

Colorado Medicaid
Community Mental Health Services Program

FY 2008–2009 PIP VALIDATION
REPORT

Supporting Recovery

for

Foothills Behavioral Health, LLC

May 2009

for

Validation Year 4

*This report was produced by Health Services Advisory Group, Inc. for the
Colorado Department of Health Care Policy & Financing.*



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TABLE OF CONTENTS

for Foothills Behavioral Health, LLC

1.	Executive Summary	1-1
	Overview	1-1
	Conclusions	1-2
	Overall Validity and Reliability of the Findings.....	1-3
	Strengths/PIP Progression	1-3
	Opportunities for Improvement and Recommendations	1-4
	Step VIII: Review Data Analysis and the Interpretation of Study Results	1-4
	Step IX: Assess for Real Improvement	1-4
	Comparison of Years 1 through 4.....	1-5
	Analysis of Results	1-6
	PIP Scores.....	1-7
2.	Validation Methodology	2-1
	Scoring Methodology	2-1
	Scoring Methodology Examples	2-3
	Example 1:	2-3
	Example 2:	2-3
3.	2008–2009 PIP Validation Tool: <i>Supporting Recovery</i>	3-1

Appendices

Introduction Appendices Cover Page

Appendix A: Foothills Behavioral Health, LLC’s PIP Summary Form: *Supporting Recovery*.....A-1

ACKNOWLEDGMENTS AND COPYRIGHTS

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1. Executive Summary

for Foothills Behavioral Health, LLC

The Balanced Budget Act of 1997 (BBA), Public Law 105-33, requires that states conduct an annual evaluation of their managed care organizations (MCOs) and prepaid inpatient health plans (PIHPs) to determine the MCOs' and PIHPs' compliance with federal regulations and quality improvement standards. According to the BBA, the quality of health care delivered to Medicaid members in MCOs and PIHPs must be tracked, analyzed, and reported annually. The Colorado Department of Health Care Policy & Financing (the Department) has contractual requirements with each MCO and behavioral health organization (BHO) to conduct and submit performance improvement projects (PIPs) annually.

As one of the mandatory external quality review activities under the BBA, the Department is required to validate the PIPs. To meet this validation requirement, the Department contracted with Health Services Advisory Group, Inc. (HSAG), as an external quality review organization. The primary objective of the PIP validation is to determine compliance with requirements set forth in the Code of Federal Regulations (CFR) at 42 CFR 438.240(b)(1), including:

- ◆ Measurement of performance using objective quality indicators.
- ◆ Implementation of system interventions to achieve improvement in quality.
- ◆ Evaluation of the effectiveness of the interventions.
- ◆ Planning and initiation of activities for increasing or sustaining improvement.

In its PIP evaluation and validation, HSAG used the Centers for Medicare & Medicaid Services (CMS) publication, *Validating Performance Improvement Projects: A Protocol for Use in Conducting Medicaid External Quality Review Activities*, final protocol, Version 1.0, May 1, 2002. In this report, HSAG refers to “steps” when discussing the PIP validation process and CMS Protocols for validating PIPs. HSAG refers to “activities” when discussing conducting a PIP and CMS Protocols for conducting PIPs based on the CMS publication, *Conducting Performance Improvement Projects: A Protocol for Use in Conducting Medicaid External Quality Review Activities*, final protocol, Version 1.0, May 1, 2002.

Overview

Foothills Behavioral Health, LLC (FBH) continued its clinical PIP, *Supporting Recovery*, for the fiscal year (FY) 08–09 submission. This topic addressed CMS' requirements related to quality of care outcomes—specifically, improving consumer satisfaction. The purpose of this study was to evaluate Medicaid consumer satisfaction using responses from the Mental Health Statistics Improvement Program (MHSIP) adult survey. Three-year trends in Medicaid consumer responses to the MHSIP survey suggested that consumers were not experiencing the level of recovery support that **FBH** would like from its provider network. Because promotion of recovery is a key objective for **FBH** and consumer perspective appears to suggest a need for improvement in this area, **FBH** decided to conduct a PIP to improve consumer satisfaction with network provider service. The goal

of the study was to improve consumer satisfaction with network providers' communication about key elements of recovery.

FBH stated the study question as follows: “Does implementation of strategies to educate and inform Network MHC providers on methods for timely communication of recovery elements with consumers, including ways to increase consumer involvement in setting treatment goals and strategies to educate and inform consumers as to methods for managing their illness and progressing in their recovery, within **FBH's** Network MHCs:

1. Improve consumer level of agreement rating (increase satisfaction) with the MHSIP survey item ‘Staff here believe I can grow, change, and recover?’
2. Improve consumer level of agreement rating (increase satisfaction) with the MHSIP survey item ‘Staff helped me obtain information so that I can take charge of managing my illness?’
3. Improve consumer level of agreement rating (increase satisfaction) with the MHSIP survey item ‘I, not staff, decided my treatment goals?’”

FBH defined its three study indicators as follows:

- ◆ Study Indicator 1: “Total score on MHSIP item #10 (‘Staff here believe I can grow, change, and recover.’).”
- ◆ Study Indicator 2: “Total score on MHSIP item #19 (‘Staff helped me obtain information so that I can take charge of managing my illness.’).”
- ◆ Study Indicator 3: “Total score on MHSIP item #17 (‘I, not staff, decided my treatment goals.’).”

The study population included all adult consumers (18 years of age and older who were **FBH** Medicaid-eligible consumers at the time of their encounter) who received at least one mental health service from an **FBH** provider during the study period.

Conclusions

For the FY 08–09 validation cycle, HSAG reviewed all 10 steps. The study addressed consumer satisfaction; the goal was better communication with the consumers by network providers about key elements of recovery. The final validation finding for **FBH's** PIP showed an overall score of 93 percent, a critical element score of 100 percent, and *Met* validation status.

Table 1-1 displays the BHO’s performance across all steps. The second column represents the total number of evaluation elements Met by the BHO compared to the total number of applicable evaluation elements for each step reviewed, including critical elements. The third column represents the total number of critical elements *Met* by the BHO for each step reviewed compared to the total number of applicable critical evaluation elements.

Table 1-1—Performance Across all Steps		
Review Steps	Total Number of Evaluation Elements <i>Met</i> /Total Number Applicable Evaluation Elements	Total Number of Critical Elements <i>Met</i> /Total Number of Applicable Critical Evaluation Elements
I. Review the Selected Study Topic(s)	6/6	1/1
II. Review the Study Question(s)	2/2	2/2
III. Review the Selected Study Indicator(s)	6/6	3/3
IV. Review the Identified Study Population	3/3	2/2
V. Review Sampling Methods	6/6	1/1
VI. Review Data Collection Procedures	6/6	Critical Element Not Applicable
VII. Assess Improvement Strategies	3/3	1/1
VIII. Review Data Analysis and the Interpretation of Study Results	9/9	2/2
IX. Assess for Real Improvement	1/4	No Critical Elements
X. Assess for Sustained Improvement	1/1	No Critical Elements

Overall Validity and Reliability of the Findings

Based on the validation of this PIP, HSAG’s assessment determined confidence in the results.

Strengths/PIP Progression

FBH developed a strong study design and implemented the study successfully. All applicable evaluation elements in Steps I through VIII received a *Met* score. **FBH**’s interventions were related to causes and barriers, and included consumer and provider education; creation of a peer specialist position; brochures, notepads, and posters for consumers; staff and provider training; and prescriber packets. While there was a nonsignificant decrease in satisfaction for Remeasurement 4, the PIP demonstrated sustained improvement overall. Going forward, this PIP will be retired from submission for validation. **FBH** plans to follow up with a study to assess the effects of the evidence-based practice of illness management and recovery (IMR).

Opportunities for Improvement and Recommendations

HSAG determines opportunities for improvement based on those evaluation elements that receive a *Partially Met* or a *Not Met* score, indicating that those elements are not in full compliance with CMS Protocols. The PIP also includes *Points of Clarification* as opportunities for improvement. For a detailed explanation of opportunities for improvement, see the PIP Validation Tool section of this report under the corresponding step.

FBH should address the *Point of Clarification* and all *Partially Met* scores, as noted in the discussion that follows.

Step VIII: Review Data Analysis and the Interpretation of Study Results

No standard deviation was reported for the Remeasurement 4 result of Study Indicator 1.

