



The Oregon Health Plan's Managed Mental Health Care

**Oregon Department of Human Services
Addictions and Mental Health Division
2007 External Quality Review Annual Report**

January 2008

Contract #120923

Presented by

**Acumentra Health
2020 SW Fourth Avenue, Suite 520
Portland, Oregon 97201-4960
Phone 503-279-0100
Fax 503-279-0190**

AMH-EQR-OR-07-14

The Oregon Health Plan's Managed Mental Health Care: 2007 External Quality Review Annual Report

January 2008

Presented to the Oregon Department of Human Services,
Addictions and Mental Health Division

AMH-EQR-OR-07-14

Acumentra Health prepared this report under contract with the Oregon Department of Human Services, Addictions and Mental Health Division (Contract No. 109162,6).

Director, State and Private Services.....	Michael Cooper, RN, MN
Contract Manager.....	Jody Carson, RN, MSW, CPHQ
Project Coordinator	Brett Asmann, MA
Quality Data Specialist.....	Julie Guenette, PhD
IS Programmer/Analyst	Chuck Anderson
Editor.....	Greg Martin
Production Assistant	Clair Gunst

Table of Contents

Executive Summary	1
EQR results	1
Recommendations.....	4
Introduction.....	5
OHP managed mental health care.....	5
AMH’s quality improvement activities	6
EQR activities	10
Performance Improvement Projects.....	11
PIP highlights.....	12
Review procedures.....	14
Review results	16
Performance Measure Validation	22
Review procedures.....	23
Review results	24
Conclusions and Recommendations	46
Appendix A. MHO Scores on PIP Validation and ISCA Reviews	A-1

Index of Tables and Figures

Table 1.	Geographical coverage and enrollment of Oregon MHOs.....	6
Table 2.	PIP compliance rating and scoring system.....	16
Table 3.	Clinical PIP topics by MHO.....	17
Table 4.	Nonclinical PIP topics by MHO.....	18
Table 5.	Performance measure validation ratings, 2006–2007.....	25
Table 6.	Update of recommendations for improving statewide performance measures.....	28
Table 7.	Weighted average scores and ratings on ISCA sections, 2007.....	31
Table 8.	Average ISCA section scores and ratings for nine MHOs, 2007.....	35
Table 9.	Opportunities for improvement and recommendations for MHOs: Data Processing Procedures and Personnel.....	36
Table 10.	Opportunities for improvement and recommendations for MHOs: Data Acquisition Capabilities.....	37
Table A-1.	MHO PIP scores by validation standard, 2007.....	A-2
Table A-2.	MHO ISCA scores by section, 2007.....	A-3
Figure 1.	Overall scores for clinical PIPs scored on the 80-point scale, 2006–2007.....	19
Figure 2.	Overall scores for nonclinical PIPs scored on the 80-point scale, 2006–2007.....	19
Figure 3.	Overall scores for PIPs scored on the 100-point scale, 2007.....	20
Figure 4.	Average scores on clinical PIP validation standards across MHOs, 2006–2007.....	21
Figure 5.	Average scores on nonclinical PIP validation standards across MHOs, 2006–2007.....	21
Figure 6.	Average ISCA section scores for nine MHOs, 2005 and 2007.....	35
Figure 7.	MHO compliance scores: Information Systems.....	38
Figure 8.	MHO compliance scores: Staffing.....	39
Figure 9.	MHO compliance scores: Hardware Systems.....	40
Figure 10.	MHO compliance scores: Security of Data Processing.....	41
Figure 11.	MHO compliance scores: Administrative Data.....	42
Figure 12.	MHO compliance scores: Enrollment System.....	43
Figure 13.	MHO compliance scores: Vendor Medicaid Data Integration.....	44
Figure 14.	MHO compliance scores: Provider Compensation and Profiles.....	45

Executive Summary

The Oregon Department of Human Services, Addictions and Mental Health Division (AMH) contracts with Acentra Health to perform external quality review (EQR) of the delivery of mental health services to Oregon Health Plan (OHP) enrollees. The Balanced Budget Act of 1997 requires EQR in states such as Oregon that use a managed care approach to provide Medicaid services.

AMH contracts with nine mental health organizations (MHOs) to deliver OHP managed mental health services. The MHOs, in turn, contract with community mental health agencies, hospitals, and clinics to deliver treatment. The MHOs are responsible for ensuring that services are delivered in a manner that complies with regulatory and contractual obligations to provide effective care.

This is the third annual EQR report produced for AMH by Acentra Health. The report summarizes the EQR results in three major areas:

- evaluation of the MHOs' performance improvement projects (PIPs)
- validation of the statewide performance measures that AMH uses to assess care provided by MHOs
- associated with the performance measure validation, an Information Systems Capabilities Assessment (ISCA) for AMH and for each MHO

Highlights appear below. More detailed results and recommendations are presented in each section of the EQR report.

EQR results

The 2007 EQR results reflect continuing progress by AMH and the Oregon MHOs in meeting the requirements for managed care set forth by the Centers for Medicare & Medicaid Services (CMS).

As the centerpiece of its managed care program, AMH continues to implement the Children's System Change Initiative (CSCI), aimed at serving children in the least restrictive environment by moving them from psychiatric residential treatment facilities and state hospitals into community-based mental health services, when appropriate. The CSCI serves as a focal point for quality improvement (QI) activities conducted by AMH and the MHOs.

Performance improvement projects

All managed care organizations that serve Medicaid enrollees must conduct two PIPs each year aimed at improving clinical outcomes and administrative services. PIPs are validated each year through the EQR to ensure that they are designed, conducted, and reported according to CMS standards.

In 2007, seven of the 18 PIPs (two per MHO) fully met the CMS standards, and eight PIPs substantially met the standards. Scores on the individual PIP validation standards continued to improve from previous years, as the MHOs strengthened their documentation of performance indicators, data collection and analysis plans, intervention goals and strategies, and results. In particular, most MHOs showed progress in analyzing and reporting the results of their interventions.

These results generally reflect the MHOs' successful response to recommendations arising from the 2005 and 2006 EQR evaluations. Since 2005, the MHOs have gained a better understanding of the PIP process and documentation requirements, in part because of specialized training offered by AMH.

AMH has established contract requirements for each MHO to conduct a PIP aimed at integrating the delivery of physical and mental health care for OHP enrollees. The MHOs are to collaborate in these projects with the medical managed care organizations (MCOs) and chemical dependency and dental care organizations overseen by the Division of Medical Assistance Programs (DMAP). Several MHOs began their collaborative PIPs during 2007.

Performance measure validation results

AMH's four statewide performance measures for MHOs, reported in the *MHO Utilization Quarterly Report*, reflect the goal of reducing hospitalization in favor of outpatient treatment. The previous EQR studies noted deficiencies with regard to how the quarterly report explained the measure calculations and the limitations of the reported data. In addition, AMH lacked thorough internal documentation of the production process, including the flow of data used in calculating the measures and the steps for ensuring accuracy and completeness.

AMH has improved many aspects of its analytic and reporting process. However, the performance measures still comply only partially with the CMS requirements. A key feature of a valid performance measure is that it can be used to monitor the performance over time of health plans providing similar services, both within the state and nationally. Currently, incomplete specifications and reporting limit the usefulness of the AMH measures for comparing performance among MHOs or for comparing their performance with national benchmarks.

ISCA results

Since the 2005 ISCA, AMH and DMAP have continued their transition to a new system of data administration in compliance with the Health Insurance Portability and Accountability Act of 1996 (HIPAA). The state now uses encrypted electronic mailboxes in place of its previous bulletin board system to provide more secure transfer of encounter and claims data. Implementation of the Decision Support

Surveillance and Utilization Review System, a database warehouse, has enhanced protection of confidential enrollee information.

The 2007 ISCA found that the state substantially meets CMS standards for data processing procedures and personnel to support the production of performance measures. However, the state only partially or minimally meets the data acquisition standards, related to ensuring the validity and timeliness of encounter and claims data and to producing performance measure reports.

In particular, AMH has no process in place to perform mental health-specific edits and audits of encounter data—for example, to ensure that diagnostic codes are assigned to appropriate age groups. The state's performance measure data repository needs to incorporate snapshots of the data sets for each period when the performance measures are calculated. The ISCA also identified gaps in the high-level documentation describing the flow of data from the mental health encounter to the performance measure report.

Acumentra Health also conducted an ISCA for each MHO in 2007. Most MHOs fully or substantially met the CMS standards for data processing procedures and personnel and for data acquisition procedures. The most notable shortcoming for the MHOs as a group was in the Administrative Data section of the ISCA protocol. During part of the review period, several MHOs were unable to submit accurate, complete, and timely claims and encounter data to the state. Many MHOs lacked systematic processes for monitoring the data submitted by providers, and/or for auditing their own electronic billing systems. Often, several providers did not submit encounter data when Medicare paid the full cost of care.

Response to previous EQR findings

The 2005 and 2006 EQR studies identified many areas in which the MHOs fell short of meeting federal standards. AMH has issued corrective action plans to the MHOs and has conducted focused site reviews to monitor and approve the MHOs' responses to the required corrections.

Some of the previous EQR recommendations addressed areas in which AMH needed to provide more oversight and technical assistance to guide the MHOs in their compliance efforts. In response, AMH has worked with the MHOs to revise the Provider Capacity Assurance Report, by which each MHO demonstrates that it has adequate provider capacity to ensure that enrollees have access to all services covered under the MHO agreement. AMH also has provided training to guide the MHOs in defining and measuring enrollees' access to the delivery network.

Recommendations

With the goal of continuous quality improvement, Acumentra Health offers the following recommendations, building on those from previous EQR studies.

For AMH:

- Continue to coordinate with DMAP to support the MHOs in conducting PIPs to integrate the delivery of mental and physical healthcare services.
- Continue to work with the MHOs' QI coordinators to strengthen the reporting of statewide performance measures or revise the current measures.
- Continue to clarify terms of the managed care contract and provide other guidance for MHOs to support their compliance with regulatory standards.
- Continue to work with MHOs to ensure the development of data systems that can capture and transmit high-quality encounter and claims data.
- In light of CMS concerns about the accuracy and completeness of Medicaid encounter data, establish contractual requirements for MHOs to conduct regular audits to validate the encounter data submitted by providers.
- Consider forming a QI committee within AMH that would oversee MHO responsibilities and approve the annual work plan and the scope of work for the contract year.

For MHOs:

- With regard to PIPs:
 - MHOs beginning their collaborative mental/physical health integration PIPs in 2008 need to define their study questions and indicators in accordance with the CMS protocol.
 - MHOs that began their collaborative PIPs during 2007 need to implement their planned interventions and develop baseline data.
 - For other ongoing PIPs, MHOs need to pursue consistent remeasurement of their study indicators, perform appropriate statistical tests to assess the degree of sustained improvement due to the PIP interventions, identify barriers to improvement, and modify the interventions accordingly.
- With regard to information systems, MHOs need to audit the encounter data submitted by provider agencies against clinical records regularly to validate the accuracy and completeness of encounter data.

Introduction

Acumentra Health, as AMH's external quality review organization (EQRO), presents this report to fulfill the requirements of 42 CFR §438.364. The report describes how Acumentra Health aggregated and analyzed data from AMH's EQR activities and drew conclusions as to OHP enrollees' access to mental health services and the timeliness and quality of services furnished by MHOs.

42 CFR §438.358 requires the EQR to use information from the following activities, conducted in accordance with CMS protocols:

- validation of PIPs required under 42 CFR §438.240(b)(1)
- validation of performance measures reported by managed care organizations or calculated by the state as required by 42 CFR §438.240(b)(2)
- a review, conducted within the previous three years, of each MHO's compliance with established standards for access to care, structure and operations, and quality measurement and improvement

This report describes objectives, data collection and analysis methods, and conclusions drawn from the data obtained for the first two activities (including the ISCA associated with performance measure validation). The compliance review for Oregon MHOs occurred in 2005.

Separate reports delivered to AMH during 2007 have assessed the strengths and weaknesses of each MHO's PIPs and information systems and have presented recommendations for improvement. AMH will determine the required action for each MHO.

OHP managed mental health care

Managed mental health services for OHP enrollees are delivered through contracts with MHOs on a capitated basis. Currently, these nine MHOs provide behavioral health services throughout the state under contract with AMH:

- Accountable Behavioral Health Alliance (ABHA)
- Clackamas Mental Health Organization (CMHO)
- FamilyCare, Inc.
- Greater Oregon Behavioral Health, Inc. (GOBHI)
- Jefferson Behavioral Health (JBH)
- LaneCare
- Mid-Valley Behavioral Care Network (MVBCN)
- Multnomah Verity Integrated Behavioral Healthcare System (VIBHS)
- Washington County Health and Human Services (WCHHS)

The MHOs, in turn, contract with provider groups, including community mental health programs (CMHPs) and other private nonprofit mental health agencies and hospitals, to deliver treatment services. The MHOs are responsible for ensuring that services are delivered in a manner that complies with legal, regulatory, and contractual regulatory obligations to provide effective care.

As of September 2007, the nine MHOs had approximately 340,600 OHP enrollees, broken out as shown in Table 1. About 57 percent of enrollees were female, and 56 percent were children age 18 or younger.

Table 1. Geographical coverage and enrollment of Oregon MHOs.¹

MHO	Counties served	Number of enrollees
ABHA	Benton, Jefferson, Lincoln, Deschutes, Crook	23,283
CMHO	Clackamas, Hood River, Gilliam, Sherman, Wasco	23,452
FamilyCare	Clackamas, Multnomah, Washington	9,898
GOBHI	Baker, Grant, Harney, Lake, Malheur, Morrow, Umatilla, Union, Wallowa, Wheeler, Clatsop, Columbia	27,832
JBH	Coos, Curry, Klamath, Jackson, Douglas, Josephine	58,521
LaneCare	Lane	32,742
MVBCN	Linn, Marion, Polk, Tillamook, Yamhill	67,913
VIBHS	Multnomah	67,230
WCHHS	Washington	29,741

AMH's quality improvement activities

Managed care quality strategy

42 CFR §438.202 requires each state Medicaid agency contracting with MCOs (used in a broad sense to include both physical and mental health managed care organizations) to develop and implement a written strategy for assessing and improving the quality of managed care services. The strategy must comply with provisions established by the U.S. Department of Health and Human Services. States either must adopt CMS protocols for independent external review or must implement protocols consistent with those of CMS.

AMH's Medicaid Managed Mental Health Care Quality Assessment and Improvement Strategy describes AMH's plan for overseeing the MHOs that serve OHP enrollees. Adopted in August 2003 and revised in August 2005, the quality

¹ Oregon Department of Human Services. OHP managed care enrollment reports. Available online at: www.oregon.gov/DHS/healthplan/data_pubs/enrollment/2007/0907/mho0907.pdf. Accessed November 15, 2007.

strategy incorporates elements of state and federal regulations and of the MHO contract. Data obtained from the oversight activities described in the strategy are analyzed and evaluated through EQR activities. Acumentra Health reviewed the strategy's compliance with federal standards as part of the 2006 EQR.

MHO Utilization Quarterly Report

AMH's quarterly utilization report incorporates the four statewide performance measures for mental health care (see page 22) and presents data on services provided to OHP enrollees across the state. AMH issued only one quarterly report during 2007, covering data from July 2005 through June 2006.

Quality improvement annual work plans

Each MHO submits its QI annual work plan to AMH for approval so that AMH can monitor the MHOs' QI activities and offer technical assistance. AMH has worked with the MHOs to incorporate the PIPs into their work plans and has worked with DMAP to establish more consistent contract language to facilitate QI collaboration between MHOs and medical MCOs. As of 2008, AMH designates these as quality assessment and performance improvement work plans, to encompass the full range of quality management activities.

CSCI implementation

The goal of the CSCI, mandated by state lawmakers in 2003, is to serve children with serious emotional, behavioral, and mental disorders through least restrictive, culturally appropriate, evidence-based services and care coordination. A key goal is to move children from psychiatric residential treatment and state hospitals into community-based services under managed care, when appropriate.

Portland State University's Regional Research Institute for Human Services evaluated the CSCI following the first year of implementation, ending in August 2006. The PSU/RRI report found evidence of substantial progress, including

- considerable system-wide infrastructure development
- a philosophical shift in the culture of service delivery toward a more family-focused, strengths-based and coordinated system
- enhanced service capacity, including a network of care coordinators²

² Portland State University, Regional Research Institute for Human Services, Graduate School of Social Work. Oregon Children's Mental Health System Change Initiative Implementation Evaluation. November 26, 2006. Available online at: www.rri.pdx.edu/or_csci_evaluation_directory/or_csci_evaluation12.06.06.pdf. Accessed December 15, 2007.

A document on AMH's website updates the status of CSCI implementation as of April 2007, citing the following accomplishments:

- Every MHO and CMHP is using the standardized Child and Adolescent Service Intensity Instrument to assess children's mental health service needs for possible assignment to the Integrated Service Array (ISA). About 1,300 children have been referred for screening for the ISA, and 88 percent of those children were deemed appropriate for treatment.
- Every child entering the ISA receives intensive community-based treatment and support services that can include outpatient and wraparound services, care coordination, skills training, respite care, or crisis respite care.
- Each MHO has a CSCI coordinator, providing care coordination in every county, and each MHO has a CSCI advisory committee with at least 51 percent representation by family members.
- MHO enrollment of children and the percentage of enrolled children receiving services have increased significantly, while the number of children admitted to psychiatric day treatment or residential treatment has decreased significantly. At the end of 2006, more than 500 children in the ISA were receiving services in a community setting rather than in psychiatric day treatment or residential treatment.
- Because of minimal increases in payment rates, providers cannot pay a livable wage to staff members who work with the children. This results in high staff turnover and poorer treatment outcomes. Also, according to the PSU/RRI research team, most MHOs will need to add three additional care coordinators in their service region to reach caseload ratios suggested by federal research findings.³

Consumer satisfaction surveys

AMH conducts the annual Youth Services Survey for Families to ask the caregivers of children who receive state-funded mental health services about their satisfaction with those services. AMH has adapted the survey to collect data that can contribute to evaluating the progress of the CSCI. The agency also conducts annual surveys of adult OHP members' satisfaction with their mental health care, using a modified version of the Mental Health Statistics Improvement Program survey.

³ Oregon Department of Human Services, Addictions and Mental Health Division. Children's System Change Initiative (CSCI) Outcomes and Summary of Accomplishments. April 11, 2007. Available online at: www.oregon.gov/DHS/mentalhealth/child-mh-soc-in-plan-grp/subcommittees/csci/csci-outcomes-accomplish.pdf. Accessed December 15, 2007.

Acumentra Health conducted both surveys on behalf of AMH in 2007, mailing survey forms to approximately 12,900 adults and 12,500 parents and guardians. Response exceeded 22 percent for each survey. Final reports of the survey results were delivered to AMH in January 2008.

Evidence-based practice initiative

Oregon lawmakers have mandated that increasing proportions of state funds be allocated for specific services that are based on evidence-based practices (EBPs). By the 2009–2011 biennium, 75 percent of AMH funds to serve populations at risk of emergency psychiatric services and/or criminal or juvenile justice involvement must support EBPs. AMH has established a policy and procedure for identifying, evaluating, approving, and listing relevant practices and programs on its public website. AMH has determined that MHOs may adopt EBPs in lieu of the practice guidelines required by federal regulations.

Wraparound services for children are among the EBPs targeted during statewide CSCI implementation. In December 2007, the Statewide Children’s Wraparound Project Steering Committee reported its recommendations for a statewide strategic plan.⁴ The state has chosen Albertina Kerr Centers to manage the statewide wraparound project.

In preparation for the wraparound project, AMH conducted a pilot project during March–July 2007 to collect information and develop protocols for fidelity review and to prepare AMH staff and selected providers to conduct fidelity reviews. This project provided data and recommendations on how to implement future reviews effectively, and it produced a group of experienced fidelity reviewers.⁵

Behavioral and physical health integration

DHS has adopted the following goal: “Improve health and reduce morbidity, mortality, and cost through greater coordination and integration of care provided by public and private behavioral health and physical health providers and community-based organizations.” A core team representing AMH, DMAP, and the Public Health Division will work with community partners to

- identify and address local, regulatory, and other barriers to integration
- provide assistance to identify and implement best practices

⁴ See www.oregon.gov/DHS/mentalhealth/wraparound/steering1207report2gov.pdf. Accessed January 7, 2008.

⁵ Oregon Department of Human Services, Addictions and Mental Health Division. Report on the Addictions and Mental Health Division Fidelity Pilot Project. December 6, 2007. Available online at: www.oregon.gov/DHS/mentalhealth/ebp/fidelity/fidelity-pilot-amh.pdf. Accessed January 7, 2008.

- explore state or federal resources available to assist with integration efforts
- facilitate a learning collaborative of public and private partners to promote increased integration and coordination

AMH has established contract requirements for each MHO to conduct a PIP aimed at integrating the delivery of physical and mental health care for OHP enrollees. The MHOs are to collaborate in these projects with the medical MCOs overseen by DMAP. Several MHOs began their collaborative PIPs in 2007, and the remainder will begin in 2008.

EQR activities

Acumentra Health has conducted annual EQR studies of OHP managed mental health care since 2005. The conclusions are intended to guide AMH in identifying system strengths and weaknesses to facilitate continuous improvement of the care provided by MHOs. The annual reports have identified many opportunities for improvement in MHO procedures during the transition to the relatively new regulatory environment for Medicaid managed care and during a change in the information systems for administering the mental health care system.

Response to EQR findings

Upon receiving the 2005 compliance reports, AMH notified each MHO of the findings and identified the required corrective actions. AMH conducted focused site reviews of MHOs during 2007 to monitor and approve their responses. AMH will require action plans from five MHOs in response to the 2007 EQR findings, primarily regarding ISCA results.

Previous EQR reports identified areas in AMH needed to provide more oversight and technical assistance to guide the MHOs' compliance efforts. During 2007, as recommended, AMH negotiated with the MHOs to revise the Provider Capacity Assurance Report, by which each MHO demonstrates that it has adequate provider capacity to ensure that enrollees have access to all services covered under the contract. For 2008, MHOs may choose to use the original, more quantitative report format or the more qualitative format negotiated in 2007. AMH also provided training through Acumentra Health to guide the MHOs in defining and measuring enrollees' access to the delivery network.

Since the 2005 PIP validation reviews, Acumentra Health has conducted three separate training sessions for MHOs on behalf of AMH, to help the MHOs comply more fully with PIP standards.

Performance Improvement Projects

All managed care organizations that serve Medicaid enrollees must conduct two PIPs each year aimed at improving care outcomes. The PIPs make it possible to assess and improve the processes and, in turn, the outcomes of care. To establish confidence in the MHO's reported improvements, a PIP must demonstrate that it results in real improvements in clinical care or enrollee service. PIPs are validated each year as part of the EQR process to ensure that they are designed, conducted, and reported in a methodologically sound way.

Detailed results of Acumentra Health's PIP evaluations for each Oregon MHO appear in individual reports submitted to AMH throughout 2007. High-level summary results appear below.

In 2007, seven of the 18 PIPs (two per MHO) fully met the CMS standards, and eight PIPs substantially met the standards. Almost across the board, the MHOs scored higher on the individual PIP validation standards, compared to their 2006 scores, as the MHOs strengthened their documentation of performance indicators, data collection and analysis plans, intervention goals and strategies, and results. In particular, most MHOs showed progress in analyzing and reporting the results of their PIP interventions.

These results generally reflect the MHOs' successful response to recommendations arising from the 2005 and 2006 EQR evaluations. In 2005, none of the 18 initial PIPs fully met federal standards. Since then, the MHOs have gained a much better understanding of the PIP process and documentation requirements.

As MHOs develop future PIPs or refine their current PIPs, Acumentra Health offers the following recommendations.

- MHOs beginning their collaborative mental/physical health integration PIPs in 2008 need to define their study questions and indicators in accordance with the CMS protocol.
- MHOs that began their collaborative PIPs during 2007 need to implement their planned interventions and develop baseline data.
- For other ongoing PIPs, MHOs need to pursue consistent remeasurement of their study indicators; perform appropriate statistical tests to assess the degree of sustained improvement due to the PIP interventions; identify barriers to improvement, and modify the interventions accordingly.

Acumentra Health also recommends that AMH continue to provide ongoing technical assistance as MHOs conduct their PIPs.

PIP highlights

During 2007, the MHOs continued to conduct PIPs that addressed access to mental health care and the quality and timeliness of care. In addition, ABHA and MVBCN began collaborating with other managed care organizations on PIPs that focused on mental/physical health integration.

Access to care. Several MHOs focused their PIPs on improving outreach to underserved populations or on ensuring access to routine appointments, both of which were cited as areas of concern in previous EQR studies. For example:

- MVBCN's nonclinical PIP, initiated in 2005, seeks to improve access to community-based services for children, in line with the goal of the CSCI. Interventions have included hiring and training new care coordinators and conducting fidelity monitoring to ensure that providers consistently apply the wraparound model of care. MVBCN has demonstrated significant improvement in several access measures. This exemplary project fully met CMS standards in 2007, earning a perfect score of 100.
- FamilyCare's nonclinical PIP, aimed at improving access to services for new enrollees with behavioral health special needs, fully met CMS standards again in 2007. The MHO has conducted 12 remeasurements since 2005, modifying its interventions in response to internal barrier analysis and/or EQR recommendations. After some initial success in improving the rate of completed telephone assessments and referrals accepted by members, the remeasurement results have fluctuated.
- CMHO targets improvements in the rate of follow-up appointments kept by enrollees who are diagnosed with mental health service needs. CMHO is gathering data about enrollees with service needs who do not engage in treatment, and about their satisfaction with the process of care, and will use the data to design interventions to increase treatment retention rates. This nonclinical PIP substantially met CMS standards in 2007.
- GOBHI seeks to serve a greater proportion of children in the state's Child Welfare system, who are at higher risk of requiring mental health services. The MHO has sent targeted information to providers about their service penetration rates for this population, encouraging providers to create their own interventions that best suit the needs of their locations and clientele. This nonclinical PIP substantially met CMS standards in 2007.

Quality of care. Several MHOs' PIPs used evidence-based community treatment models in preventive interventions to reduce the rate of enrollee hospitalization and the length of hospital stays. For example:

- WCHHS has sought to reduce its high rates of psychiatric hospitalization and average length of hospital stays by allowing providers to develop intensive community-based treatment plans for adult members with severe and persistent mental illness. The second-year results of this three-year clinical PIP provided evidence that this intervention had a significant positive impact on hospitalization rates and hospital costs. This PIP fully met CMS standards in 2007.
- VIBHS is using intensive case management and evidence-based practices, including Assertive Community Treatment (ACT) and Dialectical Behavior Therapy (DBT), in an effort to reduce hospitalization rates. The MHO documented a reduction in hospital discharge rates and days after initiating ACT and DBT in April 2006, although the PIP has yet to demonstrate a significant and sustained reduction. This PIP substantially met CMS standards in 2007.
- LaneCare has expanded its Transition Team (TT) program to serve adult MHO members who have been hospitalized or are at risk of hospitalization. The MHO's clinical PIP seeks to determine whether the TT interventions—including help with housing, transportation, prescriptions, crisis counseling, food, and clothing—will reduce the average length of psychiatric hospital stays. This PIP substantially met CMS standards in 2007.
- Providers and CMHPs in JBH's service area identified a need to improve integration of mental health and substance abuse treatment for enrollees with co-occurring disorders. JBH's clinical PIP, which seeks to monitor the percentage of dual-disorder assessments that have identified goals related to treating the disorders, substantially met CMS standards in 2007.

Timeliness of care. Timely outpatient care following psychiatric hospitalization can reduce the need for rehospitalization. As a statewide performance measure, AMH tracks whether the MHOs provide follow-up appointments in an outpatient setting within 7 days of when an enrollee is discharged from acute hospital care. From 2nd Quarter 2005 through 1st Quarter 2006, the statewide average percentage of enrollees discharged from acute care who received an outpatient visit within 7 days ranged from 53 to 59 percent.

FamilyCare and CMHO continued their clinical PIPs aimed at improving the 7-day follow-up rate. Both PIPs again fully met CMS standards, although at the time of review, FamilyCare had progressed farther in remeasurement and in adjusting its interventions in response to identified barriers. FamilyCare used discharge planning to establish a mental health service provider for each hospitalized enrollee before discharge. Initial results exceeded the MHO's goals; subsequent remeasurements

revealed less consistent results. CMHO's interventions involved improving case management, care coordination, and community-based support.

Timely and consistent appointments during an initial episode of care can improve client outcomes and reduce overall service utilization. VIBHS's nonclinical PIP tracks changes in the percentage of members who receive follow-up visits within specified time frames, a measure of timely initiation and engagement (I&E). VIBHS has incorporated I&E measures and performance goals in all 2007–2008 contracts with outpatient providers and has set long-term I&E targets. This PIP also fully met CMS standards in 2007.

Review procedures

Data collection tools and procedures, adapted from the CMS protocols, involved document review and onsite interviews from February through October 2007. Acumentra Health evaluated the information collected from each MHO according to the criteria specified in the document titled *Performance Improvement Project Validation*, adapted from the CMS protocol and approved by AMH.

Acumentra Health reviewed the PIPs for the following elements:

- a clear, concise statement of the topic being studied, the specific questions the study is designed to address, and the quantifiable indicators that will answer those questions
- a sampling methodology that yields a representative sample large enough for statistical comparisons (if needed)
- a written project plan with a study design, an analysis plan, and a summary of results
- an analysis plan that addresses project objectives, defines indicators clearly, specifies the population being studied, identifies data sources and/or the data collection procedure, and discusses the methodologies proposed for analyzing the data, statistical tests to be performed, and sampling procedures, if applicable
- validation of data at the point of data entry for accuracy and completeness
- when claims or encounter data are used for population-based analysis, assessment of data completeness
- validation rules created in the data entry database to determine whether data were missing or whether data fell within valid parameters
- in the case of data collection that involves a medical chart review, a check on inter-rater reliability
- a clear statement of the improvement strategies, their impact on the study question, and how that impact will be assessed and measured

- a summary of results that covers all data collection and analysis, explaining limitations inherent in the data and discussing whether the strategies resulted in improvements

Scoring for the PIPs involved rating the MHOs' performance on 10 standards:

1. Selected study topic is relevant and prioritized
2. Study question is clearly defined
3. Study indicator is objective and measurable
4. Study population is clearly defined and, if a sample is used, appropriate methodology is used
5. Data collection process ensures valid and reliable data
6. Improvement strategy is designed to change performance based on the quality indicator
7. Data are analyzed and results interpreted according to generally accepted methods
8. Reported improvement represents actual change
9. MHO has documented additional or ongoing interventions or modifications
10. MHO has sustained the documented improvement

Each standard had a potential score of 100 points for full compliance. The total points earned for each standard were weighted and combined to determine the MHO's overall performance score for the specific PIP.

The overall PIP scoring was weighted 80 percent for demonstrable improvement in a project's first year (Standards 1–8) and 20 percent for sustained improvement in later years (Standards 9–10). Thus, for first-year PIPs, the highest achievable overall score was 80 points; for second-year or ongoing PIPs, the maximum PIP score was 100 if the MHO had completed multiple remeasurements that made it possible to assess sustained improvement. For PIPs rated on the 100-point scale, Acumentra Health also assessed the validity and reliability of PIP results. Table 2 shows the range of compliance ratings and associated scores.

Table 2. PIP compliance rating and scoring system.

Compliance rating	Description	Score on 100-pt scale	Score on 80-pt scale
Fully met	Met or exceeded all criteria	80–100	70–80
Substantially met	Met essential criteria, had minor deficiencies	60–79	55–69
Partially met	Met essential criteria in most, but not all, areas	40–59	40–54
Minimally met	Marginally met criteria	20–39	25–39
Not met	Did not meet essential criteria	0–19	0–24

Note: ABHA and MVBCN collaborated with medical MCOs to conduct PIPs focusing on mental/physical healthcare integration. In the initial stage of developing these PIPs, AMH required the MHOs only to conduct activities pertaining to the first three review standards. While these PIPs received scores on Standards 1–3, they did not receive overall compliance scores.

Review results

Of the two PIPs to be conducted by each MHO, one must focus on improving clinical care and the other on improving nonclinical aspects of service delivery. Tables 3 and 4 display the clinical and nonclinical PIPs reviewed for each MHO, with their associated study questions or topics.

Five of the nine clinical PIPs, each carried over from 2006, dealt with issues pertaining to psychiatric hospitalization—reducing the rate of hospitalization and/or improving follow-up with enrollees discharged from the hospital. The nonclinical PIPs addressed diverse topics related to improving administrative processes and enrollees' access to services.

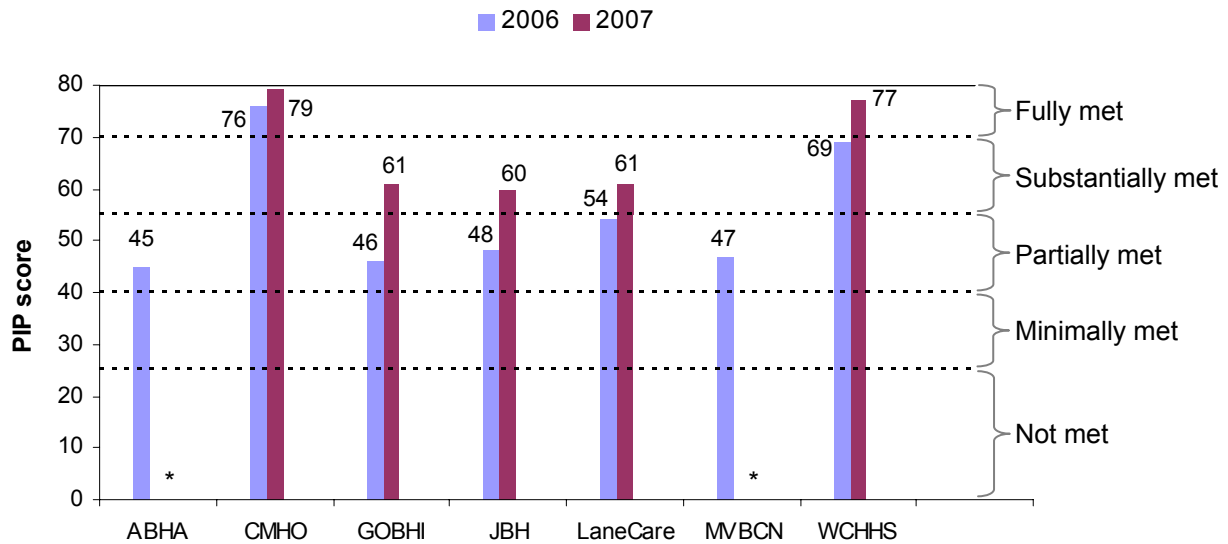
Table 3. Clinical PIP topics by MHO.

MHO	PIP topic	Study question/topic
ABHA	Mental Health/Physical Health Collaborative	Identify members shared by ABHA and the Deschutes County Chemical Dependency Organization who have co-occurring mental health and substance abuse disorders who need referral for treatment.
CMHO	Increasing Percentage of Ambulatory Care Appointments Kept Within 7 Days of Psychiatric Hospital Discharge	Reduce the number of rehospitalizations and length of stay for enrollees through an emphasis on post-hospital care.
FamilyCare	Improving the Rate of 7-Day Ambulatory Follow-Up After Inpatient Psychiatric Discharge	Can the 7-day ambulatory follow-up rate for OHP enrollees be improved by ensuring that each enrollee has established a provider prior to discharge?
GOBHI	Increasing Services for Children in Child Welfare Custody	Can services to children in Child Welfare care be increased by at least 15 percent by providing targeted information to the providers and by individualized responses by providers?
JBH	Dual Diagnosis Treatment Assessment	What percentage of mental health assessments that identify a dual disorder have identified treatment plan goals related to dual disorder treatment interventions?
LaneCare	Reducing Hospital Utilization Through Preventive Interventions	Will enrollee involvement with the Transition Team reduce the average length of stay for enrollees admitted to psychiatric hospitals?
MVBCN	Chronic Pain Consultation and Stabilization	Collaborative PIP with Marion Polk Community Health Plan to create an integrated therapeutic model to improve treatment for enrollees with chronic pain and co-morbid addiction and mental health conditions.
VIBHS	Reducing Inpatient Utilization	Reduce overall hospitalization by performing level-of-care assessments for members with the highest hospital utilization and providing community-based services according to evidence-based models.
WCHHS	Reducing Psychiatric Hospitalization Through Intensive Community Treatment	Will implementation of an Intensive Community Treatment level of care for targeted members result in decreased admissions to inpatient psychiatric hospital facilities and decreased lengths of stay in psychiatric hospitals?

Table 4. Nonclinical PIP topics by MHO.

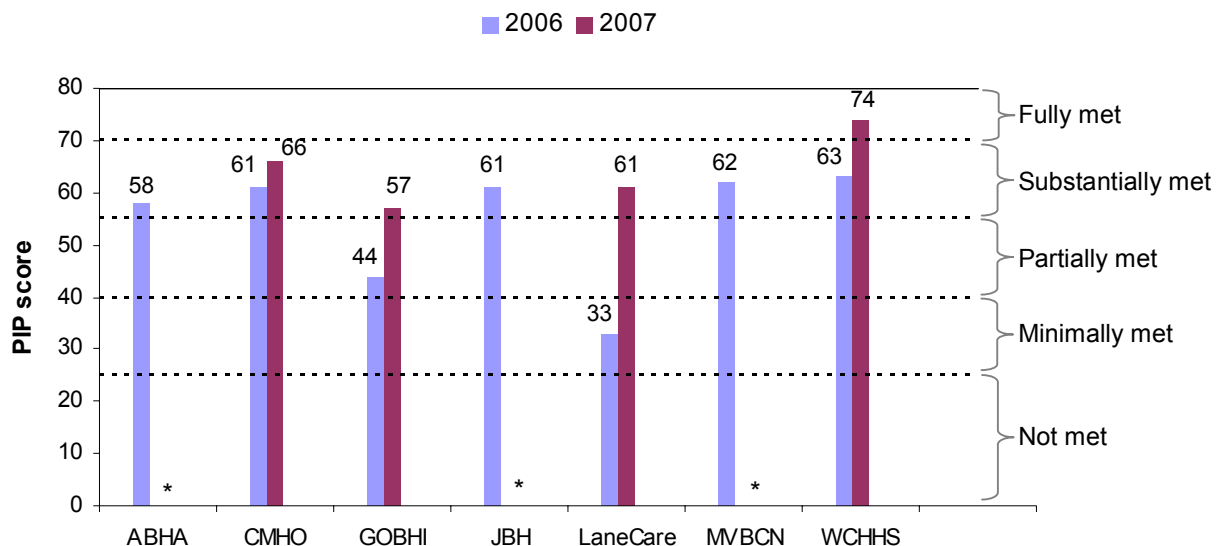
MHO	PIP topic	Study question/topic
ABHA	Oregon Change Index Outcome Measurement	Analyze enrollee improvement outcomes as measured by the Oregon Change Index survey tool.
CMHO	Increasing Treatment Follow-Through	Gather data about enrollees with mental health service needs who do not engage in treatment, and about their satisfaction with the process of care, for the purpose of measuring performance improvement.
FamilyCare	Improving Identification of Behavioral Health Special Needs and Access to Needed Services	Can identification of OHP members' behavioral health special needs and access to needed services be improved by using the Health Information Form and following up with at-risk individuals by telephone?
GOBHI	Improving Data Integrity	Improve the integrity of clinical records maintained by mental health service providers.
JBH	Improving Access for Hispanic Enrollees	Does increasing the availability of culturally competent and Spanish-language resources increase the percentage of Hispanic enrollees who receive needed services?
LaneCare	Timely Resolution of Pended Authorizations	Determine the average number of days it takes the MHO to resolve pended authorizations and whether a new tracking system and other measures will reduce the time required for service authorization.
MVBCN	Increasing Access to Community-Based Treatment Services	Increase the availability and quality of intensive home- and community-based mental health services provided for children and their families.
VIBHS	Initiation and Engagement	Track changes in the percentage of members receiving follow-up visits within specified time frames.
WCHHS	Implementing a Fee-for-Service Payment System	Will implementation of a fee-for-service payment system result in an increase in the overall number of encounter claims? Will matching service intensity to members' assessed needs result in more services for members who are assessed to have the highest level of impairment and/or the most serious mental health conditions?

Figure 1 shows scores on the clinical PIPs that were rated on the 80-point scale in 2006 and 2007. Figure 2 shows scores on the nonclinical PIPs rated on the same scale. Because none of these studies had progressed to a second remeasurement, it was not possible to gauge sustained improvement. However, both charts reflect widespread improvement in conducting and documenting the PIPs.



*MHO conducted a mental/physical health collaborative PIP and was not assigned an overall score.

Figure 1. Overall scores for clinical PIPs scored on the 80-point scale, 2006–2007.



*MHO's nonclinical PIP was scored on the 100-point scale.

Figure 2. Overall scores for nonclinical PIPs scored on the 80-point scale, 2006–2007.

Figure 3 shows scores on the seven PIPs rated on the 100-point scale in 2007. These studies had progressed to at least two remeasurements, making it possible to assess sustained improvement. Both of FamilyCare's PIPs received "Fully Met" ratings, as did MVBCN's and VIBHS's nonclinical PIPs.

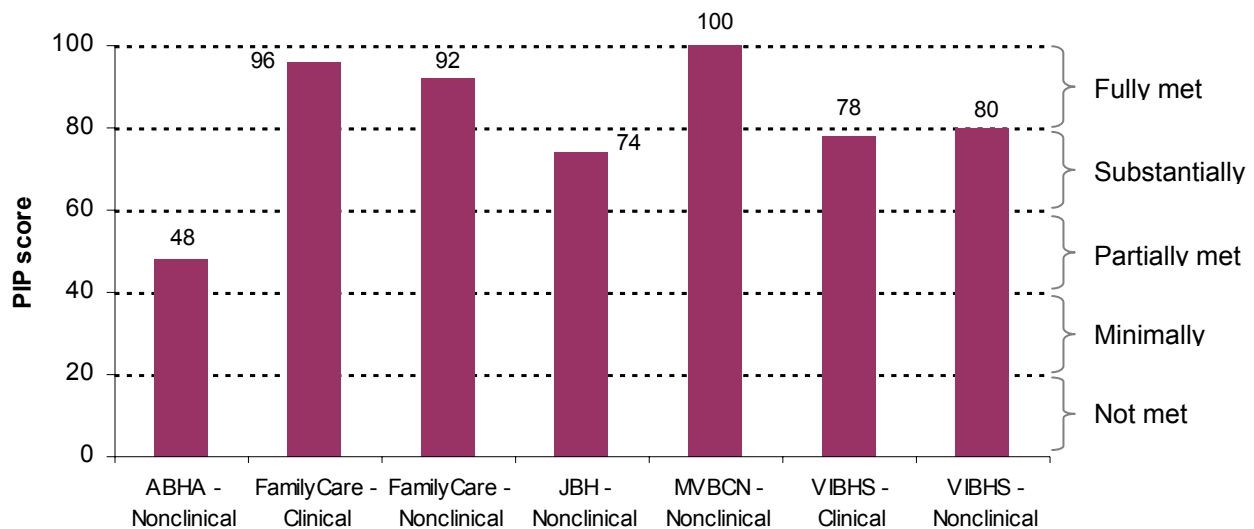


Figure 3. Overall scores for PIPs scored on the 100-point scale, 2007.

Figure 4 shows the scores by individual *validation standard* for the clinical PIPs reviewed in 2006 and 2007 (excluding Standards 9 and 10), averaged across the nine MHOs. Figure 5 shows the equivalent data for the nonclinical PIPs. (Table A-1 in Appendix A arrays the 2007 scores on all validation standards by MHO for both clinical and nonclinical PIPs.)

Compared with 2006 scores, the average scores in 2007 were higher almost across the board, as the MHOs improved their documentation of performance measures, data collection and analysis plans, and intervention goals and strategies. As a group, the MHOs substantially met the requirements for Standards 1–6 and for Standard 7 of the clinical PIPs, although some MHOs had problems defining and documenting their revised study indicators (Standard 3) as their clinical PIPs progressed. Scores for Standards 7 and 8 improved further as the MHOs showed progress in analyzing and reporting the results of their PIP interventions.

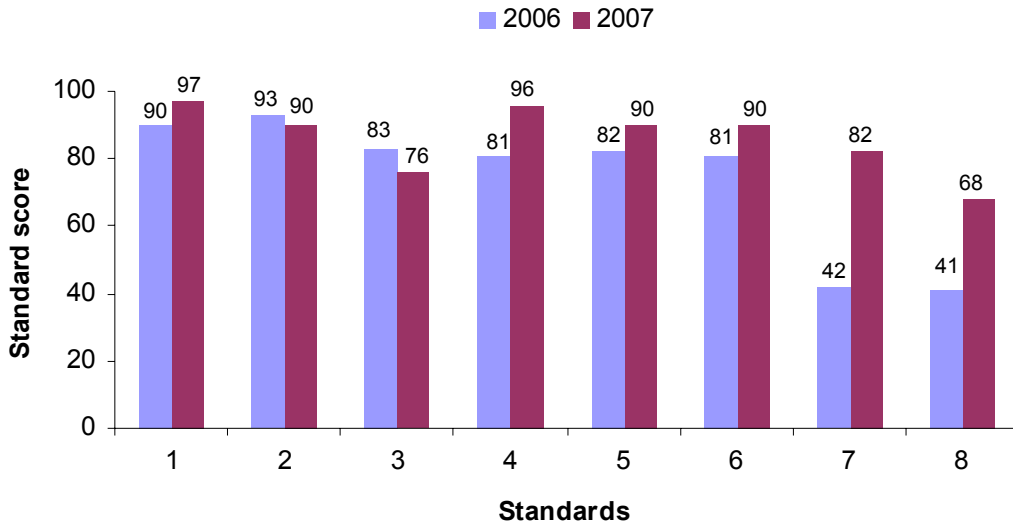


Figure 4. Average scores on clinical PIP validation standards across MHOs, 2006–2007.

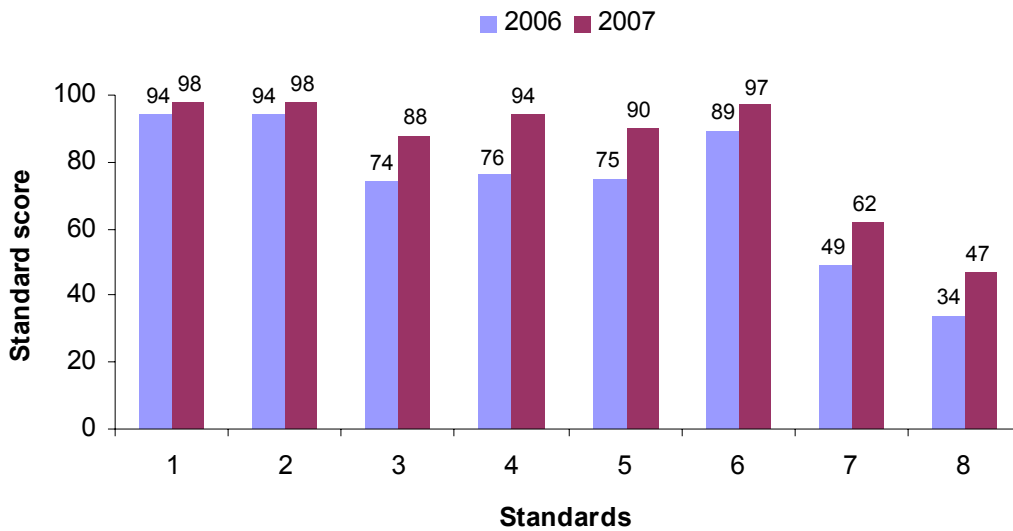


Figure 5. Average scores on nonclinical PIP validation standards across MHOs, 2006–2007.

Performance Measure Validation

AMH defines statewide performance measures for MHOs, calculates the measures using data that the MHOs report to DMAP, and reports the findings in the *MHO Utilization Quarterly Report*. The four statewide performance measures are

- acute hospital admissions per 1,000 members enrolled
- percentage of enrollees rehospitalized within 30 days of discharge from acute care
- percentage of enrollees rehospitalized within 180 days of discharge from acute care
- percentage of enrollees seen on an outpatient basis within 7 days of discharge from acute care

The first and fourth measures are similar to national measures produced for the Health Plan Employer Data and Information Set (HEDIS[®]).⁶

Acumentra Health conducts an annual review of the performance measure process as part of EQR activities. In February 2007, Acumentra Health assessed (1) the completeness and accuracy of AMH's performance measures and (2) the structural and procedural integrity of the information system for collecting, processing, and analyzing the data used in calculating the measures. The assessment sought to answer these questions:

1. Are the performance measures based on complete data?
2. How valid are the performance measures? Do they measure what they are intended to measure?
3. How reliable are the performance measure data? Are the results reproducible?
4. Can AMH and the MHOs use the *MHO Utilization Quarterly Report* to monitor their performance over time and to compare their performance with that of other health plans in Oregon and in other states?

The associated Information Systems Capabilities Assessment (ISCA) evaluated the extent to which the state's information technology infrastructure supports the production and reporting of valid and reliable performance measures. This state-level ISCA updated the assessment conducted and reported in 2005.⁷

⁶ HEDIS is a registered trademark of the National Committee for Quality Assurance.

⁷ OMPRO [Acumentra Health]. OMHAS [AMH] Performance Measure Validation. December 2005.

Acumentra Health also conducted an ISCA for each MHO. Since the statewide performance measures are based on encounter and claims data submitted by the MHOs, the validity and reliability of the performance measures depend on the accuracy and completeness of the MHO data.

Review procedures

Performance measure validation

The performance measure validation process, adapted from the CMS protocol for this activity,⁸ included the following steps.

1. Acumentra Health requested relevant documents from AMH and DMAP in advance of onsite interviews.
2. Acumentra Health used the documents supplied by AMH and DMAP to refine the questions to be asked at the onsite interviews.
3. Acumentra Health used the oral responses and written materials to assign compliance ratings for each performance measure.

The compliance ratings, also adapted from the CMS protocol, were:

Fully compliant—Measure was complete as reported, accurate, and could be interpreted easily by the casual reader.

Substantially compliant—Measure was complete as reported, accurate, and had only minor points in calculation that did not significantly hamper the ability of the reader to understand the reported rate.

Partially compliant—Measure either was complete as reported or was accurate, but not both, and had deficiencies in calculation that could hamper the reader's ability to understand the reported rates.

Not valid—Measure either was incomplete as reported or was inaccurate. This designation applies to measures for which no rate was reported, although reporting of the rate was completed in prior periods and no reason for the removal of the measure is stated in the report.

Not applicable—Measure was not reported because no Medicaid enrollees qualified for the denominator.

⁸ U.S. Department of Health and Human Services, Centers for Medicare & Medicaid Services. *Validating Performance Measures*. Final Protocol, Version 1.0. May 1, 2002.

ISCA

ISCA procedures, adapted from CMS protocol,⁹ consisted of the following steps.

1. DMAP and AMH received written copies of all interview questions in advance of onsite interviews.
2. Acumentra Health used the written answers from DMAP and AMH personnel to refine the questions to be asked at the onsite interviews.
3. Oral and written responses to all questions were compiled and scored.

The procedures were similar for the MHO reviews. Acumentra Health scored compliance with federal standards for each individual element of the ISCA on a range from 1 to 5:

4.5 to 5.0 = Fully met	1.5 to 2.4 = Minimally met
3.5 to 4.4 = Substantially met	<1.5 = Not met
2.5 to 3.4 = Partially met	

After scoring the individual elements, Acumentra Health combined the scores and used a predetermined weighting system to calculate a weighted average score for each major section of the ISCA.

Review results

Performance measure completeness and accuracy

Acumentra Health reviewed the most recent *MHO Utilization Quarterly Report*, dated February 2007, which presented performance measure data from July 2005 through June 2006. The review sought to determine whether the data used to calculate each measure were complete and accurate and whether the calculation adhered to CMS specifications.

The previous review in 2006 review noted deficiencies related to how the quarterly report explained the calculation of the measures and the limitations of the reported data. In addition, AMH lacked thorough internal documentation of the production process, including the flow of data used in calculating the measures and the steps for ensuring accuracy and completeness.

2007 update: Although AMH has improved many aspects of its analytic and reporting process, the performance measures still comply only partially with CMS requirements. Table 5 summarizes the validation ratings in 2006 and 2007.

⁹ U.S. Department of Health and Human Services, Centers for Medicare & Medicaid Services. *Appendix Z: Information Systems Capabilities Assessment for Managed Care Organizations and Prepaid Health Plans*. Final Protocol, Version 1.0. May 1, 2002.

Table 5. Performance measure validation ratings, 2006–2007.

Performance measure	Definition	Ratings	
		2006	2007
Acute hospital admissions/ 1,000 members	Number of admissions in time period/ (enrollees for time period/1000)	Partially compliant	Partially compliant
Percent of eligibles readmitted to acute care within 30 days	Number of admissions for those discharged within previous 30 days during time period/ total discharges for the time period	Partially compliant	Partially compliant
Percent of eligibles readmitted to acute care within 180 days	Number of admissions for those discharged within previous 180 days during time period/ total discharges for the time period	Partially compliant	Partially compliant
Percent of eligibles seen within 7 days of discharge from acute care	Number of eligibles seen in outpatient setting within 7 days of discharge from acute care for the time period/ total discharges for the time period	Partially compliant	Partially compliant

A key feature of a valid performance measure is that it can be used to monitor the performance over time of health plans providing similar services, both within the state and nationally. Currently, incomplete specifications and reporting limit the usefulness of the AMH measures for comparing performance among MHOs or for comparing their performance with similar national measures or benchmarks.

The following items summarize the strengths of the current system for producing mental health performance measures, opportunities for improving the system, and Acentra Health's recommendations.

Strengths

- The *MHO Utilization Quarterly Report* partially defines all four measures with a numerator and denominator statement. An appendix lists the diagnosis and procedure codes used in calculating the measures.
- The report's executive summary defines the study population in terms of Medicaid eligibility, enrollment, receipt of mental health services, and admission for acute care.
- The executive summary specifies some limitations of the report, including:

- the absence of statistical significance testing of apparent differences among providers or across time periods
- the 180-day interval between service delivery and when the service is contractually required to be billed
- that the hospitalization data include transfers between facilities and readmissions within a 24-hour time frame (see second bullet under “Opportunities for improvement” below)
- AMH has agreed to continue to refine the report narrative to describe the study parameters and limitations more fully.
- AMH stated in the interview that it has developed a written process for quality control, defining staff responsibilities for analyzing data, creating reports, and writing program codes. However, AMH did not provide this document for review.
- The state has in place a formal, rigorous process to validate the completeness of encounter data submitted by MHOs. Steps include:
 - After receiving and processing MHO encounter data, the Electronic Encounter Data Unit returns a report to the originator on the number of claims processed (including pending, duplicate, rejected, and unfound claims) and the total dollar value of claims.
 - The Actuarial Services Unit reports all accepted mental health claims for capitated services back to the MHOs quarterly for reconciliation, giving the MHO another opportunity to examine and verify the claims detail.
 - AMH provides information on billed charges for encounters to the MHOs monthly, enabling the MHOs to identify large gaps in the data.

Opportunities for improvement

- The performance measure definitions do not specify that individuals in the study population must be enrolled continuously throughout the measurement period. As a result, the AMH measures lack comparability with similar national measures or benchmarks (a key feature of a valid measure), and the data cannot be used to compare MHO performance with confidence.
- The measure definitions lack precision about the circumstances in which enrollee transfers and readmissions may be counted as separate admissions (episodes of care). The resulting potential for overcounting admissions, readmissions, and discharges affects the validity and comparability of the results for all four measures. For example, the 7-day follow-up measure cannot be compared with confidence to the similar HEDIS measure. The quarterly report does not address this limitation adequately.

- The report does not explain that the measures include all members who were enrolled at the time of their hospital stay, even though some may have died or been disenrolled during the measurement time frame.
- AMH has no process in place to perform mental health-specific edits and audits to ensure the accuracy of encounter data received from DMAP—for example, to ensure that diagnostic codes are assigned to appropriate age groups. AMH reviews the data only to check for gross variations in the number of encounters submitted.
- AMH has no formal system in place for auditing MHO data submissions and for following up to resolve problems with accuracy and completeness.

Recommendations

- AMH either should redevelop the measures to specify continuous enrollment of the study population, or at a minimum, discuss in the quarterly report how the absence of this specification may affect the validity of the measures.
- The quarterly report needs to explain the performance measure definitions and calculations more thoroughly to help readers assess the reported data. Specifically, the report needs to outline inclusions, exclusions, and data sources for each measure.
- AMH needs to define hospital admissions and readmissions more thoroughly in terms of the circumstances in which a transfer or readmission may be counted as a separate admission for the same enrollee. AMH may wish to consult the HEDIS technical specifications with regard to defining inclusion and exclusion criteria for counting admissions and discharges.
- The report needs to mention as a limitation that the data may include members who have died or been disenrolled during the measurement time frame.
- AMH needs to develop and implement a formal process for applying mental health-specific edits and audits of encounter data received from DMAP.
- AMH needs to establish a system for auditing MHO data submissions to ensure accuracy and completeness and for following up with MHOs to resolve problems. As an alternative, AMH could contract with an external auditor for an annual audit of MHO data submissions.

Table 6 shows the 2007 status of recommendations presented in previous EQR reports for improving the accuracy and completeness of AMH's statewide performance measures.

Table 6. Update of recommendations for improving statewide performance measures.

2005 recommendation	2006 status	2007 update
Each measure should have a numerator and denominator statement that fully defines the population being measured, data sources used, and fields used to determine inclusion in the numerator and denominator.	The <i>MHO Utilization Quarterly Report</i> does not define numerators and denominators or explain the calculation of the measures. The report provides a list of diagnostic and procedure codes but does not specify which codes are used in calculating each measure.	The report provides a calculation formula for each measure, including a numerator and a denominator, and it provides a list of codes used in calculating the measures. However, the report does not adequately define inclusions, exclusions, and data sources for each measure.
Analyze dually enrolled MHO members (those enrolled in both Medicaid and Medicare) separately or remove them from the total population.	Data in the report still include dually enrolled members. AMH has agreed to note this in future reports.	The executive summary notes that the report includes dual-eligible enrollees, but it defines such enrollees as those who are receiving mental health services and alcohol or drug treatment, rather than as those eligible for both Medicaid and Medicare.
Remove ineligible enrollees (e.g., those who have died or been disenrolled) from the denominator of the readmission and outpatient care measures, or report an estimate of the potential impact—for example, the death rate.	Enrollment data may include deceased or disenrolled members. AMH has agreed to note this in future reports.	The report still does not address this limitation of the data.
Document the entire process for producing performance measures—importing data, building tables, creating reports, archiving data, data sources, edit and validation routines, and parties responsible for each part of the process.	AMH has documented its in-house analytic plan but needs to develop written procedures describing the entire process of performance measure production.	AMH stated in the interview that it has developed a written process for quality control, defining staff responsibilities for analyzing data, creating reports, and writing program codes. However, the agency did not provide this document for review.

Table 6. Update of recommendations for improving statewide performance measures (cont.).

2005 recommendation	2006 status	2007 update
Incorporate a standard process for version control of programs used for generating reports. This would ensure that the correct version of a program is in use and would enable AMH to revert quickly to a previous version.	AMH has documented its process for pulling data and which programs are used to analyze the data, but the documentation does not specify which versions of the programs are used.	No version control exists yet for SPSS and Access programs or for queries used to generate reports.
Standardize the information contained in encounter data submissions from the MHOs. Monitor and enforce compliance with the standards.	AMH has not established standards for the number of diagnoses accepted or required in encounter submissions from MHOs. Although this shortcoming does not affect the validity of the performance measures, a requirement to include multiple diagnosis codes if applicable would provide more relevant information on enrollees' conditions and enable a more comprehensive review of service utilization.	No change.

DMAP/AMH information systems

At the time of the first assessment in late 2004, DMAP received encounter and claims data from MHOs and third-party billers through a dial-up connection to a bulletin board system (BBS), and then transferred the data to the state's Medicaid Management Information System (MMIS) through an unsecured connection. After processing the data, DMAP extracted mental health data and sent this extract to AMH's Sybase system by using a "bulk copy" process. This system raised major concerns about the protection of confidential enrollee information, as required by the Health Insurance Portability and Accountability Act of 1996 (HIPAA), and concerns about data security in the event of system failure.¹⁰

Since then, DMAP has replaced the unsecured BBS with an encrypted system of web-based electronic mailboxes, similar to a virtual private network, to ensure HIPAA-compliant data transfer. DMAP also has begun using the Decision Support Surveillance and Utilization Review System (DSSURS), an Oracle database warehouse. DSSURS, developed by Affiliated Computer Services, Inc. (ACS), has addressed many concerns raised in the 2005 ISCA. DMAP accesses DSSURS through a secure, dedicated line to ACS facilities in Atlanta. DSSURS offers an enhanced query builder interface for extracting performance measure data and enables AMH analysts to extract data by entering Standard Query Language (SQL) code, as specified in the state's MHO Utilization Process document.

MHOs and third-party billers now submit electronic encounter and claims data in ANSI X12 837 format to the MMIS server, located at the State Data Center (SDC) in Salem. The SDC is a state-of-the-art facility with respect to security. Out-of-network and fee-for-service providers may send paper claims to the Electronic Data Management System in Salem; these claims are optically scanned, converted to X12 837 format, and transferred to the MMIS through a Secure File Transfer Protocol (SFTP) connection. Encounter and claims data are validated daily by a UNIX translator and are sent by weekly batch to DSSURS in Atlanta through a dedicated T-1 line using SFTP.

AMH analysts use a proprietary query tool for access to DSSURS data and a documented standard procedure to extract data for the *MHO Utilization Quarterly Report*. Because these data are continuously updated, a "snapshot" extract is used to generate reports. These snapshot files are saved on a secure shared drive on the DHS servers at the SDC and are backed-up as network data are backed-up. Tape backups of the network data are stored offsite at Iron Mountain facilities.

¹⁰ OMPRO [Acumentra Health]. OMHAS Performance Measure Validation. December 2005.

2007 update: The state substantially meets the federal standards for data processing procedures and personnel to support the production of performance measures. However, the state only partially or minimally meets the data acquisition standards related to ensuring the validity and timeliness of encounter and claims data and to producing performance measure reports.

Table 7 summarizes the ISCA section scores and ratings.

Table 7. Weighted average scores and ratings on ISCA sections, 2007.

Review section	Score	Compliance rating
Data processing procedures and personnel		
Data processing procedures and personnel	4.1	Substantially met
Staffing	4.3	Substantially met
Hardware systems	4.3	Substantially met
Security of data processing	4.3	Substantially met
Data acquisition capabilities		
Administrative data	3.4	Partially met
File consolidation	3.5	Substantially met
Performance measure repository structure	1.5	Minimally met
Report production	2.4	Minimally met

To ensure the validity and timeliness of the encounter and claims data used in calculating performance measures, it is important to have documented standards, a formal quality assurance of input data sources and transactional systems, and readily available historical data. Best practices would include

- automated edit and validity checks of procedure and diagnosis code fields, timely filing, eligibility verification, authorization, referral management, and a process to remove duplicate claims and encounters
- a documented formal procedure for rectifying encounter data submitted with one or more required fields missing, incomplete, or invalid
- periodic audits (internal and external) of randomly selected records to ensure data integrity and validity
- online capabilities for viewing and correcting pending claims and encounters to reduce processing lags
- five to seven years of historical data available online

AMH has no process in place to perform mental health-specific edits and audits of encounter data—for example, to ensure that diagnostic codes are assigned to appropriate age groups. Currently, AMH reviews the data received from DMAP

only to check for gross variations in the number of encounters submitted. AMH uses a visual process to spot errors and may run cross-tabs of diagnostic codes and ages to check for problems.

Performance measure data repository. The advantages of a repository for performance measure data include

- streamlining the association of data from different sources and periods to find correlations and trends
- allowing analysts to test new programming code against old data pulls
- allowing for quality control checks or periodic audits of performance measure data

The repository might be an integrated database or an organized set of files. It could include functionality for archiving benchmark data; current and past performance measurement results; source data for each report or the ability to link to the source data (e.g., through a unique key or claim number); measure definitions, including numerators and denominators; and a copy of each report.

Report production. The performance measure production process should be well documented, subject to rigorous quality control, and capable of being completed by more than one analyst. AMH's current system relies too heavily on the skill and knowledge of the analyst who produces the reports. System documentation and cross-training appear insufficient to enable anyone else to assume this task.

The following items summarize the strengths of the state's information systems, opportunities for improvement, and Acumentra Health's recommendations.

Strengths

- Adequate hardware and software are in place to support the MMIS, including maintenance and timely replacement of equipment, disaster recovery procedures, adequate training for staff, and a secure computing environment. MMIS programming practices include good documentation, a process for quality assurance, and version control.
- DSSURS, the data warehouse, is robust and secure. The vendor is responsible for development, testing, deployment, data backup, and support.
- AMH saves "snapshots" of the data used to generate performance measure reports so that measures for previous reporting periods can be recreated.
- Once the MHOs have submitted encounter and claims data to the state, DMAP sends a report back to the MHOs noting the number of claims and dollar amounts. This system enables each MHO to verify that the state has received all data submitted by the MHO.

Opportunities for improvement

- MMIS, now more than 30 years old, is difficult to maintain and cannot be expanded to meet future needs. The system was due to be replaced in 2007, but resource issues have pushed the replacement date back to 2008.
- The high-level documentation describing the flow of data from the mental health encounter to the performance measure report omits important details about data validation and processing and staff responsibilities.
- While version control exists for data processing programs, none exists for SPSS and Access programs or for queries used to generate reports.
- The performance measure data repository structure does not include snapshots of the data sets for each period when the performance measures are calculated.

Recommendations

- DMAP needs to continue to improve its documentation to provide more specific details about the flow of data from the mental health encounter to the performance measure report.
- AMH needs to continue to work with MHOs to resolve problems related to certain claims being pended due to coding issues, resulting from the state's conversion from its old set of encounter and claims codes to the standardized codes used in the HIPAA-compliant system.
- AMH needs to define and implement version control for programs used to generate performance measure reports.
- The state's performance measure data repository needs to incorporate snapshots of the data sets for each calculation period.

MHO information systems

Acumentra Health conducted an ISCA for each MHO through electronic surveys, document review, and onsite interviews with the MHOs and their contracted provider agencies. This section of the EQR report compiles observations from the individual MHO assessment reports submitted to AMH during 2007.

MHOs may contract with third-party administrators (TPAs) to ensure compliance with HIPAA standards for confidentiality of enrollee records and standardization of codes. During 2007, six of the nine Oregon MHOs contracted with Performance Health Technology (Phtech) to process their claims and encounter data and submit the data to DMAP. For those MHOs, the scores for most sections of the ISCA protocol reflect the evaluation of Phtech's practices.

AMH viewed the 2005 ISCA as a baseline assessment and a learning opportunity for the MHOs. Between the 2005 and 2007 ISCA reviews, the state continued its transition to a new HIPAA-compliant system of data administration. Steps in the transition included converting from the state's old set of encounter and claims codes to nationally standardized codes and converting from an old data format to the HIPAA-compliant "837" format.

The state and the MHOs have tested data submissions successfully in the new format, although some MHOs encountered problems that resulted in delayed and/or incomplete submissions. A few MHOs experienced major gaps in the encounter data submitted to the state during 2006. However, as of 2007, the MHOs generally had resolved these issues through internal fixes or by contracting with Phtech to administer their data systems.

Table 8 shows the 2007 weighted average scores and ratings for the group of nine MHOs on each section of the ISCA protocol. Table A-2 in Appendix A presents each MHO's score for each review section. As a group, the MHOs fully met the CMS standards for hardware systems and for integrating vendor Medicaid data, and they substantially met CMS standards in other areas.

Figure 6 shows the scores by individual section of the ISCA protocol in 2005 and 2007, averaged across the nine MHOs. As shown, the MHOs have improved their compliance with most standards since the baseline assessment in 2005. Despite some MHOs' lingering problems with administrative data and enrollment systems, the group as a whole substantially complied with those standards.

Table 8. Average ISCA section scores and ratings for nine MHOs, 2007.

Review section	Score	Rating
Data Processing Procedures and Personnel		
Information Systems	4.2	Substantially met
Staffing	4.5	Fully met
Hardware Systems	4.7	Fully met
Security of Data Processing	4.2	Substantially met
Data Acquisition Capabilities		
Administrative Data (Claims/Encounter Data)	3.8	Substantially met
Enrollment System (Medicaid Eligibility)	4.3	Substantially met
Vendor Medicaid Data Integration	5.0	Fully met
Provider Compensation and Profiles	4.1	Substantially met

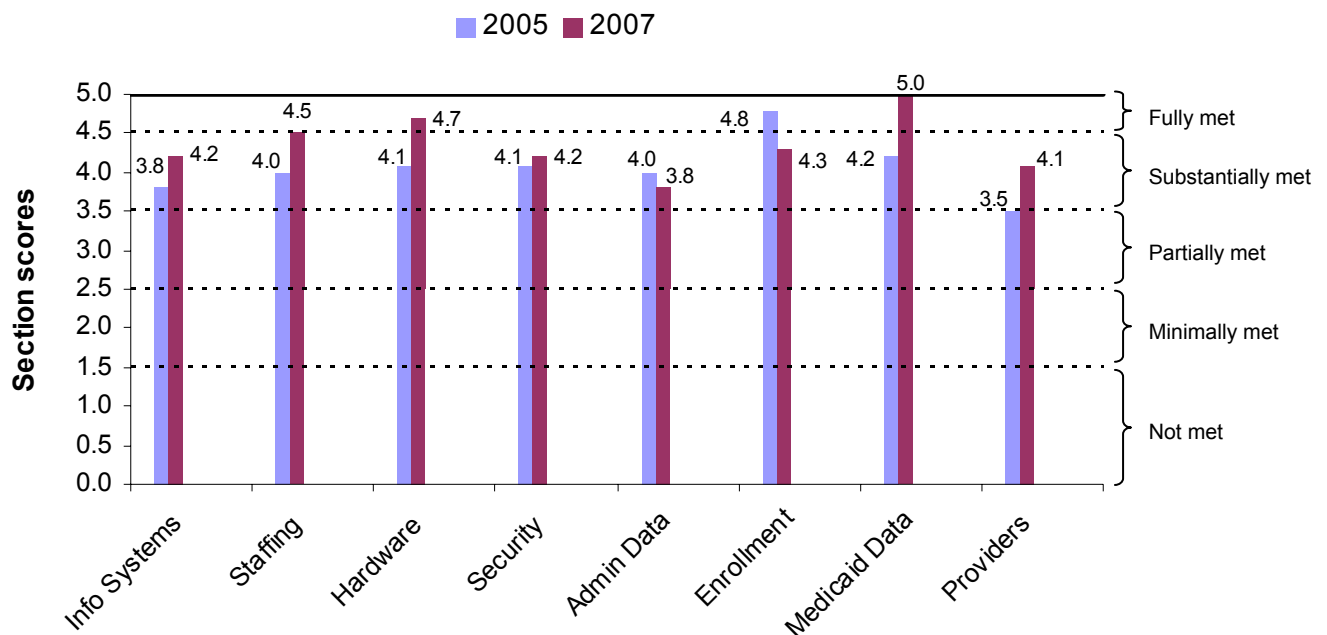


Figure 6. Average ISCA section scores for nine MHOs, 2005 and 2007.

The following pages highlight strengths and opportunities for improvement for MHOs in each section of the ISCA review.

Data Processing Procedures and Personnel

Strengths

Infrastructure

- Eight of the nine MHOs or their TPAs employed robust mid-range machines for processing data.

Programming/Report development

- Among MHOs that maintained in-house database systems, including commercial systems, each incorporated quality assurance processes for application development and software upgrades.

Security

- Most MHOs had processes in place to meet HIPAA standards for protecting enrollee, encounter, and claims data from unauthorized access. In a few cases, however, the MHOs used insecure, non-HIPAA-compliant methods to transport encounter data files or backup tapes.
- The majority of the MHOs' contracted providers submitted encounter data electronically in encrypted and/or password-protected files each month.
- All MHOs that maintained in-house database systems had good maintenance contracts in place for hardware and software to ensure timely support.

Table 9. Opportunities for improvement and recommendations for MHOs: Data Processing Procedures and Personnel.

Opportunity for improvement	Recommendation
The majority of MHOs do not incorporate version control for reports developed in-house for distribution to contracted providers.	MHOs need to have in place a version control process for all reports distributed to contracted providers.
One MHO had no standby database server. If a failure were to occur, the MHO would have to rebuild the server, creating the potential for delays in reporting data to the state.	As part of disaster recovery preparation, the MHO needs to consider options for providing more comprehensive hardware redundancy of its production server.

Data Acquisition Capabilities

Strengths

Enrollment

- With each eligibility update from DMAP, eight of the nine MHOs or their TPAs verified eligibility files before incorporating new data into the system or distributing the data to their contracted agencies.

Encounter data

- Most MHOs could track the history of enrollees with multiple enrollment dates and whether enrollees were dually enrolled in Medicare and Medicaid.
- All MHOs or their TPAs had formal documentation for processing claims and encounter data.
- The majority of MHOs or their TPAs had instituted multiple checkpoints for validation of encounter data.

Auditing

- The majority of MHOs or their TPAs had a documented process for training claims and billing personnel, which included auditing the performance of new employees to ensure accuracy.

Table 10. Opportunities for improvement and recommendations for MHOs: Data Acquisition Capabilities.

Opportunity for improvement	Recommendation
Several MHOs had no formal controls in place to ensure that all Medicaid claims from hospitals were entered into the system when Medicare paid fully for mental health services.	MHOs need to have system controls in place to ensure proper accounting for all claims from hospitals.
Most MHOs exercise inadequate oversight of the contracted agencies' processes for claims and encounter data submission.	MHOs need to audit the encounter data submitted by providers against clinical records regularly to validate the accuracy and completeness of encounter data. MHOs should consider contracting for annual independent audits to ensure adequate controls and checkpoints for integrity of encounter data.

The following pages more fully describe the results for MHOs within each section of the ISCA protocol.

Information Systems. This section of the ISCA protocol focuses mainly on the software used to collect, store, and process encounter data. Desirable features of software include ease of use, scalability without degradation of performance with increased data volume, and integration with other software (e.g., reporting packages or databases).

LaneCare, MVBCN, VIBHS, and WCHHS contracted with Phtech as their TPA throughout the review period. The assessment found that Phtech’s database management system was mature and robust, incorporating good documentation, a beneficial quality assurance process, and version control. Phtech’s software packages, including a secure web-based application for updating eligibility status, were scalable and easily integrated with reporting packages. As a result, Phtech’s client MHOs fully met the CMS requirements for information systems.

FamilyCare, which processed encounter/claims data in-house using commercial software, also fully met CMS requirements. CMHO’s in-house database system substantially met the requirements. Other MHOs only partially met the CMS criteria, for reasons that included (1) lack of a formal quality control process for reviewing utilization reports developed in-house, and/or (2) lack of version control for in-house software or database development. By 2007, all MHOs could accept electronic submissions of encounter data in the HIPAA-compliant 837 format. However, ABHA and JBH were unable to submit accurate, complete encounter data to DMAP for portions of the review period.

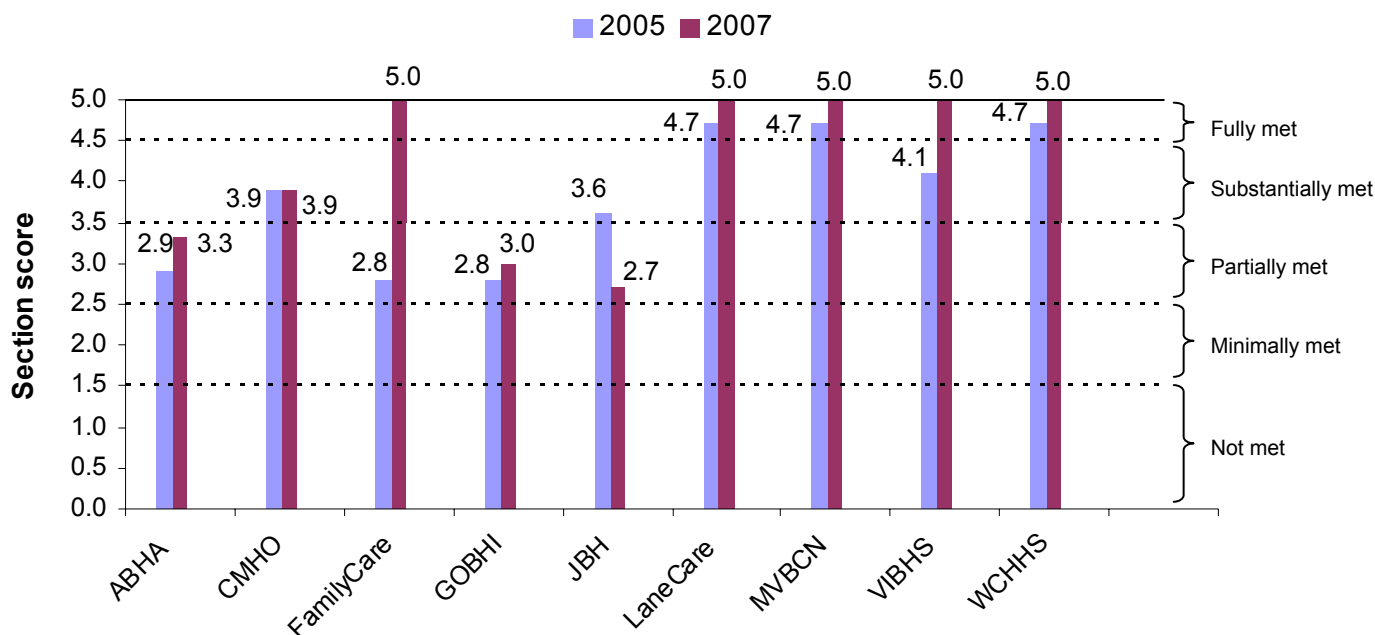


Figure 7. MHO compliance scores: Information Systems.

Staffing. This section of the protocol applies to the MHO or TPA staff assigned to process encounter and claims data. A “Fully met” score reflects adequate numbers of trained staff for processing accurate, complete, and timely encounter data; a comprehensive, documented training process for new hires and seasoned employees; established and monitored productivity goals for data processing; and low staff turnover.

Six of the MHOs fully met these criteria, and two others substantially met the criteria. Phitech, on behalf of its MHO clients, set weekly productivity goals for data accuracy and turnaround time, and provided comprehensive formal training for new hires and refresher training for experienced staff. However, during 2006, JBH failed to maintain sufficient processing staff to ensure that complete claims and encounter data were reported in a timely manner.

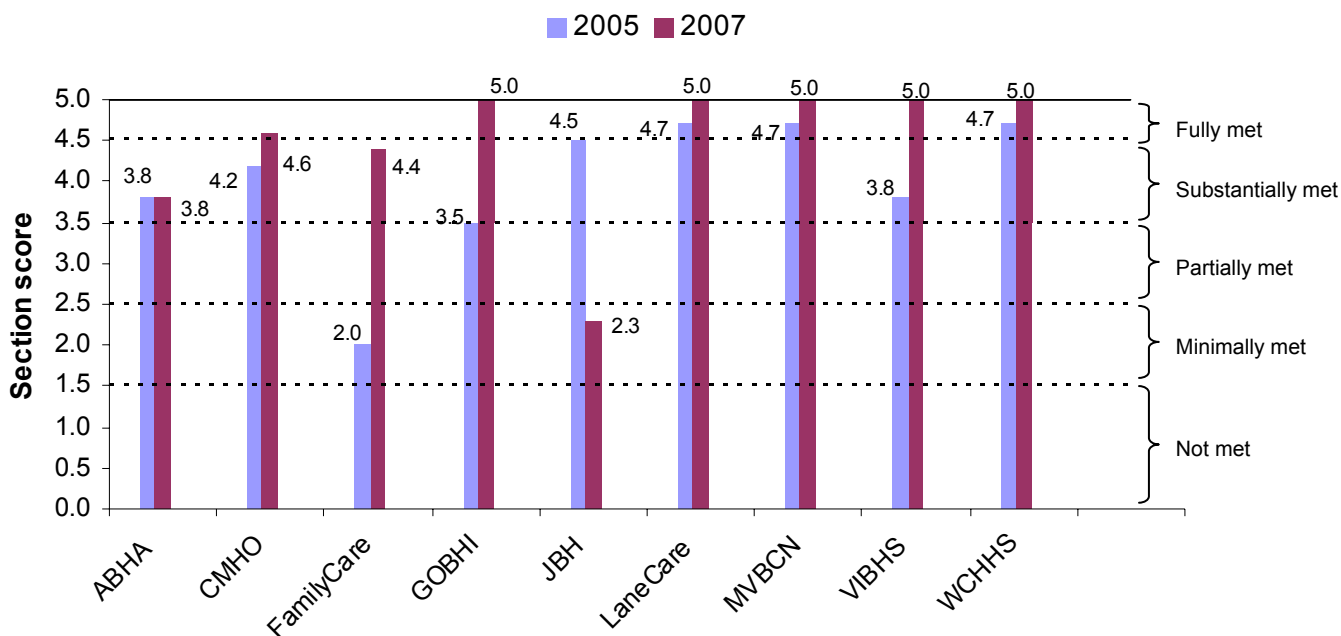


Figure 8. MHO compliance scores: Staffing.

Hardware Systems. Quality and maintenance of computer equipment and software are of paramount importance in ensuring the integrity and timeliness of encounter data submitted to the state. Desirable features include robust server equipment; hardware redundancy in terms of data storage devices and other key components; premium hardware maintenance contracts; software maintenance contracts for commercial database systems; and a standby server as a backup to the main production server.

All but one MHO fully met these criteria, typically employing robust servers to process and store data, with acceptable levels of redundancy, supported by good maintenance contracts. GOBHI substantially met the criteria but had no standby server for purposes of disaster recovery.

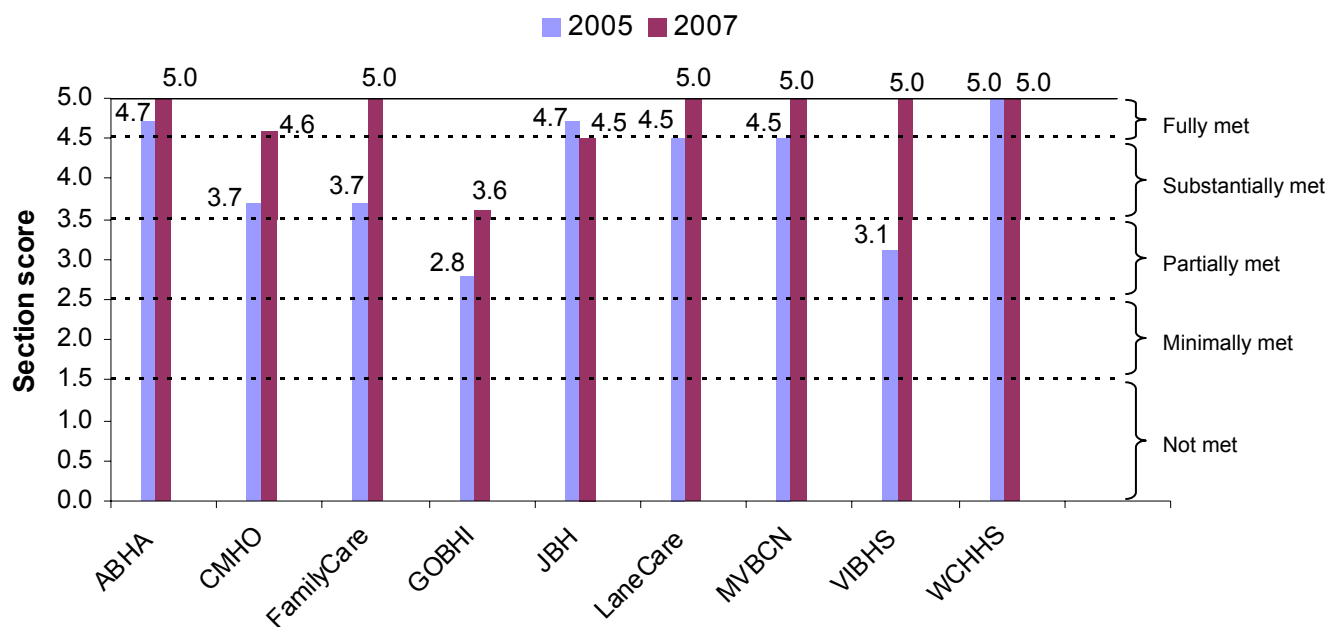


Figure 9. MHO compliance scores: Hardware Systems.

Security of Data Processing. Acumentra Health evaluated the physical security of each MHO’s data as well as the MHO’s backup systems and methods for protecting the database from corruption.

FamilyCare, LaneCare, VIBHS, and WCHHS fully met the CMS requirements, and most other MHOs substantially met the requirements. Phtech, on behalf of its MHO clients, provided good physical security, a documented security policy, good internal controls, and an effective batching procedure. However, at the time of the review, a Phtech administrative staff person delivered backup tapes to a safe deposit box for storage, a potentially less secure procedure than using a specialized commercial storage facility. In several cases, documented in the individual MHO reports sent to AMH, the MHOs’ contracted providers transported unencrypted backup tapes between facilities or stored backup tapes in insecure locations, raising concerns related to HIPAA standards. Also, several MHOs kept key computer equipment in insecure or vulnerable locations.

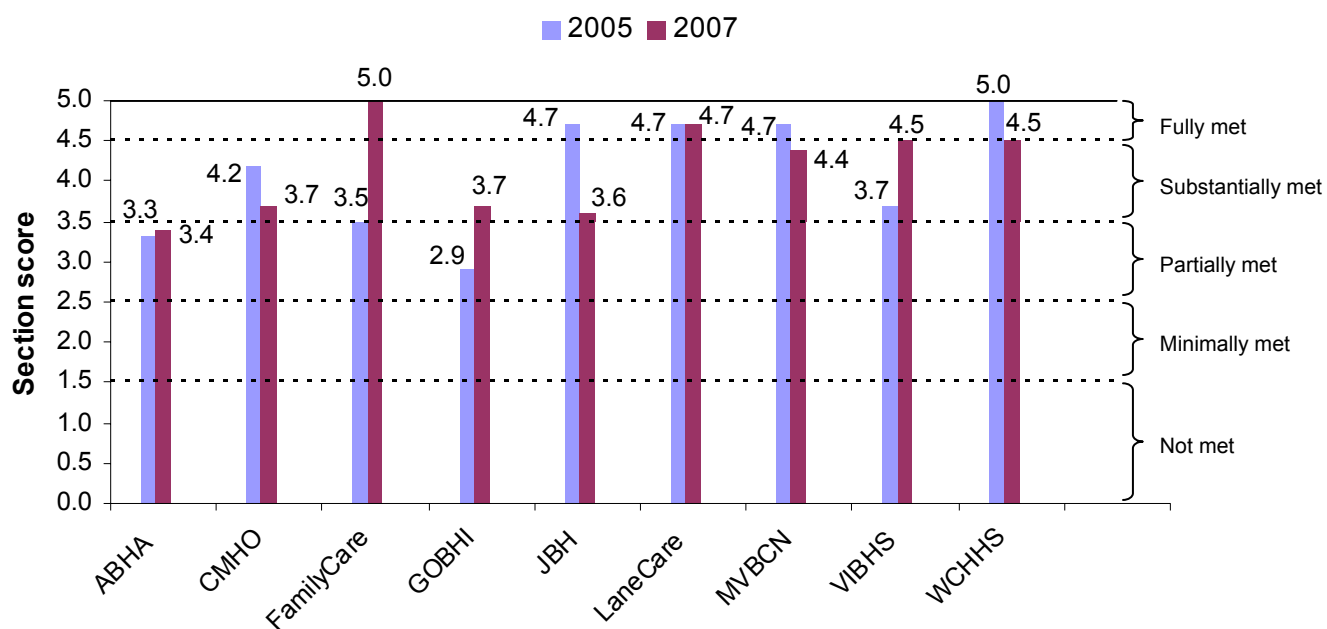


Figure 10. MHO compliance scores: Security of Data Processing.

Administrative Data. In addition to assessing each MHO’s ability to acquire and report accurate, complete, and timely claims and encounter data, Acumentra Health interviewed each MHO’s contracted provider agencies to evaluate their processes for validating data, the diagnosis and procedure codes captured by their billing systems, their handling of Medicaid and Medicare dual enrollees, the types of encounters forwarded to the MHO, and methods for submitting claims and encounter data.

Only LaneCare fully met the CMS requirements for this section. Other MHOs fell short because they lacked systematic processes for monitoring the data submitted by providers, and/or processes for auditing their own electronic billing systems. Often, certain providers did not submit encounter data when Medicare paid the full cost of care. Also, some providers submitted only one diagnosis or procedure code for encounters and claims. Submission of a primary and secondary diagnosis can provide more relevant information on enrollees’ conditions, allowing a more comprehensive review of service utilization.

Phtech performed automated edit and validity checks of procedure and diagnosis code fields, eligibility verification, and authorization. For ease of tracking, Phtech assigned a unique control number upon receipt of each claim or encounter. GOBHI audited each provider agency’s encounter data against clinical records every two years; provided training for agency staff in encounter data submission; and posted its encounter data manual on an internal web-based conferencing system. ABHA also validated providers’ encounter data during routine onsite reviews.

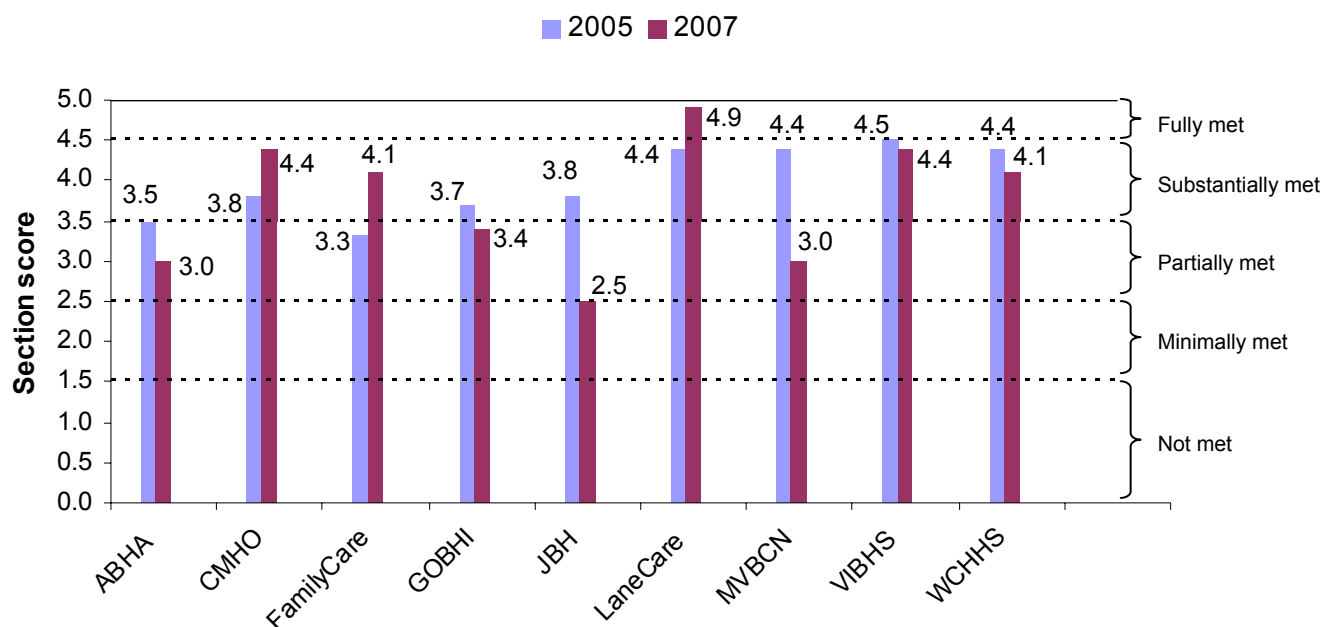


Figure 11. MHO compliance scores: Administrative Data.

Enrollment System. Timely and accurate eligibility data are essential for ensuring access to care for Medicaid enrollees. Eligibility information from DMAP is available for download on a weekly and monthly basis. Upon each download, the MHO should verify the file before incorporating it into the data warehouse or distributing it to contracted providers. This step helps to protect the database from potentially corrupted files.

Most MHOs fully or substantially met these criteria. With each eligibility update, the majority of MHOs or their TPAs checked each record in the files before incorporating new data into the system. Phitech provided easily accessible, up-to-date eligibility status for its MHO clients through a secure web-based application. Phitech’s system could track the entire enrollment history for all enrollees for as long as Phitech had provided services for the MHO. Most MHOs were able to track the history of enrollees with multiple enrollment dates and across insurance product lines.

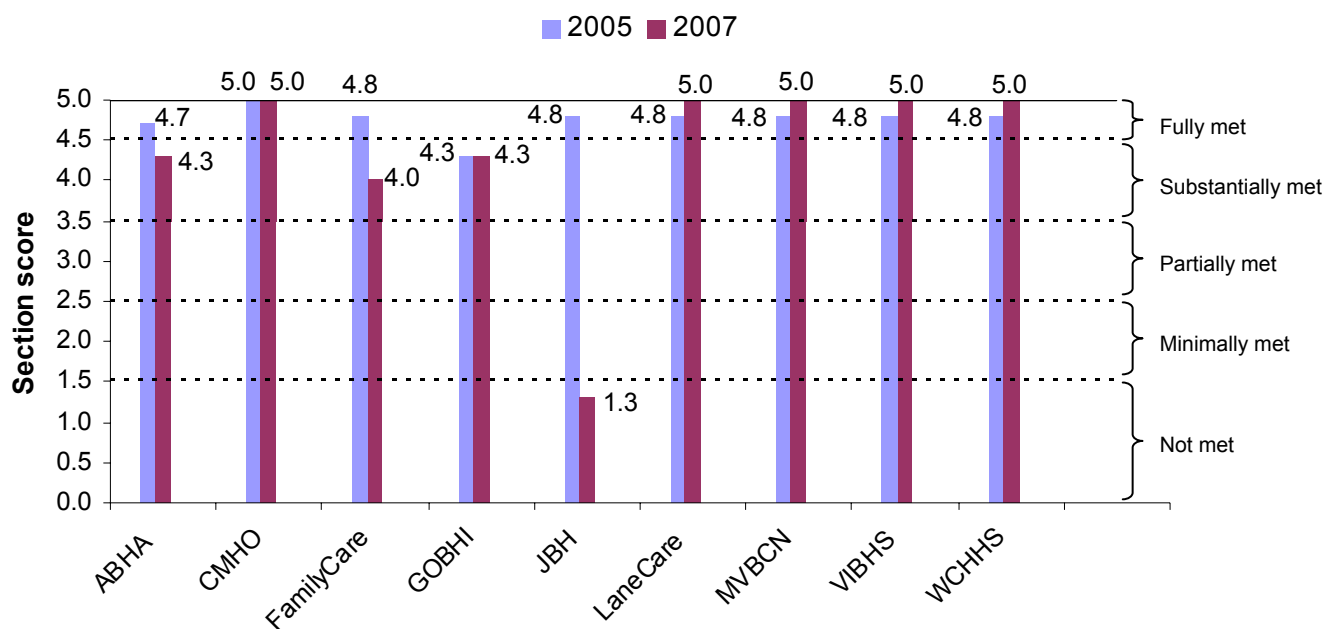


Figure 12. MHO compliance scores: Enrollment System.

Vendor Medicaid Data Integration. Where applicable, all of the MHOs collected member-level data from their contracted agencies and ensured that the data were compatible with the state’s data systems, fully complying with this standard. (Note: For the 2007 ISCA, Acumentra Health defined vendors as TPAs that adjudicated claims, rather than as service providers.)

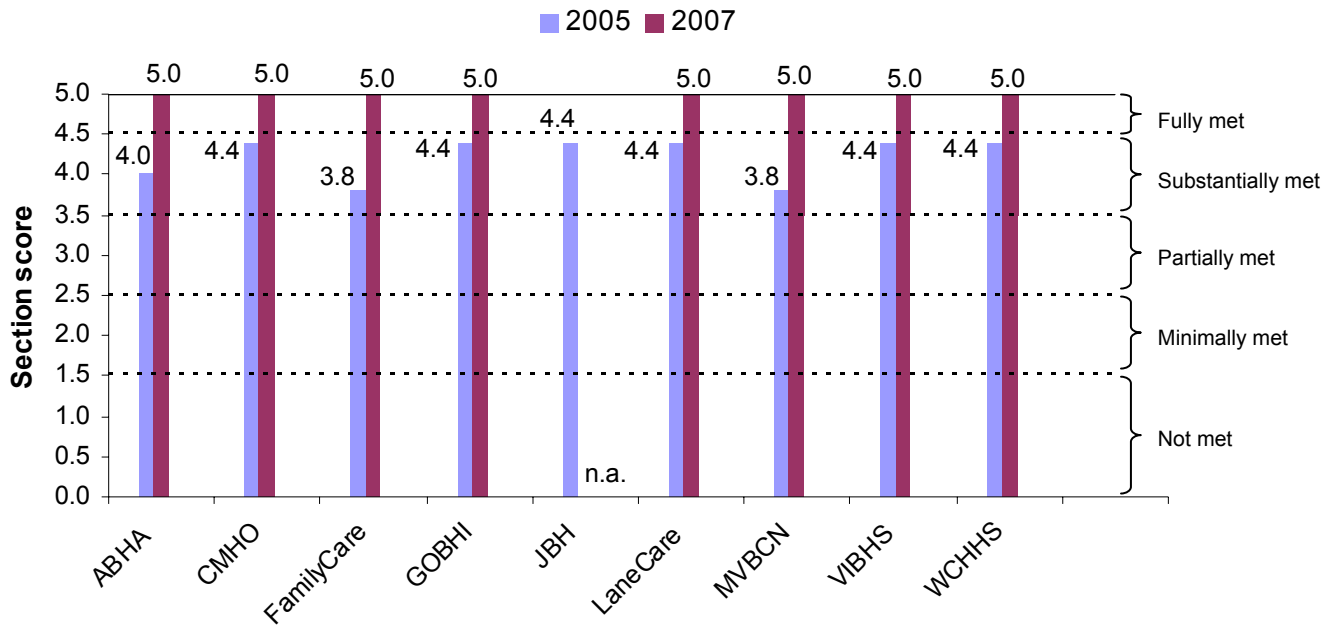


Figure 13. MHO compliance scores: Vendor Medicaid Data Integration.

Provider Compensation and Profiles. Acentra Health evaluated each MHO’s system for provider compensation to determine whether the compensation structure balanced contractual expectations, enrollees’ needs, and capitation rates set by AMH. Most MHOs had automated provider compensation on the basis of a rate list for each procedure code, per the provider’s credentials.

The review also assessed whether each MHO provided an accessible directory (electronic or paper) of qualified providers to enable enrollees to make informed choices. Ideally, each MHO should maintain a provider profile database including updated information on clinicians’ gender, credentials, treatment specialties, languages spoken, and whether the provider’s office meets accessibility standards under the Americans with Disabilities Act. MHOs would benefit from making provider profiles available online for enrollees. If the MHO uses a central website for that purpose, the website should list current clinic locations or contact information for member counties.

JBH and VIBHS fully met the criteria for this section, maintaining up-to-date databases of provider information that the MHO staff could use to direct enrollees to appropriate providers. The majority of MHO directories, including those posted online, lacked some essential updated information. Also, some MHOs’ websites contained out-of-date contact information for providers.

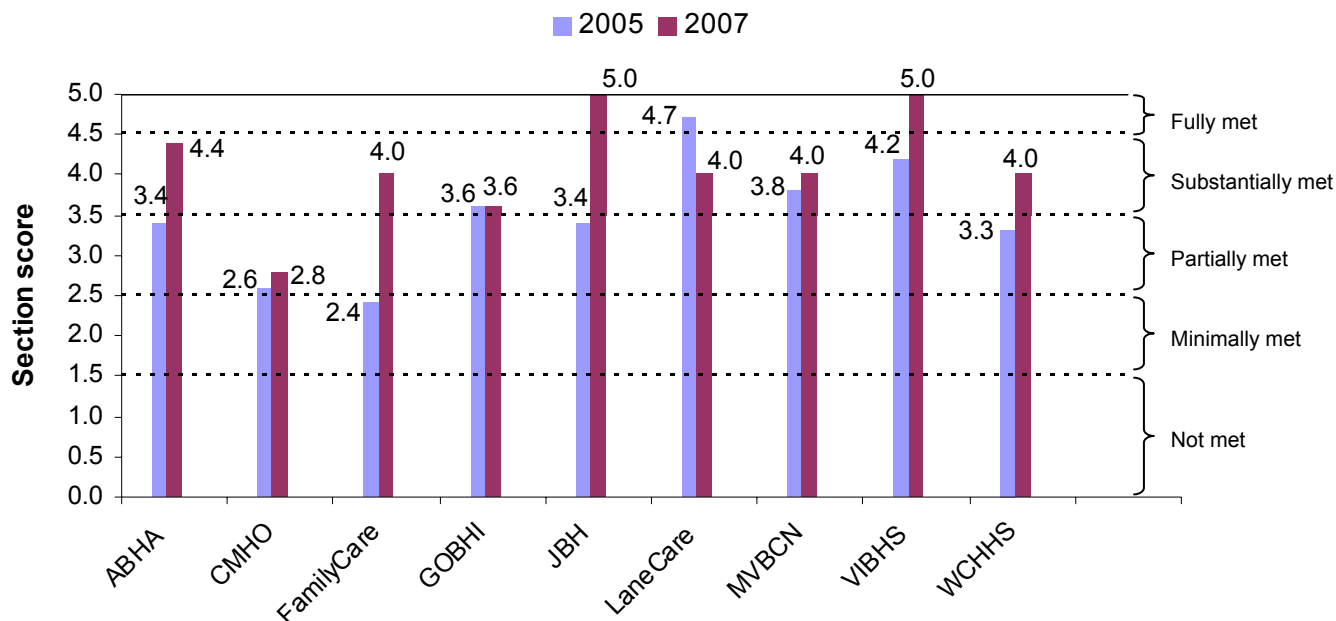


Figure 14. MHO compliance scores: Provider Compensation and Profiles.

Conclusions and Recommendations

With the goal of facilitating continuous improvement, Acumentra Health offers the following recommendations, building on those from the 2006 EQR.

For AMH:

- Continue to coordinate with DMAP to support PIPs aimed at integrating the delivery of mental and physical healthcare services.
- Continue to work with the MHOs' QI coordinators to strengthen the reporting of statewide performance measures or revise the current measures.
- Continue to clarify terms of the managed care contract and provide other guidance for MHOs to support their compliance with regulatory standards.
- Address the state-level ISCA recommendations listed on page 33.
- Continue to work with MHOs to ensure the development of data systems that can capture and transmit high-quality encounter and claims data.
- In light of CMS concerns about the accuracy and completeness of Medicaid encounter data, establish contractual requirements for MHOs to conduct regular audits to validate the encounter data submitted by providers.
- Consider forming a QI committee within AMH that would oversee MHO responsibilities and approve the annual work plan and the scope of work for the contract year.

For MHOs:

- With regard to PIPs:
 - MHOs beginning their collaborative mental/physical health integration PIPs in 2008 need to define their study questions and indicators in accordance with the CMS protocol.
 - MHOs that began their collaborative PIPs during 2007 need to implement their planned interventions and develop baseline data.
 - For other ongoing PIPs, MHOs need to pursue consistent remeasurement of their study indicators, perform appropriate statistical tests to assess the degree of sustained improvement due to the PIP interventions, identify barriers to improvement, and modify the interventions accordingly.
- With regard to information systems, MHOs need to audit the encounter data submitted by provider agencies against clinical records regularly to validate the accuracy and completeness of encounter data.

Appendix A. MHO Scores on PIP Validation and ISCA Reviews

Each MHO's PIPs are validated each year through the EQR to ensure that they are designed, conducted, and reported according to standards established by CMS.

Each of the 10 performance standards in the validation review has a potential score of 100 points for full compliance. The total points earned for each standard are weighted and combined to determine the MHO's overall performance score for the PIP. The overall PIP scoring is weighted 80 percent for demonstrable improvement in a project's first year (Standards 1–8) and 20 percent for sustained improvement in later years (Standards 9–10). Thus, for first-year PIPs, the highest achievable overall score is 80 points; for second-year or ongoing PIPs, the maximum PIP score is 100 if the MHO has completed multiple remeasurements that make it possible to assess sustained improvement.

Table A-1 on the following page arrays the 2007 scores on all validation standards by MHO, for both clinical and nonclinical PIPs.

MHO information systems undergo review to ensure that they are capable of capturing and transmitting accurate, complete, and timely claims and encounter data to support the state's calculation of performance measures. Table A-2 shows the 2007 scores for each MHO on each section of the ISCA protocol.

Table A-1. MHO PIP scores by validation standard, 2007.

	ABHA	CMHO	Family Care	GOBHI	JBH	Lane Care	MVBCN	VIBHS	WCHHS
Clinical PIP									
Overall score	+	79*	96**	61*	60*	61*	+	78**	77*
Standard 1	100	100	100	80	100	100	100	95	100
Standard 2	30	100	100	100	100	100	100	80	100
Standard 3	30	100	100	75	50	90	80	80	78
Standard 4	—	100	100	100	80	90	—	100	100
Standard 5	—	100	100	85	90	78	—	80	100
Standard 6	—	100	100	50	100	100	70	100	100
Standard 7	—	100	100	74	75	35	—	90	100
Standard 8	—	90	90	76	25	25	—	70	100
Standard 9	—	—	100	—	—	—	—	96	—
Standard 10	—	—	80	—	—	—	—	20	—
Nonclinical PIP									
Overall score	48**	66*	92**	57*	74**	61*	100**	80**	74*
Standard 1	100	100	100	96	100	95	100	98	90
Standard 2	95	100	100	90	100	100	100	100	100
Standard 3	30	100	100	100	100	90	100	95	73
Standard 4	60	100	100	89	100	100	100	98	100
Standard 5	64	100	100	90	90	80	100	100	90
Standard 6	95	75	100	100	100	100	100	100	100
Standard 7	30	80	90	0	50	25	100	81	100
Standard 8	30	20	70	0	30	25	100	50	100
Standard 9	30	—	100	—	80	—	100	100	—
Standard 10	0	—	70	—	20	—	100	20	—

+ No overall score assigned in 2007.

*80-point rating scale:

- 70–80 = Fully met
- 55–69 = Substantially met
- 40–54 = Partially met
- 25–39 = Minimally met
- 0–24 = Not met

**100-point rating scale:

- 80–100 = Fully met
- 60–79 = Substantially met
- 40–59 = Partially met
- 20–39 = Minimally met
- 0–19 = Not met

Table A-2. MHO ISCA scores by section, 2007.

	ABHA	CMHO	Family Care	GOBHI	JBH	Lane Care	MVBCN	VIBHS	WCHHS
Data processing procedures and personnel									
Information systems	3.3	3.9	5.0	3.0	2.7	5.0	5.0	5.0	5.0
Staffing	3.8	4.6	4.4	5.0	2.3	5.0	5.0	5.0	5.0
Hardware systems	5.0	4.6	5.0	3.6	4.5	5.0	5.0	5.0	5.0
Security of data processing	3.4	3.7	5.0	3.7	3.6	4.7	4.4	4.5	4.5
Data acquisition capabilities									
Administrative data	3.0	4.4	4.1	3.4	2.5	4.9	3.0	4.4	4.1
Enrollment system	4.3	5.0	4.0	4.3	1.3	5.0	5.0	5.0	5.0
Vendor Medicaid data integration	5.0	5.0	5.0	5.0	n.a.	5.0	5.0	5.0	5.0
Provider compensation and profiles	4.4	2.8	4.0	3.6	5.0	4.0	4.0	5.0	4.0

Rating scale:

- 4.5 to 5.0 = Fully met
- 3.5 to 4.4 = Substantially met
- 2.5 to 3.4 = Partially met
- 1.5 to 2.4 = Minimally met
- <1.5 = Not met