

Designing a System for Managing the Performance of Mental Health Managed Care: An Example from New York State's Prepaid Mental Health Plan

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Abstract

The organization, financing, and delivery of publicly funded behavioral health services are undergoing massive changes nationwide. Managed care principles and practices are being implemented widely and are being relied on increasingly to meet the challenges of containing costs and improving service effectiveness. To meet these goals, comprehensive systems are under development for measuring and reporting outcomes experienced by individuals who receive services and for assessing the impact of managed care strategies on the service delivery system. This article presents an example from the Prepaid Mental Health Program in New York State. It highlights the development, implementation, and early experiences with the plan's performance management system for public sector managed behavioral health, a basis for continuous quality improvement activities and information reporting products such as report cards. Policy, administrative, and financial implications are illuminated.

The United States has embarked on a massive restructuring of the organization, financing, and delivery of publicly funded mental health services with the widespread implementation of managed care principles and practices. Managed care as the impetus for reforming publicly funded mental health care promises both cost containment and improved service effectiveness. Comprehensive systems are needed for measuring and reporting to all concerned stakeholders the outcomes experienced by individuals who receive services and the impact of managed care on the overall service delivery system. Unfortunately, such systems are rare.

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Attention has tended to focus more on the measurement of the process of care delivery than on what happens to individuals and service systems as a result of health care initiatives. Outcomes assessment has remained largely the province of service researchers, and although this community has done an admirable job of developing methods and instruments for measuring outcomes, typically, time lags measured in years have separated the collection of data from the reporting of outcomes assessment results. This has precluded the integration of this information into health care decision making, a problem that has only worsened as the pace of change has escalated in the policy arena. Mental health care information systems have been largely transaction oriented, focused on the business problems of billing, claims payment, and service-encounter documentation. Resources that could be devoted to improving turnaround times for the reporting of outcomes information remain largely consumed in the maintenance of these large and cumbersome, but essential, transaction-processing systems.

States face a compelling ethical imperative to measure and monitor health care outcomes as they implement managed care as the dominant means of delivering publicly funded mental health care because, in large part, they are making such changes without much systematic knowledge about what the impact will be. In fact, the transition to managed care has been accompanied by widespread interest in measuring outcomes and managing performance, as evidenced by numerous national conferences and publications devoted to this subject.¹⁻⁵ Yet, without the necessary infrastructure in place, states, localities, and providers concerned with ensuring quality and realizing the increased effectiveness promised by managed care have to scramble to create systems for measuring outcomes while simultaneously reorganizing their service delivery and financing systems, adding another layer of complexity to these already daunting and resource-intensive tasks.

The purpose of this article is to explore the development, implementation, and early results of using a comprehensive performance management system for public sector managed behavioral health care. The New York State Prepaid Mental Health Plan (PMHP) performance management system was developed to reflect the concerns of multiple stakeholders—individuals receiving services, families, providers, advocates, and policy makers—and is a foundation for continuous quality improvement activities and information-reporting products such as report cards. The system includes indicators of system-level outcomes (service access, service appropriateness, administrative efficiency) and individual-level outcomes (wellness, skill acquisition, and community integration). This article provides background information; reviews the process used to identify salient performance areas, indicators, and measures; illustrates the use of report cards for managers and individuals who receive services; highlights examples of how performance information has been used for quality improvement; and examines the considerable challenges and evolving solutions as a result of putting quantitative performance information to use.

Background

New York State is making substantial progress to move state-supported basic health and mental health care to managed care models. This change is being implemented in an effort to enhance the responsiveness, efficiency, and performance of services provided in both of these systems. Over several years, steps toward these endeavors have included submission of an application under Section 1115 of the Social Security Act for approval of a plan to implement a statewide mental health managed care program in collaboration with the New York State Department of Health (DOH) called the Partnership Plan; implementation of a demonstration project, the Prepaid Mental Health Plan, as an interim step toward mental health managed care for adults; development of recommendations for quality-of-care standards and performance management systems for mental health Special Needs Plans (SNPs) proposed under the Partnership Plan; and support for other managed care planning activities.