Step IX: Assess for Real Improvement

While there was improvement in consumer satisfaction since Baseline, the results for all three study indicators showed decreased satisfaction for Remeasurement 4. However, the decrease was nonsignificant.

Comparison of Years 1 through 4

Each year, HSAG completes a review and evaluation of the entire PIP. The following table illustrates the PIP’s progression, describing the activities completed for each PIP submission and the evaluation scores.

Table 1-2—Year-to-Year Comparison of Results				
Categories Compared	Year 1 05-06	Year 2 06-07	Year 3 07-08	Year 4 08-09
Steps Evaluated	VII	VIII	X	X
Percentage Score of Evaluation Elements <i>Met</i>	93	100	91	93
Percentage Score of Critical Elements <i>Met</i>	100	100	100	100
Validation Status	<i>Met</i>	<i>Met</i>	<i>Met</i>	<i>Met</i>

For the FY 05–06 validation cycle, **FBH** completed Activities I through VII, receiving scores of 93 percent for evaluation elements *Met*, 100 percent for critical elements *Met*, and a *Met* validation status. During this period, **FBH** reported Baseline results. HSAG identified opportunities for improvement in Step VI.

For the FY 06–07 validation cycle, **FBH** progressed through Activity VIII, receiving scores of 100 percent for evaluation elements *Met*, 100 percent for critical elements *Met*, and a *Met* validation status. During this period, **FBH** reported Baseline and Remeasurement 1 results. **FBH** addressed all elements that received *Not Met* scores for the FY 05–06 validation.

For the FY 07–08 validation cycle, **FBH** progressed through Activity X, receiving scores of 91 percent for evaluation elements *Met*, 100 percent for critical elements *Met*, and a *Met* validation status. **FBH** reported results for Baseline and two remeasurement periods. HSAG identified four *Partially Met* scores in Steps IX and X.

For the FY 08–09 validation cycle, HSAG validated **FBH’s** PIP submission through Step X. The overall score improved slightly to 93 percent. Not all of the study indicators showed statistically significant improvement; this lack of improvement was related to the areas that HSAG identified as requiring improvement from the FY 07–08 PIP submission. For this year’s submission, the areas requiring improvement were similar. Despite the areas identified for improvement, **FBH’s** PIP showed sustained improvement in consumer satisfaction from Baseline to Remeasurement 4.

Analysis of Results

As with all the previous measurement periods, **FBH** generated a stratified sample of 300 from the eligible population for every quarter and distributed a modified consumer satisfaction survey to the sample. **FBH** anticipated a 20 percent response rate. Results from two quarters were combined and reported for each measurement period. Table 1-3 presents the study indicators and results reported for this submission. **FBH** identified specific benchmarks for these indicators using the FY 06 MHSIP survey. No goals were determined for any of these indicators.

Table 1-3—Summary of Results					
Indicators	Baseline Measurement	Remeasurement 1	Remeasurement 2	Remeasurement 3	Remeasurement 4
	Results	Results	Results	Results	Results
Study Indicator 1: “Total score on MHSIP item #10 (‘Staff here believe I can grow, change, and recover.’).”	2.07	1.93	1.96	1.76	1.83
Study Indicator 2: “Total score on MHSIP item #19 (‘Staff helped me obtain information so that I can take charge of managing my illness.’).”	2.20	1.98	2.24	2.11	2.14
Study Indicator 3: “Total score on MHSIP item #17 (‘I, not staff, decided my treatment goals.’).”	2.31	1.95	2.12	2.06	2.19

Table 1-3 shows that **FBH** submitted results for five measurement periods (i.e., Baseline and four remeasurement periods). Improvement was observed by a decrease in average ratings. Results for each remeasurement period for all study indicators showed improvement over the Baseline result, with the exception of the Remeasurement 2 result for Study Indicator 2. Statistically significant improvements were observed for Study Indicator 1 between Baseline and Remeasurement 3 (2.07 to 1.76) and for Study Indicator 3 between Baseline and Remeasurement 1 (2.31 to 1.95). Both study indicators showed sustained improvement after the significant improvement was identified. No significant improvement was observed for Study Indicator 2.

PIP Scores

For this PIP, HSAG reviewed Steps I through X. Table 1-4 and Table 1-5 show **FBH**'s scores based on HSAG's PIP evaluation of *Supporting Recovery*. Evaluators reviewed and scored each step according to HSAG's validation methodology.

**Table 1-4—Performance Improvement Project Scores
for Supporting Recovery
for Foothills Behavioral Health, LLC**

Review Step	Total Possible Evaluation Elements (Including Critical Elements)	Total Met	Total Partially Met	Total Not Met	Total NA	Total Possible Critical Elements	Total Critical Elements Met	Total Critical Elements Partially Met	Total Critical Elements Not Met	Total Critical Elements NA
I. Review the Selected Study Topic(s)	6	6	0	0	0	1	1	0	0	0
II. Review the Study Question(s)	2	2	0	0	0	2	2	0	0	0
III. Review the Selected Study Indicator(s)	7	6	0	0	1	3	3	0	0	0
IV. Review the Identified Study Population	3	3	0	0	0	2	2	0	0	0
V. Review Sampling Methods	6	6	0	0	0	1	1	0	0	0
VI. Review Data Collection Procedures	11	6	0	0	5	1	0	0	0	1
VII. Assess Improvement Strategies	4	3	0	0	1	1	1	0	0	0
VIII. Review Data Analysis and the Interpretation of Study Results	9	9	0	0	0	2	2	0	0	0
IX. Assess for Real Improvement	4	1	3	0	0	No Critical Elements				
X. Assess for Sustained Improvement	1	1	0	0	0	No Critical Elements				
Totals for All Steps	53	43	3	0	7	13	12	0	0	1

**Table 1-5—Performance Improvement Project Overall Score
for Supporting Recovery
for Foothills Behavioral Health, LLC**

Percentage Score of Evaluation Elements <i>Met</i> *	93%
Percentage Score of Critical Elements <i>Met</i> **	100%
Validation Status***	<i>Met</i>

* The percentage score for all evaluation elements *Met* is calculated by dividing the total *Met* by the sum of all evaluation elements *Met*, *Partially Met*, and *Not Met*.

** The percentage score for critical elements *Met* is calculated by dividing the total critical elements *Met* by the sum of the critical elements *Met*, *Partially Met*, and *Not Met*.

*** *Met* equals confidence/high confidence that the PIP was valid.
Partially Met equals low confidence that the PIP was valid.
Not Met equals reported PIP results that were not valid.

2. Validation Methodology

for Foothills Behavioral Health, LLC

Scoring Methodology

Below is the scoring methodology HSAG uses to evaluate PIPs conducted by the BHO to determine if a PIP is valid and to rate the percentage of compliance with CMS’ Protocol for conducting PIPs.

Each PIP step consists of critical and noncritical evaluation elements necessary for successful completion of a valid PIP. Each evaluation element is scored as *Met*, *Partially Met*, *Not Met*, *Not Applicable*, or *Not Assessed*. In the PIP Validation Tool (Section 3), the column to the left of the evaluation element description indicates if that evaluation element is a critical element. Critical elements are essential to producing a valid and reliable PIP; therefore, each critical element must have a score of *Met*. For example, for Step II of the PIP Validation Tool, if the study question cannot be answered, then the critical element is scored as *Not Met* and the PIP is not valid.

The following is an example of how critical elements are designated in the PIP Validation Tool.

	Evaluation Element	Scoring
C	The written study question is answerable.	<input type="checkbox"/> <i>Met</i> <input type="checkbox"/> <i>Partially Met</i> <input type="checkbox"/> <i>Not Met</i> <input type="checkbox"/> <i>NA</i>

HSAG scores each evaluation element as noted above and creates a table that totals all scores (for critical and noncritical elements). From this table (Table 3-1 in Section 3) HSAG calculates percentage scores and a validation status (Table 3-2 in Section 3). The percentage score for all evaluation elements is calculated by dividing the number of elements (including critical elements) *Met* by the sum of evaluation elements that were *Met*, *Partially Met*, and *Not Met*. The percentage score for critical elements *Met* is calculated by dividing the critical elements *Met* by the sum of critical elements that were *Met*, *Partially Met*, and *Not Met*. The validation status score is based on the percentage score and whether or not critical elements were *Met*, *Partially Met*, or *Not Met*. (See the scoring table on page 2-2 for more details.) The scoring methodology also includes the *Not Applicable* designation for those situations in which the evaluation element does not apply to the PIP. For example, in Activity V, if the PIP did not use sampling techniques, HSAG would score the evaluation elements in Activity V as *Not Applicable*. HSAG uses the *Not Assessed* scoring designation when the PIP has not progressed to the remaining steps in the CMS Protocol. HSAG uses a *Point of Clarification* when documentation for an evaluation element includes the basic components to meet requirements for the evaluation element (as described in the narrative of the PIP), but enhanced documentation would demonstrate a stronger understanding of CMS Protocols.

Due to the importance of critical elements, any critical element scored as *Not Met* will invalidate the PIP. Critical elements that are *Partially Met* and noncritical elements that are *Partially Met* or *Not Met* will not invalidate the PIP but will affect the overall percentage score (which indicates the percentage of the PIP’s compliance with CMS’ Protocol for conducting PIPs).

HSAG will provide technical assistance to help the BHO understand CMS' Protocol and make necessary revisions to the PIP. For future submissions, the BHO will submit a revised PIP Summary Form that includes additional information to address any *Points of Clarification* and any critical and noncritical areas scored as *Partially Met* or *Not Met* for the next validation cycle.

Met, *Partially Met*, and *Not Met* scores are aggregated to reflect an overall score based on the following criteria:

<i>Met</i>	(1) All critical elements are <i>Met</i> and (2) 80 to 100 percent of all elements are <i>Met</i> across all activities.
<i>Partially Met</i>	(1) All critical elements are <i>Met</i> and 60 to 79 percent of all elements are <i>Met</i> across all activities or (2) One or more critical elements are <i>Partially Met</i> and the percentage score for all elements across all activities is 60 percent or more.
<i>Not Met</i>	(1) All critical elements are <i>Met</i> and less than 60 percent of all elements are <i>Met</i> across all activities or (2) One or more critical elements are <i>Not Met</i> .
<i>Not Applicable (NA)</i>	<i>Not Applicable</i> elements (including critical elements) are removed from all scoring.
<i>Not Assessed</i>	<i>Not Assessed</i> elements (including critical elements) are removed from all scoring.
<i>Point of Clarification</i>	A <i>Point of Clarification</i> is used when documentation for an evaluation element includes the basic components to meet requirements for the evaluation element (as described in the narrative of the PIP), but enhanced documentation would demonstrate a stronger understanding of CMS Protocols.

HSAG then calculates an overall percentage and validation status score as follows:

Percentage Score of Evaluation Elements <i>Met</i> *	%
Percentage Score of Critical Elements <i>Met</i> **	%
Validation Status***	< <i>Met/Partially Met/Not Met</i> >

- * The percentage score for all evaluation elements *Met* is calculated by dividing the total *Met* by the sum of all evaluations elements *Met*, *Partially Met*, and *Not Met*.
- ** The percentage score for critical elements *Met* is calculated by dividing the total critical elements *Met* by the sum of the critical elements *Met*, *Partially Met*, and *Not Met*.
- *** *Met* equals confidence/high confidence that the PIP was valid.
Partially Met equals low confidence that the PIP was valid.
Not Met equals reported PIP results that were not credible.

The scoring methodology is designed to ensure that critical elements are a must-pass step. If at least one critical element is *Not Met*, the overall validation status is *Not Met*. In addition, the methodology addresses the potential situation in which all critical elements are *Met*, but suboptimal performance is observed for noncritical elements. The final outcome would be based on the overall percentage score.

Scoring Methodology Examples

HSAG calculates the score for the BHO as the percentage of elements across all activities that receive a *Met* score. The following examples demonstrate how scoring is applied.

Example 1:

The PIP scores are as follows: *Met*=43, *Partially Met*=1, *Not Met*=1, *NA*=8, and one critical element is *Partially Met*. The BHO receives an overall *Partially Met* validation status, indicating a valid PIP. The percentage score of evaluation elements *Met* for the BHO is calculated as $43/45=95.6$ percent. The percentage score of critical elements *Met* is calculated as $12/13=92$ percent.

Example 2:

The PIP scores are as follows: *Met*=38, *Partially Met*=11, *Not Met*=4, *NA*=0, and all the critical elements are *Met*. The BHO receives an overall *Partially Met* status, indicating a valid PIP. The percentage score of evaluation elements *Met* for the BHO is calculated as $38/53=71.7$ percent. The percentage score of critical elements *Met* is calculated as $13/13=100$ percent.

Section 3: Colorado FY 08-09 PIP Validation Tool:
Supporting Recovery
for Foothills Behavioral Health, LLC

DEMOGRAPHIC INFORMATION

Health Plan Name:	Foothills Behavioral Health, LLC		
Study Leader Name:	Barbara Smith, PhD, RN	Title:	Director of Quality Assurance & Performance Improvement
Phone Number:	(303) 432-5952	E-mail Address:	bsmith@fbhcolorado.org
Name of Project/Study:	Supporting Recovery		
Type of Study:	Clinical	<input type="checkbox"/> Collaborative	<input type="checkbox"/> HEDIS
Date of Study:	1/1/2007 to 6/30/2008		
Type of Delivery System:	BHO	Number of Medicaid Consumers in BHO:	3,448
		Number of Medicaid Consumers in Study:	1,574
Year 4 Validation	Validated through Step: X		
Results:	Remeasurement 4		
Initial Submission Date:	11/28/2008	Validation Date:	12/15/2008
Resubmission date:		Validation Date:	

**Section 3: Colorado FY 08-09 PIP Validation Tool:
Supporting Recovery
for Foothills Behavioral Health, LLC**

EVALUATION ELEMENTS		SCORING	COMMENTS
Performance Improvement Project/Health Care Study Evaluation			
I. Review the Selected Study Topic(s): Topics selected for the study should reflect the Medicaid-enrolled population in terms of demographic characteristics, prevalence of disease, and the potential consequences (risks) of disease. Topics could also address the need for a specific service. The goal of the project should be to improve processes and outcomes of health care. The topic may be specified by the State Medicaid agency or based on input from Medicaid consumers. The study topic:			
1.	Reflects high-volume or high-risk conditions.	<input checked="" type="checkbox"/> Met <input type="checkbox"/> Partially Met <input type="checkbox"/> Not Met <input type="checkbox"/> NA	The study topic reflected high-risk conditions.
2.	Is selected following collection and analysis of data. NA is not applicable to this element for scoring.	<input checked="" type="checkbox"/> Met <input type="checkbox"/> Partially Met <input type="checkbox"/> Not Met <input type="checkbox"/> NA	The study topic was selected following the collection and analysis of data.
3.	Addresses a broad spectrum of care and services. The score for this element will be Met or Not Met.	<input checked="" type="checkbox"/> Met <input type="checkbox"/> Partially Met <input type="checkbox"/> Not Met <input type="checkbox"/> NA	The study topic addressed a broad spectrum of care and services.
4.	Includes all eligible populations that meet the study criteria. NA is not applicable to this element for scoring.	<input checked="" type="checkbox"/> Met <input type="checkbox"/> Partially Met <input type="checkbox"/> Not Met <input type="checkbox"/> NA	The study topic included all eligible populations that met the study criteria.
5.	Does not exclude consumers with special health care needs. The score for this element will be Met or Not Met.	<input checked="" type="checkbox"/> Met <input type="checkbox"/> Partially Met <input type="checkbox"/> Not Met <input type="checkbox"/> NA	Consumers with special health care needs were not excluded.
C*	6. Has the potential to affect consumer health, functional status, or satisfaction. The score for this element will be Met or Not Met.	<input checked="" type="checkbox"/> Met <input type="checkbox"/> Partially Met <input type="checkbox"/> Not Met <input type="checkbox"/> NA	The study topic had the potential to affect consumer satisfaction.

Results for Step I

Total Evaluation Elements**	# of Total Evaluation Elements				Critical Elements***	# of Critical Elements			
	Met	Partially Met	Not Met	Not Applicable		Met	Partially Met	Not Met	Not Applicable
6	6	0	0	0	1	1	0	0	0

* "C" in this column denotes a critical evaluation element.

** Total Evaluation Elements includes critical elements.

*** This number is a tally of the total number of critical evaluation elements for this review activity.

*Section 3: Colorado FY 08-09 PIP Validation Tool:
Supporting Recovery
for Foothills Behavioral Health, LLC*

EVALUATION ELEMENTS		SCORING	COMMENTS
Performance Improvement Project/Health Care Study Evaluation			
II. Review the Study Question(s): Stating the study question(s) helps maintain the focus of the PIP and sets the framework for data collection, analysis, and interpretation. The study question:			
C*	1. States the problem to be studied in simple terms. NA is not applicable to this element for scoring.	<input checked="" type="checkbox"/> Met <input type="checkbox"/> Partially Met <input type="checkbox"/> Not Met <input type="checkbox"/> NA	The study question stated the problem to be studied in simple terms.
C*	2. Is answerable. NA is not applicable to this element for scoring.	<input checked="" type="checkbox"/> Met <input type="checkbox"/> Partially Met <input type="checkbox"/> Not Met <input type="checkbox"/> NA	The study question was answerable.

Results for Step II

# of Total Evaluation Elements					# of Critical Elements				
Total Evaluation Elements**	Met	Partially Met	Not Met	Not Applicable	Critical Elements***	Met	Partially Met	Not Met	Not Applicable
2	2	0	0	0	2	2	0	0	0

* "C" in this column denotes a critical evaluation element.

** Total Evaluation Elements includes critical elements.

*** This number is a tally of the total number of critical evaluation elements for this review activity.

*Section 3: Colorado FY 08-09 PIP Validation Tool:
Supporting Recovery
for Foothills Behavioral Health, LLC*

EVALUATION ELEMENTS		SCORING	COMMENTS
Performance Improvement Project/Health Care Study Evaluation			
III.	Review the Selected Study Indicator(s): A study indicator is a quantitative characteristic or variable that reflects a discrete event (e.g., an older adult has not received an influenza vaccination in the last 12 months) or a status (e.g., a consumer's blood pressure is or is not below a specified level) that is to be measured. The selected indicators should track performance or improvement over time. The indicators should be objective, clearly and unambiguously defined, and based on current clinical knowledge or health services research. The study indicators:		
C*	1. Are well-defined, objective, and measurable. NA is not applicable to this element for scoring.	<input checked="" type="checkbox"/> Met <input type="checkbox"/> Partially Met <input type="checkbox"/> Not Met <input type="checkbox"/> NA	The study indicators were well-defined, objective, and measurable.
	2. Are based on current, evidence-based practice guidelines, pertinent peer-reviewed literature, or consensus expert panels.	<input checked="" type="checkbox"/> Met <input type="checkbox"/> Partially Met <input type="checkbox"/> Not Met <input type="checkbox"/> NA	The study indicators were based on practice guidelines.
C*	3. Allow for the study question to be answered. NA is not applicable to this element for scoring.	<input checked="" type="checkbox"/> Met <input type="checkbox"/> Partially Met <input type="checkbox"/> Not Met <input type="checkbox"/> NA	The study indicators allowed for the study question to be answered.
	4. Measure changes (outcomes) in health or functional status, consumer satisfaction, or valid process alternatives. NA is not applicable to this element for scoring.	<input checked="" type="checkbox"/> Met <input type="checkbox"/> Partially Met <input type="checkbox"/> Not Met <input type="checkbox"/> NA	The study indicators measured changes (outcomes) in consumer satisfaction.
C*	5. Have available data that can be collected on each indicator. NA is not applicable to this element for scoring.	<input checked="" type="checkbox"/> Met <input type="checkbox"/> Partially Met <input type="checkbox"/> Not Met <input type="checkbox"/> NA	Data were available for collection on each study indicator.
	6. Are nationally recognized measures, such as HEDIS technical specifications, when appropriate. The scoring for this element will be Met or NA.	<input checked="" type="checkbox"/> Met <input type="checkbox"/> Partially Met <input type="checkbox"/> Not Met <input type="checkbox"/> NA	The study indicators were based on nationally recognized questions from the Mental Health Statistics Improvement Program (MHSIP) Medicaid consumer survey.
	7. Includes the basis on which each indicator(s) was adopted, if internally developed.	<input type="checkbox"/> Met <input type="checkbox"/> Partially Met <input type="checkbox"/> Not Met <input checked="" type="checkbox"/> NA	The study indicators were not internally developed. The study indicators included items from the MHSIP Medicaid consumer survey.

* "C" in this column denotes a critical evaluation element.

** Total Evaluation Elements includes critical elements.

*** This number is a tally of the total number of critical evaluation elements for this review activity.

*Section 3: Colorado FY 08-09 PIP Validation Tool:
Supporting Recovery
for Foothills Behavioral Health, LLC*

EVALUATION ELEMENTS					SCORING					COMMENTS				
Performance Improvement Project/Health Care Study Evaluation														
Results for Step III														
# of Total Evaluation Elements					# of Critical Elements									
Total Evaluation Elements**	Met	Partially Met	Not Met	Not Applicable	Critical Elements***	Met	Partially Met	Not Met	Not Applicable					
7	6	0	0	1	3	3	0	0	0					

* "C" in this column denotes a critical evaluation element.

** Total Evaluation Elements includes critical elements.

*** This number is a tally of the total number of critical evaluation elements for this review activity.

**Section 3: Colorado FY 08-09 PIP Validation Tool:
Supporting Recovery
for Foothills Behavioral Health, LLC**

EVALUATION ELEMENTS		SCORING	COMMENTS
Performance Improvement Project/Health Care Study Evaluation			
IV.	Review the Identified Study Population: The selected topic should represent the entire eligible Medicaid-enrolled population, with systemwide measurement and improvement efforts to which the study indicators apply. The study population:		
C*	1. Is accurately and completely defined. NA is not applicable to this element for scoring.	<input checked="" type="checkbox"/> Met <input type="checkbox"/> Partially Met <input type="checkbox"/> Not Met <input type="checkbox"/> NA	The study population was accurately and completely defined.
	2. Includes requirements for the length of a consumer's enrollment in the BHO.	<input checked="" type="checkbox"/> Met <input type="checkbox"/> Partially Met <input type="checkbox"/> Not Met <input type="checkbox"/> NA	Requirements for length of enrollment in the BHO were included.
C*	3. Captures all consumers to whom the study question applies. NA is not applicable to this element for scoring.	<input checked="" type="checkbox"/> Met <input type="checkbox"/> Partially Met <input type="checkbox"/> Not Met <input type="checkbox"/> NA	The study population captured all consumers to whom the study question applied.

Results for Step IV

# of Total Evaluation Elements					# of Critical Elements				
Total Evaluation Elements**	Met	Partially Met	Not Met	Not Applicable	Critical Elements***	Met	Partially Met	Not Met	Not Applicable
3	3	0	0	0	2	2	0	0	0

* "C" in this column denotes a critical evaluation element.

** Total Evaluation Elements includes critical elements.

*** This number is a tally of the total number of critical evaluation elements for this review activity.

**Section 3: Colorado FY 08-09 PIP Validation Tool:
Supporting Recovery
for Foothills Behavioral Health, LLC**

EVALUATION ELEMENTS		SCORING	COMMENTS
Performance Improvement Project/Health Care Study Evaluation			
V. Review Sampling Methods: (This step is scored only if sampling is used.) If sampling is used to select consumers of the study, proper sampling techniques are necessary to provide valid and reliable information on the quality of care provided. The true prevalence or incidence rate for the event in the population may not be known the first time a topic is studied. Sampling methods:			
1.	Consider and specify the true or estimated frequency of occurrence.	<input checked="" type="checkbox"/> Met <input type="checkbox"/> Partially Met <input type="checkbox"/> Not Met <input type="checkbox"/> NA	The estimated frequency of occurrence was provided.
2.	Identify the sample size.	<input checked="" type="checkbox"/> Met <input type="checkbox"/> Partially Met <input type="checkbox"/> Not Met <input type="checkbox"/> NA	The sample size was identified.
3.	Specify the confidence level.	<input checked="" type="checkbox"/> Met <input type="checkbox"/> Partially Met <input type="checkbox"/> Not Met <input type="checkbox"/> NA	The confidence level was specified.
4.	Specify the acceptable margin of error.	<input checked="" type="checkbox"/> Met <input type="checkbox"/> Partially Met <input type="checkbox"/> Not Met <input type="checkbox"/> NA	The acceptable margin of error was specified.
C*	5. Ensure a representative sample of the eligible population.	<input checked="" type="checkbox"/> Met <input type="checkbox"/> Partially Met <input type="checkbox"/> Not Met <input type="checkbox"/> NA	The sampling methods ensured a representative sample of the eligible population.
	6. Are in accordance with generally accepted principles of research design and statistical analysis.	<input checked="" type="checkbox"/> Met <input type="checkbox"/> Partially Met <input type="checkbox"/> Not Met <input type="checkbox"/> NA	The sampling methods were in accordance with generally accepted principles of research design and statistical analysis.

Results for Step V

Total Evaluation Elements**	# of Total Evaluation Elements				Critical Elements***	# of Critical Elements				
	Met	Partially Met	Not Met	Not Applicable		Met	Partially Met	Not Met	Not Applicable	
6	6	0	0	0	1	1	0	0	0	

* "C" in this column denotes a critical evaluation element.

** Total Evaluation Elements includes critical elements.

*** This number is a tally of the total number of critical evaluation elements for this review activity.

*Section 3: Colorado FY 08-09 PIP Validation Tool:
Supporting Recovery
for Foothills Behavioral Health, LLC*

EVALUATION ELEMENTS		SCORING	COMMENTS
Performance Improvement Project/Health Care Study Evaluation			
VI.	Review Data Collection Procedures: Data collection must ensure that the data collected on the study indicators are valid and reliable. Validity is an indication of the accuracy of the information obtained. Reliability is an indication of the repeatability or reproducibility of a measurement.		
	1. The identification of data elements to be collected. NA is not applicable to this element for scoring.	<input checked="" type="checkbox"/> Met <input type="checkbox"/> Partially Met <input type="checkbox"/> Not Met <input type="checkbox"/> NA	The data elements collected were identified.
	2. The identification of specified sources of data. NA is not applicable to this element for scoring.	<input checked="" type="checkbox"/> Met <input type="checkbox"/> Partially Met <input type="checkbox"/> Not Met <input type="checkbox"/> NA	The source of data was identified.
	3. A defined and systematic process for collecting Baseline and remeasurement data. NA is not applicable to this element for scoring.	<input checked="" type="checkbox"/> Met <input type="checkbox"/> Partially Met <input type="checkbox"/> Not Met <input type="checkbox"/> NA	The process for collecting data was defined and systematic.
	4. A timeline for the collection of Baseline and remeasurement data. NA is not applicable to this element for scoring.	<input checked="" type="checkbox"/> Met <input type="checkbox"/> Partially Met <input type="checkbox"/> Not Met <input type="checkbox"/> NA	A timeline for the collection of data was provided.
	5. Qualified staff and personnel to abstract manual data.	<input type="checkbox"/> Met <input type="checkbox"/> Partially Met <input type="checkbox"/> Not Met <input checked="" type="checkbox"/> NA	Manual data collection was not used for this PIP.
C*	6. A manual data collection tool that ensures consistent and accurate collection of data according to indicator specifications.	<input type="checkbox"/> Met <input type="checkbox"/> Partially Met <input type="checkbox"/> Not Met <input checked="" type="checkbox"/> NA	Manual data collection was not used for this PIP.
	7. A manual data collection tool that supports interrater reliability.	<input type="checkbox"/> Met <input type="checkbox"/> Partially Met <input type="checkbox"/> Not Met <input checked="" type="checkbox"/> NA	Manual data collection was not used for this PIP.
	8. Clear and concise written instructions for completing the manual data collection tool.	<input type="checkbox"/> Met <input type="checkbox"/> Partially Met <input type="checkbox"/> Not Met <input checked="" type="checkbox"/> NA	Manual data collection was not used for this PIP.
	9. An overview of the study in written instructions.	<input type="checkbox"/> Met <input type="checkbox"/> Partially Met <input type="checkbox"/> Not Met <input checked="" type="checkbox"/> NA	Manual data collection was not used for this PIP.
	10. Administrative data collection algorithms/flow charts that show activities in the production of indicators.	<input checked="" type="checkbox"/> Met <input type="checkbox"/> Partially Met <input type="checkbox"/> Not Met <input type="checkbox"/> NA	A description of the administrative data collection process was provided in the PIP documentation.

* "C" in this column denotes a critical evaluation element.

** Total Evaluation Elements includes critical elements.

*** This number is a tally of the total number of critical evaluation elements for this review activity.

*Section 3: Colorado FY 08-09 PIP Validation Tool:
Supporting Recovery
for Foothills Behavioral Health, LLC*

EVALUATION ELEMENTS	SCORING	COMMENTS
Performance Improvement Project/Health Care Study Evaluation		
VI. Review Data Collection Procedures: Data collection must ensure that the data collected on the study indicators are valid and reliable. Validity is an indication of the accuracy of the information obtained. Reliability is an indication of the repeatability or reproducibility of a measurement.		
11. An estimated degree of administrative data completeness. Met = 80 - 100% Partially Met = 50 - 79% Not Met = <50% or not provided	<input checked="" type="checkbox"/> Met <input type="checkbox"/> Partially Met <input type="checkbox"/> Not Met <input type="checkbox"/> NA	The estimated degree of administrative data completeness was reported as 96.6 percent, and documentation supporting how this percentage was calculated was provided.

Results for Step VI

Total Evaluation Elements**	# of Total Evaluation Elements				Critical Elements***	# of Critical Elements			
	Met	Partially Met	Not Met	Not Applicable		Met	Partially Met	Not Met	Not Applicable
11	6	0	0	5	1	0	0	0	1

* "C" in this column denotes a critical evaluation element.

** Total Evaluation Elements includes critical elements.

*** This number is a tally of the total number of critical evaluation elements for this review activity.

**Section 3: Colorado FY 08-09 PIP Validation Tool:
Supporting Recovery
for Foothills Behavioral Health, LLC**

EVALUATION ELEMENTS		SCORING	COMMENTS
Performance Improvement Project/Health Care Study Evaluation			
VII. Assess Improvement Strategies: Real, sustained improvements in care result from a continuous cycle of measuring and analyzing performance, as well as, developing and implementing systemwide improvements in care. Interventions are designed to change behavior at an institutional, practitioner, or consumer level. The improvement strategies are:			
C*	1. Related to causes/barriers identified through data analysis and quality improvement processes. NA is not applicable to this element for scoring.	<input checked="" type="checkbox"/> Met <input type="checkbox"/> Partially Met <input type="checkbox"/> Not Met <input type="checkbox"/> NA	The interventions were related to causes/barriers identified through a quality improvement process.
	2. System changes that are likely to induce permanent change.	<input checked="" type="checkbox"/> Met <input type="checkbox"/> Partially Met <input type="checkbox"/> Not Met <input type="checkbox"/> NA	The interventions included system changes likely to induce permanent change.
	3. Revised if the original interventions are not successful.	<input checked="" type="checkbox"/> Met <input type="checkbox"/> Partially Met <input type="checkbox"/> Not Met <input type="checkbox"/> NA	Additional improvement strategies were started from July 1, 2007 through December 31, 2007.
	4. Standardized and monitored if interventions are successful.	<input type="checkbox"/> Met <input type="checkbox"/> Partially Met <input type="checkbox"/> Not Met <input checked="" type="checkbox"/> NA	From Remeasurement 3 to Remeasurement 4 there was a decrease in satisfaction. There have been fluctuations in the results since Baseline.

Results for Step VII

# of Total Evaluation Elements					# of Critical Elements				
Total Evaluation Elements**	Met	Partially Met	Not Met	Not Applicable	Critical Elements***	Met	Partially Met	Not Met	Not Applicable
4	3	0	0	1	1	1	0	0	0

* "C" in this column denotes a critical evaluation element.

** Total Evaluation Elements includes critical elements.

*** This number is a tally of the total number of critical evaluation elements for this review activity.

*Section 3: Colorado FY 08-09 PIP Validation Tool:
Supporting Recovery
for Foothills Behavioral Health, LLC*

EVALUATION ELEMENTS		SCORING	COMMENTS
Performance Improvement Project/Health Care Study Evaluation			
VIII. Review Data Analysis and Study Results: Review the data analysis process for the selected clinical or nonclinical study indicators. Review appropriateness of, and adherence to, the statistical analysis techniques used.			
C*	1. Are conducted according to the data analysis plan in the study design. NA is not applicable to this element for scoring.	<input checked="" type="checkbox"/> Met <input type="checkbox"/> Partially Met <input type="checkbox"/> Not Met <input type="checkbox"/> NA	Data analysis was conducted according to the data analysis plan in the study design.
C*	2. Allow for the generalization of results to the study population if a sample was selected. If no sampling was performed, this element is scored NA.	<input checked="" type="checkbox"/> Met <input type="checkbox"/> Partially Met <input type="checkbox"/> Not Met <input type="checkbox"/> NA	Statistical techniques used supported generalization of the results to the study population.
	3. Identify factors that threaten internal or external validity of findings. NA is not applicable to this element for scoring.	<input checked="" type="checkbox"/> Met <input type="checkbox"/> Partially Met <input type="checkbox"/> Not Met <input type="checkbox"/> NA	Factors that threatened the validity of the findings were identified.
	4. Include an interpretation of findings. NA is not applicable to this element for scoring.	<input checked="" type="checkbox"/> Met <input type="checkbox"/> Partially Met <input type="checkbox"/> Not Met <input type="checkbox"/> NA	An interpretation of findings was included.
	5. Are presented in a way that provides accurate, clear, and easily understood information. NA is not applicable to this element for scoring.	<input checked="" type="checkbox"/> Met <input type="checkbox"/> Partially Met <input type="checkbox"/> Not Met <input type="checkbox"/> NA	The information was presented in an accurate, clear, and easily understood way. Point of Clarification: For the Remeasurement 4 result of Study Indicator 1, no standard deviation was reported.
	6. Identify the initial measurement and the remeasurement of study indicators.	<input checked="" type="checkbox"/> Met <input type="checkbox"/> Partially Met <input type="checkbox"/> Not Met <input type="checkbox"/> NA	Initial measurement and remeasurement of the study indicators were identified.
	7. Identify statistical differences between the initial measurement and the remeasurement.	<input checked="" type="checkbox"/> Met <input type="checkbox"/> Partially Met <input type="checkbox"/> Not Met <input type="checkbox"/> NA	Statistical differences between measurements were identified.
	8. Identify factors that affect the ability to compare the initial measurement with the remeasurement.	<input checked="" type="checkbox"/> Met <input type="checkbox"/> Partially Met <input type="checkbox"/> Not Met <input type="checkbox"/> NA	Factors that affected the ability to compare measurements were identified.

* "C" in this column denotes a critical evaluation element.

** Total Evaluation Elements includes critical elements.

*** This number is a tally of the total number of critical evaluation elements for this review activity.

*Section 3: Colorado FY 08-09 PIP Validation Tool:
Supporting Recovery
for Foothills Behavioral Health, LLC*

EVALUATION ELEMENTS		SCORING	COMMENTS
Performance Improvement Project/Health Care Study Evaluation			
VIII.	Review Data Analysis and Study Results: Review the data analysis process for the selected clinical or nonclinical study indicators. Review appropriateness of, and adherence to, the statistical analysis techniques used.		
9.	Include an interpretation of the extent to which the study was successful.	<input checked="" type="checkbox"/> Met <input type="checkbox"/> Partially Met <input type="checkbox"/> Not Met <input type="checkbox"/> NA	An interpretation of the extent to which the study was successful was included.

Results for Step VIII

# of Total Evaluation Elements					# of Critical Elements				
Total Evaluation Elements**	Met	Partially Met	Not Met	Not Applicable	Critical Elements***	Met	Partially Met	Not Met	Not Applicable
9	9	0	0	0	2	2	0	0	0

* "C" in this column denotes a critical evaluation element.

** Total Evaluation Elements includes critical elements.

*** This number is a tally of the total number of critical evaluation elements for this review activity.

*Section 3: Colorado FY 08-09 PIP Validation Tool:
Supporting Recovery
for Foothills Behavioral Health, LLC*

EVALUATION ELEMENTS		SCORING	COMMENTS
Performance Improvement Project/Health Care Study Evaluation			
IX. Assess for Real Improvement: Assess for any meaningful changes in performance observed and was demonstrated during the Baseline measurement. Assess for any random year-to-year variations, population changes, or sampling errors that may have occurred during the measurement process.			
1.	The remeasurement methodology is the same as the Baseline methodology.	<input checked="" type="checkbox"/> Met <input type="checkbox"/> Partially Met <input type="checkbox"/> Not Met <input type="checkbox"/> NA	Remeasurement methodology was the same as Baseline methodology.
2.	There is documented improvement in processes or outcomes of care.	<input type="checkbox"/> Met <input checked="" type="checkbox"/> Partially Met <input type="checkbox"/> Not Met <input type="checkbox"/> NA	While there has been improvement since Baseline, the results for all three study indicators showed a non-significant decrease in satisfaction for Remeasurement 4.
3.	The improvement appears to be the result of planned intervention(s).	<input type="checkbox"/> Met <input checked="" type="checkbox"/> Partially Met <input type="checkbox"/> Not Met <input type="checkbox"/> NA	For Remeasurement 4, all three study indicators showed a non-significant decrease in satisfaction.
4.	There is statistical evidence that observed improvement is true improvement.	<input type="checkbox"/> Met <input checked="" type="checkbox"/> Partially Met <input type="checkbox"/> Not Met <input type="checkbox"/> NA	For Remeasurement 4, all three study indicators showed a non-significant decrease in satisfaction.

Results for Step IX

# of Total Evaluation Elements					# of Critical Elements				
Total Evaluation Elements**	Met	Partially Met	Not Met	Not Applicable	Critical Elements***	Met	Partially Met	Not Met	Not Applicable
4	1	3	0	0	0	0	0	0	0

** Total Evaluation Elements includes critical elements.

*** This number is a tally of the total number of critical evaluation elements for this review activity.

*Section 3: Colorado FY 08-09 PIP Validation Tool:
Supporting Recovery
for Foothills Behavioral Health, LLC*

EVALUATION ELEMENTS		SCORING	COMMENTS
Performance Improvement Project/Health Care Study Evaluation			
X.	Assess for Sustained Improvement: Assess for any demonstrated improvement through repeated measurements over comparable time periods. Assess for any random year-to-year variations, population changes, or sampling error that may have occurred during the remeasurement process.		
1.	Repeated measurements over comparable time periods demonstrate sustained improvement or that a decline in improvement is not statistically significant.	<input checked="" type="checkbox"/> Met <input type="checkbox"/> Partially Met <input type="checkbox"/> Not Met <input type="checkbox"/> NA	Repeated measurements over comparable time periods demonstrated sustained improvement.

Results for Step X

Total Evaluation Elements**	# of Total Evaluation Elements				Critical Elements***	# of Critical Elements			
	Met	Partially Met	Not Met	Not Applicable		Met	Partially Met	Not Met	Not Applicable
1	1	0	0	0	0	0	0	0	0

** Total Evaluation Elements includes critical elements.

*** This number is a tally of the total number of critical evaluation elements for this review activity.

**Section 3: Colorado FY 08-09 PIP Validation Tool:
Supporting Recovery
for Foothills Behavioral Health, LLC**

**Table 3-1—FY 08-09 PIP Validation Report Scores:
Supporting Recovery
for Foothills Behavioral Health, LLC**

Review Step		Total Possible Evaluation Elements (Including Critical Elements)	Total Met	Total Partially Met	Total Not Met	Total NA	Total Possible Critical Elements	Total Critical Elements Met	Total Critical Elements Partially Met	Total Critical Elements Not Met	Total Critical Elements NA
I.	Review the Selected Study Topic(s)	6	6	0	0	0	1	1	0	0	0
II.	Review the Study Question(s)	2	2	0	0	0	2	2	0	0	0
III.	Review the Selected Study Indicator(s)	7	6	0	0	1	3	3	0	0	0
IV.	Review the Identified Study Population	3	3	0	0	0	2	2	0	0	0
V.	Review Sampling Methods	6	6	0	0	0	1	1	0	0	0
VI.	Review Data Collection Procedures	11	6	0	0	5	1	0	0	0	1
VII.	Assess Improvement Strategies	4	3	0	0	1	1	1	0	0	0
VIII.	Review Data Analysis and Study Results	9	9	0	0	0	2	2	0	0	0
IX.	Assess for Real Improvement	4	1	3	0	0	No Critical Elements				
X.	Assess for Sustained Improvement	1	1	0	0	0	No Critical Elements				
Totals for All Steps		53	43	3	0	7	13	12	0	0	1

**Table 3-2—FY 08-09 PIP Validation Report Overall Scores:
Supporting Recovery
for Foothills Behavioral Health, LLC**

Percentage Score of Evaluation Elements Met*	93%
Percentage Score of Critical Elements Met**	100%
Validation Status***	Met

- * The percentage score is calculated by dividing the total Met by the sum of the total Met, Partially Met, and Not Met.
- ** The percentage score of critical elements Met is calculated by dividing the total critical elements Met by the sum of the critical elements Met, Partially Met, and Not Met.
- *** Met equals confidence/high confidence that the PIP was valid.
Partially Met equals low confidence that the PIP was valid.
Not Met equals reported PIP results that were not credible.

*Section 3: Colorado FY 08-09 PIP Validation Tool:
Supporting Recovery
for Foothills Behavioral Health, LLC*

EVALUATION OF THE OVERALL VALIDITY AND RELIABILITY OF PIP RESULTS

HSAG assessed the implications of the study's findings on the likely validity and reliability of the results based on CMS Validating Protocols. HSAG also assessed whether the State should have confidence in the reported PIP findings.

***Met = Confidence/high confidence in reported PIP results**

****Partially Met = Low confidence in reported PIP results**

*****Not Met = Reported PIP results not credible**

Summary of Aggregate Validation Findings

* **Met**

** **Partially Met**

*** **Not Met**

Summary statement on the validation findings:

Steps I through X were assessed for this PIP Validation Report. Based on the validation of this PIP, HSAG's assessment determined confidence in the results.

Introduction

Appendix A contains the PIP Summary Form *Foothills Behavioral Health, LLC* submitted to HSAG for review. HSAG has not altered the content or made grammatical corrections. Any attachments provided with the PIP submission are not included in this appendix. New or altered information in the PIP Summary Form will be dated and highlighted or in bold. Deleted information appears in strikethrough font.

- ◆ Appendix A: **Foothills Behavioral Health, LLC**'s PIP Summary Form: *Supporting Recovery*



**Appendix A: Colorado 2008–2009 PIP Summary Form:
Supporting Recovery
for Foothills Behavioral Health, LLC**

DEMOGRAPHIC INFORMATION

BHO name: Foothills Behavioral Health

Study Leader Name: Barbara Smith, PhD, RN Title: Director of Quality Assurance and Performance Improvement

Telephone Number: 303.432.5952 E-mail Address: bsmith@fbhcolorado.org

Name of Project/Study: Supporting Recovery

Type of Study:

- Clinical Nonclinical
 Collaborative HEDIS

Type of Delivery System: BHO

Date of Study: July 1, 2007 to June 30, 2008

Number of Medicaid Recipient Served by BHOs : 3,448

Number of Medicaid Members in Project/Study: 1,574

Submission Date: 11/28/08

Section to be completed by HSAG

____ Year 1 Validation ____ Initial Submission ____ Resubmission

____ Year 2 Validation ____ Initial Submission ____ Resubmission

____ Year 3 Validation ____ Initial Submission ____ Resubmission

X Year 4 Validation X Initial Submission ____ Resubmission

____ Baseline Assessment ____ Remeasurement 1 ____ Remeasurement 2

____ Remeasurement 3 X Remeasurement 4

Year 1 validated through Step ____ Year 2 validated through Step ____

Year 3 validated through Step ____ Year 4 validated through Step X

Appendix A: Colorado 2008–2009 PIP Summary Form: Supporting Recovery for Foothills Behavioral Health, LLC

A. Activity I: Choose the study topic. PIP topics should target improvement in relevant areas of services and reflect the population in terms of demographic characteristics, prevalence of disease, and the potential consequences (risks) of disease. Topics may be derived from utilization data (ICD-9 or CPT coding data related to diagnoses and procedures; NDC codes for medications; HCPC codes for medications, medical supplies, and medical equipment; adverse events; admissions; readmissions; etc.); grievances and appeals data; survey data; provider access or appointment availability data; consumer characteristics data such as race/ethnicity/language; other fee-for-service data; or local or national data related to Medicaid risk populations. The goal of the project should be to improve processes and outcomes of health care or services to have a potentially significant impact on consumer health, functional status, or satisfaction. The topic may be specified by the state Medicaid agency or CMS, or it may be based on input from consumers. Over time, topics must cover a broad spectrum of key aspects of consumer care and services, including clinical and nonclinical areas, and should include all enrolled populations (i.e., certain subsets of consumers should not be consistently excluded from studies).

Study Topic: FBH's mission, vision, and values reflect FBH's focus on promoting recovery for its Members. Examples of mental health treatment aspects that support consumer recovery include a provider network that believes in and promotes consumer potential for recovery, consumer involvement in and self-advocacy for determining treatment and treatment goals, and an effective program of services that assists/educates consumers on their illness, symptom management, and recovery. Three year trends in Medicaid consumer responses on the MHSIP adult survey suggest that consumers may not be experiencing the level of recovery support FBH would like within its provider network.

Since FY '03 the FBH Network MHC's (MHCBBC and JCMH) MHSIP survey results indicate decreasing satisfaction in the Appropriate/Quality domain survey items, with MHCBBC percent satisfaction in this domain decreasing from 68.2% to 59.1% in FY '05 and JCMH Medicaid respondents indicating a similar decrease, from 77.5% to 63.9%. Specific items within the Appropriateness/Quality domain that consistently indicate a lower satisfaction rating are: "Staff here believe I can grow, change, and recover" and "Staff helped me obtain information so that I could take charge of managing my illness." In addition, FY '05 results, for both Network MHCs, indicate a significant decline in satisfaction with a specific MHSIP Participation domain item: "I, not staff, decided my treatment goals." All three of these survey items reflect key elements of recovery.

Because promotion of recovery is a key objective for FBH and consumer perspective appears to suggest a need for improvement in this area, FBH decided to conduct a performance improvement project to improve consumer satisfaction with Network provider service Appropriateness/Quality and Participation elements related to recovery. A project team was formed and a cause analysis was conducted to determine main causes to this performance problem (see Attachment A_Recovery PIP - cause analysis). Once the cause analysis was completed, key strategies were designed to address the main causes. Those strategies are outlined in Attachment B_Project Steps Causes and Strategies. Below are the study questions formulated to evaluate the effectiveness of the strategies in improving consumer perception of the Network MHC provider support of key recovery care processes.

**Appendix A: Colorado 2008–2009 PIP Summary Form:
Supporting Recovery
for Foothills Behavioral Health, LLC**

B. Activity II: Define the study question(s). Stating the question(s) helps maintain the focus of the PIP and sets the framework for data collection, analysis, and interpretation.

Study Question:

Does implementation of strategies to educate and inform Network MHC providers on methods for timely communication of recovery elements with consumers, including ways to increase consumer involvement in setting treatment goals and strategies to educate and inform consumers as to methods for managing their illness and progressing in their recovery, within FBH's Network MHCs:

1. Improve consumer level of agreement rating (increase satisfaction) with the MHSIP survey item "Staff here believe I can grow, change, and recover?"
2. Improve consumer level of agreement rating (increase satisfaction) with the MHSIP survey item "Staff helped me obtain information so that I can take charge of managing my illness?"
3. Improve consumer level of agreement rating (increase satisfaction) with the MHSIP survey item "I, not staff, decided my treatment goals?"

Appendix A: Colorado 2008–2009 PIP Summary Form: Supporting Recovery for Foothills Behavioral Health, LLC

C. Activity III: Select the study indicator(s). A study indicator is a quantitative or qualitative characteristic or variable that reflects a discrete event (e.g., an older adult has not received an influenza vaccination in the last 12 months) or a status (e.g., a consumer’s blood pressure is/is not below a specified level) that is to be measured. The selected indicators should track performance or improvement over time. The indicators should be objective, clearly and unambiguously defined, and based on current clinical knowledge or health services research.

Study Indicator 1:	Adult Consumer rating on the MHSIP adult survey 5-point Likert agreement scale for the MHSIP survey item “Staff here believe I can grow, change, and recover.”
Numerator	Total score on MHSIP item #10 (Staff here believe I can grow, change, and recover).
Denominator:	Number of respondents rating MHSIP item #10.
First Measurement Period Dates:	July 1 through December 31 2006 - measurement beginning November, 2006 for consumers with an encounter in the 1 st Qtr, FY '07 and completed in February, 2007 for consumers with an encounter in the 2 nd Qtr, FY '07 (See Attachment C for updated procedures for data collection and data analysis)
Baseline Benchmark:	Baseline: 2.07 mean score from the FY '06 MHSIP survey
Source of Benchmark:	FY '06 State MHSIP survey FBH consumer survey
Baseline Goal:	Significantly decrease (decrease = improved satisfaction) the mean score for MHSIP item #10 from baseline benchmark or pre-intervention to post intervention
Study Indicator 2:	Adult Consumer rating on the MHSIP adult survey 5-point Likert agreement scale for the MHSIP survey item “Staff helped me obtain information so that I can take charge of managing my illness.”
Numerator:	Total score on MHSIP item #19 (Staff helped me obtain information so that I could take charge of managing my illness).
Denominator:	Number of respondents rating MHSIP item #19.
First Measurement Period Dates:	July 1 through December 31 2006 - measurement beginning November 2006 for consumers with an encounter in the 1 st qtr, FY '07 and completed in February, 2007 for consumers with an encounter in the 2 nd Qtr, FY '07 (See attachment C for updated procedures for data collection and data analysis)
Benchmark:	Baseline: 2.20 mean score from the FY '06 MHSIP survey
Source of Benchmark:	FY 06 State MHSIP survey FBH consumer survey
Baseline Goal:	Significantly decrease (decrease = improved satisfaction) the mean score for MHSIP item #19 form baseline benchmark or pre-intervention to post intervention

Appendix A: Colorado 2008–2009 PIP Summary Form: Supporting Recovery for Foothills Behavioral Health, LLC

C. Activity III: Select the study indicator(s). A study indicator is a quantitative or qualitative characteristic or variable that reflects a discrete event (e.g., an older adult has not received an influenza vaccination in the last 12 months) or a status (e.g., a consumer’s blood pressure is/is not below a specified level) that is to be measured. The selected indicators should track performance or improvement over time. The indicators should be objective, clearly and unambiguously defined, and based on current clinical knowledge or health services research.

Study Indicator 3:	Adult Consumer rating on the MHSIP adult survey 5-point Likert agreement scale for the MHSIP survey item “I, not staff, decided my treatment goals.”
Numerator:	Total score on MHSIP item #17 (I, not staff, decided my treatment goals”).
First Measurement Period Dates:	July 1 through December 31 2006 - measurement beginning November, 2006 for consumers with an encounter in the 1 st qtr, FY '07 and completed in February, 2007 for consumers with an encounter in the 2 nd Qtr, FY '07 (See attachment C for updated procedures for data collection and data analysis)
Benchmark:	Baseline: 2.31 mean score from the FY '06 MHSIP survey
Source of Benchmark:	FY '06 State MHSIP FBH consumer survey
Baseline Goal:	Significantly decrease (decrease = improved satisfaction) the mean score for MHSIP item #17 from baseline benchmarks or pre-intervention to post intervention
Study Indicator 4	Describe the rationale for selection of the study indicator:
Numerator: (no numeric value)	
Denominator: (no numeric value)	
Baseline Measurement Period	
Baseline Goal	
Remeasurement 1 Period	
Remeasurement 2 Period	
Benchmark	
Source of Benchmark	

Use this area to provide additional information. Discuss the guidelines used and the basis for each study indicator.

**Appendix A: Colorado 2008–2009 PIP Summary Form:
Supporting Recovery
for Foothills Behavioral Health, LLC**

D. Activity IV: Use a representative and generalizable study population. The selected topic should represent the entire eligible population of Medicaid consumers, with systemwide measurement and improvement efforts to which the study indicators apply. Once the population is identified, a decision must be made whether or not to review data for the entire population or a sample of that population. The length of a consumer's enrollment needs to be defined to meet the study population criteria.

1. **Identified Study Population:** The study population includes all adult Members (18 years and older) who received at least one mental health service from a FBH provider during the study period, beginning with the first study period (July through December, 2006) who were FBH Medicaid eligible Members at the time of their encounter. The study population parameters are based on those used by Colorado Department of Mental Health (DMH) in their annual administration of the MHSIP survey. The only difference is that DMH has one 6-month study period/year; FBH has two 6-month study periods/year. In addition, FBH will administer the survey twice in the 6-month study period, using two randomly chosen samples (See attachment C for updated procedures for data collection). The study population for the six month study period (July –December, 2006) was 2422.

Appendix A: Colorado 2008–2009 PIP Summary Form: Supporting Recovery for Foothills Behavioral Health, LLC

E. Activity V: Use sound sampling methods. If sampling is used to select consumers of the study, proper sampling techniques are necessary to provide valid and reliable information on the quality of care provided. The true prevalence or incidence rate for the event in the population may not be known the first time a topic is studied.

Measure	Sample Error and Confidence Level	Sample Size	Population	Method for Determining Size (<i>describe</i>)	Sampling Method (<i>describe</i>)
Study Indicator #1-3: MHSIP Adult Consumer Survey	Sample error estimated from three items from FY '06 state survey ranging from .107 to .112, with a sample size of 105. We expect a similar std error for our sample, giving a 95% confidence interval of +/- .209 to +/- .220	<u>n=120/ 6 month study period.</u> based on recent survey results of a 20% return rate	n=1574/quarter	The sample size was determined estimating a 20% return rate, based on internal survey history. The goal is to achieve 60 returned surveys/quarter for a total sample size of 120 for the 6 month study period.	Computer generated random sample from the study population with those sampled previously removed from the study population. Not a true random sample.

Appendix A: Colorado 2008–2009 PIP Summary Form: Supporting Recovery for Foothills Behavioral Health, LLC

F. Activity VIa: Use valid and reliable data collection procedures. Data collection must ensure that data collected on study indicators are valid and reliable. Validity is an indication of the accuracy of the information obtained. Reliability is an indication of the repeatability or reproducibility of a measurement.

Data Sources

Hybrid (medical/treatment records and administrative)

Medical/treatment record abstraction

Record Type

Outpatient

Inpatient

Other _____

Other Requirements

Data collection tool attached

Data collection instructions attached

Summary of data collection training attached

IRR process and results attached

Other data _____

Description of data collection staff (include training, experience, and qualifications):

Administrative data

Data Source

Programmed pull from claims/encounters (for survey sample)

Complaint/appeal

Pharmacy data

Telephone service data /call center data

Appointment/access data

Delegated entity/vendor data _____

Other _MHSIP Adult consumer survey _____

Other Requirements

Data completeness assessment attached (see Attachment D)

Coding verification process attached

Survey Data

Fielding Method

Personal interview

Mail (see Attachment E_ Recovery MHSIP Survey JCMH English final.doc and Attachment F intro letter- JCMH_Recovery MHSIP.doc)

Phone with CATI script

Phone with IVR

Internet

Other _____

Other Requirements

Number of waves one wave _____

Response rate 20% _____

Incentives used _none _____

Data entry of survey conducted by the Administrative Assistant. QA of the data entry conducted by QI Data Analyst, checking 10% of surveys against entered data to assess for errors. If any errors found all data entered will be checked again the surveys (see Attachment C for updated data collection procedures).

Appendix A: Colorado 2008–2009 PIP Summary Form: Supporting Recovery for Foothills Behavioral Health, LLC

F. Activity VIb: Determine the data collection cycle.	Determine the data analysis cycle.
<input type="checkbox"/> Once a year <input type="checkbox"/> Twice a year <input type="checkbox"/> Once a season <input checked="" type="checkbox"/> Once a quarter <input type="checkbox"/> Once a month <input type="checkbox"/> Once a week <input type="checkbox"/> Once a day <input type="checkbox"/> Continuous <input type="checkbox"/> Other (list and describe): See Attachment C_Data Collection Procedures_Recovery PIP.doc for data collection procedures <hr/> <hr/> <hr/>	<input type="checkbox"/> Once a year <input type="checkbox"/> Once a season <input type="checkbox"/> Once a quarter <input type="checkbox"/> Once a month <input type="checkbox"/> Continuous <input checked="" type="checkbox"/> Other (list and describe): Twice a year: Data will be collected quarterly but study period will be for a six month period with analysis occurring twice/year. <hr/> <hr/> <hr/>

F. Activity VIc. