

Performance Management for Substance Abuse Treatment Providers



U.S. Department of Health and Human Services
Substance Abuse and Mental Health Services Administration
Center for Substance Abuse Treatment
www.samhsa.gov

Performance Management for Substance Abuse Treatment Providers

Acknowledgments

This document was developed for the Substance Abuse and Mental Health Services Administration (SAMHSA), Center for Substance Abuse Treatment (CSAT), under Contract No. 270-03-1000, Task Order No.HHSS27000020 – the State Systems Technical Assistance Project (SSTAP).This document adapts material from *Performance Management: Improving State Systems through Information-based Decisionmaking* written by Mary Brolin, Carol Seaver, and Dennis Nalty (see full citation below). This document was written by Dr. Joan Durman of Durman Associates, LLC; Thomas Lucking of Lucking Consulting; and Larry Robertson of JBS International, Inc. We also acknowledge the input and review by CSAT Division of State and Community Assistance Director Anne Herron and Public Health Advisor Gayle Saunders.

Electronic Access

This publication may be accessed electronically through the following Internet World Wide Web connection: <http://www.tie.samhsa.gov/documents/documents.html>.

Recommended Citation

Durman, J., Lucking, T., and Robertson, L.. Performance Management for Substance Abuse Treatment Providers. Rockville, MD: Center for Substance Abuse Treatment (CSAT), Substance Abuse and Mental Health Services Administration (SAMHSA), 2008.

Adapted from: Brolin, M., Seaver, C., & Nalty, D. *Performance Management: Improving State Systems through Information-based Decisionmaking*. DHHS Publication No. 05-3983. Rockville, MD: Center for Substance Abuse Treatment (CSAT), Substance Abuse and Mental Health Services Administration (SAMHSA), 2004.

TABLE OF CONTENTS

	Page
SECTION I: INTRODUCTION	1
A. Required Activities and the Opportunity to Improve Services	1
B. Definitions and Related Terms	1
C. Report Overview	2
SECTION II. PERFORMANCE MANAGEMENT TRENDS IMPORTANT TO SUBSTANCE ABUSE TREATMENT ORGANIZATIONS	3
A. Comparison of Research and Performance Management	3
B. Trends in Purchaser and Stakeholder Requirements for Performance Management	4
C. Comparison Between Quality Assurance and Quality Improvement	7
SECTION III. CAPACITIES NEEDED FOR EFFECTIVE PERFORMANCE MANAGEMENT	13
A. Process for Identifying New Performance Measures and Retiring Others	13
B. Systems and Structures for Analyzing Data and Undertaking Improvement Efforts	15
C. Performance Management Training	17
D. Evaluations of Effectiveness of Performance Management Efforts	17
E. A Culture Supporting Performance Improvement	17
F. Application of Performance Management Throughout the Organization	18
G. Special Considerations for Benchmarking	19
H. Boosts From Accrediting Bodies and NIATx	19
SECTION IV. DATA COLLECTION	21
A. Collecting Data for Performance Improvement	21
B. What is the Question or Issue?	21
C. Planning for Data Collection	22
D. Managing Data	24
E. What Do the Data Mean?	24
SECTION V. DATA SYSTEMS	27
A. Manual, Electronic, and Combined Systems Compared	27
B. Automated Management of Data and Information	27
C. Automated Functions	28

SECTION VI. DATA ANALYSIS.....	31
A. Organizing and Presenting Data	31
B. Analyzing Results	35
C. Using the Results.....	38
D. Additional Points to Consider When Analyzing Data.....	39
E. Case Example of Data Organization, Analysis, and Use	40
SECTION VII. A PROVIDER USING NOMs TO IMPROVE SERVICES	45
A. NOMs Reporting Data for Providers	45
B. Observation About Quality Improvement	49
SECTION VIII. CAPACITY ASSESSMENT MATRIX.....	51
RESOURCES.....	57

SECTION I.

INTRODUCTION

A. Required Activities and the Opportunity to Improve Services

Performance management has become as important to substance abuse treatment organizations as it is to organizations in other industries. In nearly all markets in which substance abuse treatment organizations operate, reporting performance data has become a prerequisite for organizations to obtain contracts. In some markets, organizations must have comprehensive performance management systems just to operate.

Performance management activities are among the many contractual, funding, and regulatory requirements that providers must meet as efficiently as possible. The sheer volume of these externally mandated activities can obscure what is arguably the most important added value of performance management: the opportunity to improve client services systematically. However, just as systems cannot mandate and regulate their ways to excellence, meeting external requirements alone does not bring about improved client services. This is because improving client services also requires the capacity to analyze data, identify improvement opportunities, design and implement improvements, monitor results, and continue the improvement cycle. This brief monograph provides an overview of methods that providers may use to meet external performance management requirements and to take the additional steps to improve services systematically. The material in this document has been adapted from *Performance Management: Improving State Systems through Information-based Decisionmaking*.

B. Definitions and Related Terms

Performance management in this document refers to the processes of establishing performance measures, gathering and reporting performance data, and using these data to verify satisfactory performance, improve services, and make decisions. Performance management requirements and methods are pervasive and reach provider organizations through many channels. Among healthcare providers, the term “performance management” is often used interchangeably with “quality management,” and we use these terms interchangeably in this document. We also use two broad performance/quality management terms: “quality assurance” and “quality improvement.” We define quality assurance as performance management processes that experts or internal staff members determine should be used to establish minimal standards of acceptable performance, measure performance in relation to these minimal standards, and identify and correct substandard performance. By contrast, we define quality improvement as performance management processes that define quality according to the needs and preferences of service recipients; work to improve services continuously (even beyond performance that is considered satisfactory); and, to the extent possible, do this in real time, as services are provided.

C. Report Overview

The remaining sections of the report are:

- **Section II** presents some performance management trends important to substance abuse treatment organizations. It draws distinctions between research and performance management and provides an overview of some of the performance management trends influencing providers, purchasers, and their stakeholders.
- **Section III** discusses what organizations need to establish and maintain effective performance management systems. It provides an overview of the interrelated processes for effective performance management, special considerations for benchmarking, and support from accrediting bodies and the Network for the Improvement of Addiction Treatment.
- **Section IV** addresses data collection considerations, including a framework for identifying the important data to be collected, developing a data collection plan, and managing the data.
- **Section V** describes data management and systems with an emphasis on automated systems.
- **Section VI** focuses on key points in data analysis, including how to interpret the data and actions the data indicate are needed to improve performance.
- **Section VII** illustrates how a provider can use the National Outcome Measures to improve services.
- **Section VIII** shows how provider organizations may assess their current levels of performance management and consider areas for improvement.

SECTION II.

PERFORMANCE MANAGEMENT TRENDS IMPORTANT TO SUBSTANCE ABUSE TREATMENT ORGANIZATIONS

This section begins by distinguishing between research and performance management at the provider level. This distinction is important for staffing, training, and designing performance management systems. The section also provides an overview of some of the performance management trends influencing providers, purchasers, and their stakeholders. It contrasts performance management processes that emphasize quality assurance with performance management processes that emphasize quality improvement.

A. Comparison of Research and Performance Management

There is some overlap between research and performance management, especially at the State level. For example, States have published performance management results in peer-reviewed scientific journals. In addition, data collected in some State system performance management efforts have been used in research, and overall performance management results can inspire subsequent research. Yet one can more easily distinguish performance management efforts from research at the provider level. Table 1 presents the contrast between research and performance management.

Table1: Comparison of Research and Provider-Level Performance Management

Comparison Dimension	Provider Participation in Research	Provider Performance Management
Primary purpose(s)	Add to the substance abuse treatment body of knowledge and evidence-based practices.	Meet contractual and regulatory obligations, present evidence of effectiveness, and improve services.
Design	Emphasizes experimental and quasi-experimental designs.	Mostly focuses on internal comparisons of performance over time.
Statistical methods	Data reliability and validity are important. Often, sophisticated techniques, such as tests of significance and regression analysis, are performed.	While data reliability and validity are important, most data analyses involve simple comparisons of performance trends over time.
Staffing	Usually led by scientists trained in health and human service research methods. Effectiveness depends on the training and acumen of the investigator or investigators.	Usually led by clinical and program managers with broad participation of staff members across the organization, often supported by performance management experts. Effectiveness depends on training many staff members in basic quality management techniques.
Timeliness of results	Analysis and publication of results normally take months or years to complete the research.	The span of review rarely exceeds 3 months, and using real-time data is preferred.

These distinctions are important when an organization is planning and staffing performance management activities. Organizations with effective performance management systems must arrange to train all their leaders and many staff members so that they can participate in improvement initiatives. While effective organizations can limit their performance reports to data that are easy to understand, they need to make sure that most staff members understand the meaning of performance information and are able to use it to improve performance of the organization. This is not to suggest that performance management requires less sophistication than research science. Instead, it requires an ability to apply data measurement and analysis to improve organizational performance. In addition, individuals with research and evaluation experience can be especially helpful to providers when they are formulating measures, designing reliable data collection systems, and analyzing data.

B. Trends in Purchaser and Stakeholder Requirements for Performance Management

Substance Abuse and Mental Health Services Administration (SAMHSA)

SAMHSA's block grant and discretionary grants combined with State funds comprise the largest pool of funding for substance abuse services. Consequently, SAMHSA's performance management requirements have an important impact on many provider organizations. SAMSHA, like treatment providers and States, is also subject to performance management scrutiny. The Office of Management and Budget assesses SAMHSA using its Program Assessment Rating Tool (PART). Among other things, a favorable PART review of SAMHSA depends on SAMHSA's successful implementation of common performance measures for both prevention and treatment.

The National Outcome Measures (NOMs) are SAMHSA's effort to meet its requirement for common performance measures. There are 10 NOMs performance measures, 7 of which measure results at the client-service level. (The three other NOMs measures are at the larger systems level and include access to care, cost-effectiveness, and use of evidence-based practices.) The seven client-service measures are as follows:

- Four measures of change from the first to the last day of treatment include substance use, employment (or being in school), arrests (in the 30 days prior to the first and last dates of treatment), and stable housing.
- Client retention is a measure of the length of time between the date of admission and the date of last service.
- Measures of social connectedness and perception of care were being developed as of this writing.

More details about NOMs, including NOMs definitions and NOMs reports from States, are on the SAMHSA Web site: (http://www.nationaloutcomemeasures.samhsa.gov/.outcome/sa_tx.asp).

The NOMs measures are built upon previous legislative requirements and SAMHSA initiatives. The Government Performance and Results Act (GPRA) of 1993 required Federal Agencies to develop performance standards to improve accountability and to promote effectiveness. SAMHSA's Center for Substance Abuse Treatment (CSAT) followed GPRA with the Treatment Outcomes and Performance Pilot Studies I and II (TOPPS I and TOPPS II), which eventually involved more than 20 States in a performance management piloted effort. The TOPPS initiatives helped inform development of current measures, reporting methods, and technology.

In 1998, CSAT convened the Washington Circle, a group of leaders from throughout the substance abuse field, "to promote quality and accountability in the delivery and management of alcohol and other drug (AOD) services." Since its formation, this influential group of substance abuse treatment, performance management, and research experts has developed a core set of substance abuse treatment performance measures for both public and commercial arenas.

State and Intermediary Purchasers

At the provider level, performance management reports and activities are included among other contractual and regulatory obligations of Single State Authorities (SSA) and their local/regional planning and funding authorities. SSAs are the planning and funding authorities for SAMHSA's Substance Abuse Prevention and Treatment (SAPT) Block Grant and the State funds that are pooled with SAPT funds. Although service excellence is a preeminent value that should be maintained, providers should also be mindful of the critical link between compliance with data reporting requirements and the levels of funding that are available at the Federal, State, and provider levels. For instance, the SAPT Block Grant program is subject to PART, and data (e.g., NOMs data) from States are vital to SAMHSA's ability to satisfy the PART reporting requirements. In turn, States' SAPT funding levels are now tied to their ability to provide SAMHSA-required performance data. This "trickle down" effect also extends to providers because much of the data that States need to report to SAMHSA are collected at the provider level. Thus, provider systems that can demonstrate and report on high performance are key participants in the current environment in which Federal and State funding are increasingly linked with reporting.

In addition to SAMHSA reporting requirements, many States have their own performance management requirements. For example, Florida has legislatively mandated outcomes reporting requirements. Other States, such as North Carolina, have carried forward versions of the TOPPS initiatives that preceded NOMs. Fortunately, there is considerable overlap between reporting requirements of pioneering States and NOMs. In addition, the performance management reporting requirements that some SSAs established extend beyond the services that the SSAs fund—some States require providers under contract with the State to report on all clients that the providers serve regardless of whether the State funds the clients or not. For example, Minnesota requires that its contracted providers report data for all clients, not just those receiving SSA funds. Since nearly all of Minnesota's provider organizations contract for SSA funds through the State's Consolidated Fund, Minnesota receives performance data on practically all clients, regardless of payment source.

Accrediting Bodies

Several national accrediting bodies have been involved in accrediting substance abuse treatment providers, including the CARF—Commission on Accreditation of Rehabilitation Facilities (CARF), the Joint Commission on the Accreditation of Healthcare Organizations (JCAHO), and the Council on Accreditation (COA). In some markets, accreditation made the provider organization eligible for reimbursement from some insurance plans. Starting in 1990, Michigan required State-funded programs to be accredited. Oklahoma has followed suit, and other States have gradually begun to require providers to work toward national accreditation. In addition, all opioid treatment programs dispensing methadone must be nationally accredited. (As of this writing, CARF, COA, JCAHO, and the National Commission on Correctional Health Care are the SAMHSA-approved national accrediting bodies along with the States of Missouri and Washington.)

JCAHO, the oldest of these accrediting bodies, had a leading role in introducing performance management in healthcare and, by extension, into substance abuse treatment. In 1987, JCAHO began to shift from primarily focusing on structural issues (meeting operational and facility thresholds) to primarily focusing on performance. To do so, JCAHO required its accredited facilities to develop performance measures that included minimally acceptable performance thresholds and to undertake corrective action when these thresholds were not met. Five years later, JCAHO began to move toward adopting quality improvement based on performance management techniques imported from manufacturing. Using their own terminology and categories, CARF and COA have also added requirements for comprehensive performance management processes.

Health Insurance Plans and National Committee for Quality Assurance

Some of the accrediting bodies of managed care entities, including the National Committee for Quality Assurance (NCQA), required that contracts with providers include a requirement to participate in quality management activities. NCQA's Health Plan Employer Data and Information Set (HEDIS) also had an important impact in the development of thinking and expectations about performance management in healthcare. HEDIS performance management measures, based on data derived from claims data, are used as "report cards" and benchmarks to compare the performance of hospital systems and insurance plans.

United Way and Foundations

Nationwide, foundations and the United Way do not provide a large proportion of funding for substance abuse treatment. However, the flexibility possible with United Way funds and the time-to-time infusion of capital make it an important source of financial stability for some providers. Most local chapters of the United Way have required providers to define their goals in terms of outcomes for the people served, to relate their activities in a logical way to these outcomes, and to begin to report results relating to these outcomes. The chapters intend to buy outcomes instead of organizational capacity. Similarly, many foundations now require that applicants describe their intended result using a performance management framework. These trends in private philanthropy reflect the breadth of the performance management trends.

C. Comparison Between Quality Assurance and Quality Improvement

Different performance management systems might be characterized as either emphasizing “quality assurance” or “quality improvement.” The differences are important, as the quality revolution in manufacturing illustrates. Before the 1980s, performance management in American industry could be described as emphasizing quality assurance. Quality control personnel inspected components and products, and they were either accepted as meeting minimal thresholds or rejected. Similarly, performance measures indicated that the process either met or failed to meet a minimum standard. Organizations encouraged personnel responsible for the substandard products, components, or performance to do better. However, the superior products that foreign manufacturers produced forced Americans to adopt quality management systems that emphasized quality improvement. Thus, within a decade, the quality of many American products improved dramatically. As noted above in the paragraph describing JCAHO’s experience, healthcare followed suit, and many healthcare organizations and systems began emphasizing quality improvement in the 1990s. Table 2 contrasts quality assurance and quality improvement.

Table 2: Contrast Between Systems Emphasizing Quality Assurance and Those Emphasizing Quality Improvement

Quality Assurance Emphasis	Quality Improvement Emphasis
These activities involve retrospective reviews of products and performance to identify problems.	These activities involve some retrospective reviews, but these are balanced by a greater emphasis on concurrent activities aimed at doing things right the first time.
Quality is defined according to the opinions and preferences of experts and the providers.	Quality is defined as that which meets the needs and preferences of customers. Clients are involved in defining and assessing quality.
These efforts find what people are doing wrong, bring it to their attention, and encourage them to mend their efforts.	Instead of seeking out and finding people to blame, this approach identifies problems and solutions in systems.
These efforts establish measurable standards of acceptable performance and identify and correct substandard performance.	Those using a quality improvement framework are skeptical about establishing minimum thresholds of acceptable performance because (1) minimum thresholds may imply an acceptable level of error, and (2) minimum thresholds do not necessarily promote continuous improvement.

Although quality improvement efforts net the greatest gains, quality assurance methods are still necessary and important. For example, establishing minimum thresholds of performance can be helpful, as illustrated by the licensing regulations used to determine whether or not a provider meets the minimal threshold for providing services at all. Also, while taking a systems approach usually yields better results than blaming individuals, some problems really stem from substandard performance of individuals. Beyond that, well-designed systems for establishing performance thresholds and rewarding performance above those thresholds can produce favorable results. However, placing more emphasis on quality improvement and less on quality

assurance has led to profound improvement in other sectors, and the same could be true in substance abuse treatment.

As quality improvement methods developed, different terms and acronyms have been applied to quality improvement systems, such as Total Quality Management (TQM) and Continuous Quality Improvement (CQI). Sometimes, these terms are used interchangeably and at other times more discretely, reflecting the emphasis that different practitioners place on different aspects of quality management. Regardless of emphasis and terminology, many provider organizations and public systems have already adopted quality improvement methods based on their own programs and insights, and there are some encouraging signs that many organizations are adopting quality improvement methods and techniques. Three examples of encouraging developments follow.

Network for the Improvement of Addiction Treatment (NIATx)

NIATx has had an important role in teaching performance management methods to provider organizations. NIATx is a partnership that includes CSAT, the National Institute on Drug Abuse (NIDA), the Robert Wood Johnson Foundation, and some provider organizations. (See <http://www.niatx.net>.) Much of NIATx's efforts have focused on using quality improvement methods to improve access, coordination of care, retention, and reducing no-shows (i.e., clients who do not notify programs that they will not show for scheduled appointments). While NIATx-supported organizations usually begin with these important dimensions of care, organizations can apply this quality improvement technology to other dimensions of performance. Using the performance management measures described in the previous sections, purchasers, accrediting bodies, and providers identify dimensions of performance that they believe are especially important, and they measure performance relative to these dimensions over time. Provider organizations and larger systems also apply performance measures on an ad hoc, time-limited basis in response to improvement opportunities that might be identified in any number of ways. Once an organization identifies a performance opportunity, it begins to measure performance, apply an improvement cycle, and, eventually, retire the performance measure. While data reliability (defined here as gathering the data in exactly the same way at different intervals) is as important with ad hoc measures as with those applied nationally, some of the measures themselves are marvels of practicality that supports quick action. Kevin Lewis, long-time Executive Director of the NIATx-trained Southwest Florida Addictions Services, a full continuum serving Southwest Florida, provides an illustration:

“When SWFAS began to consider access to care as dimension for performance measurement and improvement, we started with outpatient services because that was the area that offered most hope to those in need. Our improvement team started discussing the need for a performance measurement strategy, and the talk soon turned to the IT Department and the time it would take to program a new indicator into the system. That’s when a member of the team suggested that the receptionist could be asked to report each Monday when our first and second available appointment slots were. This quickly became our measure, and a simple “gauge” all staff could use to see if we were truly improving access. Access went from 4-plus weeks to

less than 2 days over the course of this effort, and we still monitor the measure to ensure we can truly offer access to care! We have experienced the importance of measures being simple, understood (and believed in) by all involved, and monitored and shared as often as possible!”

Trend Away From Post-Discharge Followup Measures to Concurrent Measures

Before the 1990s, substance abuse performance management centered on measuring “success rates,” defined as the percentage of clients who reported being abstinent at certain post-discharge intervals. More recently, the treatment community has placed less emphasis on the post-discharge approach. Post-discharge studies will probably always be important for research purposes, and they still are for many stakeholders concerned with substance abuse performance management. However, the momentum away from post-discharge assessments for performance management purposes is reflected by the fact that NOMs does not require any post-discharge measures. Likewise, the influential Washington Circle Group also emphasizes measures gathered during treatment.

For example, as of July 2007, the Washington Circle Web site (<http://www.washingtoncircle.org/>) presented the following core domains for measurement:

1. Prevention/Education
2. Recognition
3. Treatment
 - Initial of alcohol and other drug plan services
 - Linkage of detoxification and alcohol and other drug plan services
 - Treatment engagement
 - Interventions for family members and significant others
4. Maintenance of treatment effects

While “Maintenance of treatment effects” looks much like the information gathered during post-discharge surveys, the primary source of information for this domain are pre-discharge surveys that focus on what post-discharge strategies clients intend to use.

Undoubtedly, the prohibitive expense for conducting valid post-discharge measures has been a primary force in driving organizations away from post-discharge studies. However, the trend away from post-discharge measures also seems to be driven by questions about the appropriateness of applying post-discharge evaluations to a chronic condition and the limited value of post-discharge information for quality improvement purposes.

The concern about the validity of assessing effectiveness of substance abuse treatment has to do with the chronic nature of addictions. McClellan et al.¹ point out that for other chronic conditions:

“ . . . treatments . . . are continuing, with the intensity of care and monitoring modulated by the severity of the symptoms present. Evaluators charged with determining the effectiveness of these interventions do evaluate patients’ illness symptoms, general health and social function, but only during the course of the treatment, as discharge from treatment is expected to produce relapse in most cases.”

McClellan et al. propose what they refer to as “concurrent recovery monitoring” (CRM), which providers may recognize as a form of concurrent utilization management. With CRM, the treating clinicians conduct concurrent utilization management with the performance management system used to support treatment decisions. CRM could be helpful in moving systems more toward quality improvement. This is because CRM would change the performance management focus from primarily serving the needs of policymakers to meeting the needs and preferences of individual clients. This is an important step toward quality being defined as that which meets the needs and preferences of recipients. In addition, moving from post-discharge followup to concurrent reviews would be a move from the quality assurance emphasis on retrospective reviews to the quality improvement emphasis of “real-time” efforts to do things right the first time.

Regardless of the controversy over the validity of post-discharge measures as valid assessments of treatment quality, such information can have little or no value for improving services. This is because quality improvement programs use an improvement cycle (see the Plan-Do-Check-Act description in section III) in which the providers plan and implement improvements, measure the impacts of these improvements, and act according to the results as they repeat the cycle to attain increased improvements. Waiting many months or a year to measure the impacts of improvements would be frustratingly slow and the antithesis of the rapid-cycle improvement processes that are at the heart of many quality improvement plans. Beyond that, the retrospective data would describe programs as they were many months before, not as they existed at the time that the data were reviewed and analyzed. (This is not to imply that outcomes do not have an important role in quality improvement efforts. An illustration of the use of an outcome in rapid-cycle improvement appears in section VII.)

Application of Real-time Satisfaction Management

The usual approach to satisfaction management in substance abuse services is to survey client satisfaction at regular intervals or treatment junctures, such as during quarterly reviews or at the time of discharges. However, by the time the data are collected and analyzed, many of the clients who completed the surveys have already been discharged; and providers trying to apply the data to quality improvement efforts have problems with retrospective reviews described in

¹ McClellan T., McKay J., Forman R., Cacciola J., and Kemp J., Reconsidering the evaluation of addiction treatment: from retrospective follow-up to concurrent recovery monitoring, *Addiction*, 2005, 100, pp 447–458.

the section above. Miller, Duncan, and their colleagues have done much to promote “real-time” satisfaction management—a change that helps providers move from a retrospective, expert- and staff-centered quality assurance framework to a real-time, client-centered quality improvement framework. They developed a method in which clients provided feedback at each session, giving clinicians a real-time opportunity to make service adjustments. (They have gone so far as to encourage providers to ask clients what they thought was helpful and not helpful in sessions.) According to research that Miller et al. conducted,² this has resulted in substantial gains in outcomes and retention. Asking clients to identify what was valuable also supports the client-articulated definition of quality, which is a hallmark of quality improvement.

Additional Information From Washington Circle Group

As of July 2007, the Washington Circle Group’s Web site (<http://www.washingtoncircle.org/>) included a section titled “Trends In Substance Abuse Performance Measures.” The section included the finding of reviews of health services journals regarding substance abuse performance measures and their development.

Recovery Management Checkup

Recovery Management Checkup (RMC)³ is representative of the trends described in this section. The broader framework of “Recovery Management”⁴ treats the post-discharge period as the “recovery maintenance” (post-treatment recovery support services) phase. Within the recovery management framework, RMC provides support and, as needed, reintervention services. Therefore, rather than using information from post-discharge contacts to evaluate the previous treatment episode, RMC uses this information to provide real-time support, with assertive linkages back to treatment, when needed. As a result, RMC uses criteria such as reduced time between relapse and readmission as measures of effectiveness rather than strict yes-no criteria that regard readmission as a measure of treatment failure.

² Miller S., Duncan B., et al. Using formal client feedback to improve retention and outcome, a chapter in *A Manual for Client-Directed, Outcome-Informed Clinical Services*, edited by Duncan, B., and Sparks J., 2007 Revised Edition, ISTC Press, pp 110-122.

³ Scott C.K.; Dennis, M.L.; and Foss, M.A. Utilizing recovery management checkups to shorten the cycle of relapse, treatment reentry, and recovery. *Drug and Alcohol Dependence*, Volume 78, Issue 3, 1 June 2005, Pages 325-338.

⁴ White, W., Boyle, M.G., Loveland, D.L., and Corrington, P.W., *What is Behavioral Health Recovery Management? A Brief Primer*, <http://www.bhrm.org/papers/BHRM%20primer.pdf>.

SECTION III.

CAPACITIES NEEDED FOR EFFECTIVE PERFORMANCE MANAGEMENT

Using data to achieve excellence is not easy. Doing so requires having several interrelated performance management systems functioning reasonably well and an organizational culture compatible with quality improvement. While having some but not all of the capacities may be sufficient to meet the reporting needs of purchasers, gathering performance management data without formal processes for improving services has little or no impact on the quality of care. A comprehensive, organizationwide performance improvement system requires functioning of interrelated capacities and processes and assignment of responsibilities, mostly to teams. A written, comprehensive performance management plan that describes all these capacities and activities can help organizations plan, organize, and track interrelated processes needed for effective performance management. These processes, which are described in this section, include:

- A process for identifying new performance measures and retiring others
- Systems and structures for analyzing data and undertaking improvement efforts
- Performance management training
- Evaluations of effectiveness of performance management efforts
- A culture supporting performance improvement
- Application of performance management at various levels throughout the organization

This section also covers special considerations for benchmarking, and the section discusses possible boosts to performance management efforts from accrediting bodies and NIATx.

A. Process for Identifying New Performance Measures and Retiring Others

Provider organizations need a formal process for identifying and retiring performance management measures. Such a process allows providers to maintain a manageable number of performance management measures. This is important because the externally mandated measures, combined with provider discretionary measures, can easily overwhelm provider systems. This can be aggravated when States require providers to report large amounts of performance and demographic information, hoping that at some future time someone might use the data. Unfortunately, this approach could inadvertently direct all of a system's performance management resources to reporting, leaving little or no resources for using the data to improve services. Another problem with an excessive number of measures is a dilution of the power of performance measures to direct people's attention to what is important, because an excessive number of measures suggests that all dimensions have equal value. In any case, most organizations can only undertake a few performance improvement efforts at a time, so carrying additional measures can come at a high price without the intended service improvement benefits.

In his 2004 testimony to Congress, then SAMHSA Administrator Charles Curie described an approach that is as useful at the provider level as it is at the policy level:

“We are looking at what data we are collecting. We are asking why we are collecting it. And, we are asking how we are using it to manage and measure performance. If we don't use it, we need to lose it.”

Fortunately, NOMs reflect this appreciation for collecting targeted data that have clear and immediate utility. There are only seven client measures, and they reflect the interests of clients and many stakeholders. Consequently, it is likely that NOMs address performance dimensions that are important to other stakeholders as well as to the provider organizations themselves. This facilitates administrative streamlining that results from consolidating requirements and reports.

When designing discretionary measures, providers should consider each measure's validity and think through reliable methods of collecting the data. “Validity” refers to the degree to which a particular measure accurately indicates the performance dimension being measured. For example, when measuring engagement, some providers exclude certain clients, such as those discharged for rule violation or those who have been assessed but who have yet to complete the intake process. These exclusions distort providers' engagement rates and narrow their ability to identify improvement opportunities.

Data are considered reliable when the data are collected exactly the same way each time. This requires providers to make consistent judgments, such as which clients may be included or excluded when they tally results. For example, when measuring rates of retention, a provider may choose to include or exclude those clients referred to another setting because their medical conditions fall outside of the organization's scope of care. While it is defensible to both include and exclude these clients, the measure is useful only if the provider makes exactly the same choices each time it takes the measure. Otherwise, what may appear to be an improvement or decline in performance may be only different judgments that different staff members made in collecting the data. Consequently, providers should write detailed data collection procedures when they develop measures.

Performance measures can communicate priorities to staff members. Consequently, those designing measures should ensure that the measures define desired performance. An example of how a performance measure can misdirect staff members is a measure that identifies treatment readmissions as a proxy for treatment failure. Addiction is a chronic condition, and posttreatment relapses are expected. While former clients who have remained in recovery are the most successful, those former clients who have relapsed and have returned to treatment are far more successful than the former clients who have relapsed and have not returned to treatment. Consequently, effective providers prepare clients for the possibility of relapse and design easy readmission processes. Unfortunately, some purchasers and provider organizations have counted readmissions as failures, thereby discouraging easy readmission processes that are in the best interest of former clients.

B. Systems and Structures for Analyzing Data and Undertaking Improvement Efforts

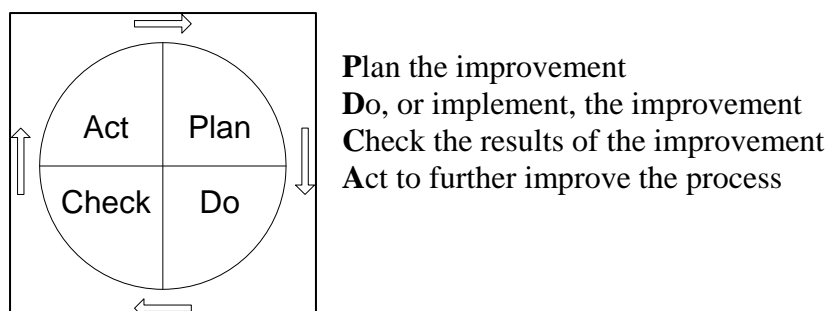
The capacity to improve services depends on the development of systems and structures for analyzing data, identifying improvement opportunities, taking action to improve services, and following up on these actions. Data analysis takes the raw data and presents it in a form that has meaning and utility to those responsible for service improvement. It is one of the few performance management activities that an individual can do successfully. Fortunately, nearly all the performance management measures are easy to understand, and providers can present them using the charts and graphs generated by word processing programs and spreadsheet programs already on most personal computers. For example, many providers find that they rely primarily on run-charts (i.e., charts that represent performance of a single measure at different times).

Many organizations develop a central performance management team that is responsible for performance management at the organizational level. The organizationwide team usually includes a person with the authority to deploy resources to solve problems as well as clinical leaders, administrative leaders, and some frontline staff members. In addition, an increasing number of behavioral health systems and providers are including service recipients and their family members on the teams that review performance management information. This central body reviews the results of ongoing performance measures, identifies improvement opportunities, assigns responsibility for improvement, and follows up improvement efforts. The body may have standing subcommittees that address ongoing issues, and it develops ad hoc subcommittees that are responsible for ad hoc improvement efforts.

Adding performance management requires investment of staff time, additional structures, and additional activities. The central coordinating body and the subcommittees can lead to a flood of meetings, reports, and indirect activities. In addition, organizations new to performance improvement often designate a performance management coordinator who is responsible for tracking performance management activities. Fortunately, a paring down is possible, as these activities become part of the organization's normal operations. The central quality improvement group may meld with the lead management group, or vice versa, with the helpful addition of frontline staff members and, from time to time, consumers.

The continuous nature of quality improvement is represented here by the so-called "Deming," or "PDCA," cycle. Different schools of quality improvement use many similar and not so similar variations of this cycle. . The PDCA cycle subjects important processes to a continuous feedback loop (figure 1) in which organizations:

Figure 1



As noted in section II, quality assurance activities take a yes-no approach to determine whether programs meet threshold requirements. If performance is below the threshold, the organization corrects the problem and continues to measure results to find out if the problem has been corrected. Proponents of quality improvement note that this quality assurance approach may imply that certain levels of failure are acceptable. For example, a freestanding detoxification service provider might have a threshold indicating that 40 percent of the clients it admits will be admitted to another level of treatment within 3 days of discharge. Depending on the context, this may be an ambitious target. On the other hand, it implies that 60 percent of clients not continuing treatment is acceptable performance.

By contrast, quality improvement activities look beyond performance thresholds to continuously improve results that are important to customers. Using the quality improvement cycle, the program would continue to measure results even when the program already meets the threshold requirement. The quicker that organizations apply the cycles of planning improvements, implementing improvements, measuring the results of improvement efforts, and acting on the results, the quicker that organizations can solve problems and improve services. Instead of waiting for the usual quarterly quality reports, many organizations apply more rapid cycles of improvement for their priority improvement efforts. For example, a freestanding detoxification service provider might find that 58 percent of those they admit are admitted to another level of care within 3 days. The provider might plan a certain improvement, such as developing a mechanism for the counselors of underutilized regional providers to meet with clients before discharge. The provider would implement the change, measure results for 6 weeks or so, and base further action on the results. For example, the organization might find that 63 percent of clients admitted to services now continue in other levels of care. The provider could then introduce methods to improve coordination, implement the changes, check the results, and so on.

Following are levels of improvement activities that comprise many performance management systems:

- **Provide ongoing performance feedback.** Organizations can make some improvement gains by just focusing performance management activities on specific areas of performance. For example, clinician productivity usually improves when organizations provide clinicians with productivity reports.
- **Adjust procedures.** Some gains occur when provider organizations modify procedures within the framework of existing structures. For example, many NIATx-trained organizations have made access-to-care improvements by allowing same-day or next-day drop-ins for initial appointments or other adjustments to procedures.
- **Reengineer systems or structures.** At times, a thorough reengineering of structures and systems may be required to make improvements in critical service areas. For example, an organization might radically change its compensation system to add incentives that would support profound increases in clinician productivity. Also, an organization could find that it needs to completely restructure its levels of care to provide services within reimbursement limitations.

C. Performance Management Training

Identifying performance measures and requiring collection and reporting of data can be a top-down activity. However, improving services is a bottom-up activity. This is because direct service and support staff members interact with clients and operate the service and support systems. Their proximity to direct services and interface with clients give them the insight and information required for effective performance improvement. Not involving them in the process may leave these staff members unconvinced that a particular improvement is helpful; and without their buy-in, it is unlikely that the proposed improvement will receive a fair chance. It is no wonder that leaders who undertake top-down improvement efforts marvel at the intransigence of problems and people. Consequently, comprehensive, organizationwide training is essential. Such training should include an overview of the organization's quality improvement plan, including its structure, functioning in teams, use of performance measures, identification of causes of problems, and the organization's ability to select, design, and monitor improvements.

D. Evaluations of Effectiveness of Performance Management Efforts

As with other important performance dimensions, evaluation of the performance management system can be helpful. This may be part of an annual quality improvement report. An annual report can also give those responsible for performance management an opportunity to review the relevance of performance measures and retire those discretionary measures that no longer contribute to performance improvement.

E. A Culture Supporting Performance Improvement

Technical knowledge, data reporting, and improvement systems are not enough to create performance improvement. Additional features needed include:

- **Elimination of blame, and its corollary: taking a systems approach to problem-solving** to reduce defensiveness—which is the natural tendency to hide problems from blame—and direct the attention of organizations to the systems—which are the source of most problems and solutions. In any case, it is easier to fix systems than people.
- **A data culture** in which data are used to measure results, identify improvement opportunities, and assess results of improvement efforts.
- **Defining quality according to the needs and preference** of service recipients and purchasers instead of experts and internal staff members. For organizations, deferring to the client's needs and preferences when defining quality seems unconventional in substance abuse. It also seemed unconventional in American manufacturing before the quality revolution in the 1980s. While the impact that addictions have on the ability of clients to make healthy decisions about their addictions complicates matters, the field can do much more to defer to the preferences of clients when defining quality for each recipient. In the introduction to Chapter 3: Supporting Patients' Decision-Making

Abilities and Preferences,⁵ the authors of the Institute of Medicine's *Improving the Quality of Health Care for Mental and Substance-Use Conditions* note that:

“Residual stigma, discrimination, and the multiple types of coercion that sometimes bring individuals with mental and/or substance-use (M/SU) illnesses into treatment have substantial implications for their ability to receive care that is respectful of and responsive to their individual preferences, needs, and values—what the Quality Chasm report refers to as ‘patient-centered care.’ Concerns about impaired decision making and the risk of violence are responsible for much of this stigma and the resulting discrimination. The failure of many to understand the biological and medical nature of drug dependence creates additional stigma for those individuals whose alcohol or other drug use has progressed to physiological dependence. Moreover, coerced treatment, common in substance-use health care though less so in mental health care, raises the question of how all patients with M/SU illnesses can be the source of control for their treatment decisions.

However, there is great diversity in the decision-making abilities of individuals with M/SU illnesses—just as there is in the general population. Even when care is coerced, patients can and should have a voice in the options available within their care plan. Actively supporting these patients’ decision making at the point of care delivery can preserve respect for patient preferences, needs, and values and improve patient outcomes. The committee recommends specific actions that all clinicians, organizations, accrediting bodies, *health plans, and purchasers involved in M/SU health care* should take to ensure patient-centered care for individuals with M/SU problems and illnesses. It further recommends actions to preserve patient-centered care when coercion into treatment is unavoidable.”

F. Application of Performance Management Throughout the Organization

So far, this document has mostly focused on performance management at the organizational level. An effective, organization-wide performance management system can be applied at the departmental, staff, and client levels. In organizations that train all leaders and many staff members in performance management, it is natural that staff members would initiate performance improvement efforts within their programs, apart from the organizational level. Performance measures can also have a role in evaluating and rewarding efforts of individual staff members, although organizations need to take care not to use evaluations to blame or reward the staff for the level of systems functioning. As noted in section II, organizations can use performance management to help at the client level by implementing the kind of concurrent

⁵ *Improving the Quality of Health Care for Mental and Substance-Use Conditions*, Committee on Crossing the Quality Chasm: Adaptation to Mental Health and Addictive Disorders, Board on Health Care Services, Institute of Medicine of the National Academies, The National Academies Press, Washington, DC, 2006, pp 77-78.

utilization management efforts recommended by McClellan et al. and the real-time satisfaction management efforts advocated by Miller et al.

G. Special Considerations for Benchmarking

In many sectors, policymakers and the provider organizations themselves desire to compare performance across organizations. While such comparisons can be useful and even inspiring, there are two potential problems: differences in case mix and data reliability. The problem of comparing service results across providers whose client populations differ on dimensions that influence outcomes can sometimes be resolved by applying statistical techniques that identify some of the variation that is due to differences in case mix. Examples of the application of case mix adjustments to substance abuse performance management appear in Koenig, L. et al., *Using Case Mix Adjustment Methods to Measure the Effectiveness of Substance Abuse Treatment: Three Examples Using Client Employment Outcomes*, National Evaluation Data Services, The Lewin Group, Caliber Associates, and The Center for Substance Abuse Treatment, March 2000. As of August 2007, this document was available at <http://www.icpsr.umich.edu/SAMHDA/NTIES/ebm-reports.html>.

Also, individual providers must strive to ensure that their data are collected reliably; and data collection efforts of other providers may be different. As a result, provider organizations are rarely able to initiate benchmarking comparisons without these comparisons being skewed by case-mix differences and data reliability problems. While benchmark comparisons that show dramatic differences or somehow avoid the case-mix or data reliability problems can be occasionally useful (see the example in section VII), providers can obtain the greatest gains by comparing their own results over time.

H. Boosts From Accrediting Bodies and NIATx

As this section indicates, using performance management tools to improve care requires that several performance management systems function simultaneously. Developing and operating these processes take resources and discipline. Achieving accreditation from one of the accrediting bodies, such as CARF, COA, or JCAHO, provides the structure and urgency for developing comprehensive performance management systems. Yet many accredited providers report that it took them several years of developing reports and conducting meetings before their systems produced discernible service improvements. Fortunately, NIATx has helped providers improve quality for certain dimensions of care without the provider having a comprehensive improvement structure in place. This is because NIATx training, coaching, and other supports give providers practical tools for identifying improvement opportunities, developing and using performance measures, applying an improvement cycle, and designing improvement efforts. Some NIATx-supported providers report that their NIATx experience has helped them improve services, increased the enthusiasm of their staff members for performance improvement, and set the stage for wider improvement efforts.

SECTION IV.

DATA COLLECTION

A. Collecting Data for Performance Improvement

“So much data and so very little information!” This is the lament of many who frantically collect data but find that for various reasons, the data are not “good.” Unstructured data collection and analysis waste time and other resources and seldom result in useful information. Transforming data into information requires a systematic way to collect, manage, and analyze data.

Providers that use data for decisionmaking recognize the value of having data that are accurately gathered and correctly analyzed. One way to both streamline and make this process cost efficient is to develop a written data collection plan. This strategy is encouraged in many settings, including industry, education, and substance abuse services. Regardless of the setting, the basic strategy is the same: define the questions (table 3) that you want answered, develop a reasonable way to answer them, and carefully analyze the results.

Table 3: Data Collection Questions

- | |
|--|
| <ul style="list-style-type: none">• What is the question or issue?• Do data already exist to address the question or issue?• Are the data available?• If the data are available, how are they obtained?• If the data are not available, will they have to be collected?• Either way, has a data collection plan been developed? |
|--|

B. What Is the Question or Issue?

Those who understand the costs associated with data collection and analysis are likely to make the data collection and analysis process as cost effective as possible. One way to do that is to write down the question or problem to be addressed—stating not only the issue but also the reason why it is a problem. With that statement in hand, the next step is to carefully indicate what one wishes to know that is not already known. In other words, why does one need new or additional data?

The fictitious treatment agency, Addiction Treatment Services (ATS), will be used to illustrate specific performance management approaches and results in this section and later in this document. For example, ATS, which had waiting lists for the last 2 years, now has several vacancies in its outpatient program—but no one is waiting to fill them. Since ATS is funded by client fees and a State grant, revenues are low. Unless at least 90 percent of its service slots are filled within 30 days, ATS will have difficulty meeting its payroll. It may have to lay off staff members. In summary:

- The *problem* is decreased caseloads.
- The *issue* is lost revenue, budget shortfalls, and the prospect of laying off staff members.
- The provider *needs to know* why referrals are down.

Having identified the problem, issue, and what the organization needs to know, it should then identify the places where it might find answers. Several potential data sources could be considered, including:

- Interviews with entities that referred clients in the past to learn why they referred clients, if they are still referring clients, and if they are not, why not?
- Review of client demographics for the past 2 years to see if major changes occurred
- Trend analysis of reasons for referrals to determine if those reasons changed substantially
- Trend analysis of outcomes to see if the program is achieving what it hopes to achieve
- Review of the number of clients successfully completing the program over the last 2 years to determine if the success rate has changed
- Interviews with a sample of clients who completed the program and those who did not to try to discern why some do and others do not
- Review of patterns of competition to see if other providers are attracting clients who would otherwise request the organization's services

C. Planning for Data Collection

A complete and effective data collection plan serves a number of purposes. The plan may

- Focus questions of budgeting on matters of highest priority
- Allow gaps to be readily identified
- Enable an agency to focus staff efforts on key issues and questions
- Provide a framework for obtaining new information technology

Once the provider states the question or issue clearly, it can develop a plan of action to collect and analyze the data that will facilitate getting the exact data to answer the question or issue. A carefully written data collection plan will ultimately help provider organizations, both large and small, to collect accurate data in the most efficient way. In thinking through the data collection process, sharing ideas with others who must contribute to the effort, and executing a systematic data collection plan, the organization will produce better data than if it impulsively executed

collected information just to complete the effort. As Table 4 indicates, a data collection plan has several components:

Table 4: Data Collection Plan Components

<ul style="list-style-type: none">● Definition of the types of data that are needed to address the question or issue, for example:<ul style="list-style-type: none">– Statistical reports from the State’s motor vehicle department on arrests for driving under the influence– Client feedback on services received● Specifications of the types of data collection instruments that will be needed to collect the data, for example:<ul style="list-style-type: none">– Questionnaires– Case records● Determination of potential data sources● Identification of person responsible for data collection● Indication of the methodology that will be used to collect data, for example:<ul style="list-style-type: none">– Routinely for every person admitted to services– Sample survey for those persons in intensive outpatient services● Specifications of the frequency with which data will be collected, for example:<ul style="list-style-type: none">– Every 2 weeks– Once per year● Determination of continuous monitoring versus a snapshot or point-in-time study

Determining the best way to collect data often depends on the issue or question the program is addressing. For example, descriptions about different communities in which a program operates may be gleaned from aggregate data (e.g., census or housing stock data). However, information about individuals will probably come from case records or client surveys. Regardless of the method, data collection for organizations should be as simple as possible while ensuring that data are accurate and timely.

Forms or questionnaires should include data elements that are collected routinely (e.g., pregnancy status of women entering treatment). For instance, intake or administrative processes should collect data for everyone in the population, subgroup, or sample. The advantage to this approach is that the data collection becomes part of another process and is collected routinely. However, as mentioned in section III, one should exercise care when deciding which data should be collected routinely and avoid pitfalls of collecting too much data. While the data collection effort may appear minor, even 5 to 10 minutes of collecting data is significant when the data are collected on 500 people annually. In this instance, it takes a full-time staff person 1 to 2 weeks just to collect the data each year.

If, on the other hand, collecting data at a point in time will address the issue, then the program may find that conducting a short survey is the most economical method. The costs involve the time to develop, test, and administer a survey instrument.

D. Managing Data

The data collection plan needs to address management of the data collection process. Throughout the process, the organization must manage data to ensure that:

- Data forms are distributed to everyone who needs them
- Data forms are completed and returned on time
- Data are correctly entered on a form or into an automated system
- Followup is done with people who did not complete the data forms or who completed them incorrectly

Even small studies or observations should be structured so that the organization may use data results with confidence for performance management and improvement. Casual data collection may lead to erroneous conclusions and hinder performance improvement.

E. What Do the Data Mean?

The data collection plan needs to specify and anticipate how the provider organization will analyze the data. Meaningful comparisons require a good baseline or comparison of “apples to apples.” Once the organization collects the data, it needs to transform the data into information that it can use to manage and improve programs. Some data analyses—using totals and percentages—are simple. Often, however, the analysis may be more complex. For example, rates per 200,000 hours worked might be used to calculate injuries among staff members in an inpatient setting.

Some analyses require a snapshot of data, such as those used to answer the question: “Whom do we serve?” Other analyses may be best understood using trends over a longer period of time. For example, trends over time may help answer the question: “How has our client mix changed after we changed our admissions policy?”

Because providers should use performance management results to inform decisions about if and how to change practices, they should take great care in determining both the type of data to collect and analyze and the length of time needed to collect useful data. Depending on the magnitude and type of change under review, credible results may vary regarding the time needed to collect sufficient data to form a clear picture of the activity under review. For instance, an organization might form one impression about the average time it takes to complete a new intake process based on the first 20 intakes conducted in a 1-month period after introducing the new process. However, the organization might form a very different impression after completing 100 intakes conducted during a 5-month period. In short, on-target and cost-efficient decisions and actions require on-target data and results.

Finally, providers must have accurate calculations as well as an understanding of data limitations to interpret the results. The goal is to obtain quality data. Unless providers carefully examine data, assess data reasonableness, and correct the inevitable errors, they will end up with muddled results. Data are most useful in performance management activities when providers systematically attend to data quality and integrity.

SECTION V.

DATA SYSTEMS

A. Manual, Electronic, and Combined Systems Compared

Providers must organize collected data to enable someone to analyze the results. Depending on the size of the data collection effort, an organization may use a manual, electronic, or a combination of manual and electronic systems (table 5).

Table 5: Data Collection Systems

Manual Data Collection	Electronic Data Collection	Combination of Manual and Electronic Data Collection
<ul style="list-style-type: none">• Staff distributes a paper form• Client completes the form• Staff collects the form• Staff enters data on paper	<ul style="list-style-type: none">• Computer is programmed to accept data entered into it• Staff/client enters data directly into it	<ul style="list-style-type: none">• Staff distributes a paper form• Client completes the form• Staff collects the form• Staff enters data from the form into the computer

For very small data collection efforts—a small sample size and few data fields—a manual data system may suffice. A small study may need only paper, a pencil, and a calculator. However, most providers must manage complex organizations in which a paper-and-pencil method is not efficient and no longer yields good results. When a provider becomes large, serves many clients, and offers different services according to a client’s individual needs, the provider is unlikely to find paper-and-pencil data collection to be satisfactory. Instead, the large provider will use an electronic system for client records, fiscal management, human resources, and other tasks essential to the organization. Sometimes, the functions are automated in one comprehensive system, and sometimes several independent systems are used.

The way in which data are collected will depend on the provider’s resources and staff skills. In fact, the same provider may use a manual system for one data collection effort, its electronic system for another, and a combination of manual and electronic activities for a third effort. Regardless of the system used to collect data, the providers must manage the system to ensure that the data are accurate, timely, and produced and managed at a reasonable cost.

B. Automated Management of Data and Information

When a provider uses a computer instead of paper, the organization creates a more efficient business process. No longer does the provider write information on a piece of paper that will be filed at some time in a client record or passed on to a data entry clerk for keying into the system. Instead, the provider enters data directly into an automated system, reducing the number of hands that touch the data and increasing data quality and timeliness. Because data are entered on a

continual basis rather than at the end of a month, the provider can create reports whenever they are needed.

Automated data systems vary according to functionality, number of users, type of data entry, and many other characteristics. The main question for providers involves availability: Will the system be available when it is needed? Depending on a paper record for information means that one must make the record physically available to the provider, and usually the information is not always available for sharing with other staff members.

An automated system increases the potential for sharing records and data. The paper record does not have to follow the client from place to place. The provider simply retrieves the record on a computer and has valuable information available when and where it is needed. As Web-based systems become more available, automated client data are available at a home visit, at another program, or wherever a laptop can connect with the Internet. Access to the Internet and passwords to get into secure sites make service delivery more flexible.

Although variations of platforms and configurations abound, some basic designs include a standalone computer that one person uses, usually for a particular function; a networked system in which multiple users share a database in a given physical setting; and Web-based applications, which involve numerous users who may access software from virtually anywhere. Table 6 further compares these three designs:

Table 6: Automated Data Systems

Standalone System	Networked System	Web-Based System
<ul style="list-style-type: none"> • Usually one or two computers • Not connected • No shared files • One user at a time 	<ul style="list-style-type: none"> • Multiple computers • Multiple, simultaneous users • Hard wired network • Use limited to computer that is wired to the network • Shared data 	<ul style="list-style-type: none"> • Multiple computers • Multiple, simultaneous users • Access through the Internet • May use a computer from any location with Internet access • Shared data

C. Automated Functions

As electronic health records and other types of automation gain popularity, providers look to automate many organizational functions, each of which may be regarded as a potential data source (table 7).

Table 7: Electronic Data Sources

Function	Description	Potential for Performance Management
Entry and Admissions	Records admission data — reason for admission, date, demographics	<ul style="list-style-type: none"> • Description of clientele • Unmet needs
Assessment/Diagnosis	Allows for conducting standardized assessments online, captures results, records diagnosis needed for service planning and reimbursement	<ul style="list-style-type: none"> • Service planning and implementation • Improved reimbursement
Service Delivery	Captures date, time, duration, and type of service; provider; and attendance	<ul style="list-style-type: none"> • Provider productivity • Improved reimbursement
Staff Productivity	Includes service provision, credentials	<ul style="list-style-type: none"> • Provider productivity • Improved reimbursement
Treatment Planning	Records treatment goals, objectives, proposed interventions, timelines, responsible persons, progress	<ul style="list-style-type: none"> • Outcome measurement • Program planning
Cost of Service	Includes unit costing and relates service production to service delivery	<ul style="list-style-type: none"> • Efficiency • Cost-effectiveness
Reimbursement	Captures true cost of service, ability-to-pay scales, payment mechanisms such as fee-for-service, grant payments, client ledgers	<ul style="list-style-type: none"> • Cost analysis • Improved reimbursement
Contract Management	Records aspects of contracts, including types of service to be provided and maximum reimbursement limits	<ul style="list-style-type: none"> • Fiscal integrity • Service planning
Human Resources	Includes employee data, credentials, training requirements	<ul style="list-style-type: none"> • Staff management • Training planning • Licensure
Accounting	Captures organization's financial records	<ul style="list-style-type: none"> • Cost analysis • Fiscal Viability
Reports	Creates standardized and ad hoc reports	<ul style="list-style-type: none"> • Data transformed into information
Ticklers	Alerts staff of new clients, due dates, and other important messages	<ul style="list-style-type: none"> • Information sharing • Caseload management

Reimbursement is a prime example of functionality enhanced through automation. As more payers insist on electronic submission of invoices, providers must have a robust reimbursement system. Once a service is properly entered into an automated system, it is ready to be processed

for invoicing. Some automated systems allow payers to directly upload payment data into the system, reducing the amount of time that an account clerk has to spend on receivables. In addition to being used to generate revenue, reimbursement systems play a key role in providing information about cost accounting, answering such questions as: “What is the true cost of providing an assessment interview for a client?” With this cost analysis and information, a provider might raise fees for assessments or perhaps streamline the assessment process so that one counselor can conduct more assessments.

SECTION VI.

DATA ANALYSIS

Ultimately, performance management activities have limited value if they do not help programs achieve the following aims:

- Determine the status of performance in critical areas of concern
- Identify underlying factors that impact performance
- Identify actions that lead to continuous improvement

To help programs pinpoint factors that impact performance and then target interventions to improve performance, performance management activities should pay special attention to how programs organize, present, and analyze data.

A. Organizing and Presenting Data

To some extent, data organization begins even before the program collects data. Before collecting data, the program should have a clear notion of the performance that is to be measured, the most effective approach for collecting the data, how the program will organize and present the data, and who will use the data and for what purpose. If programs truly understand these points before gathering data, the data they collect will yield the type of information they need to assess performance and initiate improvements.

Frequently, programs collect data to compare a specific performance indicator or set of indicators against one of the following:

- A baseline that most often compares current performance against performance at a particular starting point (e.g., percent of clients who dropped out of a program during the past month compared to the average dropout rate for all of last year)
- Another time period that involves continually comparing performance across an extended period to capture trends in performance (e.g., tracking and comparing the percent of clients who drop out of the program monthly)
- Performance of a comparison group (e.g., comparing the dropout rate in one program to that of another program)

Programs have many options for organizing and presenting data. To determine which options are best, programs should determine the intended use and users of the data: Who needs the data, and what do they plan to do with the information? Most decisionmakers (boards, management, and line staff members) often find that data presented in clear, simple formats are easier to understand. The best way to portray a finding is through a picture—a graph, a diagram, or

trendline—which helps to quickly pinpoint performance levels. Displaying a finding in graphic format helps the reader to quickly understand the following:

- The direction of change (e.g., whether this year’s revenues have increased, decreased, or remained the same compared to last year’s revenues)
- The number of times a factor occurs in one instance but not another (e.g., the number of missed appointments for persons in programs with mandatory urinalysis testing compared to a program that does not do urine tests)

Programs may present data in several basic ways:

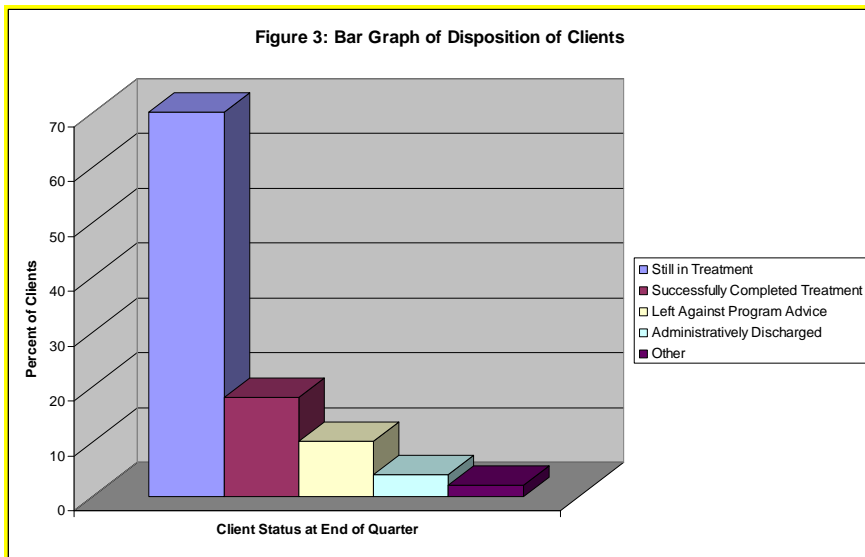
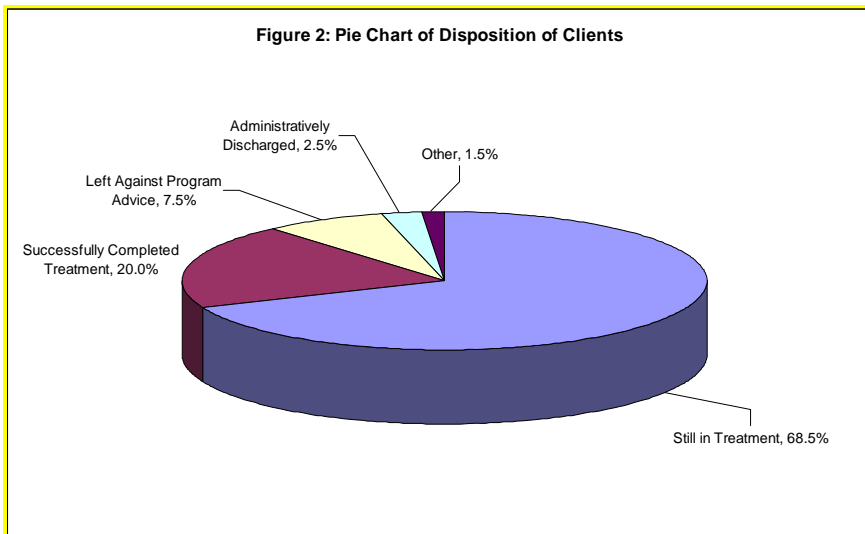
- **Raw numbers.** This approach simply involves displaying the actual numbers associated with the performance measurement. For instance, if a program is interested in examining clients who terminate treatment against program advice during a particular quarter, it could present a raw number, which would simply be the number of clients who are discharged for this reason. For example:
 - A total of 15 of 200 clients in treatment during the quarter terminated treatment against program advice.
- **Percentages.** Percentages give a more precise sense of the scale of performance than raw numbers do because percentages adjust for differences in group sizes. Using the example above, here is another way to present the results:
 - Some 7.5 percent of clients in treatment during the month terminated against program advice.

A basic table is a direct approach for depicting both raw data and percentages. Using the same example, table 8 depicts unduplicated raw data and percentages for the quarter-ending disposition of all clients who were in treatment at some point during the quarter.

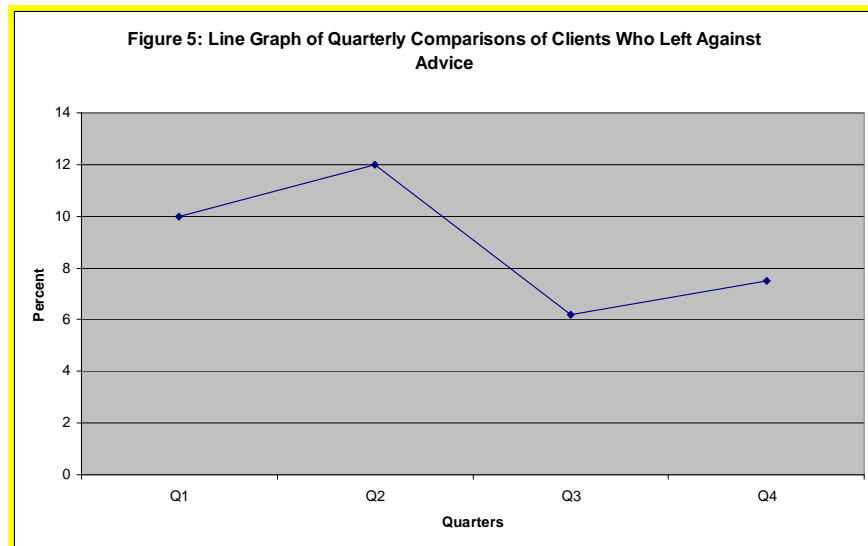
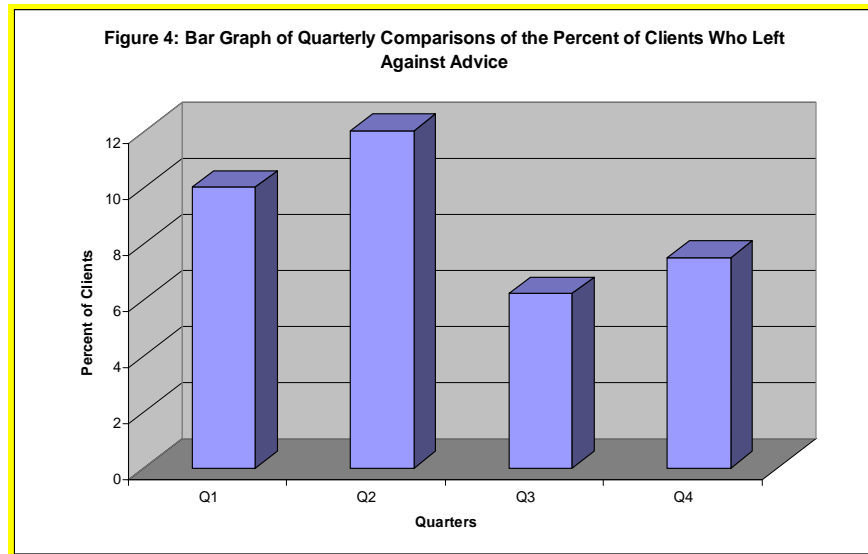
Table 8: Example of Raw Numbers and Percentages

Status at the End of the Quarter	Number	Percent
Still in treatment	137	68.5
Successfully completed treatment	40	20
Left against program advice	15	7.5
Administratively discharged	5	2.5
Discharged for Other Reasons (death, arrest, hospitalization, etc.)	3	1.5

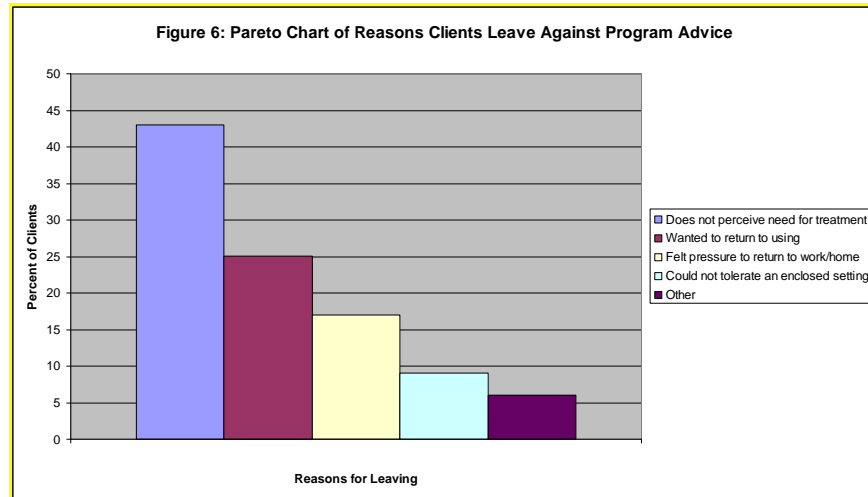
Figure 2 (pie chart) and figure 3 (bar graph) offer a more visual image of the proportion of various measures, such as the proportion of clients in our example who terminated against program advice compared to the status of other clients:



- **Trend analysis.** This approach displays data over time and, thus, makes trends and differences in performance readily apparent. Using the same example, figures 4 and 5 below illustrate two different ways to compare results from the last quarter to the preceding quarters.



- **Pareto chart.** This is a bar graph (figure 6) that shows the frequency of each variable in order of occurrence, from the highest order on the left to the lowest on the right. This chart helps to pinpoint the most prominent issues that might need to be addressed.



B. Analyzing Results

Interpreting the Results

Because there may be a variety of plausible reasons that can explain performance, programs need to carefully interpret results before undertaking performance improvement activities. Following are examples of approaches that programs can use to break down possible causes to help identify the factors that influence performance:

- **Check sheets for both data gathering and analysis**—As described in Section II and illustrated with an example from the Southwest Florida Addictions Services, sophisticated analyses do not necessarily depend on advanced statistical techniques. The wise use of check sheets (table 9) illustrates how data gathering can be sophisticated, simple, and clear, all at the same time. For the illustration below, the program was concerned about what it considers an excessive number of administrative discharges. Rather than develop an automated query, the clinical director instructed a support staff member to take less than an hour to hand tally the reasons for administrative discharges during the last quarter. As can be seen below, the arrangement of the information presents clear direction for the next step in identifying the causes for administrative discharges.

Table 9: Check Sheet for Gathering and Analyzing Data

Reasons for Discharge				
Counselor	Failure to complete homework	Failure to attend regularly	Positive drug screens	Other
Ralph				
Betty	○		○	
Orlando	 			○
Denita	 			
Nancy	○	○		
Total	29	15	11	4

- Root cause analysis.** This approach consists of a systematic inquiry into the cause of some adverse event or results that vary from what is acceptable. So, the approach seeks to identify the root cause of a performance issue to address it rather than the symptoms, particularly when the activity occurs repeatedly. While root cause analysis frequently includes applying other methods presented in this section—such as Pareto charts and simple check sheets—its structure is often a series of questions and followup questions that end when the process identifies a fundamental cause within the control of the organization. Root cause analysis consists of the following basic steps:

 - (1) Write a clear and complete description of the problem.
 - (2) Write the likely reason for the problem.
 - (3) Determine if the reason for the problem is the “root cause”; and if it is not, keep trying to identify the root cause.
 - (4) Repeat the process until there is certainty that the root cause has been identified.

Example of Root Cause Analysis

In its simplest form, root cause analysis involves repeating the question “why” until answers are obtained.

Why is our substance abuse outpatient treatment program losing money?

We are losing money for several reasons, including low productivity and access-to-care problems. But, our analysis suggests that the most important reason is lack of retention?

Why are we failing to retain clients?

We have a high dropout rate early in treatment, considerably lower dropout rates later in treatment, and a surprisingly high number of administrative discharges. Perhaps we should look at administrative discharges first because this is an area within our direct control.

Why does the program discharge so many clients?

Let’s plot out the answer using a Pareto chart. The results show that the program discharges 40 percent for failing to turn in homework assignments, 25 percent for repeated positive drug screens, 20 percent for failure to pay fees, 12 percent for missing sessions or tardiness, and 3 percent for other reasons.

Why do clients fail to do homework assignments?

We are giving many clients homework that they are unable to complete. Using reading scales, we found that our treatment notebooks are at the 12th grade level; and our psychologist tells us that many people with addictive disorders also have learning disabilities that make these materials out of their reach.

Okay, we can address that problem. But why do we seem so prone to discharge people, such as those whose lack of compliance may be due to learning problems and clients still testing positive?

In truth, we seem to be inclined to taking a punitive approach and treat these issues as intentional misbehavior.

Why do we take a punitive approach?

Because we have not really adopted the view that addictions are a disease and should be treated as such.

At any point in the analysis inquiry, the program could have stopped and taken constructive action. For example, more appropriate materials and options for completing homework might help. Also, addressing issues with a positive framework, such as contingency management, might also help; and the program might also intervene at these levels. Yet, by sticking to a searching and fearless approach to root cause analysis, the program uncovered a core issue that might shed light on other aspects of its operations.

C. Using the Results

Ultimately, performance management enables programs to make decisions and take actions to improve specific areas of service delivery, administrative practices, and/or financial practices. No single approach to measuring performance or interpreting results works in all instances, and no single approach to addressing improvements is appropriate to address the range of factors that impede and promote performance improvement. Instead, a program's thoughtful interpretation of the results from performance management activities should lead to targeted—often practical—adjustments that the program can make to improve performance. Following are examples of the types of adjustments that a program might consider when addressing each desired improvement.

- **Programmatic adjustments.** Interpretation of results might indicate that programming and services need to be adjusted to better serve the specific needs of the client population, improve client outcomes, and/or to improve program efficiency. Therefore, the plan will involve one or more programmatic adjustments that the program believes are directly linked to performance. For instance, an adolescent program that has used the same treatment approach for 20 years might find that this model is not entirely applicable to the influx of violent youth now being admitted. As a result, the program identifies and consults with other programs and models that have demonstrated promising results with a similar population. The program then carefully plans and introduces a series of programmatic changes that target the current treatment population.
- **Policy adjustments.** While exploring reasons for the performance, a program might find that existing policies are either missing, unclear, or inconsistent regarding the performance. Therefore, the plan should seek to clarify the organization's policy. For instance, changes in programming might also require the program to clarify its admissions policy if the current policy does not include sound, clinical bases for ensuring that clients are admitted to the levels of care that are most appropriate for them.
- **Procedural adjustments.** Performance management data might reveal clinical or administrative procedures that the program could introduce or clarify. For example, an intake unit was concerned about the 2-week average between the date that clients call to make appointments, and the clients' actual appointments despite the fact that earlier appointments were available. After surveying a sample of clients over a 1-month period, the program found that clients with jobs could not easily schedule appointments with little notice because the intakes were offered primarily during their work hours (Monday through Friday from 8 a.m. to 5 p.m.), and they needed to give sufficient notice to their employers when requesting time off for part of a day. Therefore, the intake unit extended its services to 7 a.m. until 8 p.m. on weekdays and 9 a.m. until 1 p.m. on Saturdays. To accommodate the new hours and the staff, the unit stretched the schedule by allowing each staff member to work four 10-hour days each week and only one Saturday each month.
- **Human resource adjustments.** Several possible staff-related factors might be tied to performance improvements, so programs should consider results very carefully to pinpoint the precise nature of the connection between the staff and performance. For

instance, a program that finds that treatment plans are not consistently individualized or measurable could consider one or more of the following:

- Are criteria for hiring and assigning the staff specific responsibilities appropriate?
 - Does the staff receive the appropriate amount and type of clinical supervision to guide and support their performance?
 - Does the staff receive the type of training needed to maintain optimal performance?
 - Does the program have adequate systems in place to ensure accountability and communication across staff members?
- **Other resource adjustments.** Results might reveal that the program does not devote the right mix and/or amount of funds, facilities, or other resources to perform at a particular level. For instance, a substance abuse program that serves a large number of clients with co-occurring substance use and mental disorders might find that the high rate for clients leaving treatment against program advice stems from insufficient psychiatric services, and the budget is too small to increase the psychiatrist's hours. Therefore, the program might work with existing funding sources to adjust funding, seek new funding (grants, fundraising, endowments, etc.), and/or tap into other services in the community (e.g., collaborate with the community mental health center) to address any gaps in resources.

To address any particular performance improvement, the actual plan for improvement might consist of a single intervention (e.g., clarifying a policy), or it could involve a combination of interventions (e.g., clarifying a policy and providing staff training on the new policy). By considering the range of possible factors that influence performance, a performance improvement plan is more likely to include more precisely targeted interventions. The idea is for the program to use the right tool for the right job.

D. Additional Points to Consider When Analyzing Data

1. **When drawing conclusions, providers should be wary of small differences in numbers; they often do not matter.**

Small differences in findings may stem from random variation and might not be a true indicator that something has increased or decreased. While providers need not use an experimental research design with statistical analyses of significance, they should use caution when interpreting results and making program changes based on those findings.

2. **Providers should be sensitive to alternative explanations for findings; the data may actually reflect events other than those supposedly being measured.**

Since a research design is not proposed for provider-level performance improvement analyses, take considerable care to ensure that the identified reason for the change is really the reason for the change. For example, a program noticed a dramatic increase in

the number of homeless persons seeking services and concluded that the city in which the program is located also experienced a similar increase. Investigating further, however, the program found that the city's increase in homeless persons was nominal. Instead, the city had improved its information and referral services so that the program received more referrals of homeless persons.

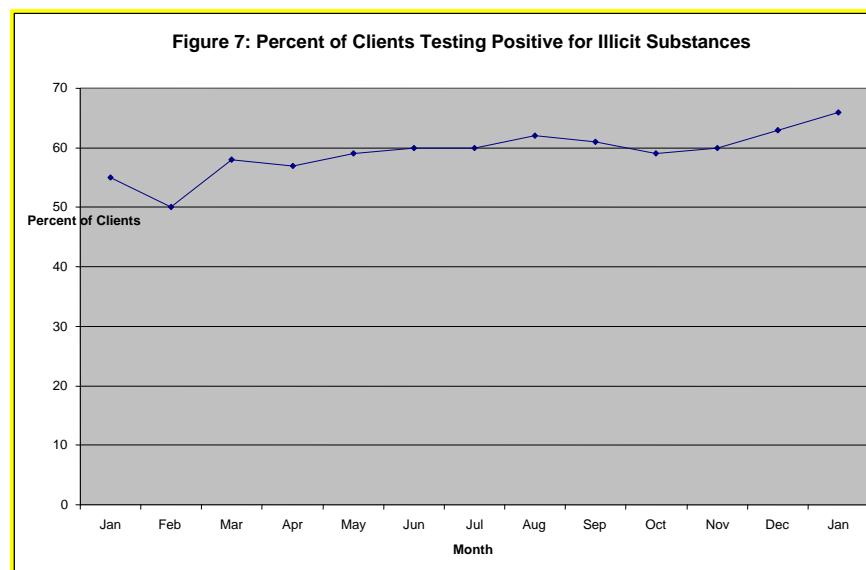
3. **Providers should target performance improvement at the organizational level—not individual workers.**

Performance improvement creates an environment in which the provider agency may significantly improve its work. Thus, organizational shortcomings—not those of individual workers—are the target of change. Management directs efforts toward resolving the problems and issues of the organization. Intensive performance improvement efforts build on strengths. Thus, the organization is able to use data for performance management as well as demonstrate its commitment to excellence.

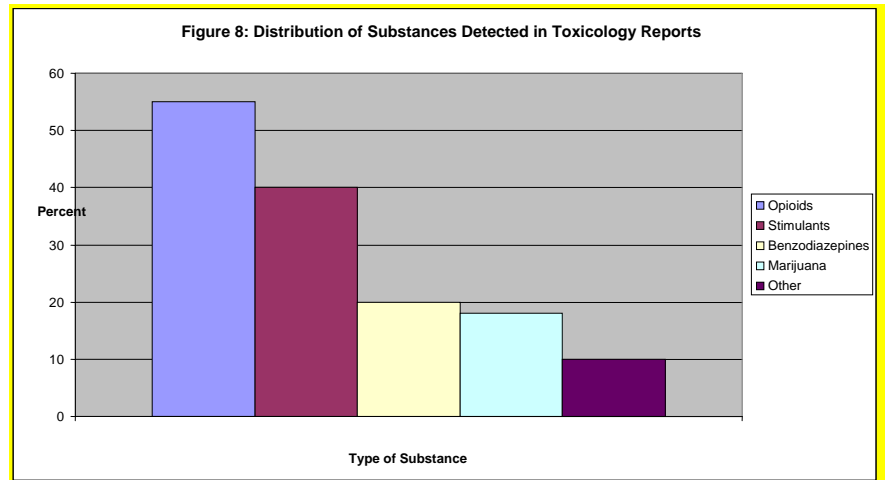
E. Case Example of Data Organization, Analysis, and Use

The following example illustrates relatively direct approaches for programs to display, analyze, and use performance management data to improve performance. This example is based on a fictitious opioid treatment program that serves 300 patients daily.

- In March, 198 (66 percent) of the clinic's patients had at least one laboratory result that indicated the presence of illegal substances.
- Trend analysis demonstrated that the number of positive laboratory results increased from 55 percent during the same month a year ago.



- The Pareto chart (below) more precisely reveals the nature of the problem. Specifically, the chart shows that various opioids—followed by stimulants, benzodiazepines, and marijuana—represented the most prominent substances detected in toxicology reports.



- The clinic first focused on the alarming number of patients who tested positive for opioids during the month. Using a simple check list as illustrated in table 10, and following an intuition that the problem may have been dose related, the lead nurse tallied the number of positive drug screens with the doses for the past quarter and the same quarter during the previous year.

Table 10: Check List Used to Tally Drug Screens

Number of clients and number of clients testing positive for opiates by dosage category		
Dosage category	Third quarter 2007	Other
Clients testing positive with doses below 80 mg.	≡≡≡ ≡≡≡ ≡≡≡ ≡≡≡ ≡≡≡ ≡≡≡ 	≡≡ ≡≡ ≡≡ ≡≡ ≡≡ ≡≡ ≡≡ ≡≡ ≡≡ ≡≡
Total number of clients with doses below 80 mg.	68	102
Clients testing positive with doses 80 mg. or more	≡≡≡ ≡≡≡	≡≡≡
Total clients with doses 80 mg. or more	135	97

- In response to the findings, clinic management uncovered the following as influencing factors:
 - Shortly after starting in December, the new medical director learned about a rash of methadone-related deaths in the community. Concerned that methadone from the program was being diverted for illicit use on the streets, the medical director responded by decreasing the average dose of methadone in the clinic from 100 to 60 milligrams. Specifically, he steadily prescribed lower doses for new patients and, for current patients, discouraged dosage increases and encouraged dosage decreases whenever possible.
 - While exploring possible factors leading to the increase in patients who tested positive for illicit opioid use, clinic management used the check list above (table 10) to identify decreases in dosing levels to identify the problem.
 - To ensure systematic analysis of the incidence and prevalence of illicit substance use and methadone diversion, clinic management added a data report to its weekly staff meetings. Among other critical data that the clinic opted to monitor, the report captures data on patterns of illicit drug use and dose levels among the patient population as well as data that reveal trends about the nature and source of substance use issues in the larger community (e.g., data from law enforcement, hospitals, and other credible sources).
 - Recognizing the importance of having science-based dosing practices, the clinic management and medical staff took the following additional steps: (1) all medical, nursing, and clinical staff read and participated in a facilitated discussion about CSAT’s opioid-related Treatment Improvement Protocols (TIPs); (2) the medical director, nursing supervisor, and clinical director attended the American Association for the Treatment of Opioid Dependence’s (AATOD) national conference on evidence-based practices; and (3) the clinic used information from the TIPs and the AATOD conference to update its policy on dose levels, resulting in an increase in the average methadone dosing level to 120 milligrams.
 - Due to these efforts, the number of patients who tested positive for opioids decreased by half during the last three quarters of the year.
- The clinic next focused on the high rate of illicit stimulant use (40 percent) among its patient population.
 - Unlike the spike in illicit opioid use, stimulant use among patients remained steady during the last 2 years, leaving the clinic management to believe that it might need to make systemic changes in the program to reduce cocaine and methamphetamine use among patients.

- The clinic sought and received help from a program that specializes in treating stimulant abuse. This assistance included both training and consultation that enabled the clinic to incorporate contingency management as a core component of its programming over a 6-month period.
- As a result of the training and enhanced programming, patients testing positive for stimulants decreased from 40 percent to 28 percent by the end of the year.

Overall, the number of patients who tested positive for illicit substances across all classes of drugs decreased from 198 (66 percent) to 139 (46.3 percent). Also, as a result of these initial efforts, the clinic has the data sources and mechanisms in place to systematically monitor, analyze, and report on illicit substance use among patients and several factors that might contribute to or mitigate such use.

SECTION VII.

A PROVIDER USING NOMs TO IMPROVE SERVICES

Using, the fictitious treatment program ATS first introduced in section IV, this section offers a real-world example of how the NOMs reporting requirements can help a provider improve services.

Fortunately, ATS survived the immediate revenue problem described in section IV. However, ATS's financial position remained tenuous, and it continued to work to increase referrals. Several months after increasing client flow, the SSA began providing the organization NOMs reports that included ATS's performance on four of the outcomes measures along with aggregate data for the entire State. The State compiled these reports from reports that ATS submitted based on each client who was admitted to and discharged from the program. The monthly reports presented data for the monthly reporting period as well as year-to-date performance. ATS submitted these electronic, real-time reports using the State's Web-based reporting system.

A. NOMs Reporting Data for Providers

The SSA sent providers NOMs data for the NOMs measures in table 9.

Table 11: Monthly NOMs Summary

Domain	Outcome	Measure	ATS Performance		State Average Performance	
			Month	YTD	Month	YTD
Reduced Morbidity	Abstinence from Drug/Alcohol Use	Reduction in/no change in frequency of use at date of last service compared to date of first service	21 percent reduction (N=42)	19 percent reduction (N=202)	32 percent reduction (N=544)	35 percent reduction (N=3,221)
Employment/ Education	Increased/ Retained Employment or Return to/Stay in School	Increase in/no change in number of employed or in school at date of last service compared to first service	21 percent reduction (N=40)	19 percent reduction (N=198)	32 percent reduction (N=498)	35 percent reduction (N=2,890)
Crime and Criminal Justice	Decreased Criminal Justice Involvement	Reduction in/no change in number of arrests in past 30 days from date of first service to date of last service	3 percent reduction (N=39)	2 percent reduction (N=200)	5 percent reduction (N=544)	5 percent reduction (N=3,006)
Stability in Housing	Increased Stability in Housing	Increase in/no change in number of clients in stable housing situation from date of first service to date of last service	4 percent reduction (N=38)	2 percent reduction (N=190)	4 percent reduction (N=512)	4 percent reduction (N=2,875)
Retention	Increased Retention in Treatment	Length of stay from date of first service to date of last service	46 days (N=42)	42 days (N=212)	82 days (N=544)	86 days (N=3,121)

Table 9 notes:

- The ATS columns include the most recent month and year-to-date performance for ATS.
- The State Average Performance includes all State clients for the current month and year-to-date.
- The percentages in the “Reduced Morbidity” row represent the increase in the number of clients reporting abstinence from their top three drugs of choice (including alcohol) for the previous 30 days.
- The percentages in the “Employment/Education” row present the change in the number of clients reporting being employed at least part-time or attending school during the previous 30 days.
- The percentages in the “Stability in Housing” measure row present the increase in the number of clients reporting living in a stable housing situation during the previous 30 days.
- The “N” refers to the number of clients for whom the information was reported. The numbers vary by measure because some reporting fields were incomplete.

ATS’s administrative and clinical staff leaders were delighted to begin receiving the NOMs reports. They had been reporting information to the State for years and appreciated the useful demographic reports that they received annually. It soon became clear that ATS could incorporate the NOMs reports in the larger performance management framework that it had been developing when it faced its immediate financial crisis.

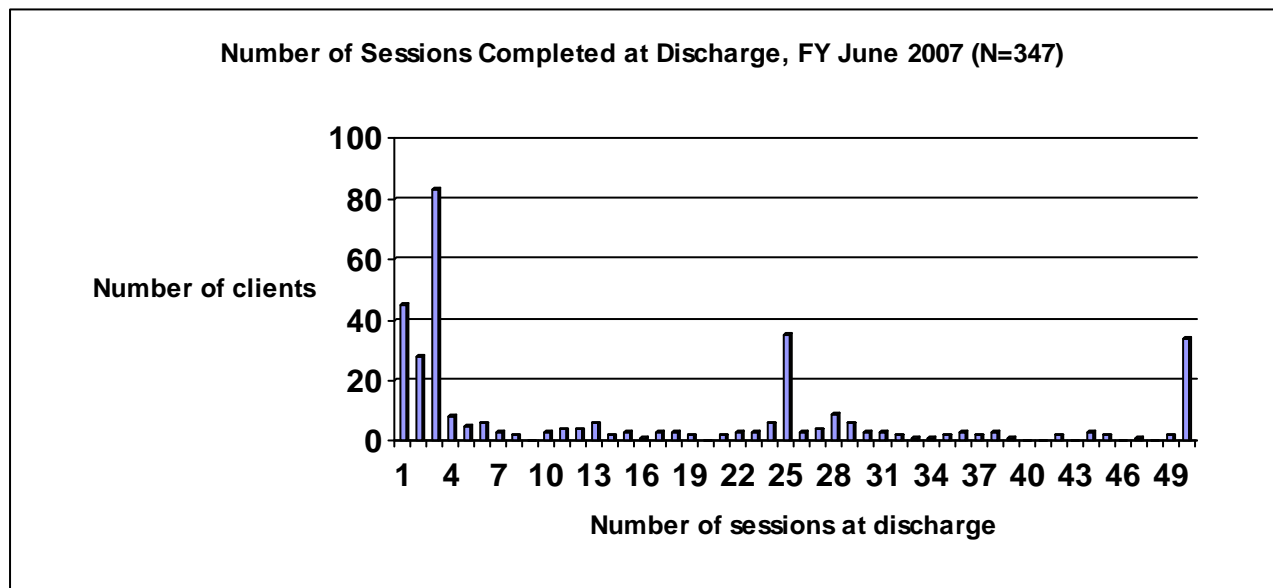
When analyzing the NOMs report, ATS leaders were surprised by the average length of stay for persons admitted to their organization compared to the State average. As noted, ATS leaders reviewed their organization’s completion data when they were exploring ways to improve their financial performance. They found what appeared to be a reasonably good rate of completion: 64 percent for those who completed the intake-assessment phase and started group treatment; so they concentrated their efforts on increasing the number of referrals. However, their preliminary analysis of the NOMs report revealed another opportunity. If ATS could increase the amount and duration of treatment to most clients, it might be able to improve results and improve clinical and financial results.

The ATS Quality Improvement Team decided to gather more data. The team called the SSA staff members responsible for NOMs and performance management and requested an ad hoc report that would provide more details about utilization patterns within their organization. While discussing this request with SSA staff members, the team identified an important difference between how the State and ATS calculated treatment duration and completion. The State measured the time between assessment and discharge; the ATS completion rate only measured treatment completion for clients who completed the assessment and treatment planning phases.

In other words, the impressive ATS treatment completion rate did not include those clients who dropped out before beginning the core treatment groups.

As figure 11 depicts, the State's ad hoc utilization report presented the frequency of the number of discharged clients who had attended 1 to 49 sessions and those who had attended 50 or more sessions. The report covered the fiscal year ending June 30, 2007.

Figure 9



The figure shows that the greatest attrition occurred during the first three sessions, when clients were completing initial assessments and treatment plans, and before clients began group sessions. In addition, 25 sessions coincided with the sessions that the probation office required—this number of sessions coincides with the organization's benchmark for completion. ATS focused initial efforts on improving retention during the first three sessions and coordinating between the time of assessment and the time of treatment planning and between the time of treatment planning and admission to groups. Fortunately, the State reported monthly discharge data, which allowed a month-to-month rapid-cycle review of progress. ATS used the PDCA cycle as follows:

Plan

ATS convened a team consisting of its clinical staff, chief operating officer (COO), and data entry specialist. After much deliberation, they decided to implement the following two changes:

- Instead of completing the full psychosocial assessments and treatment plans, the intake workers would complete an initial screening document (session one), and the therapists leading the groups would complete the full psychosocial assessments and treatment plans, usually by the end of session three. This substantial reassignment of workload involved much tension because most of the therapists viewed the psychosocial assessments and

treatment plans as paperwork with only limited value. The COO agreed to conduct a comprehensive review of all paperwork and streamline it as much as possible, which helped remove an obstacle. With this understanding, the team agreed to move forward, with the clinical director reframing these initial sessions as engagement sessions.

- Instead of waiting to start groups on the Monday following completion of the treatment plan, the clients would start at the next appropriate session.

Do

The change was put in place 4 weeks later because of the time used to make the substantial shift in workloads.

Check

The ad hoc team reviewed the retention data that the State provided monthly as ad hoc reports. The initial results (in figures 12–14), were impressive.

Figure 10

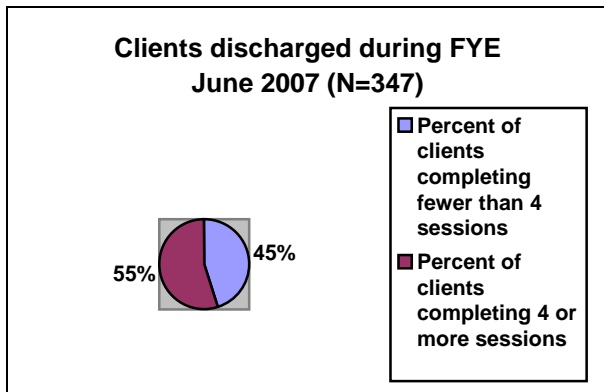


Figure 11

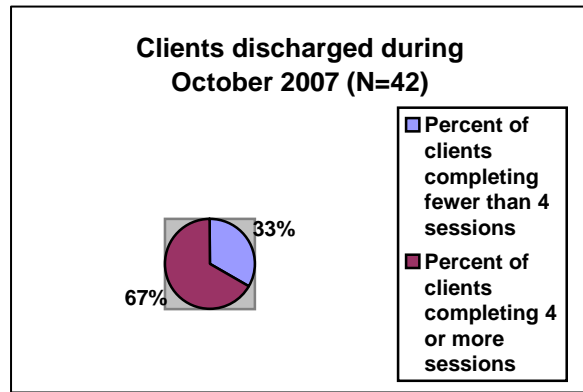
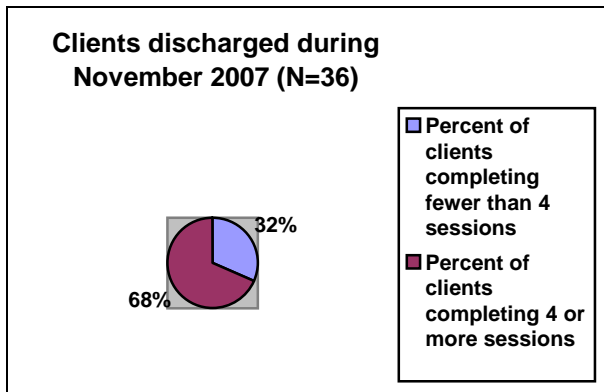


Figure 12



The charts indicate substantial improvement in early retention, as defined by the percentage of clients completing at least four sessions at the time of discharge for both October and November compared to the previous fiscal year. If the context of these statistical results was a research

study instead of a performance management effort, the investigators would have applied a test of statistical significance to determine the likelihood that random variation accounted for the improvement. However, in the action-oriented world of performance management, the organization's quality management team accepted the results as significant on face value and established an action plan to improve early retention beyond the levels achieved in October and November.

Act

As a result of these impressive improvements, the team agreed to continue to have the treating therapists complete the psychosocial assessments and treatment plans. (It helped that the COO found ways to reduce the paperwork.) In addition, the team agreed to repeat the PDCA cycle to plan additional ways of improving initial retention.

The team will continue to keep the NOMs retention measure on its dashboard to determine if retention continues to hold improvements over time. The term "dashboard" as used here refers to the several key performance measures that leaders use to monitor important aspects of organizational performance and to thereby help "steer" the organization.

B. Observation About Quality Improvement

The program was able to address the problem quickly because it could request and receive help from the State's performance management staff members. However, if the State had used performance management information to emphasize identifying poor performance, criticizing the organization it deemed responsible, and blaming the organization if it failed to improve the situation quickly, then the organization would never have asked for the ad hoc reports, which led to performance improvements. Instead, the program would have found other ways to gather data, and that would have slowed the improvement process. By taking a supportive approach, the State set the stage for rapid improvements.

SECTION VIII.

CAPACITY ASSESSMENT MATRIX

The matrix that follows (table 12) is designed to help provider organizations assess their current levels of performance management functioning and to consider improvements. However, it is important to remember that substance abuse provider organizations operate in many different contexts, and every capability listed is not appropriate for every circumstance. For example, a fully integrated, networked system is described as “Expert” for the dimension of data system capacity. This is not to imply that such a system is always desirable. For many providers, the cost of acquiring and maintaining such a system could not be justified by its benefits. Similarly, national accreditation is listed as an intermediate structural capacity. Yet in some tight-margin markets, obtaining national accreditation is not feasible.

Table 12: Capacity Assessment Matrix

Capacity Assessment Matrix-Provider “X” Example				
Capacity	Current Level of Implementation			
	Basic	Intermediate	Advanced	Expert
Cultural Capacity	<p>The provider’s performance management (PM) activities focus on compliance with reporting requirements.</p> <p>The provider defines quality as that which national experts and its clinicians consider quality to be.</p> <p>The provider relies primarily on retrospective measures.</p> <p>Leaders promote PM as something needed to meet contract and regulatory obligations</p>	<p>The provider takes a systems approach in which problems are addressed as systems issues rather than occasions to blame individuals.</p> <p>The provider incorporates client preferences in some of its measures of quality.</p> <p>The provider measures client satisfaction but does so retrospectively, with data available after many clients are no longer in treatment.</p> <p>Leaders promote performance management to improve services as well as basic contractual compliance.</p> <p>Managers use performance measures and results to communicate priorities.</p>	<p>Client satisfaction is incorporated in the provider’s definitions of quality.</p> <p>The provider measures client satisfaction in real time and provides feedback to clinicians.</p> <p>Leaders promote performance management to improve care, and the organization meets reporting requirements as a basic deliverable.</p> <p>Departments post and distribute results on key indicators.</p>	<p>Client and other customer-defined outcomes are central to the provider’s definition of quality.</p> <p>The provider focuses on real time data to improve retention and other outcomes. Clinicians gather same-day client satisfaction information to increase quality and retention.</p> <p>Staff buy into performance management to improve services.</p> <p>Staff accepts that performance management results are part of department evaluations.</p>

<p>Analysis and Management Capacity</p>	<p>Provider collects standardized data.</p> <p>Provider meets minimal purchaser/State data requirements.</p> <p>Provider submits raw data to the State without further analysis.</p> <p>The provider conducts regular quality assurance reviews of important processes.</p>	<p>Leaders review monthly data reports.</p> <p>Management uses data for planning and decision making.</p> <p>Provider uses data to seek funding resources.</p> <p>In addition to quality assurance reviews, the program works to improve already satisfactory performance.</p> <p>The provider has ongoing processes for identifying, retiring, and designing performance measures.</p> <p>Improvement efforts and measures are triggered by events and requirements.</p> <p>The provider uses a quality improvement cycle such as the Deming PDCA cycle.</p>	<p>Provider collects performance management data.</p> <p>Clinical staff use data for treatment planning and decision making.</p> <p>Staff within the agency are trained on PM and CQI.</p> <p>Performance measures have been implemented.</p> <p>The provider analyzes certain key measures (such as engagement, retention, and unit costs) regularly.</p> <p>The provider systematically considers important dimensions of service for possible improvement efforts.</p> <p>Performance results are an expected part of day-to-day performance feedback.</p> <p>Departments develop their own measures and improvement efforts as they identify improvement opportunities.</p>	<p>Clinicians and clients use data for treatment planning.</p> <p>Staff use the data to improve the quality of services for clients.</p> <p>Providers use PM data for clinical reviews.</p> <p>Clinicians and support staff members can describe the trend of their department's performance on key measures.</p>
--	---	---	---	---

<p>Structural Capacity</p>	<p>The provider allocates adequate staff members to meet reporting requirements.</p> <p>The organization's procedures include written protocols for data submission.</p>	<p>The provider developed a formal structure for continuous quality improvement.</p> <p>The provider has allocated some staff to lead, coordinate, and support PM and CQI.</p> <p>The provider has plans for improving data quality and PI/CQI systems.</p> <p>The provider produces an annual PM/CQI report.</p> <p>The provider evaluates the effectiveness of its PM/CQI system on at least an annual basis.</p> <p>The provider is nationally accredited.</p> <p>The provider is, or has been, a NIATx partner and applied NIATx technology to at least two dimensions of performance.</p>	<p>The provider's formal structure for PM/CQI includes managers, clinicians, and support staff.</p> <p>PM and QI projects are always underway.</p> <p>Performance processes are integrated into decision making and service design.</p> <p>Workforce has the skills and allocated time to apply PM/CQI.</p> <p>The organization has assigned staff responsible for taking action after reviewing data.</p> <p>The perceptions and priorities of clients and other stakeholders have roles in identifying.</p> <p>The provider is, or has been, a NIATx partner and applied NIATx technology to at least six dimensions of performance.</p>	<p>Providers have the ability to go online for comparison reports.</p> <p>The provider invests in information technology as needed.</p> <p>The staff responsible for taking action after reviewing data include those with the authority to allocate resources to solving problems.</p> <p>The provider applies its PM/CQI system to all major dimensions of performance on a planned basis.</p>
-----------------------------------	--	--	--	--

<p>Data System Capacity</p>	<p>Provider has a unique client ID. Data collection is reliable. The provider relies on the State system to compile the data and report it back in a usable form.</p>	<p>In addition to whatever data the State may compile and feed back to the provider, the provider also has the capacity to compile, organize, and analyze data. The provider uses an electronic, stand-alone system. When designing measures, the provider systematically considers whether the data already exist and the feasibility of collecting the data. The organizational process for designing performance measures considers the validity of the measure and reliable data collection procedures.</p>	<p>The data system creates error reports. The provider's information system links to the State system electronically. The provider's data system is networked through a hard-wired or browser-based system. The provider has the capacity to produce regular UM reports (including length of stay and retention) reports for all of its major services areas.</p>	<p>The provider's networked system has a fully integrated scheduling, utilization management, billing, and client records system, all linked to its PM and CQI system.</p>
------------------------------------	---	---	---	--

RESOURCES

A. Sample Data Collection Plans

CSAP's Prevention Pathways, Online Course
(http://pathwayscourses.samhsa.gov/eval102/eval102_1_pg9.htm)

Designing a Data Collection Plan, University of North Florida, Department of Education
(<http://www.unf.edu/dept/fie/sdfs/phaseIII.pdf>)

Developing a Data Collection Plan, University of Massachusetts at Amherst, Department of Education (http://k12s.phast.umass.edu/pvnet/imagery_files/datacollectionplan.ppt)

Sample Data Collection Plan, Learning Point Associates
(<http://www.learningpointassociates.net/literacy/eval/sampledatablcollect.doc>)

B. Performance Improvement Approaches

Brolin, M., Seaver, C., & Nalty, D. *Performance Management: Improving State Systems through Information-based Decisionmaking*. DHHS Publication No. 05-3983. Rockville, MD: Center for Substance Abuse Treatment (CSAT), Substance Abuse and Mental Health Services Administration (SAMHSA), 2004.

Data Collection: Basic Tools for Process Improvement, Balanced Score Card
(<http://www.balancedscorecard.org/files/datacoll.pdf>)

McNamara, Carter, "Broad Overview of Various Programs and Movements to Improve Organizational Performance" (http://www.managementhelp.org/org_perf/methods.htm)

"Review of Performance Improvement Models and Tools," January 2006, Performance Management, Measurement and Information (PMMI) project
(<http://www.idea.gov.uk/idk/core/page.do?pageId=76267>)

C. Data Analysis Techniques

Root cause analysis (<http://www.va.gov/NCPS/rca.html>)

Root cause analysis and other techniques (<http://www.prime2.org/sst/stage6.html>)

Tufte, Edward R., *Beautiful Evidence*, Cheshire, Conn.: Graphics Press, 200.

Tufte, Edward R., *Envisioning Information*, Cheshire, Conn.: Graphics Press 1990.

Tufte, Edward R., *Visual Explanations: Images and Quantities, Evidence and Narrative*, Cheshire, Conn.: Graphics Press, c1997