In a multistage process, New York State has been integrating various funding streams into a comprehensive mental health managed care system. The initial stage included the submission in March 1995 of the 1115 waiver for approval of a plan to implement a statewide managed care program. The Partnership Plan was designed in collaboration with DOH and the Office of Mental Health (OMH) to provide a full range of health services, including a basic mental health benefit through standard managed care plans and extended mental health care services for adults with serious mental illness (SMI) and to children and youth with serious emotional disturbances (SED) through SNPs.

While awaiting approval of the Partnership Plan from the Health Care Financing Administration (approval was granted in July 1997), OMH implemented in April 1996 the PMHP managed care demonstration project. This initiative was created to provide a comprehensive reform of state-operated outpatient services, including changes in reimbursement (capitated case payments vs. fee-for-service arrangements), services (benefit package vs. discrete services typology), and delivery (networks vs. isolated providers). Among PMHP innovations are an emphasis on self-help services (self-help is a required component of the benefit package), a focus on achieving outcomes deemed important by multiple stakeholders (consumers/survivors, family members, providers, advocates, and policy makers), and partnerships with consumers/survivors to help market the plan. In New York State, as elsewhere around the nation, the planning, organization, and delivery of public mental health services is increasingly shaped by the participation of service recipients and family members.

PMHP has a targeted enrollment consisting of approximately 12,000 adults who are outpatients with a diagnosis of SMI in the supplemental security income (SSI) and Medicaid-only class of Medicaid, inpatients between 18 and 21 years of age, or inpatients older than 64. Currently, about 10,000 people are voluntarily enrolled. At the heart of PMHP is a person-centered approach that promotes rehabilitation and recovery. The benefits package provides access to a full range of mental health services (e.g., treatment, crisis, rehabilitation support, self-help) intended to meet individual needs. The plan's capitated funding method is established on historical experience in the fee-for-service system. PMHP is consistent with OMH's mission to create opportunities to permit individuals with SMI to work toward recovery safely and effectively.

Currently, 18 state-operated adult psychiatric centers are included in PMHP. These provider networks are clinically, financially, and administratively interdependent within a single management structure. The network entity has the ability to provide a range of services without the constraints of categorical funding or categorical programs. Services may be provided directly by the plan or through contracts with community providers.

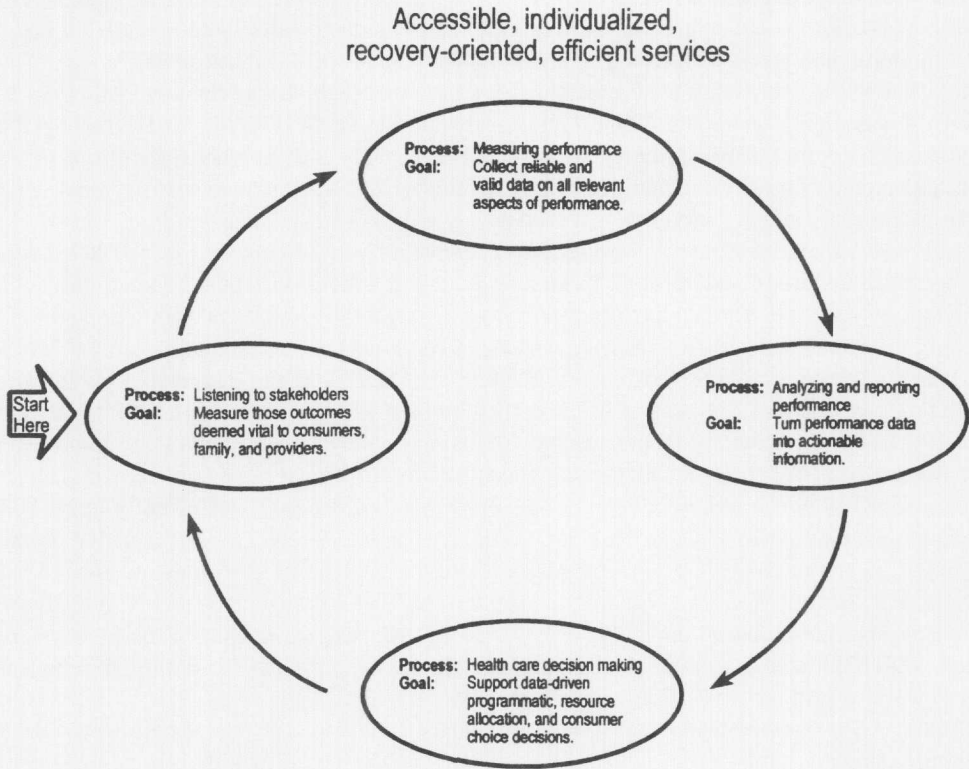
The Performance Management System

Performance management in health care can be defined as a set of systematic methods for assessing and improving the outcomes associated with a health care plan. The term *outcome* refers to both the impact (positive or negative) of a health care plan on the individuals served (individual-level outcomes) and on the overall service delivery system (system-level outcomes). *Performance domains* refer to broad individual- and system-level areas of potential health care plan impact; numerous specific outcomes may be bundled under each performance domain. *Performance indicators* are numerical summaries of performance derived from *measures*, the instruments used to gather performance data.

Three goals have served to guide both the development and testing of the performance management system in PMHP:

1. to combine existing process (e.g., service encounters) data with new consumer- and clinician-reported status and outcomes data into a comprehensive, integrated database to serve as a one-stop platform for performance analysis and reporting;
2. to develop and disseminate "information products" derived from the integrated data for use by recipients, family members, plan managers, providers, and other interested parties;

Figure 1
Performance Management Model



3. to employ both the database and derived information products in guiding management decision making and providing ongoing internal feedback for plan development and quality improvement; to establish benchmarks for performance; to detect relationships between recipient characteristics, service utilization, costs, and outcomes to guide policy planning for mental health managed care; and to develop final recommendations for future managed care initiatives.

The model illustrated in Figure 1 envisions the PMHP performance management system as a continuous mechanism for selecting critical performance areas and indicators, measuring and analyzing actual performance, and maximizing meaningful use of performance information. Underlying this model are values, such as continuous stakeholder involvement, central to the mission of OMH.

Steps in developing the PMHP performance management system, with funding support from the Center for Mental Health Services,⁶ have included gathering stakeholder input on relevant areas of performance, identifying performance domains and developing performance indicators, identifying measures to gather performance data from multiple perspectives, collecting and analyzing data, reporting performance to stakeholders, and refining systems based on user feedback.

Gathering Stakeholder Input

In the summer of 1995, a task force—the New York State Medicaid Managed Care Subcommittee—was created to make recommendations for the development of Medicaid managed care SNPs

for individuals with SMI and children with SED. Within this task force, a Performance Measurement Task Group was assigned the task of defining key performance domains, indicators, and measures of performance for the ongoing monitoring and evaluation of the plans. This group conducted a mail survey—the Managed Care Outcome Survey—to broadly canvass opinions across all mental health system stakeholder groups concerning the most and least favorable outcomes of the mental health system. The purpose was to learn which mental health outcomes stakeholders believed should be measured routinely under managed care.⁷ Respondents were asked to provide up to eight positive or negative outcomes important to them and to rank order the outcomes by importance.

More than 2,000 respondents voiced opinions about desirable and undesirable recipient, system, and societal outcomes related to receipt of mental health services. Task group members sorted the verbatim responses into categories; the categories guided the definition of performance domains, whereas the verbatim outcome statements guided the definition of performance indicators and measures. The recipient service outcomes deemed important were grouped into three major categories: expansion and acquisition of skills, regaining and expanding social roles, and wellness. System outcomes also were grouped into three large categories: expansion of needed services, increased service quality and effectiveness, and remedying service system deficiencies. Societal outcome statements focused on stigma and the need for greater acceptance of individuals with mental illness.

Most responses clustered in the categories of wellness and remedying service system deficiencies. Specific desired outcomes cited most often were increased self-esteem, increased independence, symptom reduction, symptom management skills, increased service effectiveness, and increased involvement in work, school, social relations and community. The most frequently mentioned undesired outcomes were service rationing or unavailability, stigma, exclusion of family and recipient input, nonrespectful treatment, harmful medication effects, overdependence on the system, inappropriate use of medications, criminal justice involvement, and coercive or involuntary treatment. Although these outcomes were important to all stakeholders, the exact rankings differed by group. The outcome rated most important by each constituency was increased self-esteem; family members, providers, and administrators focused on reduction of symptoms and symptom management skills. In particular, mental health stakeholders called for services that increased self-esteem, promoted skill development, and resulted in enhanced community integration, and they expressed fear about service rationing. Despite some differences in perspective, survey results revealed overlap across stakeholder groups in opinions about desired and undesired outcomes that could serve as grounds for reaching a consensus about the future shape of mental health services in New York State.

Measuring Performance

Using data gathered from the Managed Care Outcome Survey, as well as by analyzing areas examined by national groups such as the Mental Health Statistics Improvement Program (MHSIP),⁸ seven performance domains were identified. Three domains capture the individual-level outcome categories identified by stakeholders in the mail survey: wellness, skill acquisition, and community integration (“regaining and expanding social roles”). After comparing task group and national work, it was decided to condense the three system-level outcome categories identified through the mail survey (“expansion of needed services,” “increased service quality and effectiveness,” and “remedying service system deficiencies”) into two performance domains: service access and service appropriateness. To these five were added administrative efficiency, reflecting the important goal of cost containment associated with managed care in New York State (and elsewhere), and prevention. Brief definitions of each performance domain follow, stated as general expressions of ideal plan performance:

Service access. Plan-provided services will be available, convenient, timely, comprehensive, clearly explained, and linked to nonmental health services. Recipients will be given a choice of service options and providers. Plans will be able to serve all recipients and will respond to differing levels of need.

Service appropriateness. Plan-provided services will be individualized, rehabilitation and recovery oriented, nonharmful, and noncoercive. Recipient and, except when against the wishes of the recipient, family member and/or significant other participation will be sought and reflected in service-planning decisions. Services will be delivered respectfully, skillfully, and with cultural competence.

Administrative efficiency. Plan-provided administrative services will support service access and service appropriateness by being responsive to the needs of network providers. Providers will be paid for services rendered on a regular and timely basis.

Wellness. Plan-provided services will improve the psychological health of recipients. Recipients will experience gains in self-esteem and greater optimism about recovery. The physical health of recipients will improve due to effective linkages between health and mental health services.

Skill acquisition. Plan-provided services will be associated with gains in the functional status of recipients. Over time, recipients will report increased ability in daily living and in social, vocational, and educational roles.

Community integration. Plan-provided services will lead to increased community participation and enhanced quality of life for recipients in such areas as housing, employment, education, recreation, social relationships, and safety.

Prevention. Plan-provided services will promote early intervention and prevention to avoid unnecessary reliance on emergency and inpatient services and the experience by recipients of further disability or discrimination.

Performance indicators were then defined for each domain largely by taking those specific outcomes now known to be of importance to stakeholders and rewording them into quantifiable statements. Measures were chosen whenever possible from widely used standardized instruments. For instance, under wellness, the desired outcome of increased self-esteem became "the proportion of recipients reporting moderate to high self-esteem" as measured by the Rosenberg Self-Esteem Scale.⁹ Appropriate standardized measures could not be found for some outcomes, particularly the "service system deficiencies" items now bundled under the domains of service access and appropriateness. In these cases, measures were constructed by turning the mail survey responses into Likert-type questionnaire items. For instance, stakeholder concern over nonrespectful treatment became "the proportion of recipients reporting that their service providers treat them with respect" as measured by the survey item, "My service providers treat me with respect" (*strongly agree, agree, disagree, strongly disagree*). Table 1 presents a sample of the resulting performance indicator set and its measures.

PMHP outpatient and inpatient service encounters were captured using an existing automated encounter recording management information system. Two new instruments, both mail surveys, were developed to collect PMHP service outcome data: the Mental Health Services Survey sent to all PMHP service recipients and the Clinician Assessment Form sent to each recipient's primary PMHP service provider (both instruments are available on request). Spanish and English versions were developed. These surveys have been conducted repeatedly to assess change over time, the first just prior to the implementation of PMHP in April 1996, then again in November 1996, and in November 1997. The content of each survey is described below.

Mental Health Services Survey (recipient reported). This survey is a composite of several standardized instruments supplemented by newly constructed items as described above.^{10,11} The components include the following:

- The Behavior and Symptom Identification Scale (BASIS-32),¹² which assesses difficulty in symptom and functioning associated with the need for psychiatric treatment. In particular, the instrument asks 32 questions in five domains: relationship with self and others, daily living and role functioning, depression and anxiety, impulsive and addictive behavior, and psychosis. BASIS-32 items were used primarily to assess outcomes in the domains of skill acquisition, community integration, and wellness.
- The Medical Outcomes Trust 36-Item Short-Form Health Survey (SF-36),¹³ which measures general health status. This instrument's eight scales focus on physical functioning, physical health limitations, level of energy and fatigue, social functioning, emotional health limitations, and mental distress and well-being. It can be self-administered. The overall health status question and the social/role functioning

Table 1
Sample Performance Indicator Set with Measures

Performance Indicator	Measures
Service access	
Proportion of enrollees reporting satisfaction with convenience of services; time spent with mental health staff; and range of services	Likert-type survey items constructed from stakeholder input process (outcome mail survey)
Service appropriateness	
Proportion of enrollees reporting satisfaction with mental health staff's concern for recovery; ability to refuse services; staff sensitivity to needs related to age, gender, race, or ethnicity	Likert-type survey items constructed from stakeholder input process (outcome mail survey)
Administrative efficiency	
Direct and indirect costs per enrollee	Office of Mental Health cost-reporting system
Wellness	
Proportion of enrollees reporting little or no difficulty with depression or anxiety	Depression/Anxiety subscale of the Behavior and Symptom Identification Scale (BASIS-32)
Proportion of enrollees reporting little or no limitation in social functioning due to physical health problems	Medical Outcomes Trust 36-Item Short-Form Health Survey (SF-36)
Skill acquisition	
Proportion of enrollees agreeing or strongly agreeing that they possess the skills to handle psychological distress	Likert-type survey items constructed from mail survey
Proportion of enrollees reporting little or no difficulty with activities of daily living	Daily Living subscale of BASIS-32
Community integration	
Proportion of enrollees reporting little or no difficulty with social/family relationships	Relationships with Self/Others subscale of BASIS-32
Proportion of enrollees that independently access community leisure activities	Cinician Assessment Form (Activities of Community Living section)
Prevention	
Number of psychiatric hospitalizations per enrollee	Service encounter data from the Department of Mental Hygiene Information System
Proportion of enrollees reporting participation in one or more peer-run self-help groups	List of self-help groups with yes/no response choices

subscales were included as part of the recipient survey instrument. SF-36 items were used to assess physical health as part of the wellness domain and as an indirect indication of linkage with health care services not covered by PMHP, an important component of the service access domain.

- The Rosenberg Self-Esteem Scale, since improved self-esteem was one outcome of services deemed important by all stakeholder groups.
- Satisfaction items, which were developed using items generated from the Managed Care Outcome Survey. Most items focused on the domains of service access and service appropriateness and also assessment of the impact of services on outcomes.
- A final section that asked recipients to disclose participation in self-help. Rates of self-help participation were used as an indicator in the prevention domain.

Clinician Assessment Form (clinician reported). Primary mental health providers gathered clinical assessment information on recipients using a survey designed to address recommendations of the Mental Health Managed Care Subcommittee's Admission and Discharge Task Group. The Clinician Assessment Form¹⁴ assesses functioning in five areas including self-care; activities of community living; social, interpersonal, and family roles; concentration and task performance; maladaptive behaviors; and dangerous and impulsive behaviors.

Once collected, performance data were integrated in one database. All performance indicators were then generated using this database. Some indicators, particularly those derived from the recipient mail survey, were straightforward to produce, whereas others, particularly those derived from the encounter data, necessitated considerable programming and experimentation with differing levels of data aggregation.

Analyzing and Reporting Performance

Rapid reporting of service outcomes data is pivotal to the success of any performance management system. Historically, long time lags have often separated the collection and reporting of evaluation data, severely hampering the usefulness of such information in management decision making. This problem has been in general one of the main obstacles to performance-based health care management. However, recent technological developments, notably the Internet, have created new possibilities for greatly truncating the typical time lags between service outcome data collection and reporting.

Initial attempts by OMH staff to capitalize on these new opportunities for outcomes data reporting led to the development of an online report card system for use by PMHP management staff. Implemented in the fall of 1996, the PMHP Online Report Card uses state-of-the-art World Wide Web technology over a secure wide-area network that links the OMH central office to its facility networks. State- and facility-level PMHP managers are the target audience for this version of the report card. A planning effort is also under way to develop network report cards for use by recipients of services, with a pilot test at two PMHP networks expected soon.

The PMHP Online Report Card contains both a statewide section documenting the combined performance of all PMHP networks and individual reports for each facility network. These individual report cards contain comparisons of service outcomes achieved within each network against statewide performance averages. The report card automatically highlights differences that are statistically significant, aiding managers in pinpointing areas needing attention and in identifying trends. All PMHP networks have access to each other's report cards, thus facilitating overall comparisons of performance between plans.

Currently, all performance indicators included in the report card derive from the Mental Health Services Survey and the Clinician Assessment Form. Service use and cost data drawn from the PMHP encounter and OMH costing systems will be added next. Data presented in the report card include the baseline data collected in April 1996 and data from the first follow-up period in October-November 1996.

The PMHP Online Report Card displays both numerical and graphical (bar chart) representations of each performance indicator. Color is used throughout to draw attention to trends in the data and to indicate whether performance is above or below simple threshold values. Additionally, all data are displayed in a common 0 to 100 scale, where 0 represents the worst measurable outcome and 100 the best possible outcome; this common scaling facilitates comparisons across multiple measures and the identification of trends. Currently, three statistics are used to fully describe the data for each indicator: the mean value, the standard deviation, and the proportion of recipients reporting low scores (defined as the percentage scoring at or below 50 out of a possible high score of 100 on the indicator). A cross-sectional summary statistic indicating how much positive or negative change has occurred since program implementation has been added.

Early dissemination activities included demonstrations of the report card at regional PMHP leaders and governing body staff meetings and OMH executive staff meetings. About two-thirds of the facility networks plus the central office have gained access to the state and local report cards via the Intranet since November 1996, and the infrastructure improvements necessary to access the report card are proceeding rapidly at the remaining networks. Bound, print copies of the network and statewide report cards, including a user's guide, have also been distributed to the networks.

In addition to being available to address questions and concerns about the PMHP Online Report Card, Bureau of Performance and Outcomes Management staff have been visiting networks to educate PMHP staff about the report card, answer users' questions, and receive feedback. Feedback from these sessions and the other dissemination activities has already resulted in numerous design improvements in the report card. More broadly, these efforts have been providing an important vehicle for transmitting performance management principles throughout the OMH community.

Health Care Decision Making

Although much attention has been generated by the PMHP Online Report Card, the question remains, "Will the report card remain compelling once the newness of the technology fades?" Outcomes-oriented report cards in general are a very recent phenomenon, and evaluation efforts will need to focus on documenting how managers and other audiences use such products.

Initial observations in PMHP are encouraging. Most notably, the report card has consistently stimulated discussion of outcomes—how well indicators mirror the real world of practice, appropriate benchmarks or standards for satisfaction, relationships between multiple outcome domains, and whether subsets of the performance indicators can be used reliably to predict future service utilization. Such discussion in and of itself has helped to increase the attention paid to the measurable results of services. The report card also appears to have been useful in helping staff to focus on areas of program strength and weakness. For instance, the report card revealed one network in which physical health status was significantly lower than the statewide average. That finding stimulated management at that network to initiate a 2-year health care access and education program modeled around the Healthy People 2000 initiative.¹⁵ Other PMHP network leaders are using their report cards to identify opportunities for quality improvement. More systematic evaluations of report card utilization will be conducted and will include a structured survey of users to assess the current version's strengths and weaknesses.

Implications for Behavioral Health Services

The goal of merging process and outcome data into systems for managing the performance of behavioral health care plans has numerous policy, administrative, clinical, and financial implications. As behavioral health care administrators consider issues and make decisions about the use of outcome data to manage performance, they will need to address many of the same questions concerning values, methodology, and the uses and potential misuses of performance data faced by the authors in developing and implementing the PMHP performance management system. In conclusion, based on the experience in New York State, the following values and assumptions are critical to the success of outcomes-oriented performance management:

- Reliance on operational process measures will not be sufficient for understanding which service combinations, modalities, and methods best promote wellness and other desired outcomes.
- A focus on outcomes will become the key mechanism for ensuring the continued accountability of publicly funded behavioral health care during the transition to managed care and beyond.
- Safeguards will need to be built into systems to protect against the inherent potential dangers associated with the interpretation and misinterpretation of performance indicator data.
- Combinations of service outcomes and process measures can identify best practices that will change the future of how behavioral health care providers practice.

- Inclusion of individual outcomes in a quality management model will provide balance to the cost-control side of the cost-effectiveness equation.
- Necessary infrastructures (e.g., management information systems) can be complex to build but are technically and financially feasible.
- Costs associated with building and using performance measurement systems should not deter the creation of systems and should be given consideration in all discussions and planning.
- Education of managers, service providers, members of service plans, family members, and other stakeholders on the use of performance data and related products will be critical to overall success.

Designing an infrastructure to manage performance is the cornerstone to successfully managing quality. In addition to the ongoing collection and analysis of data, recipient knowledge and involvement are essential sources of feedback regarding how the system is functioning from the primary customer point of view. The New York State PMHP infrastructure has been built on the basic guiding principles of recovery and rehabilitation and the philosophical value of incorporating at every opportunity the views of multiple key stakeholders.

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References

1. Carpinello S, Felton CJ: Using Report Cards to Enhance Service Effectiveness. Paper presented at the Behavioral Health Outcomes Management conference sponsored by the Institute for International Research, Boston, July-August 1997.
2. Hohman A, Sederer L, Campbell J: Dialogue: The rush to measure outcomes. *Behavioral Healthcare Tomorrow* 1995; 4:40-46.
3. Lyons JS: Optimizing the Utility of Your Outcomes Projects through Examining Outcomes Methodology. Paper presented at the Behavioral Health Outcomes Management conference sponsored by the Institute for International Research, Boston, July-August 1997.
4. Sederer LI, Dickey B: *Outcomes Assessment in Clinical Practice*. Baltimore: Williams and Wilkins, 1996.
5. Ware JE, Bayliss MS, Rogers WH, et al.: Differences in 4-year health outcomes for elderly and poor, chronically ill patients treated in HMO and fee-for-service. *Journal of the American Medical Association* 1996; 276:1039-1047.
6. New York State Office of Mental Health: *Testing a Performance Indicator System in New York State*. Grant submission (Grant No. 1 SM51996) to the Center for Mental Health Services. Albany: New York State Office of Mental Health, 1996.
7. New York State Office of Mental Health: *Managed Care Outcome Survey*. Albany: New York State Office of Mental Health, 1995.
8. Center for Mental Health Services: *The MHSIP Consumer-Oriented Report Card: Final Report*. Washington, DC: Center for Mental Health Services, April 1996.
9. Rosenberg M: *Society and the Adolescent Self-Image*. Princeton, NJ: Princeton University Press, 1965.
10. New York State Office of Mental Health: *PMHP Quality Assurance and Performance Measurement Plan*. Albany: New York State Office of Mental Health, 1996.
11. New York State Office of Mental Health: *Mental Health Services Survey*. Albany: New York State Office of Mental Health, 1996.
12. Eisen SV, Dill DL, Grob MC: Reliability and validity of a brief patient-report instrument for psychiatric outcome evaluation. *Hospital and Community Psychiatry* 1994; 45:24-47.
13. Ware JE, Snow KK, Kosinski M, et al.: *SF-36 Health Survey Manual and Interpretation Guide*. Boston: New England Medical Center, The Health Institute, 1993.
14. New York State Office of Mental Health: *Clinician Assessment Form*. Albany: New York State Office of Mental Health, 1996.
15. Bachman F: *Healthy People 2000 at Middletown PMHP*. Middletown: New York State Office of Mental Health, Middletown Psychiatric Center, 1997.