinical and non-clinical supports);
- Individualized and flexible menu of services; and
- Coordination of multiple systems.

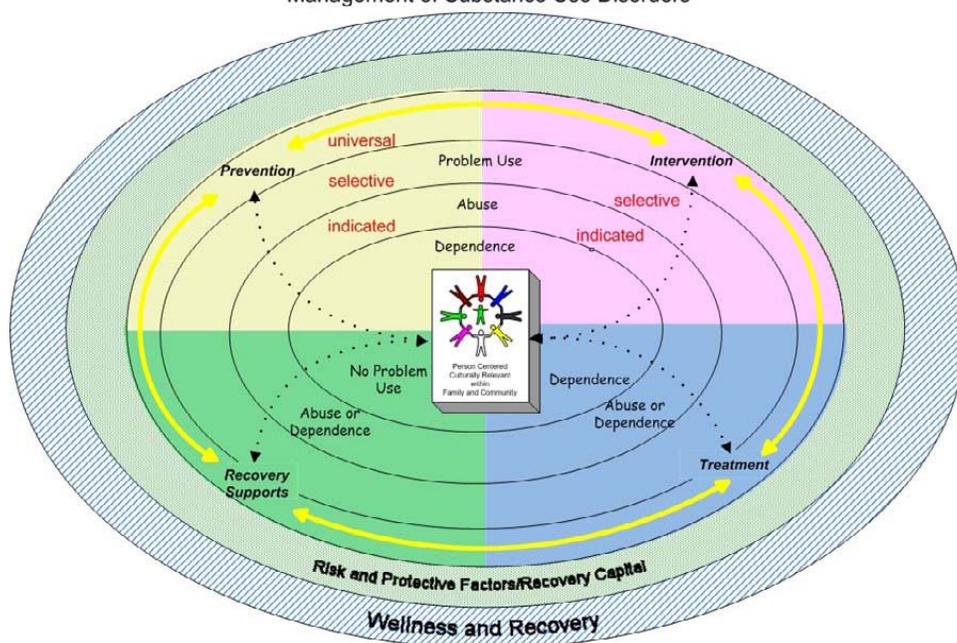
Continuum of Services System Model

Figure 1 represents the continuum-of-services system model¹ which supports a chronic illness approach to substance use disorders. As shown in Figure 1, the continuum is characterized by an individualized and flexible array of essential services (including prevention, intervention, treatment, and recovery supports) to address the substance use spectrum: no problem use, problem use, abuse and dependence (Flaherty, 2005). Laudet and White (2008) indicate that the substance use outcome and services provided will be determined by individual risk and protective factors as well as "recovery capital." Furthermore, Laudet and White (2008) define recovery capital as client empowerment (ability and motivation for recovery), recovery resource development, recovery education and training, ongoing monitoring and support, access to recovery support services and recovery advocacy.

¹² Proceeding sections in this report describe these areas in more detail.

Figure 1: Continuum of Services System Model

Building Resiliency, Wellness and Recovery – A Model for the Prevention and Management of Substance Use Disorders



Prevention Service Component as Part of the AOD Treatment Continuum

Prevention includes any service designed to reduce the probability of developing and/or exacerbating substance use (American Society of Addiction Medicine [ASAM], 2001). The prevention stage of the continuum comprises activities intended to raise general awareness of substance use disorders as well as target high-risk individuals and groups for more focused interventions. According to this framework, prevention is delivered through one of the following three strategies: 1. Universal: Targets a population that has not been identified on the basis of individual risk; 2. Selective: Targets individuals or a subgroup of the population whose risk of developing clinical problems is significantly higher than average; and 3. Indicated: Targets individuals with minimal but detectable signs or symptoms foreshadowing mental health or substance use disorders. In general, these prevention efforts target risk and protective factors, specifically building individual protective factors while reducing risk factors¹³ (NIDA, 2003). Table 1 below provides an in-depth description of each of these three prevention strategies.

¹³ See Appendix A for an example of how universal, selective, and indicated strategies can be effective in reducing substance abuse when implemented in schools, families, or communities.

Table 1: Prevention Strategies

Universal	<p>Universal prevention strategies address the entire population (national, local community, school, grade, and neighborhood) with messages and programs aimed at preventing or delaying the abuse of alcohol, tobacco, and other drugs. For example, it would include the general population and subgroups such as pregnant women, children, adolescents, junior high school students (7th graders), gender groups, and the elderly. The mission of universal prevention is to deter the onset of substance abuse by providing all individuals the information and skills necessary to prevent the problem. All members of the population are seen to share the same general risk for substance abuse, although risk levels may vary greatly between individuals. Universal prevention programs are delivered to large groups without any prior screening for substance abuse risk. The entire population is assessed as at risk for substance abuse and capable of benefiting from prevention programs.</p>
Selective	<p>Selective prevention strategies focus on subsets of the total population that are deemed to be exposed to greater levels of risk for substance abuse by virtue of their membership in a particular population segment—for example, children of adult alcoholics, and students who are failing academically or who are exposed to other risk factors. Risk groups may be identified on the basis of biological, psychological, social, or environmental risk factors known to be associated with substance abuse (IOM, 1994) and focused subgroups may be defined by age, gender, and family history, place of residence such as high drug-use or low-income neighborhoods and victimization by physical and/or sexual abuse. Selective prevention focuses on the entire subgroup regardless of the degree of risk of any individual within the group. One individual in the subgroup may be at low personal risk for substance abuse, while another person in the same subgroup may already be abusing substances. The selective prevention program is presented to the entire subgroup because the subgroup as a whole is at higher risk for substance abuse than the general population. An individual’s personal risk is not specifically assessed or identified and is based solely on a presumption given his or her membership in the higher risk subgroup.</p>
Indicated	<p>Indicated prevention strategies are designed to prevent the onset of substance abuse in individuals who do not meet DSM-IV criteria for substance use disorders (abuse or dependence), but who are showing early danger signs, such as falling grades and consistent consumption of alcohol and other gateway drugs. The mission of indicated prevention is to identify individuals who are exhibiting early signs of substance abuse and other problem behaviors associated with substance abuse and to focus on them with special programs. The individuals are exhibiting substance abuse-like behavior, but at a sub-clinical level (IOM, 1994).</p>

From a public health, chronic illness perspective, there are essentially three types of prevention. The first is primary prevention, which is focused on reducing the probability that a substance use problem develops and is a crucial strategy in the provision of services as described above (universal, selective, and indicated) as it fosters supportive communities and neighborhoods (including schools), connecting families and friends to an environment that is free of alcohol, tobacco,¹⁴ and other illicit drug use (SAMHSA's Strategic Prevention Framework, <http://prevention.samhsa.gov>). Secondary prevention is next, which is focused on minimizing the severity of a substance use problem if it occurs, through screening tests and brief interventions. The use of screening and brief interventions as a preventive tool plays a critical role along the "intervention services" of the continuum, as it provides routine assessment to identify the need for brief intervention and referral to specialized treatment when necessary. Hence, these prevention and intervention services work together to provide ready access to necessary clinical expertise (e.g., expert referral to needed services and family education) that is coordinated at the treatment level. Another type of prevention is tertiary prevention, which seeks to minimize the disability caused by substance use problems and is important in the treatment and recovery support service components of the continuum.

Intervention Service Component as Part of the AOD Treatment Continuum

The intervention component of the continuum-of-service system model largely involves screening for the identification of substance use problems and brief interventions to address such problems (i.e., secondary prevention strategies). Screening and brief interventions began in the 1980s as an approach focused on meeting the public health goals of reducing the harms and societal costs related to risky alcohol use among primary health care clients (Join Together, 2008). With the growing evidence base on alcohol screening and brief interventions in primary health care settings, similar methods have been employed for other substances, including tobacco and illicit drugs. In 2003, SAMHSA launched a new Screening, Brief Intervention, and Referral to Treatment (SBIRT; <http://sbirt.samhsa.gov/about.htm>) Initiative, which represented a substantial shift in the way interventions were delivered and focused. Rather than targeting persons with more problematic substance use or those meeting the criteria for substance use disorder, the focus is on intervening with non-dependent substance users early on, prior to them needing more extensive or specialized treatment. The SBIRT approach is based on public health principles and procedures, and is intended to be implemented within a wide variety of community and medical settings (Babor, McRee, Kassebaum, Gimaldi, Ahmed, & Bray, 2007), including community and specialty settings, such as primary care physician offices, emergency departments, other community health care clinics, educational psychological service units, trauma centers, and criminal justice correctional facilities (NASADAD, 2006; Madras, Compton, Avula, Stegbauser, Stein, & Clark, 2009).

The subsequent support for the use of SBIRT in non-drug and alcohol settings is backed by a wealth of research on the effectiveness of it as an evidence-based practice. In a review of research on the components of SBIRT, Babor and colleagues (2007) suggest that the SBIRT approach has been successful in involving the use of specific, evidence-based tools in verbal, written, or electronic formats for screening to assess the likelihood that an individual has a substance use disorder or is "at risk." Further, the approach has been effectively applied in a variety of settings (e.g., inpatient, emergency rooms, community health care clinics, primary and specialty healthcare settings, educational psychological service units, trauma centers, and criminal justice correctional facilities) to identify individuals who do not perceive a need for treatment and direct them to appropriate services (Taitt, Stein, & Whittier, 2008 ppt). Several hundred empirical studies have been conducted on the components of SBIRT, demonstrating that early screening is associated with reductions in alcohol use, health care utilization, criminal justice involvement, and societal costs (Cuijpers et al., 2004; Gentilello et al., 1999; Wells-Parker & Williams, 2002; Fleming et al., 2002) among individuals who use alcohol, prescription drugs, or illicit drugs (Bernstein et al., 2005; Toumbourou et al., 2007). However, while short-term improvements in individuals' health have been well documented, long-term effects have not yet been clearly demonstrated (Barbor et al., 2007).

¹⁴ Studies show that tobacco use is an indicator of increased risk of developing AOD abuse and dependence (Clayton, 1992).

Overall, SBIRT expands and enhances the continuum to address substance use disorders as chronic conditions by providing prevention and, when needed, earlier intervention services to address a problem before greater acuity, morbidity, and true chronicity take hold. The use of SBIRT lends credence to the impact that risky alcohol or other drug use can have on an individual by providing a highly specialized method, similar to other early detection methods (e.g., PAP smears and tests for blood sugar levels) and addressing potential current and future health problems in a straightforward manner. Furthermore, SBIRT integrates substance screening and intervention into other settings that individuals with substance use problems frequently encounter (e.g., primary care offices, health clinics, emergency rooms, jails, and pre-natal clinics).

Treatment Service Component as Part of the AOD Treatment Continuum

Treatment can be defined as any planned intervention in the health, behavior, personal, and/or family life of an individual who is *dependent* on alcohol or other illicit drugs (ASAM, 2001). Client assessment is very important within the treatment component of the continuum since defining substance use disorders as a chronic illness is not entirely correct. With treatment, many chronic problems (e.g., diabetes) can at best be maintained at some level of severity, and treatment of most chronic problems is either intended to maintain the same level of functioning of the individual or to slow the rate of deterioration. The prospect of permanent remission, though, is seldom seen as part of the goal of treatment. On the other hand, what may distinguish substance use disorders from other chronic illnesses is the possibility that there is a positive trajectory in terms of outcomes. In other words, after repeated treatments, many individuals, although not "cured," can remain drug free for the remainder of their lives. Each care episode (treatment with or without continued care or recovery support) can be viewed as a building block that creates the foundation for subsequent improvement or permanent remission. The number of care episodes necessary to achieve remission may vary, but each is another step in the formation of that foundation. If the idea of care as a cumulative process is accepted, lack of success after one care episode is not interpreted as failure. Rather, it is viewed as an indication that the course of care is incomplete. In addition, instead of simply accepting the idea of never-ending and expensive services as in the traditional chronic care model, cumulative services are expected to lead to continually more positive outcomes with increasing benefits to society in terms of criminal justice, welfare, and health care costs (Dennis & Kammerer, 2006). Therefore, while substance use disorders may share many of the same characteristics of other chronic conditions, it is important to recognize that they also have aspects that are unique; hence adequate assessment of a client's severity level between use, abuse, and dependence is necessary to make informed treatment decisions (Laudet, 2008b). The American Psychiatric Association (APA, 2000) and World Health Organization (WHO, 1999) distinguish between two types of substance use disorders—dependence and abuse (the latter called "hazardous use" by the WHO). Although there are ongoing debates on the exact distinctions between abuse and dependence, the current practice standard distinguishes between the two by defining dependence in terms of physiological and behavioral symptoms of substance use, and abuse in terms of the social consequences of substance use. Furthermore, the definition of substance dependence implies chronicity and requires intensive, long-term treatment, whereas use and abuse generally result in referral to a brief intervention or brief treatment with further assessment (APA, 1994).

Within a continuum-of-service system model, treatment for substance use disorders should provide "continuing care services" to best support a continuous healing relationship and lead to improved wellness and successful recovery. In substance abuse treatment, the presumed need for some form of continued care following an initial intervention is generally driven by two assumptions from the substance abuse literature. First, most clients leave substance use treatment programs to return to social networks or communities rich in cues that encourage the resumption of substance use (Clayton, 1992; Catalano & Hawkins, 1985). Second, many treated individuals lack the requisite skills and knowledge to access and/or utilize the community services that are available to assist them in maintaining sobriety (Ashery et al., 1995). These presumptions have been supported since 1971, when William Hunt and colleagues from Loyola University of Chicago published a simple but groundbreaking analysis in which they found similar relapse curves of clients treated for alcohol, tobacco, and heroin dependence. An important finding in their brief report was that "the percentage of abstainers fell from 100% at the time of treatment discharge to approximately 40% within 3 months, which continued to decline during the next three months,

finally approaching an asymptotic level for the remainder of the 12-month follow-up period.” While these data did not bode well for the general effectiveness of treatment at that time (the curves were based on 84 studies), Hunt et al. (1971) made a critical observation: “the majority of clients need some further supportive or booster treatment during the first 6 months after successful completion of therapy.” More than 35 years have passed since this seminal study, and while there is now widespread research and clinical agreement regarding the need for continuing care following primary treatment for substance use disorders, the practical questions as to how to effectively deliver this “further supportive or booster treatment” remain largely unclear. Consistent with Hunt et al. (1971), the IOM report acknowledged the development of numerous interventions that appear to be effective at initiating behavior change, yet there is a relative scarcity of research on subsequent interventions that foster the maintenance of the newly adopted behaviors over the life course.

To date, multiple definitions of continuing care exist, with the terms “aftercare,” “extended care,” “stepped-down care,” and “continuing care” all used interchangeably (McKay, 2005). One definition, put forth by the American Academy of Addiction Psychiatry that is commonly used is “transitions that should incorporate relevant elements of any preexisting treatment plan...where plans should be relevant to the entire course of an episode of illness so they can provide a degree of continuity in the context of recovery and change.” For instance, when substance abuse treatment is delivered in inpatient or residential settings, continuing care can consist of outpatient “continuing care” group therapy sessions or follow-up phone sessions. These continuing care services are intended to ease the transition from the controlled therapeutic environment and maintain progress achieved in the program through the recovery period.

Several continuing care models or strategies, including group counseling, individual therapy, telephone counseling, and brief checkups have shown promising results (McKay, 2005). In a review of 14 controlled studies of continued care conducted since 1988, McKay (2001) found a significant effect for continuing care on post treatment substance use outcomes that involved the following continuing care conditions: (1) home visits by a nurse over a 12-month period, (2) couples counseling combined with relapse prevention, (3) a combination of recovery behavioral counseling and self-help groups (relative to merely making a community program referral), and (4) extended follow-up telephone contacts. Taken together, we can cautiously infer that several aspects of continuing care may be particularly important. Namely, interventions should (1) involve proactive approaches (rather than relying on clients to initiate requests for such assistance), (2) involve other aspects of the patient's life, such as significant others, (3) refer clients to a specific program and follow-up on the referral to increase the likelihood of attendance, and (4) have repeated contacts with the client over an extended period.

Over the past decade, there has been a lot of interest and emphasis on the latter approach (continued contacts) and the types of intervention mechanisms (i.e., telephone or in-person) that are most effective. Recently, McKay et al. (2005) reported on long-term outcomes (24 months) following a randomized clinical trial comparing telephone-based continuing care interventions to face-to-face interventions, finding that the telephone condition was associated with higher rates of total abstinence (and other outcomes) than the in-person conditions, as well as improved compliance with post treatment continued-care planning. Research shows that maintaining contact with discharged clients and encouraging their use of continuing care sessions via telephone calls represents a mode of intervention that is more personal than letter writing and less costly than face-to-face interviews (McKay, 2001). Furthermore, this telephone continuing care model has been reported to have a therapeutic role in monitoring and continued treatment for other chronic illnesses such as depression, diabetes, smoking-cessation, congestive heart failure, and chronic pulmonary disease (Baer et al., 1993, 1995; Greist et al., 1998; Jerant et al., 2001; Osgood-Hynes et al., 1998; Ries et al., 2003; Roter et al., 1998; Wasson et al., 1992). The one face-to-face continuing care model that has received much empirical support is the “recovery management checkup model” (RMC; Scott & Dennis, 2002), which consists of routinely scheduled face-to-face 45-minute interviews and assessments following acute treatment, and is focused on a client's substance use and living situation. If the client is stable and does not report substance use, interviewers encourage the client to continue such progress and to come for the next scheduled checkup. If the client reports substance use, the client is encouraged to return to treatment. Studies indicate that clients who show signs of relapse and are receiving the check-ups return to treatment more quickly and stay longer than those who do not receive the interventions (Godley et al., 2004; Scott & Dennis, 2002; Scott et al., 2005).

Continuing Care and Long-term Outcomes

Overall, studies have demonstrated that the best single predictor of positive long-term outcomes (reduced drug use, reduced criminal activity, and increased functioning) over time (mostly at 1 year follow-up) is subsequent participation in continuing care as well as months of (or time in) continuing care attendance (Stahler, Cohen Shipley, & Bartlett 1993; Joe, Simpson & Broome 1998; Hiller, Knight & Simpson 1999; De Leon, Hawke, Jainchill & Melnick 2000; Lang & Belenko 2000; Veach, Remley, Kippers, & Sorg, 2000; Anglin & Hser, 1990; Simpson, 2007). Such research demonstrates that focusing simply on completion from a single episode of treatment, rather than continued participation in continuing care, limits our ability to understand long-term symptom reduction and success among substance-dependent individuals (McLellan, 2008). Gonzales and colleagues (forthcoming 2009) found that methamphetamine-dependent individuals who are successful at adhering to a proscribed treatment regimen (measured by treatment completion) and continue to receive continuing care for substance-related problems (during a 12-month follow-up period) have better quality of life outcomes, especially mental health, than those who do not continue to utilize treatment/services regardless of completion status. Although this research has demonstrated the benefits associated with continuing care, the reality of the current system is that many of those discharged from treatment do not subsequently access such recommended services (Godley et al., 2002; Mark et al., 2003), primarily due to inadequate service availability or lack of assertiveness on the part of the providers (Dennis & Scott, 2007). Based on a review of the literature, characteristics of “assertive” approaches include shifting linkage/retention responsibility from the client to the clinician; holding sessions in the community, by phone or in the office; providing transportation for the client to the office and referrals; accompanying the client to obtain needed services; phoning the client between sessions; and using non-confrontational and strength-based methods (Godley et al., 2005).

Overall, in a chronic illness continuum-of-services system model, continuing care is highly relevant at all stages of the continuum of care (prevention, intervention, and recovery support), although it is an especially important element of recovery support. Concepts related to continuing care include specific aspects of recovery that will be discussed in the following section, including recovery coaching (White, 2004) and recovery management (White, Boyle, & Loveland, 2003).

Recovery Support Service Component as Part of the AOD Treatment Continuum

With the push toward reengineering the AOD treatment system to fit a chronic illness model that includes a recovery service component, it is important to understand what is fundamentally meant by the term “recovery.” Similar to the definition of “continuing care,” the meaning of “recovery” is largely in flux and has several different interpretations within the substance abuse community. It has been defined as:

- A process of change through which an individual achieves abstinence and improved health, wellness and quality of life (CSAT, 2007);
- A voluntarily self-maintained lifestyle characterized by sobriety, personal health or well-being, and citizenship (The Betty Ford Institute Consensus Panel, 2007);
- A process of overcoming both physical and psychological dependence to a psychoactive substance while making a commitment to sobriety (ASAM, 2001); and
- A process of restoring or developing a positive and meaningful sense of identity apart from one's condition and then rebuilding one's life despite, or within the limitations imposed by that condition (White, 2008)

Critical to these definitions is that recovery is a *process* rather than an end. As with other chronic illnesses, the absence of illness in an active phase does not mean it has forever gone away or that the individual can abandon self-care. Another key element of recovery services is that they follow a person-centered approach as the process may vary from person to person (Laudet & White, 2008).

In spite of these recent and diverse definitions, the concept of recovery is not new to the AOD treatment field. The construct of recovery has common roots in mutual self-help organizations dating back to the 19th Century temperance era and the formation of Alcoholics Anonymous (AA) by alcoholics in recovery

(White, 1998; Humphreys, 2004). Later, Narcotics Anonymous (NA) was established to aid individuals recovering from narcotics addiction problems (Tiffany & Baker 1986). These recovery-based approaches were originally grounded on the 12-step philosophy, which promotes a commitment to a lifelong state of abstinence and organizing one's life around a higher divine power (Bufe, 1991). Over the years, these mutual aid self-help recovery groups have grown and blended alternative spiritualities with the basic 12-Step philosophy, such as Native American religions, Christianity, or secular support groups, such as Rational Recovery, Women for Sobriety, or Secular Organizations for Sobriety. Many who embrace the spiritual-based recovery groups have commonly referred to them as the "perfect aftercare" (Royce, 1995). Indeed, these groups have been accepted as effective models for managing substance problems as they support the notion of life-long recovery (Morgenstern et al., 2001); however, 12-step fellowships are not attractive to everyone, especially youth (Romo, Meyers, & Brown, 2007), given the religiously oriented guiding principles. In fact, very few youth who are referred to these self-help groups participate and among those who do, many quickly drop out (Koski-Jannes & Cunningham, 2001; Romo, Meyers, & Brown, 2007).

A recently emerging field, referred to as "Behavioral Health Recovery Management," comprises self-help organizations that are reframing services around concepts of "recovery-supported care" or "recovery management" through collaboration between service consumers and service providers, both traditional and non-traditional (White, Boyle, & Loveland, 2004). According to White (2008), recovery-supported care can include a range of individual, family, and community supports (formally and informally). Formal recovery supports can include the care of a sponsor or mentor to help an individual sustain recovery; whereas informal recovery supports may involve a structured recovery environment or living with others in recovery. SAMHSA CSAT's Recovery Community Support Program is an example of a national effort to fund and support recovery community groups and facilitate organizations' development and delivery of peer-to-peer services in community settings (e.g., peer mentoring and coaching, peer recovery support groups).

Recovery management is referred to as "a system of support for professionally-directed treatment" that emphasizes the experiences, needs, and aspirations of the individual and/or families experiencing substance use disorders (White, 2008). There are three phases of recovery management: (1) engagement and recovery priming; (2) recovery initiation and stabilization; and (3) recovery maintenance. This recovery management model emphasizes "post-treatment monitoring and support; long-term, stage appropriate recovery education; peer-based recovery coaching; assertive linkage to communities of recovery; and when needed, early re-intervention" (White, Kurtz, & Sanders, 2006). De Leon (1996) pioneered an earlier 10-stage recovery paradigm that care providers incorporated into traditional treatment. In De Leon's model, recovery management was viewed as a support to treatment and vice versa. Many at the federal and state levels are building on models such as De Leon's by developing recovery-oriented models that strengthen continuing care and recovery support to better promote individual recovery from chronic substance use disorders. For example, recovery management has been adopted as a key construct in behavioral health care policy (Institute of Medicine, 2006; White, 2005), in service initiatives sponsored by SAMHSA, such as the Center for Substance Abuse Treatment's Recovery Community Services Program (RCSP) and Access to Recovery Program, and the National Institute on Alcohol Abuse and Alcoholism (NIAAA) renaming of its Division of Treatment to Division of Treatment and Recovery Research (Venner, Matzger, Forcehimes et al., 2006). States across the country are also leading ongoing recovery efforts (see Chapter 8) that broaden the scope of traditional AOD services to include community- and system-wide support for long-term recovery, also called "recovery-oriented systems of care" (White, 2009). Various state initiatives have based their recovery-oriented systems of care on supporting person-centered and self-directed approaches that build on the personal responsibility, strengths, and resilience of individuals, families, and communities to achieve health, wellness, and recovery from alcohol and drug problems. See Appendix B for a detailed description of the potential elements that could make up a recovery-oriented system of care.

Overall, the shift in thinking away from the clinical-treatment, acute medical model and toward a public health "recovery" model holds promise for the future of the AOD treatment field as it leads to considering recovery less as an event (i.e., completion versus non-completion) and more as a process (of change). A recovery paradigm also facilitates the move from a narrow focus on the personal deficits that accompany

substance use disorders to the personal strengths that can be used to facilitate recovery. Less focus is placed on pathology, and more on wellness and quality of life. Emphasis is not only placed on recovery from substance use disorders and its negative effects, but also on recovery of a meaningful life within families and communities.

Service Integration across the Continuum

Below are some examples of how the different service components (prevention, intervention, treatment, and recovery) can be integrated across the continuum.

Prevention to Treatment

Given that substance use disorders are chronic health problems, preventive services should be available across the lifespan (White, 2008). For instance, treatment programs should have built-in preventive services, where providers integrate prevention information on all risk factors that may lead to continued use or relapse and focus on protective factors that increase or support sustained recovery. This approach addresses a continuum-of-services system model, which integrates prevention into treatment and recovery support services and allows for addressing factors (community and family) broader than an individual’s substance use as a single problem behavior or condition (current treatment plan focus). Good prevention also emphasizes the critical risk factors that can be addressed or altered, and allows for a broader connection to more complex issues over and beyond individual substance use, including mental health issues, lack of housing or housing instability, family reunification issues, and social support involvement or specific recovery supports (e.g., having a sponsor or mentor or maintaining lifestyle changes). It is important that the formal assessment include screening for such risk and protective factors (i.e., clinically relevant screening for mental or medical illnesses). Table 2 provides an illustration of using risk and protective factors addressed in prevention for adolescent treatment strategies:

Table 2: Using Prevention Risk and Protective Factors to inform Adolescent Treatment Strategies

Risk & Protective Prevention Factors	Treatment Strategies
- Disrupted parent/child relations	- Family/parenting skills training
- Alienation from pro-social peers	- Social skills training
- Academic failure	- Tutoring
- Negative school environment	- Changing school climate
- Social competence	- Problem-solving skills

Intervention to Treatment

An example of the linkage between intervention and treatment is SAMHSA’s effort to integrate screening and brief interventions into employee assistance programs. For example, employers have free access to a series of 14 two-page briefs outlining the benefits (including financial) of helping their employees receive treatment for substance abuse. The 14 briefs were developed by SAMHSA to educate employers about cost effective measures that can be taken to identify employees with substance abuse problems and help return them to full health and productivity. The briefs discuss a variety of workplace related topics including:

- The full effects of substance abuse in the workplace—including to morale, productivity, safety and finances;
- Why it is worthwhile to promote treatment for employees with substance abuse problems;
- How employee assistance programs can be cost-effective;
- The effects of substance abuse on younger and older employees;
- How substance abuse screening works, and its benefits to everyone in the workplace; and
- Cost-effective ways that employers can support workers recovering from substance abuse.

Intervention to Recovery

An example of the link between intervention and recovery components is using screening and brief intervention strategies in a recovery context. Screening and brief interventions can be used during continuing care services to continuously monitor clients' status to provide needed early intervention and referrals to necessary services (including returning to formal treatment or more intense services).

Performance & Outcome Measurement for a Continuum-of-Service System

Prevention & Intervention Components

To date, there is little research on performance and outcome measures for prevention and intervention components. Measures of access, use of evidence-based practices, and client perceptions (or satisfaction) are all deemed appropriate to use for both prevention and intervention services. Among the efforts underway at the national level, SAMHSA's Center for Substance Abuse Prevention (CSAP) has provided the Strategic Prevention Framework (SPF), which outlines a process to guide state and community planners in selecting and implementing performance measurement (CSAP, 2009). An important part of a community prevention system within the Strategic Prevention Framework (CSAP, 2009) is to "foster continued systems approaches as the community experiences the outcome of its investments." The Framework makes available information and tools to be used by states and communities to build an effective and sustainable prevention infrastructure through systematically:

1. Assessing their prevention needs based on epidemiological data;
2. Building their prevention capacity;
3. Developing a strategic plan;
4. Implementing effective community prevention programs, policies, and practices; and
5. Evaluating the outcomes of their efforts.

The Framework also includes a prevention platform, which is a comprehensive tool for designing an outcome or performance evaluation and identifying data collection strategies. Further, in 2004, SAMHSA implemented the Strategic Prevention Framework (SPF) State Incentive Grant (SIG) intended to provide the structure for contextualizing prevention resources. Under this grant, the proposed prevention performance and outcome measures include:

- Specific measures that build upon concepts of risk factor mitigation and resiliency enhancement, and assess attitude, perceived risk/harm, resistance skills, perceptions of peer use, school bonding, perceived parental attitude, parenting skills/bonding, perceived availability, and community norms;
- Measures of coalition building, workforce development, technological capacity, ability to assess need, ability to conduct exemplary programs; and
- Access to the number and types of prevention services and demographics of participants.

In addition, the SAMHSA NOMs include substance abuse prevention outcome measures for the following domains: reduced morbidity (abstinence from drug/alcohol use), employment/education, crime and criminal justice, retention, social connectedness (under development), access/capacity, retention, cost-effectiveness, and use of evidence-based practices.

Another example of federal prevention efforts, this time focused on youth, is NIDA's recently expanded and updated drug prevention guide, *Preventing Drug Use among Children and Adolescents: A Research-based Guide for Parents, Educators, and Community Leaders, Second Edition* (2003), which aims to help prevent youth from using drugs. The new guide is organized around 16 fundamental prevention principles based on research on effective prevention programs:

Table 3: Prevention Principles

Risk Factors and Protective Factors

1. Prevention programs should enhance protective factors and reverse or reduce risk factors.
2. Prevention programs should address all forms of drug abuse, alone or in combination, including the underage use of legal drugs (e.g., tobacco or alcohol); the use of illegal drugs (e.g., marijuana or heroin); and the inappropriate use of legally obtained substances (e.g., inhalants), prescription medications, or over-the-counter drugs.
3. Prevention programs should address the type of drug abuse problem in the local community, target modifiable risk factors, and strengthen identified protective factors.
4. Prevention programs should be tailored to address risks specific to population or audience characteristics (e.g., age, gender, ethnicity) to improve program effectiveness.

Prevention Planning

Family Programs

5. Family-based prevention programs should enhance family bonding and relationships and include parenting skills; practice in developing, discussing, and enforcing family policies on substance abuse; and training in drug education and information. Family bonding is the bedrock of the relationship between parents and children. Bonding can be strengthened through skills training on parent supportiveness of children, parent-child communication, and parental involvement.

School Programs

6. Prevention programs can be designed to intervene as early as *preschool* to address risk factors for drug abuse (e.g., aggressive behavior, poor social skills, and academic difficulties).
7. Prevention programs for *elementary school children* should target improving academic and social-emotional learning to address risk factors for drug abuse (e.g., early aggression, academic failure, and school dropout). Education should focus on the following skills: self-control; emotional awareness; communication; social problem-solving; and academic support, especially in reading.
8. Prevention programs for *middle or junior high* and *high school students* should increase academic and social competence with the following skills: study habits and academic support; communication; peer relationships; self-efficacy and assertiveness; drug resistance skills; reinforcement of antidrug attitudes; and strengthening of personal commitments against drug abuse.

Community Programs

9. Prevention programs aimed at general populations at key transition points (e.g., the transition to middle school) can produce beneficial effects even among high-risk families and children. Such interventions do not single out risk populations and, therefore, reduce labeling and promote bonding to school and community.
10. Community prevention programs that combine two or more effective programs (e.g., family-based and school-based programs) can be more effective than a single program alone.
11. Community prevention programs reaching populations in multiple settings (e.g., schools, clubs, faith-based organizations, and the media) are most effective when they present consistent, community-wide messages in each setting.

Prevention Program Delivery

12. When communities adapt programs to match their needs, community norms, or differing cultural requirements, they should retain core elements of the original research-based intervention, which include:
 - Structure (how the program is organized and constructed);
 - Content (the information, skills, and strategies of the program); and
 - Delivery (how the program is adapted, implemented, and evaluated).
 13. Prevention programs should be long-term with repeated interventions (e.g., booster programs) to reinforce the original prevention goals.
 14. Prevention programs should include teacher training on good classroom management practices (e.g., rewarding appropriate student behavior). Such techniques help to foster students' positive behavior, achievement, academic motivation, and school bonding.
 15. Prevention programs are most effective when they employ interactive techniques (e.g., peer discussion groups and parent role-playing) that allow for active involvement in learning about drug abuse and reinforcing skills.
 16. Research-based prevention programs can be cost-effective.
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Lastly, it is important to consider that an overarching principle underlying the development of a continuum-of-service system model is that not only the individual, but also the “family and community,” should receive prevention and support. All measures of performance and outcome for prevention must stem from this principle (IRETA, 2004). States have begun to integrate measurement at the family level. For example, parents with substance use disorders can access standardized screening and services (Loveland & Boyle, 2005).

Treatment Component

Performance measures associated with the treatment stage of the continuum of care have been detailed in Chapter 1, although one performance measure that was not discussed includes the availability of continuing care services following episodes of treatment. The Washington Circle Group suggests the performance measure for continuing care be defined as “regular contact with a therapist [e.g., counselor, primary care clinician] that includes a risk assessment and allows flexibility for increasing and decreasing contact according to the patient’s circumstances.” The following performance measurement protocol proposed by the group is supported by research (Samet, Friedmann, & Saitz, 2001; Weisner, Mertens, Parthasarathy, Moore, & Lu (2001):

- Weekly contact in the first month following completion of acute treatment in any level of care;
- Monthly contact for the first year of recovery with adjustments as necessary (up or down according to the patient’s symptoms and level of functioning);
- Extended contact for years, rather than months;
- Availability of medications; and
- Availability of treatment options of varying types and intensities should the need arise

The continuing-care performance measure, in general, is aimed at increasing accountability for assessing risk (e.g., problems the client is experiencing), intervening as early as possible if the client has begun to relapse, and having the individual return to treatment quickly. A single measure, implemented at the organizational level, is suggested: *Has extended continuing care been implemented (yes/no)?* A set of items at the client level are to be measured weekly for the first month, bi-weekly for months 2 and 3, and monthly thereafter as follows:

- In contact (yes/no)
- If in contact, frequency of contact
- If in contact, mode of contact (telephone, group, face-to-face, computer)

Another important performance measure of treatment that is associated with continuing care is care management or case management, which involves the use of evidence-based practices to increase client motivation and foster continued engagement in care (McLellan, 2008). An “episode” of care begins at initial admission and “assertively” moves the client through a continuum of services including continuing care that will lead to functional stability in core outcomes (substance use, crime, employment, wellness/quality of life) and sustained recovery. Delivery of continuing care services and active promotion of social support involvement (i.e., 12-step affiliation and other activities) are considered essential during treatment and recovery (Granfield & Cloud, 1999). Efforts are currently underway in the substance abuse field directed toward determining how to provide and measure care management (Laudet, 2008b, McLellan et al., 2005; McLellan, 2008).

Recovery Support Component

Despite the historical and recent increased interest in recovery among many stakeholders in the substance abuse field, empirical research on recovery performance and outcome domains remains limited. To date, research has shown that a variety of factors can influence the recovery process, including substance use severity, environmental obstacles (e.g., use in the home, victimization, homelessness), self-efficacy to resist drug use, motivation for sustained help for substance use problems (i.e., continuing care), self-help group participation, and individual choice and commitment (Laudet, 2008).

At the national level, effective January 1, 2006, the Joint Commission approved new behavioral health care standards and elements, which include services that support a recovery-oriented philosophy and approach to care (www.jointcommission.org). The standards of performance involve care coordination, employment services, peer support, family support, and community integration, and apply only when and to the extent the particular service is offered. While the Commission has set the standards, it has not required adoption of a recovery model, in recognition that the definitions and principles of recovery are still evolving within the field. Some states have initiated efforts to add recovery-based performance measures, such as continuity of care between professional and “peer-based recovery supports” to their recovery initiatives (www.dmhas.state.ct.us/recovery.htm). For example, Connecticut’s Department of Mental Health and Addiction Services has developed performance measures and performance guidelines, including the following domains: prevention/health promotion, client involvement, access and engagement, continuity of care, individualized recovery planning, recovery support staff, community inclusion, housing and vocation, evidence-based practices, and cultural competency (Kirk, Evans, & Daily, 2005).

White (2008) specifies areas of performance measurement of recovery that are focused on two areas: (1) infrastructure strength and adaptive capacity and (2) service process. Table 4 provides a description and examples of specific performance measures.

Table 4: Performance Measures for Recovery (White, 2008)

Recovery-focused Performance Measurement Areas	Examples of potential performance measures
<i>Infrastructure Strength and Adaptive Capacity</i>	
Recovery orientation	<ul style="list-style-type: none"> • Recovery-focused mission statement • Articulation of core recovery values
Recovery representation	<ul style="list-style-type: none"> • Recovery representation on governing board • Recovery advisory group
Cultural/political status	<ul style="list-style-type: none"> • Departmental level of state organization (direct access to the governor/legislature) • Surveys of public perception of addiction, addiction treatment, and recovery
Organizational & leadership stability	<ul style="list-style-type: none"> • Turnover rate at executive and senior clinical levels • Stability of organizational ownership
Funding level & diversity	<ul style="list-style-type: none"> • 5-year funding trajectory • Number of funding sources
Workforce composition & stability	<ul style="list-style-type: none"> • Annual turnover rate of direct service staff • Comparison of client and staff demographics
<i>Service Process</i>	
Attraction	<ul style="list-style-type: none"> • Average time from onset of problem/habitual use, abuse, or addiction (or problem onset) to first treatment admission • Percentage of clients without prior AOD specialty treatment
Access	<ul style="list-style-type: none"> • Average number of clients per month on waiting lists for service entry • Average length of time on waiting lists before service initiation
Assessment	<ul style="list-style-type: none"> • Standard assessments used to place into appropriate levels of care
Screening	<ul style="list-style-type: none"> • Number of screenings performed per quarter • Number of hits per quarter on local screening website
Individual/family assessment	<ul style="list-style-type: none"> • Percentage of intakes that include family collateral interview • Percentage of parent assessments that include child assessment data
Assessment of community recovery capital	<ul style="list-style-type: none"> • Date of last community recovery needs assessment and recovery resource mapping survey
Composition of the service team	
Primary care	<ul style="list-style-type: none"> • Percentage of clients who receive a physical exam • Percentage of clients screened for infectious diseases
Psychiatric care	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> Percentage of clients receiving the following services: case management, transportation, day care, housing, financial counseling, educational, vocational, legal counseling
Service relationship	
Engagement	<ul style="list-style-type: none"> Average primary counselor-client ratio Average amount of 1-to-1 time per week per client
Retention	<ul style="list-style-type: none"> 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)
Transition	<ul style="list-style-type: none"> Percentage of clients assertively linked to another level of care following completion of a level of care
Dose, scope, and quality of services	
Dose of services	<ul style="list-style-type: none"> Percentage of clients who receive services over a span of 90 days or more Percentage of Methadone Maintenance Treatment clients who are engaged in treatment for a minimum of one year
Scope of services	<ul style="list-style-type: none"> Percentage of clients who received a physical exam Volume of ancillary services delivered per month
Quality of services	<ul style="list-style-type: none"> Client ratings of therapeutic alliance Client/family ratings of organization, services, and primary service provider
Services focusing on quality of life	<ul style="list-style-type: none"> 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
Recovery environment	
Locus of service delivery	<ul style="list-style-type: none"> Number of home visits per service unit Number of service units delivered off-site in non-treatment settings
Family environment	<ul style="list-style-type: none"> Percentage of clients with family members involved in treatment process Percentage of families assertively linked to family support groups
Community environment	<ul style="list-style-type: none"> Number of local recovery mutual aid societies Number of local recovery support meetings per week
Linkage to communities of recovery	
Support group availability	<ul style="list-style-type: none"> Number of recovery volunteers Number of local recovery mutual aid societies
Staff knowledge of recovery support groups	<ul style="list-style-type: none"> 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

Institutional linkages to communities of recovery	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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
Post treatment continuing care	<ul style="list-style-type: none"> • Percentage of clients who receive five or more contacts in the first 90 days following discharge • Percentage of clients who complete 5 years of post treatment monitoring
Continuing care media	<ul style="list-style-type: none"> • Percentage of clients who receive mailed recovery support flyers • Percentage of clients who receive telephone- or Internet-based checkups

Source: Adapted from White (2008), "Recovery management and recovery-oriented systems of care: Scientific rationale and promising practices."

As indicated by the multiple and diverse definitions of recovery, outcome measures that support a recovery orientation are essential. This means establishing outcome measures that are rooted in what the individuals seeking services identify as their individual goals and objectives. In other words, if recovery is a process, outcomes should also be process driven, and should be related to individuals' degree of involvement in the process of recovery (Laudet & White, 2008). However, it has been noted that these types of outcomes are difficult to establish and monitor, and raise concerns for a systematic outcome measurement system. For example, it has been proposed that the model used in our education system be considered to guide outcome definitions of progress. Specifically, when students go to college to study in a specific major, they are required to take a set of core and elective courses with all the same achievement outcomes (grading). This standardization most likely is not optimal for every college student; however, the "idea of recovery" and the importance of "client-centered services and outcomes," from a management point of view, is extremely difficult to truly monitor individualized outcomes from large numbers of persons receiving services. One approach to address this is to focus on the following general outcome measures (with constructs shown in parentheses):

- Returning to a healthy state evidenced by improving one's mood (mental health status) and overall well-being (quality of life);
- Increased ability to manage one's illness such that the person can live independently (self-efficacy) and have meaningful employment and healthy social relationships (employment and social relations);
- Attaining or restoring a desired state such as achieving sustained sobriety (abstinence/reduced substance use).

Although most would consider abstinence from substance use to be a top recovery outcome, some suggest that recovery should be broader than abstinence, and that improved health and quality of life should be the primary criteria (Laudet, 2007; The Betty Ford Institute Consensus Panel, 2007, CSAT, 2007; White, 2007). There is still a need to identify and develop recovery outcome measures that particularly show whether individuals are attaining and sustaining recovery. To date, research efforts to identify factors linked with successful recovery have been restricted to client level factors, including drug choice and addiction severity, motivation and readiness, living situation, employment, and medical and psychiatric illness (Hiller, et al. 1999; Joe, et al. 1998; Lang & Belenko, 2000; Maglione, et al. 2000; Veach, et al. 2000) as well as treatment program factors, including treatment approach, assessment (De Leon, et al. 2000; Moos, Moos & Andrassy 1999; Simpson, et al. 1997a,b,c), and provision of ancillary services, such as job training, medical and psychiatric care, housing assistance, and transportation (Friedmann, et al. 2000; Friedmann, et al. 2001; Marsh, et al. 2000; McLellan, Arndt, Metzger, Woody & O'Brian 1993).

Furthermore, the definition of recovery needs to be refined to provide boundaries for measurement. For example, some maintain that individuals who intend to make changes be considered "in recovery," whereas most others take into consideration a certain period of time (e.g., 1 to 2 years) of abstinence and/or improvement in other life domains (Maddux & Desmond, 1986). Some studies have suggested that 5 years of abstinence may be critical to indicate the likelihood of a sustained recovery (Dennis et al., 2007; Hser, 2007, Sobell, Ellingstad, & Sobell, 2000). However, clinicians and policymakers still question whether there is sufficient empirical evidence for specific "benchmarks" or a threshold of time that support recovery as a stable and enduring outcome (Laudet, 2008a).

Considerations for a Continuum-of-Service System Model

This chapter provides useful information to address a major goal of the COSSR initiative—to develop an effective performance and outcome measurement system to address substance use disorders as chronic health problems. As the state AOD treatment system shifts attention to a continuum approach, there are some important questions to consider: (1) is current funding adequate to provide the infrastructure needed to deliver and manage continuing, quality care; (2) are clients assigned to the appropriate levels and duration of services; (3) what happens to relapsing clients; and (4) are proven advances in behavioral and pharmacological treatments (evidence-based practices) being delivered in our publicly funded

system? Further considerations under a continuum-of-services system model, include the integration of key stakeholder groups, including clients (and their families), the public/community, practitioners/providers, religious/spiritual leaders, the press, police, academic professionals (researchers), policy developers, and purchasers of care (commercial and government). Integrating these key stakeholders into the continuum model is important given that they are all involved in addressing substance use disorders as a chronic illness. Another consideration is the fact that the current system of services for AOD use is quite fragmented and isolated from the larger public health/health care systems. As policy makers consider how to reconfigure the AOD service system, they are met with a variety of challenges for building systems that optimally manage substance use disorders as chronic disorders. These challenges include: (1) creating an inter-connected continuum of services; (2) developing effective monitoring and measurement protocols that use the most effective and cost-efficient service configurations (i.e., developing systems to measure the extent to which a “chronic illness model of service delivery” has been created); (3) increasing the variety and availability of services within each service component and identifying ways to pay for these; and (4) remediating the problems encountered in creating a system for addressing substance use disorders as chronic (i.e., building and sustaining a qualified workforce). The challenge that seems to be at the forefront in designing such a system may be for policy makers to think in terms of a “system” of services for substance use disorders as opposed to an idiosyncratic, fragmented, and disconnected collection of silos of prevention, intervention, treatment, and recovery services.

Appendix A:

School-, Family- and Community-Based Prevention Strategies



SITE OF INTERVENTION	UNIVERSAL	SELECTIVE	INDICATED
School	Information and education: <ul style="list-style-type: none"> • media campaigns • health education curricula • school assemblies Competency skills training: <ul style="list-style-type: none"> • social influence • normative education • social skills training School improvement: <ul style="list-style-type: none"> • organizational changes • school policies • instructional strategies 	Alternative programs: <ul style="list-style-type: none"> • skills training • after-school activities • mentoring • special clubs Competency skills training: <ul style="list-style-type: none"> • cultural pride • tutoring Peer leadership Parent-peer groups	Alternative programs: <ul style="list-style-type: none"> • mentoring Peer leadership and resistance Parent-peer groups Peer counseling: <ul style="list-style-type: none"> • student crisis hot line In-school suspension Alternative classes and schools <ul style="list-style-type: none"> • vocational training • employment
Family	Parent education: <ul style="list-style-type: none"> • pre-natal/infancy • early childhood • adolescent/teen Parent involvement programs Parenting skills training	Parenting skills training Family skills training Family case management Parent support groups	Family skills training Parent-peer groups for troubled youth Parent self-help groups Family therapy
Community	Public awareness campaigns Information clearinghouses Community coalitions Health policy changes Community policing Laws	Alternative programs: <ul style="list-style-type: none"> • youth clubs • mentoring Tutoring <ul style="list-style-type: none"> • community service 	Alternative programs: <ul style="list-style-type: none"> • rites of passage programs • gang and delinquency prevention Skills training: <ul style="list-style-type: none"> • job apprenticeships

Appendix B: Recovery-Oriented System of Care Elements (CSAT, 2005)

Element	Recovery-oriented systems of care will:
Person-centered	Provide a menu of stage-appropriate choices that fit individuals' needs throughout the recovery process.
Family and other ally involvement	Acknowledge the important role that families and other allies can play, and incorporates them, when appropriate, in the recovery planning and support process.
Individualized and comprehensive services across the lifespan	Be individualized, comprehensive, stage-appropriate, and flexible, and adapt to the needs of individuals.
Systems anchored in the community	Be nested in the community to enhance the availability and support capacities of families, intimate social networks, community-based institutions and other people in recovery.
Continuity of care	Offer a continuum of care, including pretreatment, treatment, continuing care and support throughout recovery.
Partnership/consultant relationships	Be patterned after partnership/consultant relationships that focused more on collaboration and less on hierarchy.
Strength-based	Emphasize individual strengths, assets, and resiliencies.
Culturally responsive	Be culturally sensitive, competent, and responsive, and recognize that beliefs and customs are diverse and can impact the outcomes of recovery efforts.
Responsiveness to personal belief systems	Respect the spiritual, religious, and/or secular beliefs of those they serve and provide linkages to an array of recovery options that are consistent with these beliefs.
Commitment to peer recovery support services	Include peer-recovery support services.
Inclusion of the voices and experiences of recovering individuals and their families	Include the contributions of people in recovery and their family members in the design and implementation (e.g., represented on advisory councils, boards, task forces, and committees at the federal, state and local levels).
Integrated services	Coordinate and/or integrate efforts across service systems to achieve an integrated process that responds effectively to the individual's unique constellation of strengths, desires, and needs.
System-wide education and training	Ensure that concepts of recovery and wellness are foundational elements of curricula, certification, licensure, accreditation, and testing mechanisms.
Ongoing monitoring and outreach	Provide ongoing monitoring and feedback with assertive outreach efforts to promote continual participation, re-motivations, and reengagement.
Outcomes driven	Be guided by recovery-based process and outcome measures developed in collaboration with individuals in recovery. Outcome measures will reflect the long-term global effects of the recovery process on the individual, family, and community, not just remission of biomedical symptoms.
Research-based	Be informed by research (e.g., individuals in recovery, recovery venues, processes of recovery) and supplemented by the experiences of people in recovery.
Adequately and flexibly financed	Be adequately financed to permit access to a full continuum of services, ranging from detoxification and treatment to continuing care and recovery support. Funding will be sufficiently flexible to permit unbundling of services, enabling the establishment of a customized array of services that can evolve over time in support of an individual's recovery.

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Chapter 3: Performance Management Framework

As part of an effort to address Objective 1: *Development of a Framework for a Performance and Outcome Measurement/Management System*, this chapter synthesizes published research literature and other available materials (e.g., federal and state reports and presentations) on performance management. The first section provides a historical context of performance management and how it is used for ensuring accountability. The second section illustrates how performance management has been applied in various settings, followed by a discussion of the application of performance management in the alcohol and other drug (AOD) treatment field, with emphasis on identifying performance management models currently established and recommended within the field. The chapter concludes with guidelines for developing a performance management system.

Performance Management

Performance management has been defined as a process for using data to improve services and outcomes and provides a framework for developing and delivering quality products and services. As used in this document, performance management refers to the process of using performance measures and other data to improve the efficiency and effectiveness of organizations (Landrum & Baker, 2004). Performance measures are quantitative indicators identified by program administrators as valid and reliable measures of program success or program difficulties. According to Artley and colleagues (2001), performance management is a systematic approach to performance improvement through an ongoing process of establishing performance objectives, measuring performance by collecting, analyzing, and reporting performance data, and using performance data to drive improvement. Performance management has also been referred to as a data driven process that constitutes efforts at documenting processes and how these processes are associated with successful outcomes within organizations (Wright, 2005). Performance management is beneficial for focusing on results and achievements, providing a mechanism for accurately reporting the process of service delivery to key stakeholders (management, consumers), bringing all interested parties together into the planning process of service delivery, and providing a fair, objective system for monitoring performance (Artley et al., 2001).

History of Performance Management in the AOD Treatment Field

Over the past several decades, the practice of performance management has shifted dramatically (Wright, 2005). Once characterized by an operationally oriented standard in which federal agencies operated with relative autonomy and little external scrutiny, over the years, performance management has been embraced for responding to this increasing demand for accountability¹⁵ and quality improvement of government services. The 1993 Government Performance Results Act (GPRA) was established to ensure performance-driven management, i.e., documenting, monitoring, and improving service delivery (Artley et al., 2001). Overtime, the GPRA has institutionalized a national commitment to providing “quality, safe and effective” services among federal agencies. Under GPRA law, federal agencies are held accountable for setting performance targets regularly, reporting the achievement of performance targets, and linking outcome measures to performance targets (Wright, 2005), with the primary goal of establishing better accountability for the delivery of services. According to CSAT officials (2007), performance management is particularly important in the current economic environment, as it helps federal agencies understand not only which services are the most cost-effective, but also which ones are effective in producing positive outcomes.

¹⁵Accountability is an integral process of performance management as it includes, providing justification or explanation of fulfillment of a given responsibility [effective service delivery], reporting on the results of that fulfillment and assuming liability for those results (Artley et al., 2001).

Major performance management improvement initiatives have been developed during the last two years as a direct result of the IOM's call in *Improving the Quality of Health Care for Substance Use Disorders* (2003; 2007). Some recent and effective initiatives are the Network for Improvement of Addiction Treatment (NIATx), Strengthening Treatment Access and Retention (STAR-SI), Adopting Changes to Improve Outcomes Now (ACTION Campaign), and performance-based contracting models.

NIATx

A prime example of performance management is the Network for the Improvement of Addiction Treatment (NIATx), which was established in 2003 through an innovative public/private partnership between the Robert Wood Johnson Foundation and the Substance Abuse and Mental Health Services Administration's Center for Substance Abuse Treatment (SAMHSA, CSAT). With leadership from the University of Wisconsin - Madison's Center for Health Enhancement System Studies (CHESS), NIATx began applying process improvement methods pioneered in business settings (i.e., customer satisfaction and feedback approach) to community-based substance abuse treatment organizations to help improve the quality and care of AOD treatment. NIATx focuses on improving six dimensions of quality of care: (1) Safety, (2) Effectiveness, (3) Client centered, (4) Timeliness, (5) Efficiency, and (6) Equitability. A sampling of available NIATx strategies and tools include:

- Conducting an *agency walk-through* from a client's or family member's perspective to understand the strengths and limitations of the processes that facilitate access to and early engagement in treatment;
- Establishing a *Change Team* to identify process barriers and determine and implement rapid-cycle changes designed to improve the process;
- *Collecting data* before, during, and after a rapid-cycle change to determine if the change resulted in a process improvement. This cycle mimics the "Plan-Do-Check-Act" model used in business settings (described below in more detail under Public Health section) until the improvement is good enough to warrant institutionalization.

The literature supports the effectiveness of NIATx methods on establishing performance-based management to improve performance initiatives focused on four main aims: to (1) increase admissions; (2) reduce waiting time from first contact to admission; (3) reduce no-shows to intake/assessment interviews; and (4) increase client continuation in treatment (McCarty, et al. 2008). Capoccia and colleagues (2007) describe how through the use of the Plan-Do-Check-Act" model, programs improve at a change rate from as low as 25% in a specific performance target to 65%. Key performance measures that are typically targeted include:

- Access (date of first request for service, date of assessment, and date of admission)
 - Length of time between first request for service and assessment
 - Length of time between assessment and admission
 - Length of time between first request for service and admission
- Engagement (dates of post-admission treatment sessions within first month)
 - Weekly treatment attendance
- Assessment no-show rate
- Treatment no-show rate
- Continuity of care (transfers between levels of care within a specified time period)

STAR-SI

Another example of performance management is the STAR-SI (Strengthening Treatment Access and Retention – State Implementation Project, which is a recent program funded by CSAT and The Robert Wood Johnson Foundation based on the NIATx Model. Launched in 2006, STAR-SI identifies gaps and issues on a statewide basis through the NIATx process improvement principles and techniques focused on: (1) strengthening individual agency capacity to implement

the activities; (2) assisting agencies in implementing process improvement techniques; and (3) sustaining the process improvement activities over time. Unlike NIATx's, STAR-SI requires grantees to seek to implement fiscal, regulatory, and policy changes to remove barriers and create incentives to improve treatment access and retention (www.niatx.net 2009). Similar to NIATx, STAR-SI is a peer-learning network, and a core learning and development team is fundamental to the STAR-SI project.

The STAR-SI program takes a fundamental approach to performance management in that it helps substance abuse treatment agencies develop a systematic means of pinpointing, addressing, and documenting the most urgent needs for improvement in training, mentoring, coaching, and technical assistance services statewide. The overall performance management goals of STAR-SI are to:

- Develop a state-level infrastructure that supports state and agency-level quality improvement techniques for increasing access and retention,
- Implement process improvement techniques at the state and agency levels to demonstrate organizational improvements,
- Sustain the infrastructure to support ongoing quality improvement techniques that effectively identify and address issues hindering client access and retention.

The states currently participating in STAR-SI are Florida, Illinois, Iowa, Maine, Montana, New York, Ohio, Oklahoma, Wisconsin, and South Carolina (Cotter, 2008). Each STAR-SI grantee is required to do the following:

- Use process improvement methods to improve state and provider organizational processes that affect clients' access to and retention in outpatient treatment;
- Develop provider and payer capacity to implement process improvement using peer-to-peer learning networks;
- Partner with outpatient treatment providers, state treatment provider associations, and fiscal intermediaries to design and implement the program; and
- Implement performance management systems to track progress toward goals and provide feedback to participating treatment agencies (www.niatx.net 2009).

ACTION Campaign

The ACTION Campaign (Adopting Changes to Improve Outcomes¹⁶ Now) is another example of performance management in the AOD treatment system that was developed in October 2007 to disseminate NIATx-based principles and strategies on a wide scale (actioncampaign.org 2009). The Campaign focuses on one of three ACTIONS:

- (1) Rapid access to treatment,
- (2) Increased engagement by those who are in treatment, and
- (3) A seamless transition from one stage of care to another

The ACTION Campaign promotes 12 changes that focus on:

- Providing rapid access to services, including active listening between client and staff (especially at first contact) and making clients feel welcomed;
- Increasing service capacity, including offering same-day services, evening and weekend appointments, group sessions, and double book appointments;
- Identifying and testing the program's point of access (Web, phone, building entrances);
- Getting clients actively involved in setting their goals and planning their treatment;

¹⁶ The outcomes focused on are essentially performance-driven, including: reduction in wait times, reduction in no-shows, increase in admissions, and increase in treatment continuation.

- Making connections with the next level of care (including using confirmation systems that work, encouraging clients to meet with organizations providing the next level of care by going to recovery sessions etc., and following up with both the individual and the organization they were referred to in order to ensure they received the help they needed); and
- Reducing paperwork for the client when they are moving to the next level of care.

The ACTION campaign provides “ACTION Kits” that are designed to help agencies implement one (or more) of the 12 changes the Campaign promotes. Each kit includes step-by-step instructions on how to conduct a Plan–Do–Check–Act Cycle (as described below). The performance management piece is the easy-to-use tool for collecting data, along with case studies to inspire Change Teams. For more information visit: www.actioncampaign.org 2009.

Performance-Based Contracting

As part of the movement to achieve quality assurance and effective services, states and counties have been experimenting with performance-based contracting (PBC) as a performance management approach. Like other payers for services, substance abuse government-funded agencies have been enticed with the idea of offering treatment programs financial incentives to achieve effective outcomes and cost-efficiency while monitoring their performance. PBC has been promoted by the Institute of Medicine (IOM, 1990) as a “promising mechanism to manage and ensure the effectiveness of substance abuse services.” The PBC system is not a prospective payment system (i.e., when programs receive a fixed fee for each patient); rather, it allocates funds among programs, who are expected to deliver the contracted units of services.

In its most common form, PBC defines a base compensation and allows an opportunity for additional compensation based on performance measures of quality and/or client outcomes. Generally, PBC ties continuation of funding or the amount/appropriation of funding to certain indicators of program performance or client outcomes. A recent Join Together Report (2004) discussed “incentivizing performance,” where incentives for good treatment results will drive other elements needed to improve quality, such as training and credentialing, expanded use of evidence-based best practices, and better information data systems. PBC is a promising long-term approach where payers pay for services in the traditional way, but grant higher compensation for good performance or client outcomes.

The IOM recommends that states and local governments increase the use of funding mechanisms that connect funding with measures of quality (Kemp et al., 2008). PBC requires that a given agency determine exactly what it needs to accomplish and to establish standards of performance and quality that become part of the contract. With those expectations clearly spelled out, the agency can demand and achieve the quality of service it desires. Many times, the process of defining performance expectations for a bid invitation or request for proposals (and developing good performance measures to monitor the contract) leads to improved service quality even if you opt not to contract for the service. At its best, performance-based contracting is just plain good management. First, the analysis required to contract for performance gives managers the information they need to make good decisions. Second, it provides incentives and opportunities for change, where change is needed. Third, management and labor practices grown stale and outdated often require some driving force to provide the impetus for change (i.e., consideration of contracting out a service, or introducing competition) and performance measures provides just such an impetus. Fourth, performance contracting demands that performance standards be created and often introduces performance measures where none existed previously.

Introducing these accountability mechanisms improves communication of expectations to persons doing the work, while also forcing decision makers to decide precisely what they want a program or service to accomplish. According to Kemp and colleagues (2008), PBC has four essential components:

- (1) Utilizes “real time” data to inform management practices,
- (2) Uses financial rewards for performance (key indicators),
- (3) Uses rewards shortly after success, and
- (4) Uses “real time” data to reward the desired results.

According to Kemp et al. (2008), the process of implementing a PBC system essentially includes: agreeing on what you want to reward, using the data to determine realistic goals, agreeing on rates and payment mechanisms, issuing “Request for Protocols” that negotiate details in contract process and specifics in contracts, meeting regularly with contractors, and evaluating and using data on an ongoing basis for modifications. Below are summaries of states that have implemented PBC models. Unfortunately these are based on state director input, as there are only a few published studies (i.e., Delaware and Maine), and available information is limited.

Delaware: In 2001 the Delaware Department of Substance Abuse and Mental Health (DSAMH) provided financial incentives (initiated PBC) with outpatient programs to improve retention and engagement rates (Kemp et al., 2008). Three performance criteria were applied to funding allocations, including:

- Treatment utilization,
- Active treatment participation, and
- Program completion.

Utilization reimbursement rates were negotiated individually for each program. DSAMH agreed to pay one-twelfth of the total annual costs each month, *if* the program successfully admitted 80% or more of their expected utilization capacity. Utilization rates of 70 – 79% of annual expectation for the month received 90% of full payment; 60 – 69% utilization received 70% of full payment; and utilization rates below 60% were penalized by receiving only 50% of their payment. The performance contract was also negotiated individually with each of the providers to reward for the active participation of patients. The measure set was based upon clinically derived expectations for how often a patient should attend care at each stage of their treatment (Washington circle measures). Specifically, the expected participation level for a client in the first two weeks of care (Orientation phase of treatment) was 2 group or individual sessions per week, whereas the expected level of participation for patients who had been in treatment for 6 months was 2 sessions per month. Using the individually negotiated costs of care for each patient in each program (assuming full participation), patients who met the agreed upon attendance requirement for their stage of care produced an additional 1% of monthly costs for the program.

On a monthly basis, programs that met all the active participation targets could earn up to 5% above their base rate payment for that month. The third and final incentive payment was tied to patients’ successful completion of the program. Providers could earn \$100 for each client that completed the program in accordance with the criteria, up to a specified contract maximum. Providing financial incentives regularly (monthly), rather than in one lump sum, helped to modify or improve practices. In addition, it should be noted that programs who participated in the PBC were asked to identify evidence-based practices from NIDA’s essential principles and practices of effective treatment and use them in their programs. Many of the providers chose motivational interviewing or cognitive behavioral therapy.

Maine: In 1993, the Maine State Office of Substance Abuse (OSA) implemented PBC for its providers to improve both the efficiency and effectiveness of treatment by giving nonprofit providers incentives to care for high-priority clients in a cost-effective manner (Shen, 2003). Performance indicators included: efficiency (access) and effectiveness (retention), especially

among special populations (e.g., clients designated with high substance use severity at admission). In 2007, Maine revamped and enhanced the PBC model in regular outpatient and intensive outpatient programs to address issues of “creaming” (such as taking the easiest-to-treat clients) that was observed to occur during the initial PBC model (Shen, 2003). For this model, the specific performance measure defined improved access as:

- (1) Reducing the amount of time that lapses between the date when a client first contacts an agency and the date of first assessment and
- (2) Shortening the time between assessment and first treatment session and retention in treatment.

For regular outpatient program services, the minimum standard of time-to-assessment set for performance based contracting was 5 days or less. For intensive outpatient program services, the minimum standard was 4 days or less. Time-to-treatment is calculated as the difference between the date of the first face-to-face meeting with the client and the date of the first treatment session. For outpatient program services, the minimum time-to-treatment standard was set at 14 days and under; whereas for intensive outpatient program services, the minimum time-to-treatment standard was set at under 7 days. These treatment programs receive incentive payments or financial penalties based on their measureable progress toward the select performance measures. The purpose of this approach is to determine the extent to which agencies that participate in performance-based contracting perform better than agencies that do not in terms of key performance measures (which also addresses issues of “creaming”).

Maryland: The state of Maryland’s Alcohol and Drug Abuse Administration implemented a PBC system to provide incentives for nonprofit providers of substance abuse treatment to select appropriate levels of care for clients entering treatment. In other words, programs were incentivized to accurately assess patients using ASAM level-of-care criteria and move them through appropriate levels of care within treatment episodes (Luongo, 2008 presentation).

Philadelphia: Currently, Philadelphia contracts for eliminating “detox-only” services (i.e., contracting for continuity of care) as well as contracts for participation in post acute treatment recovery management and support.

New Jersey: The state of New Jersey recently initiated a PBC system to incentivize increased retention among the criminal justice AOD population.

Iowa: Increasing reimbursement rates for treating specific priority populations, including substance abuse clients with co-occurring mental problems, women, and youth AOD populations.

Massachusetts: Using performance incentives to increase the use of evidence-based practices, especially motivational interviewing in outpatient treatment programs to enhance engagement in treatment.

Wisconsin: The Wisconsin State AOD Agency developed PBC in 2000 with gender specific treatment facilities throughout the state. Contracted services were targeted to women with a history of multiple treatment episodes who suffered from co-occurring mental health disorders, were currently involved with the criminal justice system, and who lacked financial resources.

Problems with PBC

Some of the unintended consequences of PBC are that it leads to “creaming”—or behavior that goes against the payer’s interests, such as taking the easiest-to-treat clients (Shen, 2003) or indirectly encouraging providers not to provide care to high-priority clients. Since providers’ performance is rewarded and usually measured by the average performance of clients at discharge, providers have incentives to select the less severely ill clients, who are more likely to have better performance levels at discharge in the first place; thus they may avoid treating more

severely ill clients as they will lower the providers' overall performance. A PBC system might also cause some unintended provider behavior such as misreporting, which could make performance look better without actually improving the treatment quality (Commons & McGuire 1997). Given that performance evaluation is based on the information supplied by providers, Lu (1999) argued that providers had an incentive to misreport treatment outcomes. Hence, performance improvement cannot be completely interpreted as the result of an increase in treatment quality without controlling for misreporting.

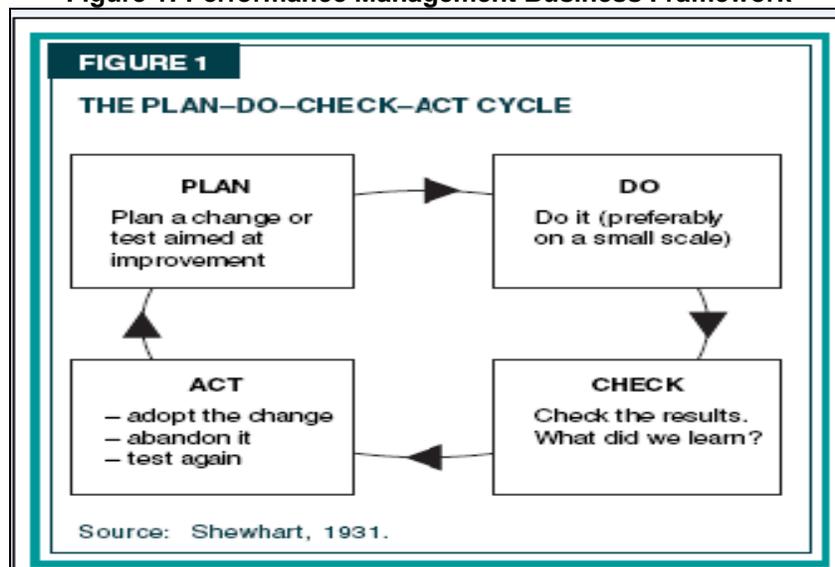
Other Performance Management Models

The ultimate goal of the performance management process is to use quantifiable data to strengthen the quality of a given system, thereby improving outcomes for the public. This process guides decision makers to identify and track process-related benchmarks as well as indicators of the quality of services. Below are some examples of the application of performance management in specific settings.

Business Settings

Performance management sprang from the quality management field of the business industry in the 1930s and was first instituted at Bell Telephone Laboratories of AT&T (Linderman et al., 2003). Today the business sector uses a performance management approach known as the "Six Sigma" approach. The Six Sigma is defined as an organized and systematic method for strategic process improvement and new product and service development. It relies on data (and forecasting) and problem-solving techniques to make dramatic reductions in key performance areas (i.e., customer defined defect rates; Linderman et al., 2003). Over the years, a number of major business companies have embraced a Six Sigma philosophy to reduce errors (Linderman et al., 2003). The approach also utilizes the Plan-Do-Check-Act (PDCA) cycle method shown in Figure 1 in an effort toward process improvement (Linderman et al., 2003; Shewhart, 1931).

Figure 1: Performance Management Business Framework



Many companies use the Plan- Do-Check-Act framework for testing demonstration projects that seek to change a part of the business or test a new product to help achieve their overall system improvement goal. The performance management is based on baseline process performance measures that are selected to address the specific area needing improvement as well as customer requirements.

Health Care Settings

Performance management is a top priority in health care settings in the United States. Driven by political and economic forces, quality patient care and patient safety (i.e., reducing medical errors) are prime targets in the health care system for performance improvement (Follen et al., 2007). According to an Institute of Medicine report (IOM, 1999), medical errors include “problems in the process of care itself, failure of a planned action to be completed as intended, or the use of a wrong plan to achieve an aim.” For the most part, health care deficiencies can be found in not adopting new information and techniques. For example, despite convincing evidence about the effectiveness of thrombolytic therapy in the management of myocardial infarction, current practices frequently fail to reflect this treatment (IOM, 2006). Integration of health information (data) is critical to providing effective, quality care in a fragmented health care system (Amara et al., 1988). The increasing prevalence of chronic conditions and demand for a comprehensive understanding of patient health by providers is driving the need for integrating performance management efforts focusing on health information data technology systems as important quality improvement tools (IOM, 2006). Integrating electronic health information systems is likely to enable efficient management of health information and improve the quality of health care, such as electronic medical records (EMR) and chronic disease management systems (CDMS; Follen et al., 2007).

Some of the performance management strategies developed in health care include the implementation of a Chronic Medical Information system that attempts to increase the knowledge base of health care professionals about “how to apply health information technology and data to improve patient health outcomes” (Haynes, 1984). Another performance management approach has been the adoption of “balanced score cards” among leading health care provider organizations. They focus on monitoring the adherence to target performance measures, applying results from performance information to provide better services, and developing benchmark standards to improve achievement (HEDIS, 2004).

A major performance management initiative of both private and not-for-profit insurance companies, including the Centers for Medicare and Medicaid Services (CMS), is a focus on “goal-directed pay-for-performance programs” designed to bring about greater quality and accountability of services. This financial model provides rewards for achieving stipulated performance goals. In some cases this model penalizes hospitals and physicians for not reaching identified performance goals (Thrall, 2004). According to Thrall (2004) goal-directed pay-for-performance programs have been initiated to close the gaps in quality services and to control costs. An example of performance management specific to the Centers for Medicare and Medicaid Services (CMS) is a set of nine multidimensional hospital performance measures (derived from Medicare reports) to improve health care. These measures include: cash flow, asset turnover, mortality, complications, length of inpatient stay, cost per case, occupancy, change in occupancy, and percent of revenue from outpatient care (Emanuel & Emanuel, 1996).

Public Health & Mental Health Settings

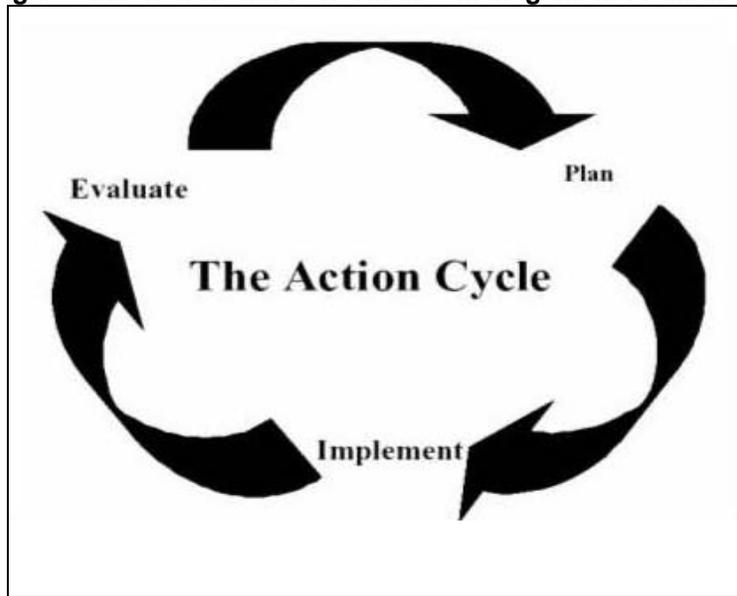
Currently, the public health and mental health systems, like the health care and AOD systems, are challenged with addressing patient safety and providing effective and efficient services. The mental health system follows the framework of performance management and quality improvement used by the public health system as shown in Figure 1. This figure clearly demonstrates that the public health system’s way of doing business is performance-based, using performance standards to set measures and data collection to assess progress and make decisions to adjust course when necessary.

Figure 2: Performance Management System



In the field of public health, quality and accountability (i.e., performance management) have been improved through the implementation of key performance measures, such as use of evidence-based practices and policies to reduce health disparities, access to services, and sustainability of services (i.e., continuity of services), which the California mental health system has modeled. An ongoing challenge for the mental health system has been the implementation of evidence-based practices. One state, for example (Oregon) tried to mandate that a certain percentage of their money in the behavioral public health system go toward evidence-based practice; however secondary level analyses of adherence to certain practices deemed to be evidence-based indicated that there was “no fidelity [or adherence] to the practices [as set in standards].” A critical issue related to this has to do with the “inappropriateness of services for culturally based programs” because evidence-based practices are typically designed using a White population that many times do not translate to communities of color. Given this complexity, the mental health system largely focuses performance management initiatives on examining the performance of the system by using administrative and process-related measures such as “did they follow procedures,” “did they do the things the way they said they would do things.” Figure 3 presents the “Action Cycle” that is the basis for the performance management system within the mental health system, which also stems from the field of public health.

Figure 3: Mental Health Performance Management Framework



This Action Cycle allows for the understanding of effective programs and policies through the use of data to plan, implement, and evaluate services. Evaluation plays a critical role in performance management within public health and mental health systems, as it provides directors' and professionals' accountability to the state legislators for delivering quality services. Process evaluation is a critical source of information for making midcourse corrections, improving programs and policies, and serving as the basis for deciding upon future programs and policies (Goodman et al., 1998).

Prison Settings

Performance management has been researched in corrections departments (Wright, 2005), specifically at the Association of State Correctional Administration (ASCA), the national professional organization of chief executive officers of the nation's prison system. In correctional settings, performance management can help clear misunderstandings, set standards, design measurable outcomes, allow inter-agency evaluations, encourage management to be future oriented, and provide motivation. Wright indicates that the highest priority for ASCA was the development of a national performance measurement system. The performance management model in correctional facilities translates performance objectives into measurable indicators that lead to effective prison outcomes or positive inmate outcomes. For example, according to a key informant interview with Kathy Jett, director of the California Department of Corrections and Rehabilitation's Division of Addiction and Recovery Services, due to the performance management efforts that have been implemented within the California correctional system, "there has been progress made towards addressing addiction as a chronic illness and providing a continuum of care model." One program in particular that utilizes performance management techniques, called the women's re-entry drug court program has been very successful in core outcomes, including reducing re-entry rates and re-arrests. It also helps the practice of benchmarking within each correctional facility. Performance data is critical within the correction setting as it allows correctional facilities to identify low and high performing institutions.

Recommendations for implementing a Performance Management System in the field of Substance Abuse Treatment

A well-structured performance management system can assist agencies and program administrators to improve program operations in a number of ways, including allocating and prioritizing resources, informing programs of the need to change particular policies or services to meet their objectives, and identifying successful approaches to meet specific program goals (Lichiello et al., 1999). The following discussion outlines some basic steps recommended for implementing effective performance management systems in the AOD treatment field.

Self-Assessment of Current Performance Management

According to the Center for Substance Abuse Treatment (CSAT), an initial step associated with implementing a performance management system is assessing the current status of the organization with respect to performance management. To do this, CSAT developed a self-assessment matrix tool. By using the matrix, agencies and organizations can begin the discussion about beginning or improving a performance management approach. The accessibility of the matrix makes it convenient, and it can be used by any substance abuse treatment agency. The matrix assesses four capacities that are believed to factor into the development and implementation of a performance management process (Artley et al., 2001) including:

- Agency data capacity: the internal capacity of the agency for using performance data for treatment planning and decision-making;
- Provider data capacity: the capacity of providers (skills and resources) within an agency to implement performance management; and
- Analysis and management capacity: the capacity of the agency to use data to manage services and influence practices at multiple levels, including analytical capacity and processes, roles, and protocols;
- Data systems capacity: the capacity to which staff members are competent or experienced in using data systems (i.e., collection, analyzing, and reporting).

Strategic Planning for Performance Management

Once organization or agency members have assessed their status in terms of performance management, they can more realistically begin the process of developing or updating their system. The first step in performance management is for leaders or management to develop program goals and reach a reasonable level of consensus on how to achieve these goals (Wholey, 1999). This process is known as the strategic planning phase. Artley et al. (2001) defines strategic planning as “a continuous and systematic process where the guiding members of an organization make decisions about its future, develop the necessary procedures and operations to achieve that future, and determine how success is to be measured.” The use of data system tools (i.e., reports) can be an effective way of developing both long-term and short-term goals (Scheirer & Newcomer, 2000). According to Artley et al. (2001), two integral areas of strategic planning are leadership and communication. Leaders need to be personally involved in the planning and must clearly communicate the organization’s mission. They need to create a framework for success, communicate with the other external key stakeholders (including the client), and communicate within the organization to program staff. Some key issues to consider when developing a strategic plan include:

- (1) What are the expected performance results to be achieved?
- (2) How do we define success and how will we know when we get there?
- (3) Who is going to be responsible for deployment of the strategic plan and performance, and who will help and in what ways?
- (4) What resources (e.g., training, people, or other inputs) exist to enable the process?

Achieving success in strategic planning efforts requires that the people involved in the strategic planning phase are also accountable for getting the job done. The key stakeholders (including program staff) must recognize that strategic planning is an important part of their job duties. They must also be willing to commit the time, energy, and resources required for the work, revisit the strategic plan continuously (at least annually), and update it when appropriate.

Developing a Performance Measurement System

Once a strategic plan is in place, the next step is to develop a program performance and client outcome data measurement system that is in alignment with the performance goals. This is a key phase in performance management because it involves translating program performance and client outcome goals into measures that can be assessed, tracked, and reported within and across agencies. An example of an existing framework that can be used to develop a performance management system is a performance dashboard, which can capture both financial and non-financial measures as indicators of successful strategy deployment (Artley et al, 2001). Another easy-to-follow method for developing a performance management system consists of the following six basic steps (Artley et al, 2001):

- (1) Assemble the people who actually do the work or are very familiar with it;
- (2) Identify and focus on a limited number of critical work processes and internal and external customer requirements that can be effectively managed;
- (3) Identify and align critical desired results to customer requirements;
- (4) Develop specific measurements to reflect critical work processes and results; and
- (5) Establish performance goals, standards, and benchmarks.
- (6) Create gradients for rating the degree of success

Application to AOD Treatment System

According to SAMHSA (Durman, 2008), an effective data collection plan serves the following purposes: focuses questions on matters of highest priority, allows gaps to be readily identified, enables an agency to focus staff efforts on key issues and questions, and provides a framework for obtaining new information technology. It is important to know what the program's goals are so that those performance objectives are aligned with the performance measures. In other words collection must be focused on the organization's improvement needs, should be feasible and simple, and should provide clear, relevant information that suits the organization's needs across time (Artley et al. 2001). According to SAMHSA (Durman, 2008), performance management systems should kept simple by limiting the number of key performance measures. This prevents the dilution of the power of performance measures and directs people's attention to what is important (Durman, 2008). Further, when choosing a performance management system, an agency must make sure that the information provided is meaningful and useful to decision makers. An effective measurement system should be results-oriented, selective, useful, accessible, and reliable, and it should have a clear data collection plan with the following components (Durman, 2008):

- Definition of the types of performance data needed to address the program objectives and issues;
- Specifications of the types of data collection that will be used;
- Determination of potential data sources (e.g., fiscal/billing sources);
- Identification of persons responsible for data collection;
- Specifications of the frequency with which data will be collected (e.g. everyday, weekly, monthly, etc.);
- Indication of the methodology that will be used to analyze data; and
- Determination of continuous monitoring versus a snapshot or point-in-time study (i.e., monthly reports).

Process for Collecting Performance Data

Performance management tools that collect performance data include strategic plans, performance agreements, accountability reports, performance-based contracts, program self-assessments, performance reviews, management controls, accountability meetings, and process improvement strategies (Artley et al., 2001; McCarty, 2006). A critical component of performance management tools is the use of valid and reliable data to measure organization performance and track their progress (McCorry, 2007). Purchasers need solid objective information to ensure that their investment yields sufficient value; regulators need it for accountability purposes; programs need it for identifying areas in need of process improvement; and consumers cannot make informed decisions about their choice of services or products without it (McCorry, 2007).

Combining Data Systems

Data systems that link information from different programs or funding source requirements (e.g., SAPT block grant, CalWORKS, Drug Medi-Cal, etc) can facilitate the coordination and support of data accessibility (Coffey et al., 2008). Departments that operate independently of each other, much like silos, such as Medicaid programs, substance abuse programs, and mental health programs, inhibit effective and efficient coordination of data collection and service delivery since clients often need services from each department that relate to each other. A recent IOM report (2006) highlighted how mental health and substance abuse services lag behind general health care in using information technology (Coffey, 2008). To promote improvement, the IOM recommends the development of policies and infrastructure to create data system linkages or create a standardization of collection/reporting requirements (Coffey et al, 2008). The value of data system linking can address challenges associated with provider paperwork burden, duplication of data collection efforts, services and costs, especially among co-occurring clients, and incompatible definitions for same data elements¹⁷.

¹⁷ It is also important to recognize that barriers to integration exist. For instance in California many AOD treatment providers do not understand or use the standard mental health diagnostic system (DSM IV R) to classify the types and severity of AOD disorders. Integrating data systems is difficult without first developing a consistent conceptual framework for labeling "disorders/needs" requiring service, for building service types, and for identifying key client outcomes and program performance measures. A first step, then, to work towards is developing a set of common concepts and terms where possible.

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Chapter 4: Improving the Quality and Accountability of the AOD Treatment Data System in California through Performance Measurement & Management

Background

There has been increasing attention across the country directed at improving the current acute, client-outcome-based alcohol and other drug (AOD) treatment system. It is well known that a large majority of individuals who enter treatment drop out rapidly (McLellan et al., 1993; Simpson, 1997). Worse, many in the addiction field seem to accept these low engagement and retention rates as “part of being an addict” rather than as a result of problems within the AOD treatment system and process (Capoccia et al., 2007; McLellan et al., 2008). A past meta-analysis conducted by Prendergast and colleagues (2000) on treatment outcome studies demonstrates that treatment effectiveness has historically been measured by change in traditional client outcomes (i.e., substance use, criminal involvement, and employment) from single episodes of short-lived treatment. In most of these outcome studies, treatment completion has been used as a proxy measure of “immediate” treatment success (Prendergast, Podus, Chang, & Urada, 2000).

A growing body of research indicates that poor long-term client outcomes (i.e., relapse and treatment re-entry) are not solely reflective of whether the client completed treatment, but rather a host of other factors that are related to the “treatment process” (Simpson et al., 2004), including the extent to which clients are motivated and engaged in treatment, retained in the treatment or therapeutic process across multiple episodes of care, satisfied or have positive experiences with the treatment process, and engaged in continuing care and sustained social support activities (Bartlett et al., 2006; De Leon, Hawke, Jainchill & Melnick 2000; Hiller, Knight & Simpson 1999; Joe, Simpson & Broome 1998; Lang & Belenko 2000; Stahler, Cohen & Shipley 1993 Veach, Remley & Kippers 2000;). These treatment process factors have all been demonstrated to be related to client attrition or early treatment drop-out, which has been confirmed as one of the greatest problems that interfere with treatment effectiveness (Anglin & Hser, 1990; Simpson, 1997; Stahler, et al. 1993). Programs face many challenges related to understanding the “treatment process,” in they do not commonly use data to improve their performance (Cappocia, 2008), especially since many providers collect data but rarely get anything out of it (Zweban, 2004). A response to such widespread skepticism has been to construct state-of-the-art performance measurement systems that facilitate program management, i.e., use of performance data to understand and document how to improve service quality and effectiveness (McLellan, Chalk, & Bartlett, 2007; McCarty, 2007).

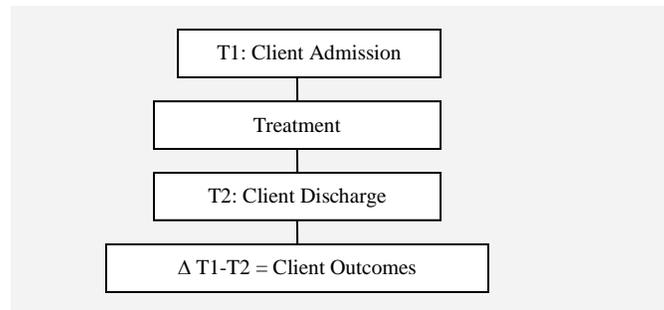
Consequently, recent initiatives throughout the AOD treatment field have focused on improving the “treatment process” through the use of performance indicators, a movement that has been referred to as “performance measurement for quality improvement” (McCarty, 2007). Measuring performance or quality is not a new idea, but the emphasis on moving away from solely measuring client outcomes at the end of treatment has changed the way we think about these issues and what needs to be measured. As in many areas of public health, AOD treatment departments in states across the country, intended to serve, protect, and improve the health of the public, are being asked to measurably demonstrate the value of their services, placing an increased emphasis on the use of performance measures for documenting “quality” service delivery and achieving desired outcomes (U.S. General Accounting Office [GAO] Report, 2003). An AOD treatment data system that incorporates performance measurement promises improved documentation of public agencies’ delivery of “effective treatment” as well as identification of program areas needing improvement (McCarty, 2007). A major impediment to this system change is that existing AOD treatment data systems have generally not been developed for this purpose and may not be readily adaptable to meet this need.

As shown in Figure 1, the current California Outcomes Measurement System – Treatment (CalOMS-Tx) is designed primarily to collect client information from treatment programs at admission and discharge (denoted by T1 and T2¹⁸). This information is used to assess change in client functioning across essential outcome areas promoted at the national level via the National Outcomes Measurement System (NOMS) including: substance use, employment/education, crime/criminal justice, housing stability, and social

¹⁸ There is also a third data collection point (at 12 months) for clients in long-term treatment (i.e., methadone maintenance).

connectedness. There is also a strong emphasis placed on discharging clients at T2, with the main goal being “treatment completion.” This existing acute-based treatment system (both delivery of services and measurement of services) has been the de facto system historically (Dennis & Scott, 2006) and is based on the premise that an addicted person seeks treatment, receives an assessment and treatment plan (of some sort), is given some type of treatment, and is discharged, all within a period of weeks or a few months (Dennis, Foss, & Scott, 2007). There are basic assumptions that underlie this type of service and data capture model: (1) some fixed amount of treatment will resolve substance use problems; (2) clinical efforts should be geared toward getting clients to complete a fixed amount of treatment; (3) evaluation of treatment effectiveness occurs at discharge; and (4) poor client outcomes and discharge status implies client and treatment failure (McLellan et al., 2005).

Figure 1: Treatment Outcome Data System – CalOMS-Tx



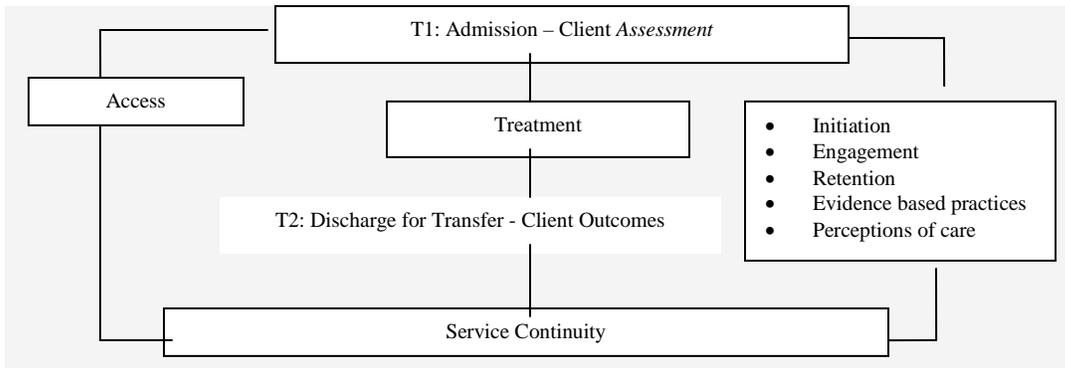
Unfortunately, this traditional model has encouraged policy makers, the public, and health professionals to expect that individuals completing such treatment are cured from AOD problems lifelong and discourages the field to address and evaluate substance use disorders as chronic health problems (McLellan et al., 2000; McLellan et al., 2005). Additionally, this model stands at variance with clinical experience and longitudinal research from the past 30 years, which confirm that, although some individuals can be successfully treated within an acute care system, the majority require multiple episodes of treatment over several years to achieve and sustain successful recovery (Anglin et al., 1997; Cacciola et al., 2008; Dennis et al., 2005; McLellan et al., 2005). According to the Institute of Medicine (2001), chronic conditions are defined as illnesses that last longer than 3 months and are not self-limiting. Longitudinal studies have demonstrated that the reality of substance use disorders is that “most clients drop out of treatment early, relapse during and after initial treatment, and have high re-entry rates after initial treatment” (Anglin et al., 2007). Further, studies have shown that the risk of relapse does not appear to optimally abate until after 4 to 5 years of sustained abstinence (Dawson, 1996; De Soto et al., 1989; Nathan & Skinstad, 1987).

Over the past decade, there has been growing interest and efforts across the AOD treatment field to effectively address substance use disorders as a chronic health problem (American Society of Addiction Medicine, 2001). Accepting a chronic health model represents a major shift in the way the AOD system operates both in terms of service delivery and evaluation. The current Continuum of Services System Re-engineering (COSSR) initiative that is underway in California is one such effort addressing the current AOD system challenge, and is concerned with instituting fundamental changes to the delivery and monitoring of services for substance use problems in California. A critical part of this system change is to not only move away from treating substance use disorders as acute problems (i.e., implementing a continuum-of-services paradigm), but also move away from solely focusing on client outcomes and instead develop an effective performance and outcome measurement system for instituting quality improvement protocols. This type of effort has been supported by the National Quality Forum (2007), the Institute of Medicine (2006) and the Substance Abuse and Mental Health Services Administration (SAMHSA, 2009a; 2008).

Figure 2 distinguishes between an outcome-based system and a performance- and outcome-based system. As shown, this type of system lends itself well to California’s goal of reengineering the AOD treatment system to accommodate a continuum-of-services model. Integrating performance measurement

within the admission (T1) and discharge (T2) context with *improved* assessment and discharge protocols not only allows for monitoring clients' change in core outcomes across multiple episodes of care (service continuity), but also identifying key areas of concern within programs (i.e., access, assessment, engagement, retention, use of evidence-based practices) to target quality improvement efforts. In other words, performance measurement can help the state AOD treatment system demonstrate accountability for "quality services and effective client results."

Figure 2: Performance and Outcome AOD Treatment Data System



Performance Measurement: State of the Art in the AOD Treatment Field

As was gathered by comprehensive literature reviews (see Chapters 1 and 2), the adoption of performance measurement for the AOD treatment field is relatively recent and still undergoing evolution. The performance measures that have received the most attention and have been extensively discussed throughout the AOD treatment field include access, engagement, retention, continuity of care, use of evidence-based practices, and client perceptions of care. This chapter provides a systematic review of performance measurement using a key elements framework utilized by GPRA and the quality standards developed by the National Quality Forum (NQF). This systematic review allows for the identification of both strengths and limitations of existing performance measures, which can inform the overall framework for performance and outcome management in the California AOD treatment system (*tied to addressing Objective 1*).

NQF Quality Standards for AOD Treatment

The NQF recently developed consensus standards for quality treatment of AOD treatment systems that are being promoted throughout the country. These standards have been used to develop effective performance measurement models for promoting quality improvement (Capoccia et al., 2007). As discussed in Chapter 1, there is direct parallel between the NQF standards and the Washington Circle performance measures and SAMHSA's National Registry on Evidence-Based Programs and Practices (NREPP) (SAMHSA 2009b), such that the NQF quality standards provides a useful framework for examining performance measurement in relation to national values. Table 1 below provides a brief description of the four quality domains and specific performance measures that accompany these areas.

Table 1: NQF Quality Standards

Domain	Performance Measures
1. Identification of Substance Use Conditions	a) Screening or case finding b) Assessment and diagnoses
2. Initiation and Engagement in Treatment	a) Access b) Initiation/Engagement c) Withdrawal management d) Retention e) Client perceptions of care
3. Therapeutic Interventions for Substance Use Illness	a) Use of evidence-based practices 1. Pharmacotherapy/medications 2. Psychosocial interventions 3. Case management
4. Continuing Care Management of Substance Use Illness	a) Continuing care management b) Recovery support

Domain 1 highlights the importance of screening and assessment to bring about greater system accountability for delivering quality services. There is wide agreement across the AOD treatment field for the utilization of standardized screening and assessment instruments for adequate identification and diagnosis of substance abuse as well as treatment placement, such as the American Society of Addiction Medicine (ASAM) levels of care or the Level of Care Utilization System for Psychiatric and Addiction Services (LOCUS) (see Chapter 5 for further discussion of assessments). Based on several interviews with state AOD treatment directors, some clients who seek treatment will not need most levels of care or most components of care within any level; although several will require a full continuum of care to address clinical situations such as severe addictions and their sequelae, co-occurring disorders, and relapse; hence there is strong support by almost all single state AOD treatment agencies for the use of such standard assessments to enable them to take the necessary action(s) needed when AOD problems are identified.

Domain 2 highlights critical factors related to the “treatment process” (Garnick et al., 2006a; McCorry et al., 2000; Simpson et al., 2004), which have been used to understand long-term client outcomes (i.e., relapse and treatment re-entry; Simpson, 1997). Based on interviews with AOD treatment state directors, these performance measures have been an integral part of process improvement initiatives, i.e., via NIATx. According to a key informant interview with a SAMHSA representative, Anne Herron, the goal of performance measurement at the federal level is different from performance measurement at the state and local levels. Specifically, the core performance measure that the federal government is interested in is access/capacity. Using the NOMS definition, access/capacity is measured by “time to treatment.” Ms. Herron, indicated that states measure “time to treatment” in different ways, including: (1) the date the individual first contacted the program to the date the individual was offered their first appointment, or (2) the date the individual first contacted the program to the date the individual attended their first treatment session—and this was supported by state treatment directors in subsequent interviews. This measure captures treatment utilization and allows for an understanding about how well programs respond to the needs of treatment demand. Further, Ms. Herron expressed that just because the measurement of engagement is not integrated into NOMS at the federal level, it is “expected” at the national level that states and counties actively collect and monitor such service-level data on a regular basis to improve program services and client outcomes. Ms. Herron indicated that “process improvement initiatives such as NIATx, STAR-SI, and Action Campaign (as discussed in Chapter 3) are strongly supported by the federal government since they have been shown to work; hence if this information [performance data] is not routinely tracked and monitored, then federal stakeholders feel that the AOD treatment field is wasting time and money.”

Domain 3 represents the “use of evidence-based practices.” Research over the past 3 decades has established components of care that are essentially evidence-based practices, including:

- Pharmacotherapy/medications (the standard reflects that a program should have the capability to provide, either on-site or through consultation with a medical clinic, buprenorphine and naltrexone for opiate addiction; naltrexone [for alcohol addiction—e.g. Revia, Trexan, Vivitrol]; topiramate [Topimax] for cocaine treatment, and some type of anti-smoking medications [Chantrix, nicotine patch]);
- Psychosocial interventions (the standard reflects that a program should have trained staff to provide at least one of the following individual therapies – Motivational Enhancement Therapy [MET], Cognitive Behavioral Therapy [CBT], Twelve Step Facilitation Therapy [TSF], Community Reinforcement and Family Training); and
- Case management (the standard reflects that a program should have the ability to provide a client a case manager who can connect them with health and social services to promote employment, education and training, and continuing care services, i.e., drug free housing, etc).

According to Ms. Herron from SAMHSA, a critical performance measure that the federal government is interested in (and moving toward putting more emphasis on) is the extent to which programs are providing services that are deemed evidence-based. According to NOMS, evidence-based practices are defined as the extent to which programs are using interventions and therapeutic models that have been either identified in SAMHSA’s NREPP or have been recognized as evidence-based by states (in contracts).

Domain 4 highlights the importance of addressing substance use disorders as chronic illnesses. According to interviews with key political and research stakeholders (M. Flaherty and D. Simpson), a recovery management model involves viewing substance use as a long-term condition requiring long-term support. This is not to say that substance use cannot also be acute in nature, especially among adolescent populations as was discussed in Chapter 1. However, for the majority of individuals with substance use disorders, recovery is a meaningful goal. In such cases, an acute model of care is *not* useful or appropriate. In terms of system design, prolonged conditions call for continuing care management and recovery support with longitudinal evaluation models as discussed in Chapter 2.

According to Ms. Herron from SAMHSA, with the move toward viewing and managing substance use disorders as chronic illnesses, there is a strong desire among several states to enhance their AOD treatment systems by providing continuing care and recovery services as well as monitoring client progress/outcomes during this phase of the continuum. Ms. Herron indicated that “there are no restrictions on using the block grant funds for recovery services,” and gave Connecticut as the example of such a case. Ms. Herron indicated that once Connecticut redefined the AOD treatment system, specifying that “clients are transferring from an active form of treatment to recovery support as an essential part of treatment,” recovery support fit within the purview of the “block grant purpose.” Ms. Herron provided the following justification, “If you think about it from a 10,000 foot level, the purpose of the block grant is to pay for the planning, delivery, and evaluation of services to reduce substance abuse...which means that states can define recovery services in a way that meets this purpose to be able to pay for them under the block grant.” From her experience at SAMHSA, she has witnessed that most states have trapped themselves into defining treatment as “one level of care” (particularly if using ASAM criteria), rather than as a continuum or multiple levels of care (using a bundling of care mechanism). This means that if recovery services are not defined as “an appropriate service or necessary level of care” then states cannot use block grant funds to pay for them. According to Dr. Sarah Duffy from NIDA, “from the studies we [NIDA] have invested in and other research around the country, data demonstrates that acute or episodic treatment (given one time) is not going to take care of the public health problem of addiction; rather, at NIDA it is understood that drug-using individuals will need multiple episodes and types of treatment over time to become successful in their recovery.”

Key Elements Performance Measurement Framework

The essential elements associated with identifying effective performance measures for an AOD treatment system include the NQF standards as well as four standards used by GPRA: 1) *Focus of the Measures*: do performance measures reflect important clinical or program dimensions that relate to improving client outcomes?; 2) *Operationalization of the Measures*: are the definitions of the performance measures clear and understood across programs (definition and quantification of measurement metric); 3) *Availability of Data*: is performance data collected at the program level; if not, can performance data be collected without added data collection burden to programs? and 4) *Reliability/Validity of Measures*: are people who collect the performance measures/data well trained to use the same definitions across programs and do measures have empirical validation with improving outcomes? Table 2 provides a performance measurement framework using the NQF standards for quality measurement and the essential elements for performance measurement.

Given that the identification of performance measures for substance abuse treatment services is at an early stage, with ongoing efforts being conducted to develop effective measurement models, Table 2 is useful for understanding the extent to which the established performance measures in the field meet key requirements for ensuring quality services and raising the accountability of the AOD system. According to Garnick et al. (2006), a first requirement related to performance measurement selection is deciding “which programmatic results are important to assess provider performance.” This review is important for informing California’s efforts in identifying appropriate performance measures to integrate into the data capturing system (CalOMS). It is important to assess these performance measures as a whole, as expert bodies in the performance management field, such as the National Quality Forum and the Washington Circle, are recommending these performance measures as a framework for AOD systems. McLellan, Chalk & Bartlett (2007) suggest that performance measurement be framed “as a set” rather than as stand-alone indicators and that major stakeholders need to work together closely in order to create a consistent, comprehensive set of performance measures (McCorry et al., 2000). Further, it is important to understand that although measures of performance are increasingly becoming accepted indicators of treatment quality, they are not direct measures of treatment client outcomes, which still need to be focused on together with performance measures (McLellan, Chalk, & Bartlett, 2007).

As shown in Table 2, there are several strengths associated with existing performance measures in terms of clinical/program utility, clarity, and reliability (assessments are based on the literature reviews in Chapters 1 and 2), with a major limitation related to the availability of performance data in the California system. There are some practical implementation issues around the adoption and implementation of performance measures in the California treatment data system that need to be considered, including: (1) identifying how to best capture the performance data (data collection points and type of data system), (2) getting programs to collect performance data (paperwork burden of extra data collection), (3) getting counties and programs to use performance data to improve performance and service delivery (Cappocia, 2008), and (4) developing performance management protocols for quality improvement (as was discussed in Chapter 3) that can facilitate program management (use of data) to generate evidence of service quality and effectiveness.

California is being responsive to this challenge, as a top priority of the California Department of Alcohol and Drug Programs (ADP) is to improve the accountability of the AOD treatment system in terms of ensuring quality services and effective client outcomes via the COSSR effort. “To this end, ADP is committed to developing a comprehensive, integrated, continuum of AOD services” as the definitional framework of COSSR (see COSSR Report, September 2008) and improving the way counties and programs use data to enhance their systems and client outcomes. As discussed in Chapters 5 and 6, ADP and counties are taking the necessary steps for continued refinement and identification of adequate performance measurement in support of the implementation of COSSR through the conduction of and evaluation of performance and COSSR pilot projects in a number of counties. Pilot projects provide a great opportunity to address the four challenges noted above. For instance, because collecting and assembling performance data can be expensive or time consuming to providers, and expanding data collection efforts carries the risk of reducing the resources available for program services, pilot projects provide an opportunity to understand this burden and how to effectively address it. Learning from other

states, pilots will build on existing data systems, like billing, to promote more efficient and effective use of all the data systems they interface with. Ms. Herron from SAMHSA indicated that it is overkill to collect data every day for federal purposes of reporting change in client outcomes; although “if SAMHSA were a county, they would require programs to collect data often (much more often than the traditional T1-T2 model) in order to determine what’s happening in treatment (client progress) and how to improve it. According to Ms. Herron, SAMHSA is looking to move away from the whole concept of T2 occurring at discharge and re-define when to administer it (i.e., at 3 months or 6 months post admission), since such reporting of “change” is needed for reporting to Congress. She also indicated that this routine data collection is key in a chronic care model, as routine monitoring allows for improving transfers through the continuum of care to prevent and, it is hoped, decrease the number of patients who leave treatment prematurely (which is currently the case across the country).

Other Programmatic Challenges to Consider

There are programmatic challenges that can affect outcomes related to performance measurement that need to be considered. For *access*, attention should be given to other factors during measurement including lack of space, eligibility criteria, waiting list alternatives, housing status, transportation and childcare needs, proof of identification or residency, obtaining approval from referring agencies, needed psychiatric staff for clients, program rules (e.g., possessions not being allowed at a facility), provision or use of services by clients who are on a waitlist, and use of reminders (calls) for follow-up when on a waitlist. Further, it is important to note that much of the available information on access focuses primarily on in-treatment populations, not on those failing to enter treatment. For *engagement*, measurement factors to consider include sociodemographic characteristics, psychosocial issues, including cognitive readiness and motivation, drug-use severity, and adequate assessment for type of services needed, all of which serve to affect engagement in treatment. For *continuity of care*, programmatic factors that may affect measurement include: availability of continuing care or recovery support services, referring or agency policies, availability of case management or coordination with existing treatment/social networks, awareness of existing services outside the program agency, and availability of transitional support mechanisms (counselors/peers, housing, etc).

Table 2: Framework for Performance Measurement

Performance Measure	Focus of Measure	Clearly Defined Measure (National)	Reliability/Validity of Measure (National)	Availability of Data in CalOMS (CA)
Domain 1: Identification of substance use conditions				
Screening	How are individual AOD problems identified?	Yes	Yes	No
Assessment & Diagnosis	What are individual AOD needs and what types of services address needs?	Yes	Yes	No
Domain 2: Initiation and Engagement in Treatment				
Access	Is treatment accessible?	Yes	No	Partial ¹⁹
Initiation	Is initiation to treatment promoted?	Yes	Yes	No
Engagement	Is engagement in treatment promoted?	Yes	Yes	No
Withdrawal management	Are clients provided or referred to withdrawal services at assessment?	Yes	No	No
Retention	Is retention of individuals promoted?	Yes	Yes	Yes
Client care perceptions	How do clients perceive the utility and quality of services received?	Yes	Yes	No
Domain 3: Therapeutic Interventions to Treat Substance use Illness				
Use of evidence-based practices	Are empirically validated interventions used?	Yes	Yes	No
Pharmacotherapy/ Medications		Yes	Yes	No
Psychosocial Interventions		Yes	Yes	No
Case management		Yes	Yes	No
Domain 4: Continuing Care Management of Substance use Illness				
Continuing care management	Are clients transferred through multiple levels of care or provided continued care?	Yes	Yes	Partial ²⁰
Recovery support	Are clients engaged into recovery support activities?	Yes	Yes	No

¹⁹ CalOMS-Tx collects a self-report measure that asks clients who are admitted to treatment: "How many days were you on the waiting list before admitted to this treatment program?"

²⁰ CalOMS tracks information using a unique client identifier, and hence can assess client movement through different levels of treatment modalities, but does not measure continuing care participation.

Discharge Status

Discharge is another area that needs to be addressed within the movement toward developing a performance and outcome measurement system. As discussed earlier, there is a major emphasis placed upon T2, or discharging a client from treatment. Table 3 describes the current discharge categories used in CalOMS-Tx. Based on several interviews with key state, federal, and policy AOD treatment stakeholders, discharge practices are changing. Not only has several states begun to modify discharge practices and related measurement codes, but the federal government is redefining the way discharge is framed and measured to better reflect a chronic care AOD system model. Appendix A provides an example of discharge status codes used by other states (see Chapter 8 for more discussion on state discharge practices).

Table 3: CalOMS Discharge Codes

Completed Treatment/Recovery Plan Goals - Referred
Completed Treatment/Recovery Plan Goals - Not Referred
Left Before Completion with Satisfactory Progress - Referred
*Left Before Completion with Satisfactory Progress - Not Referred
Left Before Completion with Unsatisfactory Progress - Referred
*Left Before Completion with Unsatisfactory Progress - Not Referred
*Death
*Incarceration

**ADP reports these categories as Administrative Discharges (as there is no client "outcome data" collected).*

The current discharge codes, particularly the use of "treatment completion," used in the California treatment data system (CalOMS) are problematic for a chronic care model. Many state directors, federal representatives, and policy/research experts in the field have shared thoughts similar to the following: Given that substance use disorders are chronic health problems that require long-term management and monitoring, using treatment completion as a measure of success is counter-productive or not appropriate. Outcomes from research studies examining the association of treatment completion and long-term client outcomes from substance abuse treatment are mixed. Generally, completion rates among clients who enter publicly funded treatment are relatively low, including for offenders (Hser et al., 2008) and parents who come into contact with the child welfare system (Rittner & Dozier, 2000). Treatment motivational factors are important to understand for such special populations given that past studies on treatment adherence patterns have found that motivation to change plays a large role in treatment success (Anglin & Hser, 1990). For offender populations, research has shown that treatment motivation is typically based on "avoiding incarceration" rather than client readiness (Simpson et al., 2003). This contrasts to self-referred clients who tend to exhibit higher levels of treatment motivation and treatment participation (Weisner & Schmidt, 1995).

Completion of substance abuse treatment has been shown to increase the rate of reunification of mothers with children, independent of whether mothers reported ongoing drug use or demonstrated poor parenting skills (Green et al., 2007; Smith, 2003). Completion has also been shown in short-duration follow-up studies to decrease criminal justice involvement, increase employment, and lower treatment readmissions (Evans, Longshore, Prendergast, & Urada, 2006; Luchansky, Krupski, & Stark, 2007; Wickizer, Campbell, Krupski, & Stark, 2000). However, many studies suggest that the benefits of treatment completion, especially among offender populations, tend to diminish over time, especially without continued exposure to treatment or other social support services (Gonzales et al., in press; Marlow et al., 2006; McLellan et al., 2002). Most of these previous treatment outcome studies have indicated that other factors must be considered when examining treatment completion, such as (1) is treatment of sufficient intensity, (2) is

treatment properly matched to the needs of the client, and (3) is treatment followed by continued participation in some type of therapeutic support?

Long-term success has been empirically linked to completely different indicators. Emphasis has been placed on the degree to which individuals with substance use problems are re-assessed at discharge and transferred to another appropriate level of care (including continuing care and recovery support). Researchers support this by demonstrating that when treated as a chronic illness (via continuing care and continued involvement and participation in social support), the compliance and relapse rates are as good as *or better* than with other chronic illnesses (Dennis et al., 2007; Gonzales et al., in press; McLellan et al., 2008). For offender populations, evidence of treatment attendance (participation) and urine drug screen results are two of the most relevant and valid indicators of offenders' progress and success. In fact, criminal justice related studies in California have produced compelling findings answering an important question that is directly relevant to the necessity of ensuring good treatment: What are the implications for failure to treat (see SACPA Final Reports 2005-06)? Studies outside of California have also documented the importance of continued treatment for offender populations. Specifically, over 95% of drug involved offenders who do not receive treatment during periods of incarceration will return to substance abuse when they are released and two thirds of them will be re-arrested and one half of them will be convicted (Prendergast et al., 2007). Additionally, recent evidence points to the value of continued treatment for offender populations (Marlow et al., 2006), especially the "step down" model, in which the treatment of substance abusing, incarcerated offenders is progressively managed following release from prison or jail, first in outpatient treatment, then in aftercare. Overall, research demonstrates that focusing simply on completion, rather than continued participation in treatment service episodes, including continuing care or social support, limits our ability to understand long-term symptom reduction and success among substance-dependent individuals (McLellan et al., 2005).

Currently, in an environment moving toward recovery-oriented systems of care, the client's successful progress toward recovery is the ultimate goal, not treatment completion. As described in Chapter 2, an important indicator of system performance is the practice of "linkages to services" or providing coordinated services. A major goal associated with the re-engineering of the AOD treatment system into one that offers a full continuum of care is to understand where coordination needs to occur, with particular emphasis on potential collaborations (i.e., between specialty care and other service delivery systems) as well as the development of adaptive or staged treatment strategies, especially since some integrated treatment models combining substance abuse treatment with other primary health care have been found to be efficacious and even cost-effective (Bodenheimer et al., 2002; Wagner et al., 2001). For instance, caring for clients with hepatitis C who use illicit drugs presents challenges to both the healthcare and AOD treatment systems. Nonetheless, hepatitis C interventions are being successfully coordinated across systems, including primary care, methadone treatment and other substance abuse treatment programs, infectious disease clinics, and clinics in correctional facilities. Given that the costs of providing the infrastructure necessary to effectively manage individuals with substance use disorders (including the range and level of clinical expertise) within a state AOD treatment system, it may be a more practical first step to examine a couple of alternatives. One alternative model to entirely re-engineering a state system is to conduct pilot studies with in representative counties that establish one or more centers within a network of existing substance abuse programs that routinely accept referrals of clients with poor response to a given type of care (service type/modality) and who may require a period of intensified care for their substance use and/or psychiatric problems.²¹ Programs would need to identify "poor responders" to a given treatment by tracking and locating. However, relying entirely on integrated care approaches in every treatment program within a geographic area may not be the only way to reduce the number of inadequately treated clients. Another approach would be to create system linkages between counties that do not provide certain services with those that do.²²

²¹ A pilot study that focuses on service system care coordination for co-occurring clients is underway in Solano County.

²² Pilot studies that focus on cross county-system linkages are underway in Lassen and Alpine counties.

Status of Discharge Measurement

According to Anne Herron from SAMHSA, plans have begun for transitioning to a performance management environment at the federal level to fit a continuum of services framework, with a shift toward bringing about greater health care accountability to the AOD treatment system. Ms. Herron indicated that it is important to understand the original intention of NOMS—which is to serve as a “performance management” system—using data to improve programs and services; although SAMHSA realizes that there needs to be more emphasis on changing the way data has been historically collected (i.e., T1-T2 acute framework). Ms. Herron indicated that there is quite a bit of discussion taking place within SAMHSA related to discharge. The gist of the discussion has to do with addressing substance use disorders as a chronic illness and the most appropriate way to capture “change in outcomes.” According to Ms. Herron, SAMHSA recognizes the fact that discharging a chronically ill substance dependent client from treatment goes against the whole notion of the chronic illness model. Further, Ms. Herron indicated that SAMHSA hears from states on a continual basis about how “completion” of treatment is meaningless for treating substance use disorders as a chronic illness. SAMHSA is in agreement that the current “discharge approach” and the “category of completion” are not conducive to a healthcare chronic illness model. She used the following example, which is currently discussed at SAMHSA: “A physician never discharges a chronically ill client from services, rather the client continually comes in and out of the system when services are needed.” She used the concept of the “medical home” in primary care, as is currently described in healthcare reform under the new administration, as a model being considered for addiction treatment (i.e., an AOD client has a treatment agency that serves as the “home” where services are coordinated and the client is never discharged from treatment).

Unlike with the concept of “completion,” the one category that SAMHSA and most states think is important and pay attention to with respect to discharge categories is transfer to another level of AOD services, particularly in this chronic care environment. Ms. Herron indicated that because of this, “transfer is critical to capture...and that if you don’t capture the category of transfer you have created a huge disincentive in the system for accommodating a chronic care model.” This category also supports the notion that clients are never discharged from treatment, but rather transferred to another level of care, including continuing care or recovery services. Since NOMS is designed to measure the extent to which treatment programs are producing client improvement in key outcome indicators, the biggest concern SAMHSA is dealing with has to do with “what is the most appropriate T2 to be able to capture adequate client improvement?” rather than “when should clients be discharged?” Currently, SAMHSA is looking to move away from the whole concept of discharge and re-define what T2 is (i.e., when to administer it – at 3 months or 6 months post admission), since such reporting of “change” is needed for reporting to Congress. According to Ms. Herron, SAMHSA needs to demonstrate to Congress that the money they give to provide public treatment services is being well spent, and that they should allocate even more funds for such services. Further, SAMHSA, along with other states, certainly agrees that discharge has no meaning when you consider methadone treatment and believe that this treatment modality can serve as a useful model for redesigning a system around a continuum of care.

According to interviews with state AOD treatment directors from Oklahoma, Connecticut, and Arkansas, a discharge transaction is not valid when continuing services are being provided by the agency, regardless of location or service intensity. Further, if a client is admitted to a short-term residential program and then no longer needs the structured services offered in the residential program and begins to receive services in an outpatient program at the same or different agency, the client is still active and the original admission is intact (no discharge is necessary). A change in treatment modality does not affect the admission episode. Rather the data element used is a transaction type referred to as a “data update” that signifies change in the intensity of treatment or services. A discharge signifies a discontinuation of services during an admission “episode.” In these states, a core set of outcome fields (that represent NOMS) must be updated at least once every six months for reporting purposes to SAMHSA.

Conclusion

Despite the general theoretical support for using performance measurement to identify quality treatment services, researchers have emphasized the need for further study to identify mechanisms of change that

can provide more complete information about treatment success (Kazdin & Nock, 2003). Previous studies, for instance, have indicated that there is a broad range of other program factors that may affect treatment response over and beyond simple performance indicators, including client readiness for treatment and the quality of the initial therapeutic relationship (Simpson, 2007). Furthermore, the impact of performance measures on substance abuse treatment outcomes has not been extensively examined. Questions still persist, such as: Does treatment participation itself increase the likelihood of successful client outcomes? And what aspects of treatment participation are positively related to client outcomes? This is especially important given that some researchers have argued that the relationship between treatment participation and treatment outcomes, for example, may simply be an artifact of other more important variables such as motivation to change, treatment compliance, or treatment satisfaction with treatment location or staff (McLellan et al., 1996).

California is in the early stages of a major transition to develop a more accountable AOD treatment system, where performance measurement is a priority. Identifying the exact performance measures to use statewide is currently underway and will be solidified using results from the county performance pilots (see description in Chapter 5). As was done by the Washington Circle group, key stakeholders across the California treatment system will be working together over the next 2 years to create a consistent, comprehensive set of performance measures through a stakeholder consensus process.

Appendix A: Discharge Codes Used by Other States

Arizona

- Completed Treatment – Tx Plan Completed
- Completed Treatment – Tx Plan Substantially Completed
- Referred Outside
- Program Decision Due to Lack of Progress-Program Decision
- Client Left
- Incarcerated
- Client Died
- Other
- Managed Care Decision
- Detox Only – Client's Tx Consisted of Detox Only

Arkansas

- Treatment Completion
- Treatment Completion Some Use
- Client Left Treatment
- Transfer to ADMIS Program
- Client Transferred to non ADMIS Program
- Incarcerated
- Death
- Discharge For Non Compliance (Administrative)
- Referred Outside of program (medical or mental health reasons)
- Unknown (client AWOL)

Connecticut

- Successful discharge, demonstrated linkage with next level of care
- Successful discharge, demonstrated active linkage with recovery supports
- Did not complete treatment as mutually agreed due to individual's choice
- Did not complete treatment as mutually agreed due to program's choice
- Transferred to another level of care within the SUD treatment system
- Did not complete treatment, became severely ill or suffered trauma, could no longer participate in SUD treatment
- Did not complete treatment, incarcerated
- Did not complete treatment, died

Illinois

- Admission assessment resulted in a diagnosis of V71.09 (no diagnosis or condition on Axis I and Axis II)
- Completion of Intervention or Treatment Services
- Left against staff advice
- Terminated by facility
- Transferred to another Addiction Treatment program and continued with services
- Incarcerated
- Death
- Transferred to another Addiction Treatment program but did not continue services

Iowa

- Completed Treatment, treatment plan completed
- Completed Treatment, treatment plan substantially completed
- Referred Outside
- Program Decision Due to Lack of Progress
- Client Left
- Incarcerated
- Client Died
- Other
- Managed Care Decision
- Detox Only – client’s treatment consisted of detox only

Ohio

- Successful completion (achieved treatment plan goals)
- Successful completion (completed required time but did not achieve treatment goals)
- Unsuccessful termination (disciplinary, lack of participation/progress)
- Voluntary withdrawal from program
- Escape/Absconson
- Unable to participate due to reclassification, medical, out to court.
- Arrested for new crime
- Convicted of new crime
- Probation/parole violation
- Other

Oklahoma

- Completed Treatment: when the client and the counselor, clinician, etc. are in agreement that the treatment plan has been completed and services are no longer necessary at this agency.
- Completed Court Commitment: when the client has completed the court commitment under which he/she was admitted and is no longer legally required to remain in treatment.
- Left Against Counselor’s Advice: when the client leaves treatment against the advice of the counselor, clinician, etc. If the client and the counselor, clinician, etc. have not agreed that services are no longer necessary and the client has not been seen in 90 days.
- Moved: when the client moves his/her residence to a different geographical location and it is no longer feasible to receive services at the present agency given the distance.
- Transferred to another treatment facility: when the client transfers to another treatment agency regardless of whether it is funded by DMHSAS. A discharge is not submitted if the client is expected to return, e.g., from a hospital back to a CMHC, and continuity of care needs to be maintained. This discharge type should also be used when discharging a client from ICIS because the client’s services will now be paid by another source. Use the referral code 39, Change in Pay Source.
- Incarcerated: client’s treatment is terminated due to a return to a correctional facility, such as jail or prison.
- Broke rules: client was discharged due to breaking the rules of the facility. Client must have broken a written rule, e.g., showed up intoxicated, not just treatment non-compliant.
- Absent without Leave (AWOL): client leaves an inpatient facility prior to the treatment plan, goals and objectives, or the prescribed period of time indicated by the program criteria has been completed. In other words, an AWOL indicates the client left the facility prior to the completion of treatment and the agency believes further services are still needed by the client.
- Death: the agency learns the client is deceased.
- Failed to begin treatment: when a Client Data Core admission record has been submitted but the client did not receive any services.
- Discharged due to treatment incompatibility: when treatment is not complete but the staff and client feel the episode should be terminated since continued stay will not be therapeutic for the client. This discharge is marked by repeated failure to meet treatment goals, stagnation in progress toward recovery and/or a belief that continued treatment at this facility will not achieve a successful treatment outcome for the client. This should only occur after the treatment staff has attempted to engage or re-engage the client in treatment and determined the treatment goals are appropriate for the client even

though they cannot be attained. All attempts to correct the treatment plan and approach should be well documented in the client record before discharge.

- Medical: when a client is discharged prior to treatment completion, necessitated by a need for medical treatment that cannot be managed concurrently with treatment.
- Dependent Child left due to parental discharge: is for residential treatment and halfway house only and is to be used as the discharge code for dependent children.
- Automatic (AKA: administrative): when a client has not received services in 180 days. Any client that is listed in ICIS that has not received services in 180 will be automatically discharged from the ICIS System by ODMHSAS. Due to the negative impact an automatic discharge may have on your agency's Performance Improvement Reports, it is important that you check your agency's Aging Reports in ICIS often.

Maine

- Treatment is complete
- Further treatment is not appropriate for client at this facility
- Client refused service/treatment
- Client terminated without clinic agreement
- Client unable to follow program requirements
- Client left program due to lack of childcare
- Client discharged for medical and/or psychological TX
- Client move out of catchment area
- Client cannot get to facility for further service/treatment
- Client cannot come for service/treatment during facility hours
- Client incarcerated
- Client deceased
- Parents/legal guardian withdrew client
- Non-compliance with rules & regulations (Administrative)

Maryland

- Completed Treatment Plan: This category is used to indicate the client has completed his/her prescribed treatment plan and no longer has a substance problem and no longer requires substance abuse treatment.
- Completed Treatment Plan/Referred: This category is used when the client completes his/her prescribed treatment plan in the agency, but requires additional treatment at another agency.
- Completed Treatment Plan/Transferred: This category is used for a client who moves from one level of care to another within the same treatment episode as prescribed in his/her treatment plan (example: from a Level II.1 [IOP program] to a Level I [OP program]). The transfer can only take place within an agency with multiple levels of care.
- Incomplete Treatment/Client Left Before Completing Treatment: This category is used when the client is discharged because of his/her decision to leave the agency before the treatment plan has been completed.
- Incomplete Treatment/Death: This category is used when the client is discharged because of his/her death. The treatment plan is incomplete.
- Incomplete Treatment/Non-compliance with Program Rules: This category is used when the client is discharged for violation of program rules. The client's treatment plan is incomplete and a referral may be recommended.
- Incomplete Treatment/Health Problem: This category is used when the client is unable to complete his/her substance abuse treatment plan because of either a physical or mental health problem.
- Incomplete Treatment/ Incarcerated: This category is used when the client has been incarcerated and is therefore unable to participate in treatment at the program. The treatment plan has not been completed, and further treatment is indicated.
- Incomplete Treatment/Referred: This category is also used when the client did not complete his/her treatment plan. As a result, the client was referred to another substance abuse treatment program.
- Incomplete Treatment/Transferred: This category is used when the client did not complete his/her treatment plan. As a result, the client was transferred to a more intensive level of care. This transfer must take place within an agency with multiple levels of care.

Massachusetts

- Assessment Only
- Completed
- Drop-out
- Relapsed
- Administrative/non-compliance
- Incarcerated
- Transferred to other substance abuse program
- Hospitalized, medical
- Hospitalized, mental health
- Inappropriate
- Moved
- Enrolled in Error
- Deceased

New Jersey

- Treatment plan completed at this level of care
- Treatment Plan not completed
- Quit or dropped out
- Needs different level of care
- Unable to meet client's non-substance abuse treatment needs
- Administrative Discharge/Rule Non-compliance
- Exhaustion of insurance benefits or ability to pay
- Loss of eligibility for Medicaid or Medicare
- Incarcerated - status revocation
- Incarcerated - Charge prior to entering treatment
- Incarcerated - Charge since entering treatment
- Medical Discharge/Hospitalized
- Deceased
- Other

New York

- Completed Treatment, all treatment goals met: The client has completed the planned course of treatment appropriate for this PRU and has accomplished the goals and objectives which were identified in the comprehensive treatment/service plan. The client is discharged as outlined in the approved treatment plan.
- Completed Treatment, half or more treatment goals met: The client has completed the planned course of treatment appropriate for this PRU and has accomplished the major goals and objectives identified in the comprehensive treatment/service plan, including the AOD and employment goals (education goals for adolescents). This is essentially a client who needs to work on relatively minor treatment goals in the next level of care or with another type of service provider (e.g., mental health).
- Treatment Not Completed, maximum benefit/clinical discharge: Use when the client has been in treatment for at least as long as the typical client treatment cycle and has not made any significant progress for some time. Continued treatment in the program is not likely to produce any additional clinical gains. This status must be reflected in the client progress notes.
- Treatment Not Completed, some goals met: the client has not completed the course of the treatment appropriate for this PRU and/or has not met one or more major goals.
- Treatment Not Completed, no goals met
- Additional treatment at this level no longer necessary
- Further treatment at this level unlikely to yield added clinical gains
- Left Against Clinical Advice, form referral made/offered
- Left Against Clinical Advice, lost contact (no referral possible): Client has not returned to the program, has not responded to phone calls or written correspondence, and has not been formally referred to another program.

- Left Against Clinical Advice, termination of third party funds: Use when a client chooses to leave treatment after his/her third party payer discontinues payment for treatment
- Left due to non-compliance with program rules: Use when client is discharged due to disruptive conduct and/or failure to comply with reasonably applied written behavioral standards of the facility (e.g., loitering and diversion).
- Client arrested/incarcerated
- Client could no longer participate for medical/psych reasons
- Client death
- Client relocated (i.e., residence or employment)

North Carolina

- Direct Discharges
- Indirect Discharges
- Deaths
- Transfer Outs
- Program Completion
- Other

Rhode Island

- Completed Treatment, treatment plan completed
- Completed Treatment, treatment plan substantially completed
- Referred Outside
- Program Decision Due to Lack of Progress
- Client Left
- Incarcerated
- Client Died
- Other
- Managed Care Decision
- Detox Only – client's treatment consisted of detox only

Texas

- Client assessed as inappropriate for this treatment service level or program
- Completed
- Transferred to another DSHS funded level of services, environment and/or clinic within this provider for continued services
- Referred to a non-DSHS funded level of service and/or clinic.
- Client left due to loss of public funding (client becomes financially ineligible).
- Program decision to discharge client for non-compliance with program rules (The client was discharged for violation of provider rules)
- Client left against advice of treatment provider.
- Client incarcerated
- Client died while still receiving services from the substance abuse treatment program.
- Administrative discharge. If DSHS does not receive a payment for services rendered request for a period of 50 days after the last request, the client is Discharged by DSHS. SA treatment in Texas is paid on a pay-for-services rendered basis.
- Unknown

Washington State

- Charitable Choice
- Client Died
- Completed Treatment
- Funds Exhausted
- No Contract/Abort
- Not Amenable to Treatment/Lacks Engagement
- Rule Violation
- Inappropriate Admission
- Incarcerated
- Moved
- Transferred to Different Facility
- Withdrew Against Program Advice
- Withdrew with Program Advice
- Of Detox Only

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Chapter 5: Performance Measurement and Management at the Local Level

Introduction

This chapter examines performance measurement and management efforts at the local level aimed at enhancing the quality of the California alcohol and other drug (AOD) treatment system. This chapter also describes factors that serve to facilitate or limit a “system shift” toward accommodating California’s goal of adapting the system to fit a chronic care model (i.e., continuum of services system re-engineering - COSSR). The first section presents methods and results of a county administrator survey examining current performance and outcome measurement practices and priority areas, as well as county efforts in moving toward a chronic illness model. This section is followed by survey methods and results pertaining to treatment providers’ performance measurement and improvement efforts, including a discussion of program practices that accommodate a chronic illness model and organizational factors that may affect the implementation of performance measurement and management at the local level. The chapter concludes with a discussion highlighting implications related to county program performance measurement and management across the AOD system.

Survey Methods: County Administrators

This section describes survey methods and results of the county administrators’ survey. Surveys were designed by UCLA for county agencies providing alcohol and drug treatment.²³ Survey questions focused on (1) county administrators’ use of performance and outcome measures for performance management strategies; (2) performance and outcome measurement priorities within counties; and (3) county efforts in moving toward a chronic care model. Survey questions were both open-ended and closed-ended.

Survey Procedures

County administrator surveys were sent by e-mail to each administrator in all 58 California counties. Surveys were formatted as Microsoft Word Forms, which administrators could complete and return electronically. Additional copies were made available on the Internet. Upon request, paper copies of the survey were made available and mailed out to counties. Follow-up phone calls were conducted with each county administrator to ensure that the survey was received and to answer any questions, as well as with small and minimum-based-allocation (MBA) counties to collect survey information. A total of 37 administrators (67.2%) responded to the survey between December 2008 and March 2009. Respondents were sent a letter thanking them for their participation and, if allowed, a \$25 money order.

Data Analysis

Quantitative response frequencies were examined using the Statistical Program for Social Sciences (SPSS), version 16.0, and responses to qualitative open-ended questions were examined and organized for key themes using content-theme analysis. Responses were listed and assigned frequency counts to determine majority response patterns.

Results

Use of Performance & Outcome Measures for Performance Management

The survey assessed whether the county makes routine use of performance and outcome measures to make decisions about individual treatment programs and if so, which measures are used and how the county responds to poor performance. Results indicate that 56.8% ($n=21$) “routinely use performance and/or outcome measures to inform performance management practices and make decisions about individual programs.” Administrators indicated that both specific databases, such as CalOMS-Tx, and information obtained from provider meetings/program site visits²⁴ are used to assess performance and

²³ The survey was originally designed for Prop 36 lead agencies; however it was expanded to the general client population for the purposes of the COSSR project, with additional questions added.

²⁴ Program meetings and site visits provide counties with the opportunity to obtain information on a regular basis (range: weekly, monthly, quarterly or annually) to address issues of contract compliance, trends, and concerns related to program performance and outcomes.

outcomes measures at the program level. Commonly tracked performance measures reported by county administrators include: 1) utilization of services or “occupancy vs. capacity”; 2) client’s attendance/participation²⁵ in treatment (engagement), and 3) client’s treatment compliance (both retention and completion). Specific outcome measures assessed include “changes during treatment” in core outcomes as supported by the National Outcomes Measurement System (NOMS; SAMHSA, 2009a), such as substance use, crime, employment, housing, and social support. Administrators also reported an emphasis on examining other measures including client demographic characteristics, drug severity (including drug-testing), and legal status in terms of arrests/incarceration patterns. In addition, other databases or sources are used to monitor critical client outcomes, such as “clients having babies born drug-free.”

The majority of county administrators indicated that they “respond to poor performance” by using select performance and outcome measures (as described above) to make decisions about how to address programs that respond *poorly* by initially providing them with “technical assistance” (61.9%, *n*=13) and working with them to develop “a process/quality improvement plan” (47.6%, *n*=10). Another 47.6% (*n*=10) indicated that they “reduce/cancel contracts” or “have considered implementing funding reductions” in response to poor performance/outcomes. A few administrators (*n*=2) clarified that “although they allow programs the opportunity to make improvements to meet requirements...they will still suspend or discontinue contracts with programs that are unable to improve/meet requirements.” Other responses to poor performance include: (a) focusing on a specific priority performance area, i.e., retention, rather than a series of change efforts to initiate system-wide program changes, such as requiring programs to provide reminder telephone calls to all clients to attend their sessions; (b) providing monthly educational and training meetings that address a given performance or outcome area; (c) working with the providers to develop methods for quality improvement around performance areas; (d) obtaining additional funds to better work with programs that serve at-risk clients (i.e., homeless or trauma victims); and (e) pairing poor-performing programs with high-performing programs as a learning collaborative. Although these performance improvement responses are representative of most counties, it is important to note that county administrators in rural or less-populated counties reported that, although they routinely use performance and outcome measures to monitor program practices and client success...comparisons with other programs for determining poor performance or models on how to improve performance would be difficult to ascertain.

Several counties reported embracing the nationally supported Network for the Improvement of Addiction Treatment (NIATx) model for addressing performance or process improvement with programs, as it provides a model for focusing on important performance measures, such as access (reduced wait times and no shows), capacity/utilization (increased admissions), and engagement/retention (continuation in treatment). Another county reported using Scott Miller’s treatment outcome scale and participation scale (based on client ratings) to obtain client feedback on alliance with counselors and “in-treatment” outcomes. Three counties indicated that they rely on information collected from site visits conducted by State ADP to monitor program quality. For instance, one of these counties reported that ADP has an effective Quality Assurance team that conducts chart reviews and facility inspections as well as meetings with staff for feedback.

Performance and Outcome Measurement Priorities

The survey assessed county administrators’ opinions about priority areas for performance and outcome measurement (i.e., which measures would be the most important to collect).

²⁵The majority of administrators indicated that their respective counties collect encounter-related data (including the number of sessions attended) via the billing system, although because this is not a reporting requirement associated with CalOMS, it is tracked separately.

Priority Performance Measures

County administrators identified several performance measures “as most important to collect.” Table 1 provides a summary of the priority performance measures. As shown, measures of retention (35.1%) and engagement (21.6%) received the most support, followed by show rates and program completion²⁶ (both at 18.9%, respectively). Although several administrators indicated measures of treatment completion were most important, one respondent noted that treatment completion should be rated by “client progress in treatment, more than just completing a period of time in treatment.” For instance 16.2% of administrators indicated the importance of achieving “client progress in critical domains” as an indicator of achieving “sufficient stability.” The critical domains listed included abstinence from substance use, employment, medical and mental health status improvement, family reunification and improved social relationships, education, housing stability, increased involvement in social support (including recovery groups (faith-based and/or 12-step), and integration into the community (i.e., by volunteering and accessing community resources). In terms of client progress, administrators emphasized the importance of focusing on solutions to these performance areas, and measuring performance over at least 2 years to get an accurate understanding of program performance over time (for informing performance improvement initiatives).

Administrators also noted the importance of collecting client satisfaction information (10.8%), and one respondent qualified this by stating, “...only if they [satisfaction surveys] could be administered in a way that would ensure meaningful results.” Tracking the number of clients entering and exiting treatment in terms of “program occupancy,” a programs’ ability to “link clients to other needed services,” and “post-treatment contact/follow-up” were also reported as performance measurement priorities (each at 5.4%, respectively). Other performance measures identified as important (not noted in Table 1) include a program’s ability to adhere to contractual obligations and budgets; extent to which recovery principals are incorporated in clients’ lives; clients’ treatment level at re-entry after relapse, taking into consideration initial treatment level; and use of evidence-based practices/models.

Table 1: Priority Performance Measures

	<i>n (%)</i>
Retention/length of stay	13 (35.1%)
Engagement rates and program participation	8 (21.6%)
Show rates	7 (18.9%)
Program completion rates	7 (18.9%)
Client progress in critical domains	6 (16.2%)
Client satisfaction with treatment	4 (10.8%)
Referrals to other agencies/services	2 (5.4%)
Program occupancy	2 (5.4%)
Post treatment contact/follow up with clients	2 (5.4%)

Priority Outcome Measures

County administrators identified several priority outcome measures, as shown in Table 2. The most common outcome measure reported was client abstinence/reduction (40.5%), followed by criminal

²⁶ It is important to note that for at least some counties, SACPA requirements drive the “importance” of completion as completion is used as 25% of the funding formula for the Offender Treatment Program, which is a funding “add-on” to SACPA established in 2006-2007. The formula for this program is defined in a regulation, Section 9545, Title 9, established by ADP October 28, 2008 (<http://www.adp.ca.gov/LAR/pdf/OffenderTP.pdf>). The definition used for the term “successful completion of treatment” is that a defendant who has had drug treatment imposed as a condition of probation has completed the prescribed course of drug treatment and, as a result, there is reasonable cause to believe that the defendant will not abuse controlled substances in the future.

involvement/recidivism (32.4%). Employment (27%) was also reported as an important outcome measure to collect. Since the 1960s, substance abuse treatment outcome evaluations have mainly focused on these three traditional outcome measures (e.g., substance use abstinence/reduction, decreased public crime, and increased productivity; McLellan et al., 2005). Other priority outcome measures reported included: housing stability (24.3%) and involvement in social support (13.1%). It is interesting to note that administrators also mentioned retention and completion as important outcome measures, as was done with performance measures (see Table 1). This redundant reporting is not surprising given that retention and completion have historically been used interchangeably as both performance and outcome measures across the field. Although currently, these measures are considered to be performance measures as they can be targeted for performance improvement strategies at the program level (see Chapter 1). Client education and improved social relationships/family reunification were also listed as important outcome information to collect and assess improvement (both at 8.1%, respectively).

Other outcome measures administrators identified as important (not reported in Table 2) were: clients' involvement with Child Protective Services; reasons for termination from treatment (discharge status); extent to which the client leads a balanced life; and the degree of compliance or follow-through with legal obligations. In terms of measurement, some administrators (8.1%) indicated a desire in understanding long-term outcomes (1-5 years) and analysis over multiple time points (6 months, 12 months, 18 months).

Table 2: Priority Outcome Measures

	n (%)
Abstinence/substance use reduction	15 (40.5%)
Recidivism/criminal justice involvement	12 (32.4%)
Employment	10 (27.0%)
Living arrangements/Housing stability	9 (24.3%)
Treatment completion*	7 (18.9%)
Program attendance/retention*	6 (16.2%)
Participation in self help/social support	5 (13.5%)
Education	3 (8.1%)
Improved social relationships/family reunification	3 (8.1%)

*Previously reported as priority performance measures

County Efforts in Moving Toward a Chronic Care Model

The survey also assessed whether counties have initiated efforts to move the treatment infrastructure toward a chronic care model, and if so, what activities have taken place. Almost half of the administrators (48.6%; $n=18$) indicated their counties are moving toward a chronic care model. Efforts to move toward a chronic care model have mostly involved training ($n=5$). Training efforts have focused on the following topics, "the science of addiction," "understanding and managing the chronic nature of addiction," and "using stages of change to determine treatment progress", i.e., meeting clients where they are at in their readiness for treatment. Other chronic care efforts have included: allowing flexibility in length of stay and ability to move back and forth to different levels of care without worrying about a discharge assessment ($n=4$); participating in process improvement activities (i.e., NIATx) to improve retention and linkages between levels of care in treatment ($n=3$); and participating in pilot projects that institute a system change effort, such as providing continuing care services²⁷ or bundled services²⁸ over time ($n=2$).

²⁷ This county is conducting weekly telephone follow-up recovery check-up calls with clients that have "completed" the acute treatment episode to monitor clients' stability. Weekly calls address issues such as substance use, mood, cravings, people/places/things, and participation in social support/recovery meetings. Clients in need of more intensive treatment are transferred back to the appropriate level of care.

To promote a continuum of care, administrators reported that the following services should be emphasized: secondary prevention (i.e., follow-up after initial care to assess self-management abilities); providing clients with “treatment packages” based on their level of chronicity rather than acute, single services; improving program referral protocols and practices; and developing cross-system fertilization or linkages (i.e., establishing a referral network with local community health clinics or holding monthly multidisciplinary work group meetings with stakeholders from other systems like the Department of Children’s Services, the district attorney’s and public defender’s offices, and substance abuse prevention providers.

There were a few county administrators who are not currently doing anything to accommodate substance use disorders as chronic problems. One administrator reported “having no knowledge of this model,” and indicated that “it is not currently a high priority for the county.” Another respondent mentioned that staff shortages have resulted in addiction services becoming, “in some ways, an assembly line type of treatment...and limit our ability to provide services that accommodate a chronic care model.” Likewise, a respondent reported that “budget cuts have resulted in their county’s show rates declining by 40% due to limited service capacity.”

County Recommendations for a Chronic Illness Model

The survey asked county administrators the following: “If you were to reengineer the current AOD system to fit a continuum-of-services system model, how would you change it?” Twenty-one (out of 37) administrators provided recommendations in several areas, while the remaining respondents ($n=16$, 43.2%) were unsure, had no comment, indicated the chronic care model was not applicable, or left the question blank. Many administrators focused on the need for program providers to be able to easily and quickly move clients to higher and lower levels of care as needed (through more adequate and systematic assessment). Several administrators indicated that the current data system would need to be enhanced to fit a chronic care paradigm, in terms of both data collection (i.e., changing the admission-discharge practice) and the type of reports that are generated (i.e., to include performance reports as well as treatment episode analysis). Some administrators suggested conducting a mid-point, or more frequent data assessment during treatment to determine whether a different level of care is needed (before clients drop out).

Another recommendation raised by administrators related to “adding a continuing care or recovery level of care” that would consist of either “periodic check ups/follow ups,” “recovery maintenance support activities” and “post treatment data collection monitoring.” Several administrators suggested “a shift towards measuring treatment success as a “stages of change model,” in which broader outcome measures are considered, such as substance use, employment, or a move to a more positive living arrangement or more stable housing situation rather than focusing on completion rates.” For example, a respondent indicated that from their experience, “Client housing stability typically interferes with their ability to complete treatment since having or obtaining stable housing is used as a treatment plan goal; thus if a client does not have stable housing or is homeless at the end of treatment they are given a non-completion...hence this factor should be considered as a critical confounder when examining completion rates.” Further, many administrators indicated that because completion is financially rewarded (i.e., funding is tied to completion for SACPA clients), “non-completion is viewed as failure...rather than a host of client setbacks that are critical to recovery as a chronic illness paradigm would support.” Similarly, several administrators expressed a need for individualized treatment plans and more options for reporting discharge status, “as CalOMS-Tx discharge data are vague, specifically for unsuccessful discharge, nor is there an option for transferring to another level of care.”

Another recommendation from several administrators focused on the need for a “user friendly” data system. Specific data system improvements suggested included an ability to track “client participation (engagement),” “the number of times a client relapses during treatment,” and the “number of treatment re-

²⁸ This county is paying a “case rate” for a program to keep individual clients engaged in treatment for a 1-year period.

entrees a client has.” For this, administrators noted the importance of collecting and monitoring “encounter data” to evaluate the extent of program quality and re-direct efforts at process/program improvement rather than solely focusing on client outcomes (where program improvement is not clear or central). Other data system recommendations included the collection of data on clients’ length of time at various stages of treatment, intensity of treatment, court encounters, and enhanced and updated mental health data collection on dually diagnosed clients, such as diagnoses and functioning status. Another respondent indicated the data system should identify out-of-county clients or clients from the treatment prison system, since outcomes for these subgroups may be quite different from other clients. Rather than entering data only at admission and discharge, a respondent suggested more frequent and abbreviated data entries, for example, updating clients’ status every 30 to 60 days.

Survey Methods: Program Providers

This section presents survey methods and results for a sample of program providers throughout the California AOD publicly funded treatment system. Program surveys assessed the following areas: (1) programs’ practices related to performance measurement; (2) programs’ existing efforts at performance management for program improvement; (3) programs’ efforts at accommodating substance use as a chronic illness; and (4) organizational barriers to performance measurement/performance improvement and implementing a chronic illness model at the local level.

Survey Procedures

The survey was mailed to a randomly selected sample of 105 providers who served more than five Proposition 36 clients in 2006-2007 according to records in the CalOMS-Tx data system. Of these 105 providers, 67 responded (63.8%). A total of 63 programs in 25 counties returned completed surveys. Prior to mailing the surveys, research staff contacted programs by phone in an effort to verify mailing addresses and obtain the names of the program directors to whom the surveys were to be addressed. The surveys, along with a cover letter and payment form were mailed in December 2008. Follow-up calls were placed with programs to ensure that the survey was received and to answer any questions about it. Treatment providers completed and returned the surveys in December 2008 through February 2009. Survey respondents were sent a letter thanking them for their participation and if allowed, a \$75 money order.

Data Analysis

A total of 10 closed-ended questions and 9 open-ended questions (contingent on responses to previous questions) were assessed. Quantitative response frequencies were examined using the Statistical Package for Social Sciences (SPSS) version 16.0. Responses to open-ended questions were examined and organized for key themes using content-theme analysis. Responses were listed and assigned frequency counts to determine majority response patterns.

Results

Performance Measurement at the Local Level

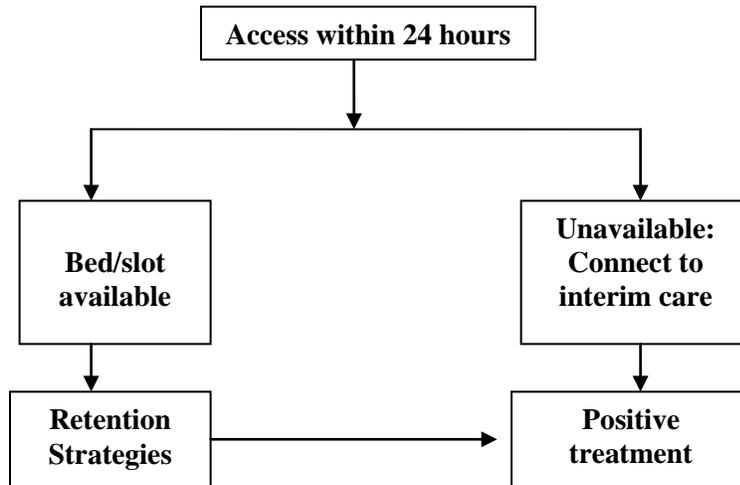
The importance of performance measurement was explored at the program level among the sample of providers across the following areas: (1) treatment capacity and access (including documentation for program waiting lists), (2) client assessment (including specific criteria programs use to determine treatment needs at admission and referral), (3) treatment engagement (including the type of data used to track client participation), and (4) the use of evidence-based practices.

Capacity and Access

One performance area that was assessed among programs is treatment *capacity and access to services*. The ability of social and health systems to facilitate treatment access is crucial to responding effectively to substance use disorders (McLellan & Meyers, 2004) as delayed access has been attributed to clients “slipping through the cracks” while waiting for entry, which contributes to the increased illness, death, disability, and cost to society resulting from substance abuse (Schwartz et al., 2006). Most programs

indicated that they did not have the resources or knowledge on how to measure treatment access. Treatment access is often measured as (1) the number of days between the first client request for service and a first face-to-face session, or (2) the number of days between the first face-to-face session and a first treatment session (McCarty et al., 2007). As shown in Figure 1 below, treatment improvement has been supported by increased access to treatment.

Figure 1: The Responsive System



When asked whether programs record information for clients who are put on a waiting list, about half of the programs surveyed (51.8%, $n=29$) indicated they “do so.” Roughly 12.5% ($n=7$) of programs indicated that they “do not keep a waiting list” (i.e., they refer them immediately to another program or inform the client to check back in with the program periodically). Among the programs that collect wait list information, the following type of information is commonly collected from clients: name, date of contact, contact information, past drug use, criminal and treatment history, and referral source. According to program respondents, wait list information can be collected both via an in-person or telephone (during screening) interview and is recorded²⁹ in a variety of ways including an electronic database ($n=8$) such as DATAR, program spreadsheets such as AccuCare ($n=8$), or on paper forms using client logs, tracking lists, and sign-in sheets ($n=7$). Further, programs indicated that client wait list information was collected using a variety of methods, including case managers, intake departments, or administrative support staff. Programs were asked about “their practices associated with reviewing and updating the wait list information.” Only four programs indicated that they update such information and that “wait list data is reviewed by a supervisor/program director frequently” or “wait listed clients are asked to call the program weekly and attend self-help meetings in order to maintain their place on the waiting list.” Programs were asked about wait list priority and actions taken to minimize wait time. Few programs indicated using priority criteria as it is “typically first come, first serve...and based on occupancy availability.” One program reported that “Prop. 36 clients are given priority” and only one county reported “clients are given interim care (i.e., referred to level 1 treatment when level 2 is full”).

Assessment: for Placement & Referral/Transfer

Assessment practices were assessed among program providers. In addition to prompt treatment entry, assessment and placement to an appropriate level of care is vital for both clinical and cost-effectiveness reasons (McLellan & Meyers, 2004). Community agencies need to be able to identify substance “use,” and differentiate it from “abuse” or “dependence,” and to refer clients to the appropriate level of clinical intervention in each type of case (McLellan & Meyers, 2004). Two common assessment instruments used to assign clients to an appropriate level of care include the American Society of Addiction Medicine (ASAM) Patient Placement Criteria (PPC) and the Level of Care Utilization System for Psychiatric and

²⁹ Seven programs did not specify how information was recorded or kept.

Addiction Services (LOCUS). Some research indicates the ASAM PPC has been effectively used to reduce both detrimental under-treatment and cost-inefficient overtreatment in alcoholism patients (Magura et al., 2003), although several validity studies of the ASAM criteria indicate mixed results (Gustafson, 2005). Gregoire's (2000) study of factors associated with level-of-care assignment indicates that while the ASAM placement domains predicted level of care as expected, variables outside of these domains, i.e., housing and employment problems, were highly predictive of placement. Thus, ASAM criteria do not account for important social service factors in planning substance abuse treatment. In response to the need for balance between quality care and the wise use of resources, the American Association of Community Psychiatrists (AACCP) developed the LOCUS, which evaluates clients along six psychiatric or addiction dimensions and defines six levels of resource intensity (Sowers et al., 1999). Initial reliability and validity testing indicates that the LOCUS can facilitate consistent placement of clients in psychiatric or addiction services, and correlation with decisions made by clinicians not using any placement decision methodology was also demonstrated. Additionally, the LOCUS considers the clients functional status and extent of any existing psychiatric, medical, or addictive co-morbidities in determining placement.

When asked whether treatment programs use specific standards or criteria to decide which type of treatment clients need at admission, the majority of program providers (60.7%) indicated using specific admission criteria. Of these, the most common assessment reported was the Addiction Severity Index - ASI ($n=13$), with some using the ASAM PPC criteria ($n=8$) and only one using the LOCUS (with the latter two typically done at county centralized assessment centers by trained/qualified staff). Other assessment measures reported included the Stages of Change Readiness and Treatment Eagerness Scale (SOCRATES) ($n=2$), DSM-IV dependence criteria ($n=1$), and other [unspecified] psychosocial assessments ($n=2$). One program reported that a client's previous failure in outpatient settings is considered for placement in residential treatment. Overall, the ASI was the most commonly used; however, it is important to note that the ASI is a standardized tool that was developed to guide the addiction treatment planning process and prioritize client issues that are most severely problematic, not a tool to place clients in various levels of care (McLellan et al., 1992). As reported in the ASI manual, the instrument was originally created for the purpose of enabling clinical researchers to evaluate treatment outcomes, and was designed to capture the minimum information necessary to evaluate the nature and severity of patients' treatment problems at treatment admission and at follow-up.³⁰

Similarly, program providers were asked whether they use standards or criteria when transferring or referring clients to another level of care at discharge. Over half (62.5%; $n=35$) of providers reported using specific criteria, including the ASI ($n=5$), ASAM PPC ($n=3$), and (non-specified) psychosocial assessments of clients' functioning ($n=6$). Other assessment practices at discharge include: referring clients back to the county's assessment center for re-assessment ($n=7$); conducting assessments in staff/multidisciplinary team meetings to take into consideration client needs identified during treatment, while also taking into account client treatment attendance, participation and completion, as well as attendance in self-help meetings ($n=8$).

Treatment Engagement

Another performance measure that was assessed among programs included treatment engagement, which has received heightened attention at the national level (see Chapters 1 and 2). Program providers were asked whether they collect information on the number of visits or sessions clients receive after admission, and if so, to describe how information is collected. The majority of respondents (84.5%, $n=49$) reported collecting this information through their own county data systems, which is typically through the billing database ($n=16$), such as AccuCare, ANASAZI, IRIS, Phases, SAMS, SCATIS. Programs were asked how many data systems in addition to CalOMS-Tx are used to enter client information; eight programs (16.0%) reported none; 19 programs (38.0%) use one other data system; 14 programs (28.0%) use two other systems, and nine programs (18.0%) use three or more. The mean (SD) number of data systems used was 1.84 (2.17), ranging from 0-14, which include for example, county built systems, Prop

³⁰ It is also important to note that the CalOMS-Tx items are largely based on items from the ASI. Hence caution should be given to programs using it as an assessment tool given the redundancy.

36 system, Drug Medi-Cal system, AccuCare, and CalWORKS. Depending on the county, some of these systems are web-based while the majority are not and operate on mainframe computer desktop platforms. The other method by which client engagement information is tracked includes program spreadsheets or paper forms (n=18), including attendance sign-in sheets, client progress notes, activity logs, and case notes. Some of the programs indicated that they input this information into the county database system, while others reported that this information is solely kept in client charts.

Although staff shortages and time constraints may be primary reasons for the minimal documentation observed among some programs, it is important to consider whether program philosophies are in agreement with prospective change efforts and the greater documentation that will be necessary for meaningful performance measurement. For example, while most providers collect session-level data, many document client sessions on a tracking sheet or progress note rather than in a case file. This distinction in type of documentation has been noted previously, in that use of a brief factsheet and progress note, as compared to a complete case management file was identified as more characteristic of a social model philosophy, and less so of a medical model (Kaskutas et al., 1999). Attitudes toward change efforts may be influenced by factors unrelated to the actual innovation, such as a program's organizational culture and treatment philosophy.

Use of Evidence-Based Practices

Another important performance measure assessed among providers was the use of empirically supported practices. According to the Institute of Medicine (IOM, 2006) report, *Improving the Quality of Healthcare for Mental and Substance Use Conditions*, implementing quality services for substance use disorders, i.e., providing safe, effective, efficient, patient-centered, and timely services should be based on scientific knowledge. Likewise, the National Quality Forum (NQF) recommends using evidence-based practices with individuals who have substance use disorders, including the use of empirically supported medications and psychosocial interventions by trained clinicians (McLellan, Chalk, & Bartlett, 2007). Such approaches include motivational interviewing; motivational enhancement therapy; cognitive behavioral therapy; structured family and couples therapy; contingency management; community reinforcement therapy; and 12-step facilitation therapy (Power et al., 2005). Additionally, SAMHSA's National Registry of Evidence-based Programs and Practices (NREPP), describes strong empirical support for many psychosocial interventions including motivational interviewing; motivational enhancement therapy; prize incentives contingency management; adolescent community reinforcement approach; and 12-step facilitation therapy (SAMHSA, 2009b).

Providers were asked how they define evidence-based practices and which (if any) specific practices are most effective with their clients. Most provider respondents described evidence-based practices as effective/successful practices and/or defined them as based on science. In terms of defining evidence-based practices, most responses fell into one or more of the following categories, indicating that "evidence-based practices are..."

- Based on science/research/clinical studies (n=23)
- Based on outcome/follow up studies (n=14)
- Practices that can be measured (n=7)
- Based on statistics/data (n=5)
- Effective/successful practices, practices that result in high completion rates (n=21)
- Specific to the needs of certain populations (n=6)
- Practices identified by SAMHSA, UCLA, and/or ADP (n=3)
- Practices exemplified by Motivational Enhancement Therapy, Matrix, or Rational Emotive Therapy (n=2)

Two respondents were undecided regarding evidence-based practices and about one third (32.7%) conveyed a degree of skepticism toward such practices. For instance, some program respondents indicated that there are issues with using evidence-based practices that need to be considered, especially "their application to special populations." A respondent suggested that special considerations need to be applied for populations "coerced into treatment, with very few job skills, from very dysfunctional families,

some with three or four generations of drug/alcohol abusers.” This respondent indicated populations in research studies do not match clients in his/her treatment program in terms of addiction severity. It is important to highlight, as discussed in Chapter 1, that there is no established consensus on procedures or criteria for determining what constitutes evidence-based practices (Glasner-Edwards & Rawson, in press). Furthermore, although there have been a wide array of interventions and programs for substance use disorders that have been empirically supported (SAMHSA NREP, 2005), critics argue that what constitutes “evidence” can vary and can constrain practitioner and client choice (Chambless & Ollendick, 2001) or does not generalize to other types of populations not originally studied when deemed “evidence-based” (Miller et al., 2005). Other providers ($n=2$) indicated evidence-based practices can be adjusted or adapted to the particular environments or as new information is obtained over time, suggesting they are practices that “have outcomes that assist in providing updated information that allow for adjustment.” Conversely, two respondents noted that the fidelity of these practices must be maintained, and others noted that evidence should be “tangible” rather than based on a “guessimation.” One respondent suggested that “there are no evidence-based practices, and since clients self-select programs, outcomes are suspect.” Another provider stated they are based on past practices and that what has worked previously for the program may differ for newer generations of clients.

Respondents were asked whether, in their opinion, there are specific evidence-based practices that are most effective with their clients. A total of 73.5% providers ($n=36$) indicated specific practices are most effective, and the remaining 26.5% ($n=13$) reported there are no such practices. Respondents identified the most effective practices as:

- Motivational Enhancement Therapy/Motivational Interviewing ($n=17$)
- Matrix model ($n=10$)
- Cognitive Behavioral Therapy ($n=6$)
- Twelve-Step Approach ($n=5$)
- Rational Emotive Therapy ($n=3$)
- Drug testing ($n=3$)
- Living in Balance (i.e., Hazelden) ($n=3$)
- Relapse prevention ($n=3$)
- Seeking Safety ($n=3$)
- Client-centered treatment ($n=2$)
- Other (individual responses by respondents)³¹

Performance Management at the Local Level

When asked whether treatment providers had attended training in the past year related to performance improvement, most (75.9%, $n=44$) reported “they had attended one or more training sessions” related to: (a) treatment improvement approaches; (b) specific therapeutic treatment approaches for substance abuse problems; and (c) specialized treatment for specific populations with substance abuse problems. The most common performance management strategy noted by programs included participation in NIATx (42.3%, $n=22$). Other improvement approaches programs have participated in were related to improving the delivery of treatment, with a focus on treatment planning, crisis intervention, ethics, and quality improvement.

Adapting to a Chronic Illness Model at the Local Level

A critical performance measure for a system that accommodates substance use as a chronic illness is the use of case management procedures. Examples of how performance measures can be adapted to a chronic care model is provided by Scott et al., who note that case management is an essential part of the

³¹ Other evidence-based practices (as defined by the respondent) that program providers deemed effective were: dialectical behavior therapy, solution focused therapy, family therapy, Celebrating Families, therapeutic communities, incentives and flash incarceration, encounter groups, and offender-specific treatment.

recovery management checkup model (Scott, Dennis & Foss, 2005), of the assertive continuing care model (Godley et al., 2007), and of the use of recovery coaches to improve continuity of care (Loveland & Boyle, 2005). Case management is an essential part of supporting a continuum of services model, in which clients' care is coordinated post discharge among various levels of care (Godley et al., 2007). Program managers were asked whether case management procedures are used with clients at their programs, and whether these procedures differ for offender (SACPA) clients. A total of 44 respondents (77.2%) indicated these procedures are used for both general and SACPA clients; however 4 of the 44 programs (9.1%) use different case management procedures with Prop. 36 clients. Reasons for these variations are: (1) different referral sources, i.e., Child Protective Services and Probation, use different case management procedures; (2) Prop. 36 clients in the program receive full drug court services whereas other clients do not; and (3) Prop. 36 services are more thorough and documented. Most case management procedures described included the following two features: weekly or "as needed" via multidisciplinary staff meetings and referrals to ancillary services.

Organizational factors affecting Performance Measurement & Management

Most respondents indicated that a major impediment to programs in terms of "realistically moving the treatment infrastructure toward a chronic care model" is the current resource limitations that the state/counties now face. Such limited resources inhibit the one thing that programs request the most—training. About one-fourth of respondents reported not receiving training on clinical practices in the past year. Of those who reported attending training, 59% ($n=26$) reported the training was related to "specific therapeutic treatment approaches for substance abuse problems in general," including:

- Motivational Enhancement Therapy/Motivational Interviewing ($n=20$)
- Cognitive Behavioral Therapy ($n=5$)
- Seeking Safety ($n=4$)
- Matrix model ($n=4$)
- Behavior Modification ($n=2$)
- Dialectical Behavior Therapy (DBT) ($n=2$)
- Solution Focused Treatment ($n=2$)

Providers also reported attending training on specialized treatment for specific populations with substance abuse problems. The most commonly reported were: dual diagnosis training ($n=8$), cultural competency (including gay, lesbian, bisexual, transgender; $n=6$), and domestic violence, trauma, and gender-specific issues ($n=3$). Several respondents also attended training for treatment of youth, transitional age youth, economically disadvantaged, and disabled populations (e.g., "Bridges Out of Poverty," "social security and disability training").

Other organizational factors that can inhibit a system change from accommodating a chronic care model include inconsistent administrative policies, such as inconsistencies in program/provider licensing and credentials. Several treatment programs indicated that they desire their clinical staff to be licensed or certified, but most staff are not required to be licensed or certified. There is also a lack of appropriate clinical staff, such as psychologists or trained therapists (for the conduction of assessments), case managers, recovery specialists/coaches, and physicians/psychiatrists to accommodate a continuum-of-care model. Improving systems of services for chronic illness across a variety of conditions has proven to be very challenging. A study by Marsteller et al. (2005), suggests that how treatment providers perceive organizational commitment, climate, and management's implicit endorsement of quality improvement activities affects their efforts to improve chronic illness care.

Another factor is the restrictive administrative policies that are associated with "discontinuing clients from treatment due to continued drug use during treatment." Other consequences employed by programs include reporting the use to the client's probation or court officer and punitive measures such as disallowing family visits, not allowing clients to attend sessions, or taking away other privileges. Providers noted that a continuum of services is somewhat restricted by the current funding environment where "clients' level of care options are limited." However as Lefkovitz et al. (April 2009) described, it is important to convey to programs that "fewer resources create an even greater need to focus on quality

and efficiency...and in this unforgiving economic environment, addiction treatment providers must exhibit optimal financial, operational, and clinical performances to survive and thrive.”

Other programmatic factors to consider when implementing change efforts are treatment staff characteristics, the level of work burden, management-staff relations, and readiness to change (Aarons, 2004). Furthermore, programs that demonstrate shorter wait times, less staff turnover, higher staff education and training levels, and administrative policies that support a chronic illness model will likely be better able to implement process improvement activities relative to programs without these resources.

Summary and Implications

While results related to current efforts at the local level around performance measurement and management are encouraging, further work to involve more counties and programs in these efforts is needed as both providers and county administrators reported considerable variation in terms of their current progress in establishing, collecting, and using performance measures. In addition, both counties and programs indicated several barriers that the system needs to address to accommodate a continuum-of-services system model. Findings suggest movement toward a chronic illness model may be enhanced by multiple approaches including:

- Continued county and program participation in performance management and process improvement (i.e., NIATx);
- Continued performance measurement and quality improvement efforts, such as the collection of encounter data; addition of a continuing care/recovery level of care; suspension, reduction or cancellation of contracts/funding for programs unable to improve poor performance; and use of data to improve services;
- Increase the development of quality improvement plans individualized for specific program needs; and
- Ongoing training and technical assistance in areas related to performance measurement, addiction as a chronic condition, and, specifically, performance data collection and application of data to quality improvement.

Efficient implementation of performance measurement/management and system change efforts to accommodate a chronic illness model (i.e., developing performance measures, gathering performance data, and using data to improve services) will require adequate and ongoing training and resources, and buy-in and active participation from all stakeholders (SAMHSA, 2008). Future steps to promote a “system shift” toward managing addiction as a chronic condition and measuring program performance accordingly must take into account county and program priorities, skills, and organizational culture (Power et al., 2005). One approach that will be taken at the local level is the involvement and implementation of pilot projects that focus on system change around performance measurement/management and the continuum-of-services model.

County Pilots

Two sets of pilot projects will take place over the next 2 years (2009-2011): (1) performance measurement pilots and (2) continuum change pilots. The goal of these pilots is to inform the development of a Performance and Outcome Management Framework that fits the Continuum of Services System Re-engineering (COSSR) initiative. Given the current developmental nature of performance measurement within AOD treatment systems and the limited statewide consensus on uniform methods for measuring system-wide performance (within the context of the current treatment system as well as the larger COSSR initiative), the county pilots provide the opportunity and flexibility of identifying effective performance and outcome measurement models (in terms of relevant data models) related to several potential performance measures (i.e., treatment engagement, treatment retention, continuity of care, service linkages, prevention, and recovery). More specific information on the two pilots follows:

Performance Measurement Set

There are three groups of performance measurement pilots.

Group 1: Improving data system infrastructure to use encounter data to measure and enhance engagement in treatment

County (size)	Contact	Specific Interest
Alameda (large)	Tom Trabin	Use of encounter data to measure and improve engagement in treatment as well determining a way to analyze the data they currently have and feeding it back to providers in ways that will be useful for quality improvement. The system they have is called INSIST. They collect the data in an episodic way similar to mental health services. They collect encounter data that includes number of sessions and breaks down sessions into individual, family, group etc. CalOMS-Tx is embedded in their data system. They are moving into an electronic health record system which will be operational in 2-3 years. They will look at gender-specific co-occurring issues in relation to performance.
Sonoma (medium)	Gino Giannavola	Use of encounter data to measure engagement in treatment. The data system is a Web Infrastructure for Treatment Services (WITS) (Sonoma WITS). Group rosters and group participation data can be maintained in SWITS. Progress/treatment notes are completed in SWITS as are Encounter Notes (used for billing). SWITS is used as a Case Management Tool as well as to generate referrals and electronically transmit to providers by Case Management programs (TASC, SACPA, Drug Court, DUI Court, Drug Free Babies & Dependency Drug Court). Drug Medi-Cal claims are electronically submitted to the state through the SWITS system.
Orange (large)	Brett O'Brien	No encounter data collected in CalOMS-Tx system, but wants to improve the collection and use of engagement data via encounter data. Currently collects the client self-assessment for motivation and readiness as an engagement measure by TCU. <i>Potential SACPA pilot</i>
Marin (small)	D.J. Pierce	Interested in improving engagement of SACPA clients. Collects encounter data on SACPA clients via a paper form. <i>Potential SACPA pilot</i>

Group 2: Improving performance by using a business model (Performance-Based Contracting)

County	Contact	Specific Interest
Fresno (large)	Dennis Koch	Interested in enhancing their data system to include episode data and link to billing for purposes of shifting to a performance-based contracting model. Also interested in improving treatment access (the time from initial assessment to admission). <i>Potential SACPA pilot</i>
Los Angeles (large)	John Viernes	Interested in the opportunity to develop contract language, data and billing systems, and performance standards that will support performance-based program management and contracting in the county. 12 programs participating in the pilots.

Group 3: Expanding access to services by creating linkages across services

County	Contact	Specific Interest
Solano (medium)	Del Royer	Interested in expanding access to services and measuring continuity of care to assess if engagement into treatment is better. Start with baseline episode data (# of single service sets vs. multiple). Currently uses the LOCUS Assessment and a managed care approach where County staff (n=16) assess, authorize, and place clients in appropriate levels of care. Benefit packages include three levels of outpatient, three levels of residential care, social model detox, and combinations of packages developed for the individual needs of clients. It is important to note that this is a central authorization unit with multiple points of entry. Clients can access treatment through outpatient and detox providers with automatic pre-treatment authorizations. Encounter data is collected via claims data, but is not part of overall outcome data system. Will look at gender-specific co-occurring issues in relation to performance.
Alpine (MBA)	Pamela Knorr	Development of county service linkages for minimum based allocation (MBA) counties. Also interested in ensuring that the linkages is measured and reflected in their respective counties.
Lassen (MBA)	Lyle Dornon	

Continuum Change Pilots

There are two groups of continuum change pilots.

Group 1: A focus on the treatment-recovery continuum

County	Contact	Specific Model
San Mateo (medium)	Steve Kaplan	Case-rate 12-month model with one multilevel service program and weekly risk assessments.
Santa Clara (large)	Bob Garner	Continuing care services using telephone follow-up model and risk assessments across entire county system.
San Bernardino (large)	Gary Atkins	Point-of-contact model (medical home): lead agency coordinates needed services (subcontract for services not provided), including engagement in 1 of 6 recovery centers throughout the county. No data collected yet. Working on policy change—open door approach and identifying existing policies that prohibit a COSSR model.
Ventura (large)	Patrick Zarate	Detox-to-treatment project with Tarzana Treatment Center (has 1 year of data collected mostly on outcomes of abstinence). Interest in assessing the rate of engagement into treatment post detox. Start with baseline episode data (# of single service sets vs. multiple).

Group 2: A focus on the prevention continuum

County	Contact	Specific Model
Mariposa (medium)	Linda Murdock	Change system to accommodate a continuum model with a focus on prevention.
Riverside (large)	Jerry Wengerd/ Karen Kane	Use of prevention data to inform treatment service delivery.
Marin (small)	DJ Pierce	Change system to accommodate a continuum model with a focus on prevention.

The pilot projects will inform broader statewide system change efforts. According to Roger's theory of diffusion of innovation, the diffusion of a new technology is a process that occurs over time, is influenced by conditions that support its adoption, and is highly influenced by initial attitudes toward it, particularly by a group of early adopters (Rogers, 2003); hence successful diffusion of innovation of the pilot projects depends in large part on the organizational communication, leadership, and management of the counties and programs. Within this framework, factors that will influence potential adopters' willingness to accept and implement changes related to performance measurement will be considered in order to promote support for active participation in change efforts in order to bring about statewide success.

Some programs and counties will require greater assistance and support in their performance measurement efforts than others. As White (2008) noted, weaknesses in treatment infrastructure, provider defensiveness, and resistance to changes in policies and practices may present significant obstacles to implementing recovery-based practices. However, obstacles can be overcome with consistent training agendas and technical assistance to generate a shared vision of core values and a process for system transformation (White, 2008).

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Chapter 6: System-Wide Performance and Outcome Management in California

The substance abuse treatment field continues to move toward the recognition of substance use as a chronic condition, as well as the importance of quality improvement efforts focused on performance measurement and management. According to Garnick and colleagues (2009), performance measurement is directly linked to performance management efforts, as they serve as a performance data tool that programs can use to manage the quality of their service delivery and, ultimately, to improve the treatment success of clients. Important, practical health services research by Gustafson and colleagues has shown that incorporating performance measurement data (i.e., engagement, retention, and care linkages as discussed in Chapters 1 and 2) to inform quality improvement efforts via changes in administrative and clinical procedures (i.e., Network for the Improvement of Addiction Treatment - NIATx³²), can dramatically improve the quality of services being delivered (McCarty et al., 2007). In this context, performance measurement is a program oversight tool intended to improve desired outcomes by focusing attention on quantifiable processes applied to achieve core client outcomes or changes in functioning (drug use, employment, crime; Capoccia et al., 2007). Consideration of performance measurement and management (quality improvement efforts) must, however, take into account the broader policy context in which such performance practices are used. It is within this context that performance goals are defined and then translated into performance measures, for which information systems must be able to produce data of the needed scope and quality.

This chapter describes the statewide vision and goals for a performance and outcomes management system as well as input and guidance for the “system change” initiative focused on the Continuum of Services System Reengineering (COSSR) in California. Information was collected from interviews among key stakeholders throughout California, including State Department of Alcohol and Drug Programs (ADP) executive and management staff, the AOD State Medical Director, leading AOD county administrators from the County Alcohol and Drug Program Administrators Association of California (CADPAAC), substance abuse program organization representatives, as well as directors from the California departments of public health, mental health, corrections, and veterans affairs.

State Level Interviews - California’s AOD System

The establishment of the Continuum of Services System Reengineering (COSSR) initiative provides a historic opportunity to re-evaluate system priorities and business practices, as well as gather input from internal and external stakeholders around the field on strengths (existing capacity) and deficits (barriers) to implementing performance measurement and management under the COSSR effort. One of the goals of the UCLA contract with the California Department of Alcohol and Drug Programs (ADP) is to build the state’s data system capacity to *measure* and *monitor* substance abuse/dependence as a chronic illness. This system change in terms of measurement capacity in the AOD treatment system is complex and multifaceted. The goal is to increase data availability and transparency that will allow for improving the quality of service delivery and understanding the association between AOD treatment service delivery (performance measurement/management) and client outcomes.

A series of key informant interviews were conducted with ADP executive and management staff separately from various units within the department, including executive managers, Performance Management Branch (PMB), Program Services Division (PSD), Office of Criminal Justice and Collaboration (OCJC), Office of Applied Research and Analysis (OARA), and Office of Prevention to identify department mission/vision, goals, and values related to performance and outcome measurement for the AOD treatment system under a continuum-of-services paradigm shift.

³² NIATx uses a Plan–Do–Study–Act cycle to identify problems, develop solutions, implement new processes, and measure the resulting outcomes (Cappocia et al., 2007).

- What is ADP here to accomplish? (**Mission & Vision**)
- What are ADP's current and future priorities for performance measurement under a continuum-of-services system (**Goals**)?
- How should ADP function under a continuum-of-services system? (**Values**)

Mission & Vision

The ADP executive and management staff as a whole expressed that the mission of the department for the AOD treatment system is the COSSR effort - *moving the system (service delivery and data capture) from an acute-based service and measurement model to a comprehensive and integrated continuum-of-services and evaluation chronic care model*. The vision and future work related to this effort is a work in process that has included gathering information on system-wide capacity and developing progressive solutions through a stakeholder consensus process and through continued research and evaluation on established and effective models.

Goals

As a whole, ADP executive and management staff identified four goals for the department in terms of current and future priorities for performance and outcome measurement under the COSSR effort. While the priorities of the AOD treatment system can be numerous, the staff narrowed the goals down to priority areas that address state issues that require immediate attention.

1. The first goal focuses on *preparing the state to address substance use disorders as chronic health problems* (as opposed to social problems) for both the general and offender populations. This will entail a re-evaluation of state regulations for the delivery of AOD treatment services (i.e., to include recovery as an essential component). As history reflects, since the development of ADP in the 1970s, the view of addiction was that of a "moral failing" and a "social problem."³³ As a result, the goals (and proceeding regulations) of the system were isolated from a medical understanding of addiction as a disease or chronic illness. Further, this reflects how the current system of services is set up with treatment and prevention following separate tracks rather than parallel tracks that operate in sync with one another.

2. The second goal addresses the aspect of *improving the availability of an adequate information technology data capturing and monitoring infrastructure* that allows the state to document and understand treatment encounters and episodes to facilitate the efficient operation of the AOD treatment system along a chronic care model for various populations, including the general, offender, co-occurring, and youth populations. This goal is related to the first goal mentioned, in that the data capturing and monitoring system has historically been set up to evaluate the effectiveness of acute-based or episodic treatment with a focus solely on changing client outcomes (measured from admission to discharge in one level of care). In addition, the OCJC group in particular indicated that they would like to see a focus on closing the gap in performance and outcome measurement areas (lacking in CalOMS-Tx) that target the offender and co-occurring populations. Examples of performance data specific to offender populations include: treatment access after release from court or prison, show rates, and completion, which they think will be different from performance measures from the general client population.

3. The third goal addresses the need to *build and promote the capacity of the AOD treatment system professional workforce* to be prepared to manage and monitor drug abuse/dependence as a chronic illness for both the general and offender populations. The staff expressed interest in determining how to effectively use state technical assistance contracts to inform statewide workforce³⁴ development training agendas or establish new technical assistance work plans with external entities. The OCJC group recommended coordination with mental health entities throughout the development of the framework and

³³Based on key informant interview with Dr. McCance-Katz (further discussed below).

³⁴ Statewide workforce includes California ADP, county administrators, and other county staff and program providers.

system for building networks of services or care that can address co-occurring mental health problems, which are particularly prominent in the offender population.

4. The fourth goal is to *enhance the quality of services delivered throughout the AOD treatment system statewide* for both the general and offender populations. Both executive and management staff indicated that the fundamental issue of using data to improve services is of importance and feel that it should be treated as a top priority as the state moves forward with COSSR efforts.

Values

ADP executive and management staff expressed that the core values of the department should coincide with the mission of the COSSR initiative and include values such as **Collaboration** (value relationships with county agencies and provider contracts); **Responsibility** (value policies and programs that foster service linkages and use of evidence-based practices); **Workforce Development** (value the use of external stakeholders to train and engage stakeholders at all levels within the AOD treatment system in the continuum-of-services model); **Accountability** (value the delivery of quality services and the role of accountability for demonstrating quality results at the local level).

Statewide Priority Performance Measures for Treatment

ADP executive and management staff were asked to identify priority areas for performance measurement along a continuum-of-services system. The following responses were provided:

- Accessibility of services (especially for priority populations, including pregnant women, injection drug users, co-occurring mental health populations, veterans, and homeless).
- Delivery of appropriate services—use of effective assessment and diagnosis standards (levels-of-care criteria) and practices (evidence-based psychosocial interventions and medication-assisted therapies).
- Continuity of care (service coordination) —ensuring that clients are adequately moved through the continuum of care, especially from detoxification to treatment as well as integrated into a recovery support network (continuing care).

Statewide Priority Performance Measures for Prevention³⁵

Prevention ADP staff who were interviewed expressed that the national activities and strategies³⁶ for prevention as supported by the Substance Abuse and Mental Health Services Administration (SAMHSA), Center for Substance Abuse Prevention (CSAP) should be fully embraced by the department as a whole, especially the prevention unit; however, prevention staff provided the following as priority areas (and related goals) for performance measurement focused on alcohol and drug prevention efforts in California:

- Promoting and establishing norms and awareness of alcohol and other drug issues in California (*goal: increasing public awareness and support of alcohol and other drug prevention programming*).
- Building systematic capacity for prevention (*goal: increasing coordination and cohesiveness among prevention providers and necessary treatment coordination*).
- Delivery of appropriate prevention services (*goal: ensuring the use of evidence-based or science-based prevention approaches among all prevention providers*).

³⁵Prevention is defined as “processes, services, policies, campaigns, planning, initiatives, activities and strategies that reduce problems incurred as a result of the availability, manufacture, distribution, promotion, sales and use of alcohol, tobacco and other drugs” (SAMHSA, CSAP, 2006).

³⁶ For SAMHSA, CSAP Prevention Activities and Strategies see Appendix A.

Performance Management for Quality Improvement at the State Level

ADP staff expressed the need for a performance management tracking tool to understand if counties are meeting statewide performance goals and objectives. The information (statewide goals and priority performance measures) provided above can be used by ADP to develop specific performance objectives that can be monitored statewide (see examples below). It is recommended that the state identify which baseline data to use to measure progress against the performance objectives developed in the previous fiscal year. An example of an “extranet” from the performance management branch was given as a potential mechanism to initiate a first-step tracking model of performance at the local level.

Goal: Enhance the quality of services delivered throughout the AOD treatment system statewide.

Objective 1: Increase access to services for the general client population by 30% of the last fiscal-year figure by June 30, 2009.

Objective 2: Increase access to services for priority populations by 40% of the last fiscal-year figure by June 30, 2009.

Goal: Improve the availability of an adequate information technology data capturing and monitoring infrastructure.

Objective 1: Increase the collection, analysis, and dissemination of performance data elements/encounter data by June 30, 2010.

Objective 2: Increase the collection, analysis, and dissemination of *transfer data* at discharge by June 30, 2010.

Goal: Build and promote the capacity of the AOD treatment system professional workforce.

Objective 1: Increase the percentage of providers who receive training on COSSR objectives to 100% by June 30, 2010.

Objective 2: Increase the percentage of programs who receive a written bi-annual performance review by their county lead agencies to 100% by June 30, 2010.

The above examples can be tailored to various service components within the continuum (i.e., prevention, intervention, treatment, or recovery).

State Medical Director to the Department of Alcohol and Drug Programs

A key informant interview was conducted with Dr. Elinore McCance-Katz, the state medical director, to understand how she envisioned changing the system of care for publicly funded AOD treatment services in California and the necessary steps for a successful effort. Dr. McCance-Katz agrees with the importance and relevance of the COSSR initiative in California. From her experience in the AOD treatment field and as state medical director, the continuum-of-services system of change initiative is a very complex effort that should be addressed in parts in order to see and measure success. From her perspective, an immediate system change (for the entire AOD treatment service system—both prevention and treatment) cannot occur rapidly, but rather should occur as piece-meal change efforts be focused on what has been done successfully in other sectors of health care and mental health. She recommended that this effort use these other health care system-of-care change initiatives as models, where the target priorities of system change start at the provider level (ensuring workforce capacity and competence), move toward the service delivery level (ensuring that the services are effective, i.e., empirically based), and end with increasing the capacity of the evaluation infrastructure (ensuring an adequate and reliable measurement system to understand what’s working and what’s not and where to direct improvement efforts).

According to Dr. McCance-Katz, there are several organizational barriers that need to be addressed prior to making system changes, including: (1) providers that do not know what are and are not appropriate

evidence-based practices, including medications for substance abuse treatment; (2) laws that restrict having medical-based personnel in residential programs; (3) programs that do not use standardized assessments; (4) programs that do not communicate with one another (it's a competitive business) so clients are not getting linked to appropriate services; (5) that no current regulations enforce the availability of buprenorphine under drug Medi-Cal coverage; (6) that methadone maintenance can only be delivered from narcotic treatment programs; and (7) that there is a lack of practice standards that reflect addiction as a chronic illness (i.e., how to integrate and measure the impact of recovery services). Another issue has to do with program philosophy and services.

Dr. McCance-Katz stated, "From my experience in California (as is true for other states), there is a huge lack of medical understanding of the addiction disease; rather the 12-step model, or social recovery model, is most prominent in programs which is frankly not an appropriate or best match for most clients with a chronic illness that need medical-focused attention (i.e., these programs won't refer clients to medication-assisted programs as it is against their philosophy)...hence, there has not been a 'practice standard' around the need for licensed medical doctors within the AOD treatment system of care." Dr. McCance-Katz could not stress enough the importance of having an informed and trained AOD treatment workforce for a successful system of care change. In addition, she acknowledged the utility of using data to determine where change needs to happen (quickly and slowly). She indicated that because California, in particular, is vested in treatment completions (especially among offender populations), data should be used to determine, among other factors, characteristics of the clients that do not complete, which programs they attended, and which services they received to really understand "treatment completion" and how it can be improved. Another critical area related to treating substance use disorders as chronic problems is the transitioning of clients to appropriate services. Here again, Dr. McCance-Katz stressed the importance of using CalOMS-Tx data to understand clients that are and are not referred to further care or services (look at their characteristics, progress in treatment, and the program/services they received) to get a better sense of how to improve practice standards. Dr. McCance-Katz indicated that "the development and implementation of practice standards is another initiative that is taking place in California that needs to work in parallel with the COSSR effort." She said that "this is a perfect example of an area that is related to COSSR and should take place before a system of care is changed, as it is a critical or necessary element of bringing about an effective AOD continuum of services system." Furthermore, she indicated that "this effort is also related to the priority areas that were indicated earlier and the current issues impeding a system of care change...and until the California AOD system of care has a professional workforce that is capable of delivering effective services and outlines specific services that should be delivered, a system of care change cannot happen." Dr. McCance-Katz stated that "implementing COSSR without considering the importance of practice standards or workforce development is simply a waste of time and money...as it is working around the edges without dealing with the big elephant in the room."

Performance Measurement for Quality Improvement at the County Level

A series of interviews were conducted with key representatives from the County Alcohol and Drug Program Administrators Association of California (CADPAAC). There is a lot of interest from the counties with respect to incorporating performance measurement into the data monitoring system at the state level. Counties indicated that they are already conducting performance management via contract monitoring that measures client occupancy (% of full capacity) and data completeness and the extent to which programs comply with contracts. Counties expressed high interest in developing standard performance measures, particularly around discharge (i.e., appropriate categories to measure client progress that accommodate a chronic care model). Other areas of interest included identifying measurement parameters for: access (centralized vs. decentralized), length of time in treatment (retention), level of participation in treatment (engagement), and client perceptions of care. In addition to measuring basic engagement, as defined by the Washington Circle Group (i.e., number of sessions attended), Orange County takes it a step further by monitoring client engagement as determined by motivation and readiness for treatment (since 2006). These assessments are conducted with clients at admission and while in treatment (90 days, 6 months, and 12 months) using the Texas Christian University self-assessment instruments. Programs can compare themselves to national norms (which are available on the TCU site). In addition, Orange County convenes regular meetings with their contracted providers and

encourages case management activities such as phone calls to ensure care continuity by making the link for clients from residential to outpatient treatment. Performance measurement that allows for an examination of the “treatment episode” or pattern of continuous services and recovery is also a high priority among county administrators. Some counties indicated that they are beginning to address the conceptual shift (from acute to chronic care) by taking steps to replace the use of “aftercare” with “continuing care” to convey this.

Counties indicated that they would like to see how a set of performance measures can be tested in various county settings prior to making a statewide system change to CalOMS-Tx. Counties suggested to first test the utility of performance measures in treatment settings that are designed to better accommodate a chronic care model, such as narcotic treatment programs, detoxification programs, and residential programs. For example, these settings can allow for the assessment of transitions between levels of care and recovery management. Counties also acknowledged that the data system infrastructure that is used needs to be highly flexible and capable of monitoring both programs’ performance and client’s progress through treatment, such as the integration of encounter data. Counties are interested in determining what types of data-capturing models would work best for such an approach (i.e., electronic medical record, Web-based platform, etc).

Performance Measurement for Quality Improvement at the Provider Level

Key informant interviews were conducted with stakeholders from large program organizations in California, including representatives from the California Opioid Maintenance Providers (COMP) and the California Association for Alcohol/Drug Program Executives (CAADPE), to gather insight, experiences, and direction on how they view the reengineering of the California AOD system efforts. Both program organization representatives strongly recommend that the state require counties and programs to have a performance management system in place as a condition of their contracts. They suggested that the state develop performance standards around existing national models such as the National Quality Forum (NQF) or the Joint Commission Health Organization (JCHO), which has established national patient safety goals (NPSGs) and standards that are tied to performance management and principles for data reporting systems. For example, critical performance areas include improving the accuracy of patient identification and needed services (assessment process), improving the effectiveness of communication among county leaders and providers about the performance data, improving the use of appropriate medications, encouraging clients’ active involvement in their own care, and improving the delivery of services to meet the complex needs of the clients.

Both program representatives indicated that provider understanding of performance measurement and management (i.e., using data to inform treatment delivery and improvement strategies) is an important and fundamental first step as well. For this, there needs to be some performance management standards built into the contracts to guide providers. This will build capacity at the local level for an efficient performance management data system. Los Angeles County’s performance management pilot project is a useful generalizable model that the state can use for standards of what performance management is and how to use the data to understand performance. For performance measurement in relation to the COSSR effort, both representatives expressed challenges to the state to jump into this area before developing a collective framework for performance measurement and management. Challenges expressed included lack of standards devoted to core data collection and reporting requirements, lack of resources devoted to chronic illness management such as recovery support, continuing care and case management, and lack of consistent data infrastructures that are sensitive to bringing in encounter data (i.e., Web-based systems). These issues are problematic for developing performance measurement standards state-wide. A recommendation is to consider one state-wide data system that is flexible for modifications and enhancements. According to a representative, a critical performance measure that is used in health care as an indicator of system effectiveness is “clients’ perception of care.” In addition, both representatives view continuity of care as an important performance measure for the COSSR effort to consider. Like county administrators, they also suggested that priority and importance be given to “feasible treatment types to start with, which includes detoxification, residential, and narcotic replacement treatment programs.”

Performance Management for Quality Improvement from Different Jurisdictions

Interviews were conducted with directors within other health care entities, including mental health, public health, corrections, and veterans affairs to learn about perceptions of performance and outcome management and the continuum of services paradigm.

Mental Health Department in California

A key informant interview was conducted with California Department of Mental Health Director Stephan Mayberg to gather his input and experiences regarding system change efforts related to bringing about “greater accountability of quality service delivery.” According to Dr. Mayberg, performance improvement is currently a top priority within the mental health department. Efforts are focused on developing a dynamic system (as opposed to a static system of care) that incorporates performance monitoring, recovery management, and use of evidence-based practices/services. The goal of the current performance improvement project is to be able to identify low- versus high-performing facilities, to monitor the effects of system-wide initiatives (recovery management for “frequent utilizers of services”), and to encourage the use of best practices.

According to Dr. Mayberg, the performance improvement plan requires all service contractors to ensure the implementation of an annual performance improvement plan (also referred to as “quality improvement program”). The annual performance management plan can include the following core performance measures:

- *Service delivery capacity* of the mental health program, including the current number, types, and geographic distribution of mental health services within its delivery system.
- *Accessibility of services* of mental health programs shall meet timelines of routine mental health appointments; timeliness of services for urgent conditions; access to after-hours care; and responsiveness of the program’s 24 hour, toll-free telephone number.
- *Beneficiary satisfaction* assessed by surveying beneficiary/family satisfaction with the mental health program’s services; evaluating beneficiary grievances, appeals and fair hearings; and evaluating requests to change persons providing services.
- *Program services* should include meaningful and evidence-based clinical practices (therapies and medication practices).
- *Adopt or establish quantitative measures to assess performance* and to identify and prioritize area(s) for improvement.

Currently, the department is challenged by the last two areas in terms of identifying the exact performance measures to track as well as when to collect such information. Dr. Mayberg also acknowledges the paper work burden felt among most providers and is working on developing a system to minimize this through shorter assessments. Identifying useful mental health measures is also a goal of the department. Dr. Mayberg does not believe that the AOD treatment system providers should make diagnoses of mental health status (i.e., using diagnostic assessments) on AOD treatment-seeking clients, as he feels that the majority of AOD program staff are not qualified or trained to administer such assessments. He also feels that the current CalOMS-Tx questions are not adequate for assessing mental health and recommends that the AOD system focus on assessing clients at the functional and status level rather than at the diagnostic level. Dr. Mayberg indicated that he is currently working with UCLA’s Rick Brown from the Center for Health Policy, who oversees the California Health Interview Survey (CHIS), to develop similar mental health questions that can be examined and compared with those of other states. He suggested that UCLA and ADP also look into the CHIS mental health questions to incorporate into CalOMS-Tx as they have to do with mental health functional status and perceived need, access, and utilization of mental health services. He is also willing to work with UCLA/ADP in a future workgroup related to the mental health questions in CalOMS-Tx.

According to Dr. Mayberg, there are key challenges associated with system-of-care changes, which in large part have to do with the way the care delivery system has historically been organized. Key factors that serve to inhibit system changes to accommodate a continuum-of-services model have to do with various regulations in place, funding mechanism constraints, contrasting conceptual frameworks underlying service delivery, lack of system coordination, and organizational structures that operate under acute-oriented models of care. For example, Dr. Mayberg indicated that in order to have a successful system change initiative that focuses on a continuum-of-services model, it is important to develop effective cross-system relationships and communication bridges between the behavioral health and AOD systems, as cross-system linkages will be critical to creating a holistic environment in which the full spectrum of recovery issues can be effectively addressed. In addition, he acknowledged that his current mental health system is challenged by the confines of public funding sources, such as Drug Medi-Cal, that serve to enforce the confines and parameters of service delivery. A critical issue the Department of Mental Health is working on is related to identifying valid mental health measures (along with performance measures) through testing the utility of the questions with different patient populations as well as understanding which types of administrative data, such as patients' utilization of services and staffing data can be resourceful and informative to this process.

In addition, DMH is currently moving away from the traditional model based on Medi-Cal funding and toward the development of full service partnerships, which provides an open-door policy to clients with severe disorders. Another critical component that the Department is working on is a "full service partnerships" effort that entails the establishment of a *Network of Care* for people with mental health issues. This is a Web site (http://losangeles.networkofcare.org/mh/library/education_recovery.cfm) that contains information about where individuals can locate services. Network of Care has been recognized as a model program by the President's New Freedom Commission on Mental Health, as it provides vital information to help link consumers to support groups and personal advocacy resources in the community. The site also provides a repository of evidence-based practices that respond to the behavioral-health needs of individuals with mental health problems. The network of care includes all counties across the state. One particularly useful component of this network is that it provides resources for education and recovery. This component addresses the system of care's commitment to individuals, families, and providers in the behavioral-health community.

Network of Care consists of the partnering of several organizations to produce wellness and recovery trainings, which are free to all Network of Care visitors. This project addresses mental health as a chronic illness as the services provided, as well as the data collection, operate as an "open door system." Specifically, the system is able to track and monitor the specific services that are provided across providers to determine if there has been coordinated care for treating a particular client. According to Dr. Mayberg, once you assume that clients are in continual care mode, the challenge is getting episodic data because the episodes never end, which is the point of full service partnership. Once someone is engaged in the continuum of care, the expectation is that they will have some kind of connection, however intense, with the mental health system for a period of time, and their records will not be closed out (i.e., they are not discharged and data collection occurs in intervals of every 60 days). According to Dr. Mayberg, this full service partnership project is not done for all clients who come into contact with the mental health system, but rather on only a subset of clients that are identified as the people in need of the most services (i.e., frequent utilizers), which is about 18,000 to 20,000 people. Because of this, he indicated that the assessment process is important in that it has to be able to adequately identify clients with the greatest needs. This partnership is built upon the premise that client cases are never closed, but rather services are offered across the continuum to promote successful recovery.

Another important issue that DMH is looking at this year is the issue of quality. The department has hired outside consultant groups to conduct external quality reviews, or "EQR." They have specific topics they look at (i.e., adherence to assessment protocol, risk assessment, follow-up, and use of best practices). Another issue DMH is working on this year is called the "statewide performance improvement project" that includes 5,500 adolescents who are the most frequent users of the mental health system. The youth are analyzed by county and assessments are made regarding the types of services they are getting, the frequency of their use of services, and what can be done to improve the services they receive. According to Dr. Mayberg, the department has conducted studies related to Latino access, generated from

penetration data in an attempt to understand why they are not utilizing services and why, if they do come for services, they stop coming (is it language, cultural appropriateness of treatment, efficaciousness of treatment). He suggests that in order to have an effective performance and outcome system, there needs to be such studies given the many factors that can affect system utilization, response, and attrition.

Another effort in the near future that is important to Dr. Mayberg, and one in which he believes is important to the COSSR effort, is the integration of the AOD treatment system with the mental health system. According to Dr. Mayberg, a lot of the youth in California’s mental health system have major AOD problems. The reason why they are in the mental health side and not the AOD side is really a “funding issue” where the AOD problem is not assessed as the primary problem. Technically, all the mental health providers say they are providing some AOD services, and the department is working hard to see how to improve their co-occurring treatment, but actual integration is at a stand still. Dr. Mayberg sees the integration of departments occurring within the next decade. He believes that to do this, providers need to let go of issues of turf and begin to treat the person as a whole and not as separate parts. He believes that you get much better outcomes when you work collaboratively rather than independently.

Public Health Department in California

An interview was conducted with the Director of Public Health, Dr. Horton, to understand the California Department of Public Health (CDPH)’s planning and implementation of the Performance Management System shown in Figure 1 below.

Figure 1: CDPH’s Performance Management System



According to Dr. Horton, the department is in the early stages of implementing performance-based management. A strategic plan was recently developed for 2008-2010 using the Figure 1 model: identifying relevant performance standards, identifying performance measures/indicators, development of the necessary data system, collection of pilot data, reporting on progress (data analysis and feedback) and implementing a quality improvement process (how to use data for improving program services and policies). For a detailed description of the CDPH Strategic Plan: see <http://www.cdph.ca.gov/Documents/CDPH-Strategic-Plan.pdf>.

Dr. Horton indicated that the California Department of Public Health is a performance-based organization. His philosophy is aligned with the larger health care effort of performance management, which focuses on the use of performance measures and data to understand the system's service delivery so that all staff are working toward achieving the same processes and outcomes. Given this performance framework, the Department of Public Health establishes clear program expectations in measurable terms for each of the various public health programs, collects data on program progress, and makes decisions based on the collected information to adjust a program's course when necessary. A main characteristic of the department's programs is that, as Dr. Horton stated, "all public health staff know the direction the department is taking and are working together to achieve the department's goals." The process of establishing and measuring progress against measurable objectives allows programs to know if they are meeting the expectations of the department. In addition, the department requires effective analysis of collected data, and that decisions and performance management are made using the data. A top challenge the department addressed when strategically moving toward a performance based system was making sure that the performance data are accessible and transparent, and that they are used for making organizational decisions. The goal of the department's performance driven system is to: identify and focus upon priorities; demonstrate clear short-term and longer-range progress toward meeting those priorities; identify and positively demonstrate the public health strategies, methodologies, and tools that work to improve health outcomes; identify and more quickly revise or discontinue strategies, methods, and tools that do not prove as effective as had been anticipated (thus minimizing the duration and related costs of ineffective practices); gain increased recognition for staff, program, departmental and public health practice successes; and gain increased credibility with the public, the state legislature and administration, local, state and national partners, and other stakeholders for practicing effective, outcomes-based public health.

Currently the department has established the data collection, analysis, and review process for their performance-based system, methodologies that are based on Strategic Planning Guidelines by the California Department of Finance at: http://www.cdpr.ca.gov/docs/dept/planning/strg_pln/spguide.pdf.

California Department of Veterans Affairs (VA)

The Veterans Health Administration (VHA) provides more services targeting alcohol, illegal drug, and tobacco use than any other health care organization in the United States (Harris et al., 2009). The veteran population currently stands at around 24 million (Oliver, 2007). According to Keith Humphreys, Director of the Program Evaluation and Resource Center of the Department of Veterans Affairs (VA), in Palo Alto, California, national survey data suggest that the use of most addictive substances is somewhat higher among veterans than among non-veterans of similar age, sex, and geographic region, and more recent data indicate that substance use disorders have been among the most prevalent diagnoses among young veterans (Seal et al., 2007). As a result, ensuring high quality services for this population has become an even higher priority than it was before the recent wars. Like all other areas of veteran health care services, substance use-related interventions are continuously evaluated in order to enhance their accessibility, efficiency, safety, and effectiveness (Kerr & Fleming, 2007). The VA's transformation into a high quality health care system has been achieved largely through a system of performance measurement and accountability, enabled by an electronic medical record system (Glabman, 2007). The VA also operates a continuum of services to address the substantial needs of substance-dependent veterans. Specifically, the VA system of care for substance use disorders provides an array of coordinated services including specialty alcohol and drug treatment programs, addiction-focused services provided within mental health programs (e.g., case management for veterans with co-occurring disorders), behavioral medicine clinics (e.g., smoking cessation counseling and nicotine replacement therapy), medication-assisted treatment over time, as well as preventative intervention (e.g., screening for alcohol misuse and brief interventions for problem drinking). Current performance measures relevant to substance use disorders utilized at the VA include population-based screening for alcohol misuse with the first three items of the Alcohol Use Disorders Identification Test (AUDIT-C), appropriate clinical follow-up for those who screen positive for alcohol misuse, evidence-based approaches to smoking cessation, and treatment retention over 90 days for patients beginning new episodes of substance use disorder specialty care.

The performance monitoring system at the VA is based on an incentives model. Specifically, key strategies in the successful transformation of care in the VA AOD treatment system was the investment in a performance measurement system using both financial and non-financial incentives to promote quality of care, access to services, and patient satisfaction across VA facilities. This data availability facilitated ongoing monitoring and generated non-financial incentives in the form of competition within and between networks. This model developed a centralized infrastructure that was based on a competitive, yet cooperative system of care in an effort to address barriers to improved treatment quality. Without a performance measurement system that detects and rewards quality, public sector substance use disorder services have no internal incentive to improve quality...rather, they will have a disincentive, in that investments in quality consume resources without creating any competitive advantage in the marketplace (Humphreys presentation). Hence, by creating a system that recognizes quality and rewards it financially, the VHA performance monitoring system overcomes these structural problems.

The VA has found that focusing on measures of the treatment process of care rather than basing its quality judgments on direct assessments of long-term outcome is far better for making lasting service improvements. The Specifically, the VA performance monitoring system: (1) incentivizes care, which produces better clinical outcomes for individual patients and (2) distinguishes facility-level quality, that is, identifies high- and low-performing facilities as gauged by average outcomes.

Furthermore, performance measures that tap processes of care that are reasonable approximations to those indicated in the treatment literature may predict neither patient nor facility-level outcomes. This problem is not unique to substance use disorder treatment, but has been recognized in multiple medical specialties. According to Dr. Humphreys, performance measures are interventions targeted at the system and facility, and they should be held to the same evidence-based standards as clinical interventions at the patient level. That is, they should be directly evaluated for their intended purposed before wide-spread implementation. Therefore, he recommends that it is critical to conduct post-construction validation or pilot-testing of performance measures before implementing them, a step that is rarely taken.

California Department of Corrections and Rehabilitation (CDCR)

Key informant interviews were conducted with Kathy Jett and Tom Powers from the California Department of Corrections and Rehabilitation (CDCR) on changes occurring in their system to accommodate AOD problems as chronic. Like the Office of Criminal Justice Collaboration (OCJC) at the Department of Alcohol and Drug Programs, CDCR is interested in the COSSR effort as it coincides with the continuing services pipeline model/approach in the criminal justice system. The correctional system has made progress with respect to addressing addiction as a chronic illness and providing a continuum-of-care model. One program, called the women's re-entry program, which offers continuing care services to addicted women coming out of prison, has been very successful in core outcomes—reducing re-entry rates and re-arrests. Ms. Jett noted that this program, in particular, is important since addicted women in the prison setting are a very different population than addicted women in a community treatment setting. Foremost, this cohort of women come from multigenerational families of addicts, and almost all have diagnosed post-traumatic stress disorder (as they have past experiences with severe and persistent trauma). Another area that CDCR is trying to improve is the relationship between the parole system and the treatment community. A critical aspect of this is providing parole agents with an understanding of the science of addiction, so that they can make more informed decisions regarding AOD offenders. Another area that they are working on within the correctional system is developing appropriate intermediate sanctions to use with AOD-using offender populations since they are very different from the populations that seek treatment in community-based settings. For example, Ms. Jett indicated that “most of the AOD offenders coming into the state correctional system of care are not DSM-IV addicts, but rather drug dealers...so the issue is trying to develop appropriate intervention responses for this population.”

According to interviewees, a significant challenge that the correctional system faces is that there are no federal resources for addressing the addicted offender population. Rather, the current system is solely dependent on local revenues, which at the moment are extremely limited. The fact that the prison system does not follow a continuum-of-care philosophy is in stark opposition to the AOD treatment fields' movement toward a chronic illness model of addiction. Ms. Jett for instance, indicated that “For our diabetic inmates we are required to provide them with insulin...for our inmates with asthma, we give them

inhalers and other appropriate interventions, although for our addicted inmates, we give them nothing.” Although a high priority of the corrections department is improving system performance, the current lack of resources, according to Ms. Jett “not only limits [the department’s] ability to provide services, but also [its] commitment to developing performance management plans.” According to Mr. Powers and Ms. Jett, they have been in communication with SAMHSA and ONDCP to begin to generate discussion about this issue and develop ideas on how to address it.

Implications

Shifting from an acute care to a chronic care model has implications for the entire AOD treatment system (state, county, and local levels), as well as for stakeholders within different systems of care (mental health, public health, corrections, and veterans affairs) that need to be considered. The philosophical, financial, clinical, and practical implications of moving to a chronic care approach will touch everyone in the California AOD treatment system—state leaders, county directors, program managers, clinical supervisors, clinical line staff, administrative support staff, and clients. Lessons learned from other state systems is that, even when staff members favor the change to a chronic care model, they may not have adequate training, education, experience, or resources to address the needs of a particular client comprehensively—ranging, for example, from making psychiatric referrals to helping with housing. In other words, a critical component to the success of the COSSR effort is on workforce development, i.e., ensuring that the state, counties, and programs are equipped with the necessary resource infrastructure (knowledge, services, data capacity, skills, etc.) before change can happen efficiently. For example, with limited system capacity, many providers may perceive that they do not have the time, staff, or resources to address recovery issues as “the next new thing.” Furthermore, before adopting another data platform, it may be necessary to modify assessment and other record systems (i.e., billings) in order to transfer client information more readily. For example, the state can create an information clearinghouse (similar to what was done in the mental health department), where information related to critical service components (i.e., prevention, intervention, treatment, and recovery-oriented activities) are housed and disseminated state-wide. Currently, the prevention, intervention (i.e., screening and brief intervention initiatives), and treatment systems operate, as noted above, much like silos, separate and distinct, which conveys a non-strategic approach to systems— i.e., that AOD disorders and their sequelae happen in isolation, rather than in parallel or in-sync with each other. According to Mike Flaherty, an essential building-block approach to systems change is recognizing that the range of COSSR-oriented activities must be linked to each other via a mechanism that promotes a coordinated effort to change the system, measures what is happening, and provides insight into the change process. Michael Flaherty uses the United Way community thermometer approach as an example of this type of mechanism. For this, there can be a regular “systems change report card” that incorporates key objectives, measures, and findings from the core service areas of prevention, intervention, treatment, and recovery.

There are a number of other important concerns that need to be considered before a system of change initiative can be successful, including adequacy of knowledge and expertise, availability of resources and support, issues related to costs and reimbursements, and the perception of the importance of the treatment process. Because measurement of program performance and client outcomes are affected by larger policy and organizational issues, including funding constraints for service delivery, program resources for service capacity (adequate and specialized services to meet clients’ needs or the use of evidence-based practices), as well as staff capacity (staff licensure and certification, client caseload or ratio of clients to staff, and high staff turnover), this information needs to be included as it can affect performance measurement and the wider system-change effort. Greater attention to existing organizational and services infrastructures can facilitate higher quality of implementation and can serve to inform the tailoring of innovative adoption strategies to local structure and context.

While it may seem an easy task to develop a COSSR system conceptually, the task is hampered by many barriers and operational issues. One issue is the definition of the concepts of “treatment,” “program,” and “services.” For example, there are circular discussions throughout the treatment community about what “treatment” is. Typically, treatment services are offered exclusively by substance abuse inpatient, outpatient drug-free (traditional, intensive, or partial hospitalization), methadone maintenance, or residential (including detoxification) providers. However, what about facilities that offer assessment or

referral services, co-occurring mental health services, services from private practitioners, or self-help groups—should these be considered treatment services? Should driving-under-the-influence (DUI) programs be considered treatment? There are arguments for and against each of these cases, but it is obvious that there is a need for some standard operational definition of “treatment” to permit a focused COSSR effort.

Furthermore, recent studies suggest some initial approaches to chronic care management; however, the field would benefit from research that investigates (1) the costs of ongoing data collection and monitoring and early re-intervention; (2) use of the chronic care model in different populations (e.g., pregnant and post-partum women, offenders leaving prison, and adolescents); (3) the point at which an individual’s recovery history and status warrant transition in terms of monitoring (i.e., from quarterly to biannual checkups); (4) the impact of less formal types of care (e.g., recovery coaches or faith-based interventions); (5) modes of service delivery for continuing care, such as telephone, text, Web-based or e-mail; and (6) the effects of a continuum-of-services model on key client outcomes such as HIV infection, illegal activity, emotional problems, vocational activity, and quality of life.

Appendix A: Substance Abuse and Mental Health Services Administration (SAMHSA), Center for Substance Abuse Prevention (CSAP) Prevention Priorities and Strategies

In accordance with the principles set forth by the National Center for Substance Abuse Prevention (CSAP), primary prevention activities are categorized into the following six strategies: Information Dissemination, Education, Alternatives, Problem Identification and Referral, Community-Based Process and Environmental.

Prevention Strategies	Definition
Information Dissemination	This strategy provides awareness and knowledge of the nature and extent of substance use, abuse, and addiction and their effects on individuals, families, and communities. It also provides knowledge and awareness of available prevention programs and services. Information dissemination is characterized by one-way communication from the source to the audience, with limited contact between the two. Examples of activities conducted and methods used for this strategy include (but are not limited to) the following: clearinghouse/information resource center(s); resource directories; media campaigns; brochures; radio/TV public service announcements; speaking engagements; health fairs/health promotion; and information lines. Note: Information dissemination alone has not been shown to be effective at preventing substance abuse.
Education	This strategy involves two-way communication and is distinguished from the information dissemination strategy by the fact that interaction between the educator/facilitator and the participants is the basis of its activities. Activities under this strategy aim to affect critical life and social skills, including decision-making, refusal skills, critical analysis (e.g., of media messages) and systematic judgment abilities. Examples of activities conducted and methods used for this strategy include (but are not limited to) the following: classroom and/or small-group sessions (all ages); parenting and family management classes; peer leader/helper programs; education programs for youth groups; and children-of-substance-abusers groups.
Alternatives	This strategy provides for the participation of target populations in activities that exclude substance use. The assumption is that constructive and healthy activities offset the attraction to—or otherwise meet the needs usually filled by—alcohol and drugs

Prevention Strategies	Definition
	and would, therefore, minimize or obviate resorting to the latter. Examples of activities conducted and methods used for this strategy include (but are not limited to) the following: drug-free dances and parties; youth/adult leadership activities; community drop-in centers; and community service activities. Note: Alternative activities alone have not been shown to be effective at preventing substance abuse.
Problem Identification and Referral	This strategy aims at identification of those who have indulged in illegal/age-inappropriate use of tobacco or alcohol and those individuals who have indulged in the first use of illicit drugs in order to assess if their behavior can be reversed through education. It should be noted, however, that this strategy does not include any activity designed to determine if a person is in need of treatment. Examples of activities conducted and methods used for this strategy include (but are not limited to) the following: employee assistance programs; student assistance programs; and driving-while-under-the-influence/driving-while-intoxicated education programs.
Community-Based Process	This strategy aims to enhance the ability of the community to more effectively provide prevention and treatment services for substance abuse disorders. Activities in this strategy include organizing, planning, enhancing efficiency and effectiveness of services implementation, interagency collaboration, coalition building, and networking. Examples of activities conducted and methods used for this strategy include (but are not limited to) the following: community and volunteer training, e.g., neighborhood action training, training of key people in the system, staff officials training; systematic planning; multi-agency coordination and collaboration; accessing services and funding; and community team-building.
Environmental prevention	This strategy establishes or changes written and unwritten community standards, codes, and attitudes, thereby influencing incidence and prevalence of substance abuse in the general population. This strategy is divided into two subcategories to permit distinction between activities that center on legal and regulatory initiatives and those that relate to the service and action-oriented initiatives. Examples of activities conducted and methods used for this strategy shall include, but not be limited to, the following: promoting the establishment and review of alcohol, tobacco and drug use policies in schools; technical assistance to communities to maximize local enforcement procedures governing availability and distribution of alcohol, tobacco and other drug use; modifying alcohol and tobacco advertising practices; and product pricing strategies.

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Chapter 7: Policy and Research Recommendations for Performance and Outcome Measurement Along a Continuum-of-Services Paradigm

Key informant interviews were conducted with policy and research experts in the AOD treatment field to gather insight and recommendations on how to develop an effective performance and outcome management system that fits a continuum-of-services framework. Interviewees included Michael Flaherty, Director for the Institute for Research, Education, and Training in Addictions (IRETA) in Pennsylvania, Dwayne Simpson, Director of the Texas Christian University Research Group, and Michael Dennis, Director of the Behavioral Chestnut Health Systems Research Group in Illinois, and Thomas McLellan, Director at Treatment Research Institute in Pennsylvania.

How Should Substance Abuse Disorders Be Viewed and Managed?

According to the representatives interviewed, substance use disorders should be viewed using a chronic illness model rather than an acute illness framework. Although traditionally treated as an acute illness requiring discrete episodes of care, substance use disorders are now being understood as a chronic illness, addressed better over a continuum of prevention, intervention, treatment, and, for those in which the disease has progressed to a chronic state, ongoing and even lifetime care with recovery maintenance support services similar to other chronic illnesses such as diabetes and heart disease (McLellan et al., 2000; Flaherty, 2006; White & McLellan, 2008; Saitz, 2008).

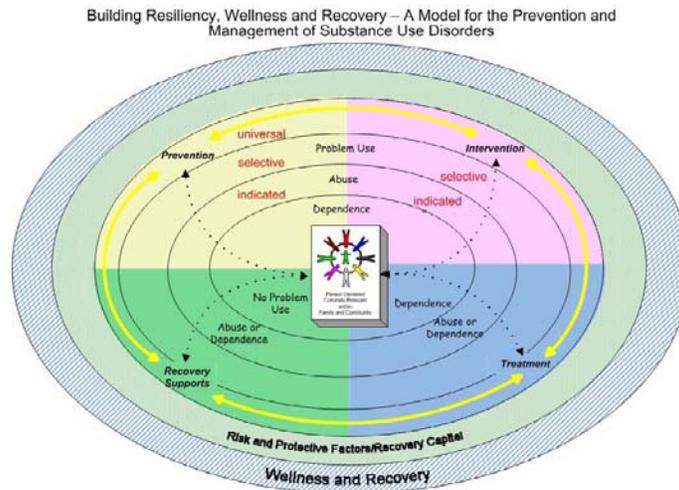
According to the key stakeholders interviewed, while there is growing interest within the addictions field in the development and implementation of a system that addresses the full continuum of services (from detoxification to extended recovery monitoring), accepting this chronic illness model and continuum-of-services framework represents a major shift in the AOD system, given that most addiction treatment is provided in time-limited specialty programs that use a single modality of treatment, and usually without access to approved medications, alternative treatment approaches, or options for recovery support or continuing care services. As the key experts noted, this type of system change is driven not only by progressive leadership, but also greater acceptability of the chronicity of substance use disorders at the federal, state, and local levels. Table 1 offers key issues that need to be addressed within a continuum-of-services AOD treatment system.

Table 1: Effective AOD Continuum-of-Services System

Key Issues in Substance Use	Service System Response
Onset	Prevention
Acceleration	Intervention
Regular use and Cessation	Treatment
Relapse and Maintenance	Recovery

According to Flaherty, IRETA has developed a framework for building an effective AOD continuum-of-services system as shown in Figure 1 below. As highlighted, the system concept is highly theoretical, and it is intended to represent the integration of systems and how existing strategies will need to be altered to address substance use disorders along a continuum (see Chapter 2 for a more detailed discussion of the framework).

Figure 1: Effective AOD Continuum of Services System Framework



Continuum-of-Services System Elements

Prevention

Prevention efforts can include primary, secondary, and tertiary modes of prevention. According to Flaherty, primary prevention is an important part of the continuum as it seeks to avoid the occurrence of substance use disorders among the larger community. Specifically, Flaherty indicated that an effective system will ensure that “we have ongoing prevention messages about *not using alcohol or drugs* that are tailored to certain segments of the larger community and are part of the larger AOD system, just like we have for other chronic illnesses such as obesity and diabetes, where prevention messages serve to inform larger treatment and disease management efforts (i.e., on what to eat)...Rather than as a stand-alone, magic bullet type of approach (i.e., ‘just say no’), like we have now.” In addition, he expressed that these primary prevention educational messages have to be given at the earliest point of relevance, which we know to be 14 or 15 years of age (as confirmed by M. Dennis), which indicated that his research shows that the majority of substance use disorders are “adolescent onset disorders” starting in the pre-teens and continuing on into adulthood. Both Flaherty and Dennis praised SAMHSA CSAP’s community integrated prevention strategies (universal, selective, indicated) as effective prevention approaches.

Prevention has an integral part at all levels of the public health continuum. For example, secondary prevention seeks to minimize the severity of a health problem when it is found through screening tests (i.e., breast cancer mammograms, colon cancer screening). By detecting problems early, patients can obtain necessary care to minimize or halt development of a problem. In this context, secondary prevention can be applied to the intervention component of the AOD continuum-of-services system as supported by screening and brief interventions and referrals to treatment (SBIRT) approaches. Another example is the integration of prevention into the treatment realm, where prevention efforts are aimed at the family members of the substance abuser via education and outreach. Lastly, tertiary prevention seeks to minimize the disability caused by the health problem or injury and plays a critical role in disease management programs that provide support to individuals to self-manage destructive behaviors that worsen health status (i.e., diabetes coaches for re-educating and providing support resources to avoid lapses). In an AOD continuum, this type of prevention is essential in the recovery component of the spectrum to help individuals sustain recovery.

According to Flaherty, although prevention services are an essential component of an AOD continuum-of-services treatment system (as described above), he distinguished it from the three

other essential parallel services: intervention, treatment, and recovery.

Intervention

As early as 1990, the Institute of Medicine (IOM) was calling for the use of screening interventions for the early identification of alcohol abuse, dependence, and associated problems in all health care settings (e.g., emergency rooms, primary care settings, peri-natal settings, and other health care clinics). This call and the subsequent support for the use of screening, brief intervention, and referral to treatment (SBIRT) in non-drug and alcohol settings is backed by a wealth of research on the effectiveness of this evidence-based intervention. Early screening by health professionals, for example has been associated with reductions in alcohol use, unplanned health care utilization, criminal justice involvement, and societal costs (Cuijpers et al., 2004; Fleming et al., 2002; Gentilello et al., 1999; Wells-Parker & Williams, 2002). While SBIRT had initially focused on detecting and assessing *alcohol* use, there are a growing number of studies testing these methods on illicit and prescription drug misuse that have shown promising results (Bernstein et al., 2005; Micheli et al., 2004; Toumbourou et al., 2007), as well as studies on these methods in other settings, including educational settings (Rawson et al., 2006) and criminal/juvenile justice settings (Rawson et al., underway).

According to Flaherty, within a continuum-of-services system framework, SBIRT-related interventions have the potential to expand and enhance the clinical continuum to address substance use in many significant ways. First, the use of SBIRT expands an aspect of the continuum of care used so successfully in other chronic illnesses, i.e., secondary prevention, by providing prevention and, when needed, earlier intervention services. Second, the use of SBIRT lends credence to the impact that risky alcohol or other drug use can have on an individual by providing a highly specialized method similar to other early detection methods, such as PAP smears and tests for blood sugar levels, and addressing current and future health problems in a straightforward manner (i.e., brief interventions or referrals to more formal types of treatment). Third, SBIRT integrates substance abuse interventions into new settings within a continuum, such as primary health care, criminal justice, community clinics, and educational settings. Lastly, the use of SBIRT offers individuals more opportunities to address a problem before greater acuity, morbidity, and true chronicity take hold. Overall, SBIRT is not an isolated intervention, but rather, a part of an enhanced chronic illness model encompassing the full continuum-of-services framework. In this framework, traditional AOD providers become the “specialty system,” providing services and care only when earlier components within the system (i.e., screening and brief intervention) have not been available or have been unsuccessful.

According to McLellan, other venues where SBIRT can be integrated include: private office-based psychiatry practices, health and fitness clubs, employee-assisted programs, guidance and career counseling offices, probation and parole offices, and welfare/child welfare offices (especially with pregnant women) since substance abusers are already over-represented and where intervention services can “add value” to the work of these agencies and offices as well as the continuum of service system change initiative. In addition, this integration provides the opportunity to implement these interventions among a larger proportion of those with substance abuse disorders and also create service system linkages to cross-fertilize the AOD treatment continuum.

Treatment

Moving away from the medical, acute model toward a public health model entails a shift in concepts. Treatment is a medically used and derived term that essentially equates to ‘cure’ of ‘acute-related medical problems.’ The definition or conceptualization of treatment, in general, should be re-framed and redefined as a *therapeutic service* designed to reduce or halt the severity and progression of the symptoms of a chronic illness and promote self-directed management (behavior change skills and necessary self-efficacy) to attain successful behavior self-management for recovery. According to Flaherty, states around the country are redesigning their treatment system to be called “recovery-oriented systems of care (ROSC),” which is a

network of formal (treatment and continuing care) and informal services (recovery support) developed and mobilized to sustain long-term recovery for individuals and families impacted by substance use disorders. In addition, some states have taken further steps to redefine what treatment is, e.g., Connecticut redefined treatment to include recovery support services as a necessary element of “the treatment plan.”

Another important feature of a continuum framework within the treatment component is the development of linkages between services, or providing coordinated services rather than providing care in an acute, episodic manner. Hence, according to key stakeholder experts, a major goal associated with developing a continuum of services for the treatment component is to ensure that it can offer a full continuum of care, as well as be equipped to understand where coordination needs to occur (i.e., through standardized assessment for placement) and how to provide adaptive or staged care, with particular emphasis on creating collaborations between specialty care and other service delivery systems (i.e., primary health care or mental health). Given that the costs of providing the infrastructure necessary to effectively manage individuals with substance use disorders (including the range and level of clinical expertise) within an AOD treatment system, a more practical first step may be to examine a couple of alternatives before making large system-wide changes. As noted above, one alternative model to an entire state system re-engineering effort would be to conduct pilot studies with a representative group of counties (large, medium, small, and MBA) that establish one or more centers within a network of existing substance abuse programs that routinely accept referrals of clients with poor response to a given type of care (service type/modality) who may require a period of intensified care for their substance use and/or psychiatric problems. Programs would need to identify “poor responders” to a given treatment by tracking and locating. However, relying entirely on integrated care approaches in every treatment program within a geographic area may not be the only way to reduce the number of inadequately treated clients.

Recovery

The *management* of substance abuse disorders within a continuum framework has been termed “recovery management” or “recovery supported care.” The recovery support stage in the continuum emphasizes sustaining positive outcomes over the long-term. A client’s efforts at attaining and sustaining recovery are often enhanced by a range of individual, family, and community supports (formally and informally). According to expert informants, formal supports are typically referred to as continuing-care interventions. Experts cautioned that the term “continuing care” has been used interchangeably with “aftercare,” “transitional care,” “step-down care,” and more recently, “recovery monitoring” in the extant literature and across the AOD treatment community. The American Academy of Addiction Psychiatry has defined continuing care as “transitions that should incorporate relevant elements of any preexisting treatment plan...where plans should be relevant to the entire course of an episode of illness so they can provide a degree of continuity in the context of recovery and change.” According to McLellan, in reality, when available, continuing care for adult and youth groups has been typically limited to passive referrals to self-help mutual aid support groups. Another formal recovery support mechanism is assigning a sponsor or mentor to help individuals’ sustain recovery.

Informal recovery supports typically involve a structured recovery environment such as participation in self-help mutual aid support groups. As noted above, self-help mutual aid support groups have been around since the formation of Alcoholics Anonymous (White, 1998) and Narcotics Anonymous (Tiffany & Baker 1986) during the 19th century. Over the years, these self-help groups have grown and blended alternative spiritualities with the basic 12-step philosophy, such as Native American religions, Christianity, or secular support groups, such as Rational Recovery, Women for Sobriety, or Secular Organizations for Sobriety. Many who embrace these spiritual-based recovery groups have commonly referred to them as the “perfect aftercare” (Royce, 1995). Indeed, these groups have been accepted as effective models for managing substance problems as they support the notion of life-long recovery (Morgenstern et al., 2001); however, 12-step fellowships are not attractive to everyone, especially youth, given their

religiously oriented guiding principles and their lack of input from health professionals. In fact, very few youth who are referred to these self-help groups participate, and among those who do, many quickly drop out (Romo & Brown, 2007).

Recommendations

The key experts pointed out challenges associated with system changes, particularly for California. Specifically, they acknowledged that the California AOD treatment system organization is complex and needs to be considered during the re-engineering of the AOD system for managing substance use as a chronic health problem. According to the interviews, because California is such a diverse state with a two-tier system that operates in very distinct ways, there needs to be attention given to how system-wide change efforts will affect the different levels. In other words, the state oversees the operation of different “AOD systems” within each of the 58 counties that have various systems of services under the umbrella of unique agencies. Simpson indicated for example that there are key organizational factors that need to be considered within each agency to accommodate a continuum-of-services model, including various funding mechanisms, conceptual frameworks underlying service delivery (i.e., long-term management principles), organizational structures in terms of staffing and services provided, as well as existing linkages to broader service systems.

Flaherty indicated that in order to ensure a successful continuum-of-services system, key stakeholder units overseeing the planning, implementation, and evaluation of each service component along the continuum (prevention, intervention, treatment, and recovery) must “work in parallel”—meaning that these different service units should communicate and collaborate with each other on the various services that are available (type and target audience) as well as the results of such services (performance and outcome reports). From his experience with other states, he recommends that a learning collaborative be built with key representatives from each service unit (i.e., representatives from prevention, intervention, treatment and recovery) to work together to share information via seminars, trainings, interactive Web site/dashboards, etc. Flaherty noted that another step toward changing the current AOD treatment system to a continuum of services system is to promote the recovery model within each service component as well as to other systems in the larger public health field, including social welfare, criminal justice, mental health, and health care. This type of awareness-raising effort facilitates the capacity for a “full-continuum of AOD services.”

Expert stakeholders also recommended that similar goals and objectives for performance and outcome measurement be developed for prevention, intervention, and recovery services (such as treatment). For example, key performance measures that run parallel to all of these components include: (1) access to services that prevent, reduce harm, treat, and maintain recovery; (2) the use of proven strategies (or evidence-based practices) to prevent the development of new cases (incidence of substance use), reduce the harm caused by continued use, treat cases of use, and reduce/prevent the recurrence of substance use; and (3) continuity of services to prevent, reduce, treat, and sustain efforts. In terms of measurement, according to key experts, most states advocate for a follow-up measurement period of 90 days, 6 months, and 1 year (so that agencies can report to the legislature on what the legislature is getting “for their money”). It is important to consider, however, that measurement of time points of acute care (short-lived episodic treatment) is meaningless along this timeline of measurement and that a chronic care paradigm as described above (under treatment and recovery) should be used for measurement. As one expert noted, “if you’re not getting the adequate dose and services for the illness, no one will get well...it’s meaningless to measure this during follow-up points.”

McLellan acknowledged that “implementing changes in clinical care is notoriously difficult...especially data collection changes, given the paper-work burden expressed by providers.” There have been multiple efforts in improving system changes within primary health care that addiction systems can learn from, most notably the introduction and adoption of health information technology approaches that produce real time data to improve clinical care, such as electronic medical records (EMR). Hence, significant changes are needed in the data capturing

system to be able to accommodate substance use disorders under a chronic illness model. Currently, substance abuse treatment is a business where change processes such as clinical interventions are often instituted without a baseline understanding of the context in which the change is to occur, which can contribute to less than optimal implementation of the service and poor sustainability (in client outcomes). One approach that TRI and states have adopted, especially in recovery-oriented systems of care is concurrent recovery monitoring, where client information is collected consistently to inform clinical practice. Given the desire for a performance and outcome measurement framework, it is recommended that the AOD state department establish clear expectations in measurable terms, collect data on progress, and makes decisions with the collected information to adjust a service's course when necessary.

Another consideration for developing an effective continuum-of-services system is the realization that effective treatment of substance-dependent individuals is made considerably more challenging by the high prevalence of co-occurring psychiatric disorders. Untreated psychiatric disorder in this population is associated with poor treatment outcomes. This dilemma has much more to do with problems in the AOD treatment system than it does a lack of effective interventions. Rather, it is more of an issue of care coordination within the system such that most individuals with co-occurring substance use and psychiatric problems have very limited access to specialized services as the program does not offer such services. Organizational factors that affect a program's ability to offer interventions designed to manage substance use and psychiatric disorder co-occurrence include funding constraints and limited staff expertise. Experts recommended that as part of the system change to accommodate a continuum of care, consideration should be given to developing or building effective linkages either through service agreements or referrals to psychiatric services. This can include the utilization of options under health care reform, including the parity act and the use of Medicaid to cover such services.

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Chapter 8: Lessons Learned from Single State Agencies

This chapter provides a detailed summary of key informant interviews conducted with several directors from Single State Agencies (SSAs) authorized to receive and administer Substance Abuse Prevention and Treatment (SAPT) Block Grant funds. The interviews covered system improvement efforts in various jurisdictions and included questions regarding the following areas: (1) types of data monitoring systems used and specific discharge codes and practices, (2) specific performance and outcome measures assessed at the treatment level, (3) performance management initiatives and models, and (4) system changes related to a continuum-of-services system chronic illness model. State directors interviewed were from Connecticut, Maine, New Jersey, Maryland, Arkansas, New York, North Carolina, Delaware, Oklahoma, Texas, Rhode Island, Ohio, Illinois, Washington, Iowa, and South Carolina.

Data Monitoring Systems

Table 1 describes the various data monitoring systems that SSA directors reported. All of these states, with the exception of Rhode Island, use Web-based data systems. Results of interviews with state directors indicate that there is widespread support for the use of information technology systems to improve the quality and safety of care. According to several state directors, Web-based data applications in our field hold promise for accurate documentation of program process and client outcomes...which can be used to enhance the delivery of services. The Institute of Medicine has also cited the use of information technology systems as a high priority quality-improvement tool (IOM, 2001). In fact, the broad adoption of information technology systems within the U.S. health care system has been proposed as a strategy to simultaneously reduce medical errors, increase quality of care, and save the system billions of dollars annually (IOM, 2006).

According to most state directors, in addition to Web-based platforms, the electronic medical record³⁷ (EMR) is increasingly being promoted and adopted within the AOD treatment field as merging with the larger health care system. Benefits of information technology systems commonly reported among state directors include:

- effective analytic and reporting capabilities to enable more timely, higher quality decision-making (i.e., allow providers to generate data quality reports on a daily basis for performance improvement and quality control and allow states to monitor state and national performance and outcome goals (and other requirements).
- facilitation of the provision of evidence-based decision support for providers to manage their patients in a systematic way and decrease errors;
- efficient capacity to track and monitor clinical, cost, and quality data information to help programs/providers improve quality services and client satisfaction;
- enable the integration of data from both mental health and substance abuse treatment programs as well as other behavioral health agencies; and
- ability to readily and easily modify the systems to institute any data changes (i.e., redefine discharge or add specific data modules, such as for adolescent outcomes or for performance measurement);

As shown in Table 1, a common data system used by SSAs is the Web Infrastructure for Treatment Services - WITS system (see Appendix A for example modules of the WITS data system)³⁸. Some state directors also noted that despite the benefits, the electronic computerization of client records per se will not overcome certain limitations inherent in performance measurement and management. For example, while administrative service information provides useful encounter data related to service utilization, there still needs to be a system in place to effectively train programs on how to understand and use the data they are inputting into such systems. As most directors acknowledged, data are largely one way... providers put in data and never get anything out of it.

³⁷ The EMR provides access to real-time patient-level medical information, often through a Web-based interface.

³⁸ Four of the WITS users are from California Counties - Marin, Mendocino, San Diego, and Sonoma.

Table 1: Data Systems Utilized by States

State	Data System
Arkansas	ADMIS –WITS (Alcohol/Drug Management Information System)
Connecticut	PAS (Provider Access System) Web-SAS (intended for aggregate reporting needs such as Performance Reports and Targeted Case Management Exception Reports).
Delaware	DDATA (Delaware Drug and Alcohol Tracking Alliance)
Iowa	I-SMART-WITS (Iowa- Service Management Reporting Tool - Web Infrastructure for Treatment Services)
Maine	TDS (Treatment Data System)
Maryland	M-SMART-WITS (Statewide Maryland Automated Records Tracking)
Massachusetts	SAMIS (Substance Abuse Management Information System)
New Jersey	NJ-SAMS (New Jersey Substance Abuse Monitoring System)
New York	CDS (Client Data System)
North Carolina	NC-TOPPS (North Carolina Treatment Outcomes and Program Performance System); and IPRS (Integrated Payment and Reporting System)
Ohio	OSAM (Ohio Substance Abuse Monitoring)
Oklahoma	ICIS-WITS (Integrated Client Information System)
Rhode Island	DD (Division Dashboard)
South Carolina	SAAMIS (Substance Abuse Agencies Management Information System)
Texas	Electronic Medical Record called BHIPS (Behavioral Health Integrated Provider System)
Washington	TARGET (Treatment and Report Generation Tool), DASA-TA (Division of Alcohol and Substance Abuse Treatment Analyzer)

Discharge Practices

State directors were asked about discharge practices, with an emphasis on determining specific measurements³⁹ used and the extent to which programs adhere to standard definitions. Overall, state directors knew little about how programs operationalize discharge categories/codes. According to state directors, there are no strict definitions used for discharge codes, especially “treatment completion” as most providers will define or interpret this differently based on the client’s progress in what they developed in the treatment plan. Some directors indicated that completion is also going to be based on “funding restrictions” to various treatment types/modalities, hence this restriction biases the treatment plan in terms of important factors, such as duration of client participation in treatment. Many directors also acknowledged that there is no standard answer as it is based on “when both the client and counselor/clinician are in agreement that the treatment plan has been completed and services are no longer necessary at the agency. Some directors indicated what they would expect “completion” to mean, including: substance use/abstinence, adherence to changes in lifestyle (employment, criminal activity), and sustainability of a recovery support system. In addition, most indicated that there needs to be a better approach that systematically examines such practices to understand what to standardize.

One discharge practice that was raised as being more important than completion was referral or transfer, especially with the shift toward a chronic illness model for substance use disorders. Some states have developed innovative models for measuring, monitoring, and managing such discharge practice. Oklahoma, for instance, indicated using a referral code to indicate to what facility the client is being referred or transferred to upon discharge and tracking if the client showed up. In Maryland, a very robust referral protocol gives the client the option to continue the current episode or to begin a new episode in the receiving agency, and promotes that the “admission and discharge be done only after the person is no longer receiving services, which is considered to be the end of the entire treatment episode.”

³⁹ See Appendix A in Chapter 4 for detailed discharge codes used by various states.

According to Maine, detoxification and shelter clients do not receive a traditional discharge; rather, information specific to the detox or shelter services and status is collected with an emphasis placed on transfer and referral to appropriate services (see Appendix B). In addition, directors confirmed that a data system that collects a unique client identifier measure is particularly important as systems adopt a chronic illness model to adequately track and monitor clients through treatment episodes (multiple levels of care) and over long periods of time.

Performance and Outcome Measurement (at the Treatment Level)

Performance Measurement

Each of the state directors interviewed (with the exception of Rhode Island's) indicated that encounter information is largely used to measure performance. The common encounter data collected and monitored at the state level for understanding program performance includes: type of program agency (treatment type/modality), staff and client unique identifiers, funding source(s), start and end date for a given encounter (service⁴⁰), encounter type (admission, placement, screening, crisis intervention, etc.), duration of encounter (service), frequency of encounters (services) provided (daily, once a week, thrice a week, once a month, etc.), total number of therapy sessions, medications (type), and ancillary services provided (childcare, educational, vocational counseling, gambling, healthcare, daily living, mental health, nutrition, mentoring, transportation, tutoring, parenting, trauma, etc.). Table 2 provides a detailed list of the various performance measures used by states, followed by specific state examples of performance measurement. As shown, most of the states are using a set of performance measures, which include measures that have been supported by the larger literature, including access, retention, use of evidence-based practices, continuity of care (linkages), and client perceptions of care.

According to several state directors, measures of treatment quality that they focus on include: licensing, credentialing, and use of evidence-based practices among individual practitioners. Most directors are currently undergoing large state initiatives around the use of evidence-based practices (including both therapeutic practices and medications/withdrawal management). Some states are in the process of developing guidelines generated by the scientific knowledge/research base, whereas others are requiring that they be adopted through practice standards set forth in contracts. In terms of credentialing, some state agencies indicated that they have gone beyond basic licensing and credentialing standards to attempt to assure that practitioners who wish to treat substance use disorders demonstrate (through written examination) competence in core areas that are specific to the treatment of addicted individuals and are thought to be important for quality care. Another measure of quality that state directors emphasized is treatment assessment and re-assessment during planned treatment. Standard assessments were indicated as essential for ensuring appropriate levels of care. The majority of states, for example, require the use of a standard assessment tool for both treatment placement and planning. Commonly reported assessment tools⁴¹ used by states for placement include: the American Society for Addiction Medicine (ASAM) criteria (or modified version of ASAM) and the LOCUS. The Addiction Severity Index (ASI) was frequently reported as a standard tool for treatment planning and monitoring change in core client outcomes (alcohol use, drug use, medical, legal, family/social, psychiatric, employment).

⁴⁰ There could be several types of possible day and hour services (i.e., individual, group, family, residential, co-occurring, urine test, continuing care, case management, etc.)

⁴¹ See Chapter 5 for a detailed discussion of assessment tools.

Table 2: Common Performance Measures Utilized by Select Single State Agencies

Arkansas	-Access -Retention -Continuity of care
Connecticut	-Access -Retention -Use of evidence based practices -Continuity of care
Iowa	-Access -Engagement -Retention -Client satisfaction with services -Continuity of care
Maine	-Access -Retention -Continuity of care -Use of evidence-based practices
Maryland	-Retention -Continuity of care
Massachusetts	-Access -Engagement -Retention -Continuity of care
Missouri	-Engagement -Retention
New Jersey	-Retention -Continuity of care
New York	-Use of evidence-based practices -Withdrawal management
North Carolina	-Access (capacity/utilization) -Engagement -Retention -Continuity of care -Use of evidence-based practices -Client perceptions of care
Ohio	-Access -Engagement -Retention -Continuity of care
Oklahoma	- Access (capacity/utilization) -Initiation -Engagement -Use of evidence-based practices -Client perceptions of care -Continuity of care
Rhode Island	-Retention -Continuity of care
South Carolina	-Engagement (Services in first 30 days) -Retention
Texas	-Access -Retention -Continuity of care
Washington State	-Engagement -Retention -Continuity of care

Specific State Examples

Access (capacity)

Some states, such as Texas, Maine, Connecticut, and Oklahoma, have developed centralized assessment centers to accurately monitor and track treatment capacity and access to treatment. According to the Texas director, for example, use of such centralized assessment services for detoxification and residential programs is a top priority to ensure that both appropriate services are provided among those most in need and inappropriate costs are minimized by ensuring appropriate transfers or connections to other levels of care. In Texas, clients that are placed on a wait list are provided interim therapy services (i.e., in an outpatient setting until a residential service opens up). The Connecticut commissioner emphasized that this approach can address the problems associated with “frequent flier clients who abuse high-end, high cost services.” Through examining data trends from centralized intake, for example, states are able to understand the amount of time for reconnection into another level of care, especially for those coming out of detoxification, as well as pay attention to re-entry rates to these high-end services.

Most states indicated that they are working on standardizing the definition of “access” (capacity/utilization) as waitlist and/or wait-time information is collected by different methods, including administrative databases (linked to claims) or self-report from clients upon entry into treatment. Some states provided some standard definitions for the measurement of access (capacity/utilization). In Oklahoma, for example, access is defined as timeliness to treatment (using the NIATx definition), which is calculated as the time between a client’s first contact with an agency (in person or by phone) until the assessment or admission. “Treatment utilization” in Oklahoma is defined as the Assessment Conversion rate calculated by the number of assessments divided by the number of contacts (as clients may not show up for scheduled date). In North Carolina, “access” refers to the time between an individual’s call to a Local Management Entities (LMEs)⁴² to request service and their first face-to-face service. According to the Maine State Director, “Improving access to substance abuse treatment has been identified in their state as one way to improve the ability of persons with substance use disorders to get the treatment they need...and from an agency perspective, has been a multifaceted endeavor.” The specific access measurement that Maine has focused on includes: (1) reducing the amount of time that lapses between the date when a client first contacts an agency and the date of first assessment and (2) shortening the time between assessment and first treatment session.

Initiation/Engagement

An important goal expressed by the majority of state directors is reducing high client treatment drop-out rates during the initial 30 days of treatment admission. To address this issue, the performance measure that almost all state directors interviewed are focusing on is treatment initiation/engagement. Most states have adopted the Washington Circle definitions of initiation/engagement, which include: (a) initiation: the percentage of adults with a substance abuse treatment problem who receive any additional substance abuse services within 14 days following assessment and (b) engagement: the percentage of adults with a substance abuse problem who receive two additional substance abuse services within 30 days after the initiation of care (i.e., four treatment services within a month after assessment). Some states define engagement as when a client remains in treatment past the initial two weeks after assessment; whereas others define it as remaining in treatment past the initial month. A few states are using the Texas Christian University (TCU) measurement of engagement, which assesses client motivation and readiness for treatment in addition to duration of treatment in the first 30 days post admission.

⁴² Local Management Entities (LMEs) are agencies of local government area authorities that are mediators between the state agency and county agencies. They are responsible for managing, coordinating, facilitating and monitoring the provision of mental health, developmental disabilities, and substance abuse services and supports in the catchment area served.

Retention

Retention is another performance measure that the majority of states are monitoring. The only variation as to how "retention" is defined across states is the extent to which the length of time a client stays in treatment is measured for a single level of treatment versus across levels of treatment (also referred to as the treatment episode), with most leaning toward the latter method. The majority of directors indicated the importance of the client unique ID for the measurement of retention across the entire treatment episode.

Continuity of Care - Linkages between levels of care

The majority of state directors recognize that addiction treatment has been plagued with perceptions of ineffectiveness due to the high percentage of individuals who relapse following treatment. According to most directors, this problem is a byproduct of the acute-based philosophy of treatment that has been operating for decades and the limited attention given to the necessity of continuing care treatment. For the most part, directors indicated that funders of services and policy/regulatory bodies want treatment to cure the addict during an acute intervention such as detox, residential treatment, or intensive/regular outpatient care. Two issues were raised by most state directors: (1) lack of funding limits financial support for the continuum of care in addiction treatment, and (2) most payers have not embraced the chronic care concept for addiction treatment, such that they resist funding post-acute care services or "aftercare" that may result in more costs. Several states are tackling these issues by developing and testing continuing care models (i.e., Ohio, Arkansas, Iowa, Connecticut, North Carolina, Washington, and Rhode Island) to encourage ongoing care and facilitate use of wrap-around services such as case management, mental health support services, and supportive employment.

Some state models that encourage continuity of care across levels include: (1) purchasing "episodes of care," versus outpatient, inpatient, or detox treatment, (2) instituting state-based information technology systems that operate across levels of care (integrated), (3) developing state-approved continuing care programs that describe what services constitute continuing care, how much care is expected or allowed for how long, and who can provide these services; (4) developing a mechanism to fund such continuing care programs and creating the necessary reimbursement codes; and (5) creating incentives for programs that successfully engage a consumer in continuing care or self-help groups. For example, to improve linkages between levels of care, Washington and Rhode Island incentivize providers with higher reimbursement rates for linkages from detoxification and residential programs to other levels of care.

According to the directors, these continuing care models provide them with the opportunity to more accurately define continuity of care. A common definition currently being used is the Washington Circle measure of "transferring to another level of care within 14 days post discharge." However some states are using the data to tweak such definitions and are using a definition of "receiving follow-up service within 7 days of discharge from a state facility." These states recommend the following for other states trying to address this performance area:

- Examine the amount of resources that the state is spending for high cost services (i.e., medical detoxification or short-term (less than 30 day) residential services).
- Examine what the connection-of-service (or linkages of care) rate is among clients that finish high end, expensive care (i.e., detox and short-term residential services).
- Examine the patterns of admissions with specific attention to the readmission rates of clients to either the same level of care or a different level of care within a period of 30, 60, or 90 days.
- Examine patterns by programs to identify programs that are "best models" vs "poor models" to understand service type interventions that can be applied on a larger scale (with relation to continuity of care or re-connection between levels of care).

Client Perceptions of Care

Client perceptions of the care they received is another important performance measure that some states are interested in. According to the directors interviewed, this information is collected through a variety of formats, including client focus groups, telephone follow-up calls with clients, and post treatment surveys

with clients to get feedback regarding perceptions of care/services. Most states are using in-house measures (i.e., questions were crafted by state agency personal), although a few are using a standard measure, including Bartlett's Modular Client Perceptions of Care measure endorsed by SAMHSA.

Use of Evidence-Based Practices (including therapeutic and medication-assisted treatment)

States have taken two approaches in addressing the use of evidence-based practices among their programs. Some states are recommending, but are not requiring, providers to use evidence-based practices (EBPs), while other states, such as Maine and Oklahoma are mandating the use of EBPs, but allow providers to choose the types of EBPs. Other efforts that states are undergoing include the development and dissemination of a series of newsletters on evidence-based practices to enhance communication on these issues and/or provide trainings on specific EBPs endorsed by NIDA's Promising Practices and SAMHSA's NREP.

Maine's current efforts with EBPs involves the application of the Rapid Cycle Business Process Improvement model to increase adoption and adherence to EBPs via continued support for training and implementation of EBPs (including psychotherapeutic approaches, i.e., manual-based cognitive behavioral therapy, motivational interviewing, contingency management techniques, medication-assisted treatment for opiate and alcohol dependence, and the use of case management/wrap-around and supportive services). Maine for example, collects the following information related to the use of EBPs at discharge from all clients (and providers): (a) assistance received during treatment (y/n): medical care, prescription medications, acupuncture, client urine testing, HIV risk reduction/ed, child care, transportation to treatment, employment/counseling, crisis intervention, housing assistance, drug and alcohol education, financial counseling, academic services, vocational services, legal services, tuberculosis services, prenatal care, child counseling services, smoking cessation services, mental health services, or other; (b) type of therapy received during treatment (none, CBT/cognitive behavioral therapy, motivational interviewing, DSAT/differential substance abuse treatment, CYT/cannabis youth treatment,⁴³ integrated co-occurring treatment); (c) medicated assisted treatment received during treatment (none, methadone, LAAM, buprenorphine/suboxone/subutex, campral, naltrexone, vivitrol, antabuse); and (d) if currently attending self-help group as promoted or referred by program (y/n and to describe).

Texas is developing its own model in which providers are required to articulate which EBP they use or will use for specific client populations and which ones will address key performance indicators (i.e., access, engagement, retention, and treatment linkages). They are developing and designing a menu of evidence-based practices (with input from stakeholders) so that when outpatient services are implemented, for example, a certain model must be followed in the type of services delivered. Furthermore, Texas has done some standard setting on the youth side through SAMHSA's Cannabis youth treatment model and has been seeking safety models for special female populations (i.e., those diagnosed with post-traumatic stress disorder or previous exposures to trauma).

Currently New York is focused on transforming its industry into a patient-centered, comprehensive service consistent with a recovery oriented system of care. This means merging Outpatient Methadone Programs (OPTs) into a single system and allowing all clinics to provide medication-assisted treatment. The director plans on merging the stand-alone regulations for methadone treatments with regulations for all other outpatient treatment programs, creating a single set of medically supervised outpatient regulations.

Missouri worked to remove barriers to the implementation of medication-assisted treatment (MAT) for treating alcoholism. They did this by improving their screening tool to determine client appropriateness for medication-assisted treatment, increasing awareness of the effectiveness of medication-assisted treatment for alcohol dependence, and most significantly, establishing a funding mechanism for medication, physician, and laboratory services. North Carolina requires programs, through contracts, to provide evidence-based practices/programs as well as services that are gender-specific and culturally competent. They also require programs to indicate practices that are used to encourage retention.

⁴³ For more information (or free ordering), visit SAMHSA's National Clearinghouse for Alcohol and Drug Information (NCADI) at www.samhsa.gov/csatsat.htm.

Outcome Measurement

Every state director indicated that they are measuring and monitoring key outcome measures as supported by the National Outcome Measures (NOMs), including alcohol and drug use, employment/education status, crime and criminal justice involvement, housing stability, and social connectedness. In general, most directors stated that the measurement definitions used for each of the core outcome domains closely match those of NOMs, with some minor deviations. For example, Oklahoma extends the measurement of housing stability to include “*Chronic Homelessness*” as defined as the extent to which an individual has either: (a) been continuously homeless for a year or more or (b) has had at least 4 episodes of homelessness in the past 3 years. For this condition, homeless individuals must have been on the streets or in an emergency shelter (i.e. not transitional housing) during these episodes. Some states also expand upon the alcohol and drug use measures to include: (a) tertiary substance use, (b) polydrug use, and (c) tobacco use. Further, to get at issues with non-use in the past 30 days, some states indicate reasons best describing a client’s non-use in the 30 days prior to admission (recovery with risk of relapse, client reports no problem, self-initiating detoxification, incarcerated/institutionalized, inpatient treatment program, DUI client, medication, and other), and ask the client when they last used alcohol and/or other drugs⁴⁴ (in last 3 months, in last 6 months, in last 12 months, in last 24 months, in last 5 years, or more than 5 years).

Another area that some states are developing outcome measures for is co-occurring disorders among adults. Most states interviewed indicated that they require programs to screen for DSM-IV co-occurring mental disorders. In addition, some indicate the following questions as important to consider: (1) if ever treated for a mental health issue (y/n) and if so, was it at the following locations (outpatient mental health services in past 12 months), psychiatric hospital (last 2 years). Several other state directors reported that they have funding from SAMHSA’s Co-Occurring State Incentive (COSIG) Grant, that allows them to implement standardized screening, integrated models, service coordination and outcome measurement for mental health. In addition to mental health status, several directors indicated the importance of collecting domestic violence information (i.e., client now or ever has been domestic violence survivor – y/n) as well as if the client is a domestic violence offender (y/n).

Several states have begun efforts to distinguish outcomes for adults versus adolescents (e.g., Oklahoma, Texas, New Jersey, Washington, and Iowa). Many of these states have incorporated the measures from the comprehensive Addiction Severity Index for adolescents (CASI-A; Meyers, McLellan, & Jaeger, 1995) into their data systems to accommodate such differences between adolescent (between the ages of 12 and 18) and adult populations. Other directors indicated the use of the Global Appraisal of Individual Needs (GAIN) which has eight main sections: background, substance use, physical health, risk behaviors, mental health, environment risk, legal involvement, and vocational correlates.

Oklahoma has integrated the following outcome measures into the data system for adolescents:

- *Living situation - Restrictive placement*: includes jail, juvenile detention center, inpatient psychiatric hospital, group home, and foster care. This does not include medical hospital, group or individual emergency shelter, supervised independent living, home of a family friend, adoptive home, and home of a relative, school dormitory, biological parent, independent living with a friend or independent living alone.
- *Self harm*: defined as the intent to create pain as a coping mechanism. Incidents of self-harm include self-mutilation, suicide attempts (but not suicide ideation), and cutting.
- *School Absences*: the number of days the youth has been absent from school during the most recent 90 days of school. During the summer months or holidays, go back to the last 90 days school was in session. An absence indicates the child missed the full day of school. If the youth was not enrolled in school for the last 90 days, mark not applicable and for youths who have dropped out of school should be marked as not applicable.

⁴⁴According to the state director, this question addresses the issue of “no use at admission.”

- *School status*: the extent to which youth have been placed in an alternative school setting or have dropped out of school.
- *School Suspensions*: the number of days the youth has been suspended from school during the most recent 90 days of school. During the summer months or holidays, go back to the last 90 days school was in session. If the youth was not in school for the last 90 days, mark “not applicable” (youth who have dropped out, should be marked as not applicable).

Other adolescent outcome measures that were specified as important (and collected) by directors include: tobacco use, binge drinking, prescription and over-the-counter drug misuse, polydrug use, juvenile justice involvement, school behavior (performance and drop-out status), HIV risk behaviors (sexual activity and injection use), violence and trauma (including victimization), social support involvement (at school and family), vocational engagement, peer relations, runaway status, and resiliency factors (self-esteem and coping).

Some factors to consider when examining outcomes as expressed by SSA directors include:

- Measures of substance use collected for specified time periods (during admission and discharge) that are compared across the entire treatment episode need to consider “levels of care” as individuals’ substance use while enrolled in a restricted level of care (i.e., residential or inpatient) most likely will be low or nonexistent given the limited access to alcohol or drugs.
- Drug types, names, and standard units by which specific drug types are measured need to be updated periodically to ensure that the outcome data remain valid.
- For individuals entering treatment from a restricted setting (e.g., jail or hospital), the assessment of recent substance use (e.g., past 30 days) will not be a relevant baseline from which substance use during treatment or at discharge can be compared; hence this needs to be controlled for (i.e., no substance use outcomes can be documented) and frequency of use prior to institutionalization should be collected to measure change in frequency of use at discharge.
- As individuals with substance use disorders typically have different patterns of use (i.e., low vs. high severity), measuring changes in substance use over time must address how to handle differences by such subgroups rather than “all clients” to represent more clinically relevant and appropriate changes in complex patterns of substance use over time. For example, changes in substance use can be designated in various ways (e.g., represented as complex quantitative indices; dichotomous, i.e., increase/decrease in use; or ordinal).

Performance Management Efforts

Most state directors indicated that they provided programs with ongoing information (ranges from monthly to quarterly) about program performance and client outcomes through data reports that are sent either via the Web (e-mail) or mailed. In addition to data reports, several states use “information briefs” or other ways to get performance and outcome information out that is briefer and focused on a special topic of interest (i.e., highlight service interventions that are effective). The majority of directors expressed the importance of sharing data with providers to get them engaged in process improvement. The conduction of data trainings were commonly reported among directors, where providers are either shown (1) how to interpret performance and outcome data, (2) how to analyze their program data to understand key areas of interest, or (3) how to use the data to improve program areas.

All of the state directors indicated participating in nationally endorsed and supported performance management efforts, including NIATx and STAR-SI, which focus on process improvement strategies to improve services related to critical performance targets, such as access (time to treatment), engagement (no shows), retention (continuation rate), and continuity of care (linkages). Several directors indicated that they have taken steps to modify their state data systems to integrate such NIATx data principles into their systems in order to help stimulate and strengthen process improvements (i.e., to reinforce data reporting back to the programs so that they can see their progress). Other examples include Oklahoma and Iowa working with providers to modify state data reports that accommodate their interests and needs. According to directors, these changes made a substantial improvement in results.

Performance-based contracting

As part of the growing trend toward measuring treatment effectiveness, some states⁴⁵ indicated that they have been experimenting with performance-based contracting. Delaware's recent experiment provides an example of performance contracting focused on improving engagement and retention in their outpatient treatment programs and treatment linkages with their detoxification programs. Contracts used both positive incentives, which were earned and provided on a monthly basis, and penalties. The director offered three lessons learned: (1) financial incentives should be designed to foster collaboration rather than competition among providers, (2) it is feasible to calculate and provide incentive payments to programs on a monthly basis rather than yearly lump sums, and (3) the system (measurement and payment plan) should be developed in collaboration with the providers.

Another example is Maine, which implemented a performance-based contracting system with its outpatient and intensive-outpatient publicly funded treatment agencies with a focus on two performance measures for contracts including: access to treatment and retention. Specifically, treatment agencies can receive incentive payments or financial penalties based on performance toward the select performance measures. According to the director, this newer performance contracting model replaces an older version that produced mixed results in terms of improving AOD treatment system efficiency and effectiveness as it was found to encourage "patient creaming," in which treatment programs admit those clients deemed likely to achieve treatment success. According to the state director, before 2008, the access measures collected in the state data system were not adequate to capture access in the way the state desired to assess access as it only collected treatment admission date and number of days waiting to enter treatment. To address this limitation, data changes were implemented to capture fields for date of first phone call, date of first face-to-face meeting, and date of first treatment session. Within the data system, time-to-assessment is calculated as the difference between the date of first phone call and the date of the first face-to-face meeting with the client. For regular outpatient services, the minimum standard of time to assessment set for performance-based contracting for programs was 5 days or less. For intensive outpatient program services, the minimum standard was 4 days or less. Time-to-treatment is calculated as the difference between the date of the first face-to-face meeting with the client and the date of the first treatment session. For outpatient program services, the minimum time to treatment standard was set at 14 days and under; whereas for intensive outpatient program services, the minimum time to treatment standard was set at under 7 days. According to the director, another area that warrants further examination includes persons referred from criminal justice sources, as preliminary data indicate that these clients are substantially less likely to meet the access standards in both intensive and regular outpatient programs. The director indicated that these clients (referred to treatment via a correctional system) are likely to experience longer waits for treatment given the organizational constraints of the correctional system (i.e., the timeliness of access-to-treatment is largely out of provider control and related to other components of the criminal justice system, including probation, parole, or drug courts processes).

Other state⁴⁶ examples include the following: Maryland's performance based contracting model that focuses on continuity of care and program adherence to ASAM placement criteria. New Jersey recently initiated a performance-based contracting model for the criminal justice population system to incentivize retention (this model and the specific funding algorithm is still under development within the state). Iowa and Massachusetts are currently attempting to do pay-for-performance contracting, and are hoping to focus on access, retention, and the use of evidence-based practices, although no specific models have been adopted.

System Changes

State directors were questioned about current or future activities related to system changes to accommodate substance use disorders as chronic health problems, with particular focus on the areas of

⁴⁵ See Chapter 3 for a detailed description of performance-based contracting.

⁴⁶ Each of these states is working with the Treatment Research Institute under the Mutual Assistance for States Programs (MAPS) to develop specific performance measurement and management models.

prevention, intervention, treatment, and recovery. Each state director acknowledged the importance of such system change efforts in order to effectively integrate the field within the larger health care reform effort. Several state directors indicated that in order to have an effective system change towards a continuum, there needs to be ongoing technical assistance, training and education made available to providers to enhance the competence and skills of the AOD workforce.

According to the majority of directors, training on managing addiction as a chronic illness and quality data assurance practices have been critical pieces for implementing system changes. According to some directors, providers must also demonstrate knowledge of the services required to manage substance abuse as a chronic disorder including recovery supports. Several states provide ongoing technical assistance to programs around areas of prevention, intervention, treatment, and recovery, as well as other areas upon request. In addition, states indicated that given the crashing economy and dwindling state resources available for services, an important effort has focused on having their programs participate in a variety of grant-related trainings. Furthermore, some states indicated that they work with their providers on a regular basis to identify training needs and develop their training plan around those needs. Below are specific descriptions of state efforts related to system-change activities.

Treatment - Recovery

Several state directors indicated that they are requiring programs to identify staff that can be dedicated to the transfer/referral processes to improve a continuum of care. The Oklahoma director indicated that they ensure that the client is actively “engaged in to the next level of service prior to discharge.” For example, the client along with a care coordinator, case manager, or peer support person (funded by the state or county) visits the receiving agency a couple of times to help facilitate a smooth transition so that client knows what to expect ahead of time. Another approach that states have taken to ensure a continuum of care is to assess the extent to which all the levels of care are available in all areas of the state or county. In addition, according to directors, if services are lacking, partnerships need to be developed and maintained.

Some states are also requiring their providers to utilize community-based supports, as linkage with other providers and services within the community is essential. For example, providers are required to include active partnering with other experienced substance abuse providers (providing other types of services), entities providing screening, triage, and referral and care coordination, the Division of Correction, Courts, Vocational Rehabilitation, social services cultural agencies, and prevention programs. Oklahoma for example, indicated that they have worked with their programs to establish “more community involvement on the part of the provider/program to ensure an adequate transition of the client into the recovery community (i.e., social support outlets).” According to most SSA directors, case management services are essential in order to ensure that appropriate linkages and referrals are made (especially to recovery support groups). In addition, one effort they are taking in terms of system changes to accommodate a chronic illness model is building better collaboration and coordination between their AOD system and other state systems such as the criminal justice, child welfare, mental health, and primary health care.

Another important effort is making available linkages to mental health services to all clients regardless of the severity of their diagnosis during treatment. According to the Oklahoma director, “a person with a primary AOD diagnosis and also suffers from depression or anxiety (co-occurring) could fall through the cracks and not get that services they need.”

Another approach that states are taking to create a continuum of care is the integration of continuing care services into their systems. A common approach used by most states has been the *Telephone Monitoring and Adaptive Counseling (TMAC) model* developed by Treatment Research Institute’s James McKay. According to state directors, this model of continuing care has been effective, as it has built in recovery check-ups to monitor and support clients post treatment. In the McKay model, the standardized protocol includes a monthly risk assessment measure to assess a series of risk and protective factors, including substance use/relapse, attendance at social support venues (i.e., AA/NA meetings), symptoms of active psychiatric disorders, reduced confidence in ability to cope, family or marital problems, as well as other problems and issues that indicate a need to adjust the continuing care plan. Clients are followed up

to 18 months post discharge. In the first 1-3 months, clients are called once a week and, as time progresses, are called less often. Telephone monitoring attempts to minimize the length of relapse time by referring clients into treatment quickly. The advantages of this model, as expressed by directors, is that it is convenient for programs and clients, it reduces resources associated with in-person meetings, provides individualized attention, and has the potential to be continued over a long period of time. See Appendix C for more information on Continuing Care Model developed by James McKay.

Another effort focused on recovery that several states are undergoing is the provision of recovery management services. One national effort that has been widely adopted in several states includes the “Advancing Recovery” program (supported by SAMHSA) which promotes the use of continuing care and the provision of case management, wrap-around, and supportive services. Services and supports that contribute to recovery from substance abuse as endorsed by advancing recovery programs include the following:

- Housing Assistance/Transitional Housing
- Transportation
- Care Coordination
- Child Care
- Health Care Co-Pays
- Dental Services
- Employment Counseling/Financial Counseling
- Family Education
- Individual Family Therapy
- Multiple Family Group Therapy
- Recovery Calls
- Recovery Peer Coaching
- Sober Living Activities
- Spiritual Counseling
- Life Skills Coaching
- Substance Abuse Treatment, including drug testing and pharmacological interventions
- Supplemental Needs (car repairs, utility assistance, clothing, education, gas, etc).

According to directors, the grant program is set up to be flexible in that programs providing such recovery support services can select the recovery support services that best meet their clients’ needs.

Other innovative recovery efforts, outside of the programs described above, have been developed recently by states. Many states have opened “recovery homes/centers,⁴⁷” which are led by peers and volunteers to offer support with factors that affect recovery, including: employment, education, parenting, housing and therapeutic support. Some states, such as Connecticut, North Carolina, and New Jersey have developed recovery modules as part of their Web system to track and measure recovery. According to state directors, these outcome measures are the same measures collected at the treatment level (as described in outcome measurement section above).

In addition, states have developed “peer recovery specialist” services, which entail hiring specific individuals that programs can use to offer a range of support to clients both during and after treatment in areas of sobriety, employment, and housing. Unlike sponsors, these peer specialists are trained and certified to provide service support. Their duties include engaging clients in treatment, acting as coaches and consultants in recovery and helping clients identify and negotiate community resources.

⁴⁷ Recovery homes are relatively inexpensive and usually run on about \$20 a day.

Payment for Recovery Support Services

A variety of funding sources are being utilized by states to provide recovery support services, including state generated/reserve funds and federal grants/projects such as Access to Recovery (ATR), Advancing Recovery Partners, as well as SAPT block grant funds. According to Anne Herron from SAMHSA, block grant funds can be used to fund recovery support services if recovery is redefined as an integral part of treatment. Connecticut was the first state to use SAPT block grants to fund recovery support services and other states are following their lead.

Intervention Efforts

For the most part, the majority of states interviewed are participating in the SBIRT (Screening, Brief Intervention and Referral to Treatment) initiative. Areas targeted include secondary schools for adolescents, colleges and universities for young adults, social service clinics (i.e., WIC), perinatal offices for women and children, and emergency room departments. According to directors, this initiative is key to system changes to accommodate a continuum of care because they target those at risk for substance use and provide effective strategies for intervention prior to need for more extensive or specialized treatment.

Other intervention-related efforts that some states are working on include enhancing screening for co-occurring substance use and mental health disorders. For example, Oklahoma uses a formal process to determine the likelihood that an individual may be experiencing mental health, substance abuse, or trauma related disorders. The purpose is not to establish the presence or specific type of such disorder but to establish the need for more in-depth assessment. Providers have the option to enter a 1 for "Positive" (Need for further assessment), 2 for "Negative" (No need for further assessment), and 3 for "Not Administered" in the box next to either Mental Health Screening, Substance Abuse Screening, or Trauma Screening. List of possible screening tools to utilize include the following: (1) Mental Health Screens (including the Mental Status Exam (MSE), Mini-Mental Status Exam (MMSE), Brief Symptom Inventory (BSI), Brief Psychiatric Rating Scale (BPRS), and Mental Health Screening Form III), (2) Substance Use Screens (including the Brown Two-Item, CAGE/CAGE-AID, TWEAK, T-ACE, Alcohol Dependence Scale (ADS), MAST (including brief and short variations), DAST (including 10, 20, and 28 item variations), DALI, AUDIT and variations, ASSIST, UNCOPE, CRAFFT, and CIWA-Ar), and (3) Trauma Screens (including LSC-R, PCLC, Trauma Questionnaire from START).

Prevention Efforts

In many of the states interviewed, prevention is currently being measured and monitored separately (or as noted above, in "silos") largely due to separate funding streams at the national level. Some states however, such as Maine, Arkansas, Oklahoma, and New Jersey, have been successful at integrating prevention with treatment and recovery into a continuum-of-services system, especially through Drug and Alcohol Driver Safety Educational Program (DASEP) providers. According to state directors, the skills that are needed to engage a person in relapse prevention and recovery are similar to the skills that are needed on the prevention side. These skills include engaging the individual and keeping the individual engaged with their family and community.

Several states are contracting with "KIT Solutions, Inc.," as they provide an effective performance-based prevention information technology system. Based on information gained through several states that are using this vendor, KIT Solutions provides one of the best systems to track and report essential substance abuse prevention and education services...as it can help states increase system accountability in regard to program planning and monitoring. Furthermore, KIT Solutions' prevention information technology system is currently the contract vendor for the national funding source that is mandating data driven compliance for its sub-grantees (SAMHSA). Many states see this as particularly important since they can gather insight from a federal perspective and KIT has an advantage over any other vendor when addressing mandatory data requirements.

New Jersey has designed its own performance outcome measurement system (POMS) to track both prevention and treatment data in one location. New York is implementing a Web-based automated reporting system, PARIS (Prevention Activity and Results Information System), that will collect and report on prevention activities and outcomes. This system includes work plan development and approval process, monthly data collection, and reporting (performance and outcome data).

Maine is adopting a Strategic Prevention Framework (SPF - as advocated by SAMHSA). Currently, they are undergoing the evaluation and monitoring of their prevention efforts with a focus on determining whether or not the substance abuse prevention work, framed by the SPF, reduces the negative consequences of alcohol and prescription drug misuse and the consumption patterns that contribute to them. Maine has chosen to focus on three consumption priorities and their related consequences. These priorities are: (1) underage drinking; (2) high risk drinking among young adults; and (3) young adult prescription drug misuse. The associated consequences that will be measured at the state level include: (a) motor vehicle crashes related to alcohol; (b) abuse or dependence on alcohol and prescription drugs; (c) poisonings from alcohol and opioids; and (d) overdose deaths due to prescription drugs.

Summary

Several states were identified as national leaders in implementing system changes toward managing addiction as a chronic illness. The main lesson learned from state interviews is to start with a piece of the continuum rather than try to change the whole system at once. For example, states suggest focusing on either the front end (access and assessment) or the back end (transfers across levels of care) to be effective. Overall, the main focus of most states has been on the development of recovery-oriented systems of care and enhancing their ability to provide effective continuing care and recovery support services.

Furthermore, according to several directors, two important factors that should be considered when prioritizing system changes is the organizational capacity of treatment programs and work force development plans. In addition, with system evolution come data changes and the need to continually provide training and technical assistance on the use of data and how data from an effectively operational AOD system can be used to further systems improvements. Specifically, the data is not only an important piece of an internal management feedback loop, but also keeps individual providers informed about opportunities for improvement.

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Appendix A: Example Modules of the WITS Data System

1. WITS Modules

WITS Packages	
Packages	Modules
WITS VMS	<ul style="list-style-type: none"> • GPRA • Voucher Handling • Data Uploading/Reporting
WITS Medical Billing	<ul style="list-style-type: none"> <li style="width: 50%;">• Claim Batching <li style="width: 50%;">• Billing Transaction List <li style="width: 50%;">• Encounter List <li style="width: 50%;">• Client Balance <li style="width: 50%;">• EOB Transactions <li style="width: 50%;">• Clearing House Batching <li style="width: 50%;">• Payment List <li style="width: 50%;">• Cost Center
WITS Payor	<ul style="list-style-type: none"> • Multiple Funding Source Adjudication • Automated EOB (Explanation of Benefits) • Burn rate monitoring tools
WITS Simple Client Billing	<ul style="list-style-type: none"> • Self pay invoicing and statements
WITS Outcomes	<ul style="list-style-type: none"> • SOMMS, NOMS, TEDS data • Electronic Upload to Federal Contractor (Synectics)
WITS Drug Court	<ul style="list-style-type: none"> <li style="width: 50%;">• Admission Profile and Legal <li style="width: 50%;">• Case Management <li style="width: 50%;">• Education <li style="width: 50%;">• Court and Other Justice <li style="width: 50%;">• Employment <li style="width: 50%;">• Incentives and Sanctions <li style="width: 50%;">• New Charges <li style="width: 50%;">• Discharge <li style="width: 50%;">• Drug Test Results
WITS Contract Management	<ul style="list-style-type: none"> • Provider-specific rates • Burn-rate monitoring
WITS Core Clinical	<ul style="list-style-type: none"> • Client Profile • Intake • Admission • Program Enrollment

2. WITS Modules per User

Modules / Functionality	States										Counties					
	AK	AZ	HI	IL	IN	IA	ID	MD	TN	WY	Bonneville	Marin	Mendocino	San Diego	Sonoma	Salt Lake
Assessment - ADAD			√												√	
Assessment - GAIN							√									
Assessments - ASI/ASI-Lite	√		√			√	√	√	√	√		√		√	√	√
Assessments - TAP						√		√								
CalOMS (California Outcome Measures)												√	√	√	√	
Contracts Management		√	√	√	√	√		√	√	√						√
Core Clinical	√		√			√	√	√			√	√	√	√	√	√
Data Repository Support	√					√										
Drug Test Results			√					√				√	√			
Drug Testing Management System								√								
eCourt / Drug Court								√					√			
eCourt Lite															√	
Encounter Based Treatment Plan																√
Fee for Service Billing			√					√				√	√	√	√	√
GPRA Collection and Upload		√	√	√	√	√			√							
Group Notes			√			√		√				√		√	√	√
Mental Health	√															
Multi-Provider Scheduling								√								
Payor System			√	√	√	√	√		√	√						√
Scheduling	√							√				√	√	√	√	√
Screeners	√										√					
TEDS / NOMS Collection at Program Enrollment			√													√
TEDS / NOMS Extraction	√		√			√	√	√								√
User Generated Reports (SSRS)			√						√			√	√	√	√	
Voucher Management System (ATR)		√	√	√	√	√			√	√						

Appendix B: TREATMENT DATA SYSTEM (TDS)

http://portalx.bisoex.state.me.us/pls/osa/tdsdev.main_menu_2.show

A-D (Rev. 8/07)

FOR SHELTER AND DETOXIFICATION CLIENTS ONLY

AGENCY NAME / LOCATION

A. DATE OF BIRTH MO. DAY YEAR										B. LAST FOUR SS #					C. GENDER (Check ONE box only) <input type="checkbox"/> 01 MALE <input type="checkbox"/> 02 FEMALE		D. COUNTY OF RESIDENCE		E. PAYOR CODE LIST E ON BACK				
F. FEDERAL IDENTIFIER CODE					G. CONTRACT NUMBER (Funded Agencies ONLY)					H. PRIMARY SERVICE CODE LIST H ON BACK		I. CURRENT ADMISSION DATE MO. DAY YEAR			J. LAST FACE TO FACE CONTACT MO. DAY YEAR								
1. HEALTH INSURANCE (MAY OR MAY NOT COVER ALCOHOL AND/OR DRUG TREATMENT) <input type="checkbox"/> 01 PRIVATE INSURANCE <input type="checkbox"/> 02 BLUE CROSS/BLUE SHIELD <input type="checkbox"/> 03 MEDICARE <input type="checkbox"/> 04 MAINE CARE (Medicaid) <input type="checkbox"/> 05 HEALTH MAINTENANCE ORG. (HMO) <input type="checkbox"/> 20 OTHER (e.g., Tricare, Champus) <input type="checkbox"/> 21 NONE			2. REFERRAL LIST 2 ON BACK		3. PRIOR TREATMENT EPISODES NUMBER OF PRIOR TREATMENT EPISODES IN ANY DRUG OR ALCOHOL TREATMENT PROGRAM (Check ONE box only) <input type="checkbox"/> 00 NONE <input type="checkbox"/> 01 ONE <input type="checkbox"/> 02 TWO <input type="checkbox"/> 03 THREE <input type="checkbox"/> 04 FOUR <input type="checkbox"/> 05 FIVE OR MORE			4. ARE SPECIAL ACCOMMODATIONS NEEDED TO PROVIDE SERVICES? (Check YES or NO for each selection) YES NO <input type="checkbox"/> 01 <input type="checkbox"/> 02 (A) HEARING <input type="checkbox"/> 01 <input type="checkbox"/> 02 (B) VISUAL <input type="checkbox"/> 01 <input type="checkbox"/> 02 (C) PHYSICAL <input type="checkbox"/> 01 <input type="checkbox"/> 02 (D) LANGUAGE <input type="checkbox"/> 01 <input type="checkbox"/> 02 (E) OTHER		5. RACE (Check ONE box only) <input type="checkbox"/> 01 WHITE <input type="checkbox"/> 02 BLACK OR AFRICAN AMERICAN <input type="checkbox"/> 03 AMERICAN INDIAN OR ALASKAN NATIVE <input type="checkbox"/> 04 ASIAN <input type="checkbox"/> 05 NATIVE HAWAIIAN OR OTHER PACIFIC ISLANDER <input type="checkbox"/> 99 OTHER			6. ETHNICITY (Check ONE box only) <input type="checkbox"/> 01 NOT OF HISPANIC ORIGIN <input type="checkbox"/> 02 PUERTO RICAN <input type="checkbox"/> 03 MEXICAN <input type="checkbox"/> 04 CUBAN <input type="checkbox"/> 05 OTHER SPECIFIC HISPANIC <input type="checkbox"/> 06 HISPANIC SPECIFIC ORIGIN NOT SPECIFIED		7. VETERAN (Check ONE box only) <input type="checkbox"/> 01 YES <input type="checkbox"/> 02 NO		8. EDUCATION COMPLETED HIGHEST GRADE COMPLETED						
9. CURRENT MARITAL STATUS (Check ONE box only) <input type="checkbox"/> 01 NEVER MARRIED <input type="checkbox"/> 02 NOW MARRIED/COHAB <input type="checkbox"/> 03 SEPARATED <input type="checkbox"/> 04 DIVORCED <input type="checkbox"/> 05 WIDOWED		10. PREGNANT AT ADMISSION (Check ONE box only) <input type="checkbox"/> 01 YES <input type="checkbox"/> 02 NO		11. IF THE CLIENT HAS DEPENDENT CHILDREN, WHERE WERE THE CHILDREN WHILE THE CLIENT WAS IN TREATMENT? (Check ONE box only) IF NO DEPENDENT'S GO TO #12 <input type="checkbox"/> 01 WITH CLIENT <input type="checkbox"/> 02 SPOUSE/OTHER PARENT <input type="checkbox"/> 03 GRANDPARENTS/OTHER RELATIVES <input type="checkbox"/> 04 FRIENDS <input type="checkbox"/> 05 BABYSITTER/CAREGIVER <input type="checkbox"/> 06 TEMPORARY FOSTER CARE <input type="checkbox"/> 99 OTHER			12. LIVING ARRANGEMENTS AT ADMISSION (Check ONE box only) <input type="checkbox"/> 01 INDEPENDENT LIVING, ALONE <input type="checkbox"/> 02 INDEPENDENT LIVING, WITH OTHERS <input type="checkbox"/> 03 DEPENDENT LIVING <input type="checkbox"/> 04 HOMELESS		13. EMPLOYMENT STATUS (Check ONE box only) <input type="checkbox"/> 01 FULL-TIME (35 HOURS OR MORE) <input type="checkbox"/> 02 PART-TIME (17 - 34 HOURS) <input type="checkbox"/> 03 IRREGULAR (LESS THAN 17 HOURS) <input type="checkbox"/> 04 UNEMPLOYED (HAS SOUGHT WORK) <input type="checkbox"/> 05 UNEMPLOYED (HAS NOT SOUGHT WORK) <input type="checkbox"/> 06 NOT IN LABOR FORCE <input type="checkbox"/> 07 FULL-TIME VOLUNTEER <input type="checkbox"/> 08 PART-TIME VOLUNTEER <input type="checkbox"/> 09 IRREGULAR VOLUNTEER			14. ICD-10 ISSUES DIAGNOSIS BASED ON DSM-IV (Check ONE box only) <input type="checkbox"/> 01 DIAGNOSED MENTAL ILLNESS/ DISORDER <input type="checkbox"/> 02 MENTAL RETARDATION <input type="checkbox"/> 00 NONE		15. CONSENT DECREE 11/99 (Check ONE box only) <input type="checkbox"/> 01 YES <input type="checkbox"/> 02 NO		16. GLOBAL ASSESSMENT OF FUNCTIONING (GAF) SCALE (AT ADMISSION) ENTER THE APPROPRIATE LEVEL OF FUNCTIONING BASED ON THE GAF SCALE							
17-20. DRUGS USED INAPPROPRIATELY OR ABUSED BY CLIENT THAT LED TO ADMISSION		21-24. FREQUENCY OF USE OF DRUGS BY CLIENT (IN LAST 30 DAYS)		25-28. ROUTE OF ADMINISTRATION		29-32. AGE OF FIRST USE		33. INJECTION DRUG USE (Check ONE box only) <input type="checkbox"/> 01 NEVER <input type="checkbox"/> 02 IN LAST 6 MONTHS <input type="checkbox"/> 03 IN LAST 5 YEARS <input type="checkbox"/> 04 PRIOR TO LAST 5 YEARS		34. MEDICATION ASSISTED TREATMENT (Check ONE box only) <input type="checkbox"/> 01 NO <input type="checkbox"/> 02 METHADONE <input type="checkbox"/> 03 LAAM <input type="checkbox"/> 04 BUPRENORPHINE/SUBOXONE/SUBUTEX <input type="checkbox"/> 05 CAMPRAL <input type="checkbox"/> 06 NALTREXONE <input type="checkbox"/> 07 VIVITROL <input type="checkbox"/> 08 ANTABUSE		35. TOTAL NUMBER OF ARRESTS IN THE LAST 12 MONTHS		36. ARRESTS IN PRIOR 30 DAYS		37. OUI ARRESTS IN THE LAST 12 MONTHS							
COMPLETE THE INFORMATION BELOW AT DISCHARGE																							
38. DID THE CLIENT RECEIVE A PHYSICAL EXAMINATION WITHIN 48 HOURS OF ADMISSION BY A PHYSICIAN OR PHYSICIAN'S ASSISTANT? (Check ONE box only) <input type="checkbox"/> 01 YES <input type="checkbox"/> 02 NO		39. WAS A COMPLETE PSYCHOSOCIAL ASSESSMENT DONE ON THE CLIENT PRIOR TO DISCHARGE? (Check ONE box only) <input type="checkbox"/> 01 YES <input type="checkbox"/> 02 NO		40. GLOBAL ASSESSMENT OF FUNCTIONING (GAF) SCALE (AT DISCHARGE) ENTER THE APPROPRIATE LEVEL OF FUNCTIONING BASED ON THE GAF SCALE		41. ASSISTANCE RECEIVED DURING TREATMENT (Check YES or NO for each selection) YES NO <input type="checkbox"/> 01 <input type="checkbox"/> 02 A MEDICAL CARE <input type="checkbox"/> 01 <input type="checkbox"/> 02 B PRESCRIPTION MEDICATIONS <input type="checkbox"/> 01 <input type="checkbox"/> 02 C ACUPUNCTURE <input type="checkbox"/> 01 <input type="checkbox"/> 02 D CLIENT URINE TESTING <input type="checkbox"/> 01 <input type="checkbox"/> 02 E HIV RISK REDUCTION <input type="checkbox"/> 01 <input type="checkbox"/> 02 F CHILD CARE <input type="checkbox"/> 01 <input type="checkbox"/> 02 G TRANSPORTATION TO TREATMENT <input type="checkbox"/> 01 <input type="checkbox"/> 02 H EMPLOYMENT/COUNSELING <input type="checkbox"/> 01 <input type="checkbox"/> 02 I CRISIS INTERVENTION <input type="checkbox"/> 01 <input type="checkbox"/> 02 J HOUSING ASSISTANCE <input type="checkbox"/> 01 <input type="checkbox"/> 02 K DRUG AND ALCOHOL EDUCATION <input type="checkbox"/> 01 <input type="checkbox"/> 02 L FINANCIAL COUNSELING <input type="checkbox"/> 01 <input type="checkbox"/> 02 M ACADEMIC SERVICES <input type="checkbox"/> 01 <input type="checkbox"/> 02 N VOCATIONAL SERVICES <input type="checkbox"/> 01 <input type="checkbox"/> 02 O LEGAL SERVICES <input type="checkbox"/> 01 <input type="checkbox"/> 02 P TUBERCULOSIS SERVICES <input type="checkbox"/> 01 <input type="checkbox"/> 02 Q PRENATAL CARE <input type="checkbox"/> 01 <input type="checkbox"/> 02 R CHILD/COUNSELING/SERVICES <input type="checkbox"/> 01 <input type="checkbox"/> 02 S SMOKING CESSATION SERVICES <input type="checkbox"/> 01 <input type="checkbox"/> 02 T MENTAL HEALTH SERVICES <input type="checkbox"/> 01 <input type="checkbox"/> 02 Z OTHER						42. DID YOU RECOMMEND A SELF-HELP GROUP? (Check ONE box only) <input type="checkbox"/> 01 YES <input type="checkbox"/> 02 NO											
43. "DELIBERATE" REFERRAL TO SUBSTANCE ABUSE SERVICES (Check ONE box only) <input type="checkbox"/> 00 NONE <input type="checkbox"/> 01 DETOXIFICATION <input type="checkbox"/> 02 DIAGNOSIS & EVALUATION <input type="checkbox"/> 03 IN-HOME FAMILY SUPPORT <input type="checkbox"/> 04 EXTENDED CARE <input type="checkbox"/> 05 EXTENDED SHELTER <input type="checkbox"/> 06 SHELTER <input type="checkbox"/> 07 OUTPATIENT COUNSELING (GENERAL) <input type="checkbox"/> 08 INTENSIVE OUTPATIENT <input type="checkbox"/> 09 RES. REHAB. (SHORT TERM) <input type="checkbox"/> 10 HALF AND QUARTERWAY HOUSE <input type="checkbox"/> 11 ADOLESCENT RES. REHAB. TRANSITIONAL <input type="checkbox"/> 12 SUBSTANCE ABUSE PROFESSIONAL <input type="checkbox"/> 13 CONSUMER RUN RESIDENCE <input type="checkbox"/> 99 OTHER						44. IF REFERRED - REFERRED AGENCY CODE SEE APPENDIX		45. "DELIBERATE" REFERRAL TO OTHER THAN SUBSTANCE ABUSE TREATMENT (Check YES or NO for each selection) YES NO <input type="checkbox"/> 01 <input type="checkbox"/> 02 A MENTAL HEALTH PROVIDER <input type="checkbox"/> 01 <input type="checkbox"/> 02 B OTHER HEALTH CARE PROVIDER <input type="checkbox"/> 01 <input type="checkbox"/> 02 C V/Oc. REHAB/OB REPLACEMENT <input type="checkbox"/> 01 <input type="checkbox"/> 02 D HIV ANTIBODY COUNSELING AND TESTING <input type="checkbox"/> 01 <input type="checkbox"/> 02 E SCHOOL COUNSELOR <input type="checkbox"/> 01 <input type="checkbox"/> 02 Z OTHER															
46. STATUS AT DISCHARGE		47. IF THE CLIENT LEFT DUE TO LACK OF CARE, WHAT WAS THE REASON? (Check ONE box only) <input type="checkbox"/> 01 ACCESSIBILITY <input type="checkbox"/> 02 MONEY/COST <input type="checkbox"/> 03 LENGTH OF STAY/TREATMENT <input type="checkbox"/> 99 OTHER		48. PRIMARY EXPECTED SOURCE OF PAYMENT		49. SECONDARY EXPECTED SOURCE OF PAYMENT (IF DIFFERENT FROM PRIMARY SOURCE)		50. TERTIARY EXPECTED SOURCE OF PAYMENT (IF DIFFERENT THAN PRIMARY OR SECONDARY SOURCE)		51. TOTAL NUMBER OF UNITS AND COST PER UNIT (LIST ON BACK OF FORM) CODE UNITS COST PER UNIT													
DATE FORM COMPLETED MO. DAY YEAR		FORM COMPLETED BY LAST NAME / FIRST						FORM EDITED BY LAST NAME / FIRST															

Appendix C: McKay Continuing Care Model

There are a number of clinical and non-clinical telephone-based service approaches currently in use within the addictions treatment and recovery field. The best known and most widely adopted is the *Telephone Monitoring and Adaptive Counseling* (TMAC). Developed by Dr. James McKay of the University of Pennsylvania, TMAC is supported by a *Counselor Manual* and a *Client Workbook*. It incorporates motivational interviewing (MI) and uses a cognitive-behavioral functional analysis of risk and protective factors to develop a framework that the counselor and client use to assess status and track progress during regularly scheduled 15-minute calls. TMAC can be implemented as either a fixed- or variable-length protocol. TMAC begins with one or two face-to-face orientation sessions that are followed by weekly calls for a period of time. Individuals can be transitioned to biweekly and monthly calls on a set or flexible schedule. The frequency of calls can be adjusted as needed. During the orientation period, the counselor and client determine whether the counselor or the client will make the call. The goal is to maximize the probability of successful contact. The responsibility for making calls can be renegotiated at any point. TMAC requires a collaborative and consultative relationship between the clinician and client and emphasizes client choice and the responsibility of the individual for his or her recovery.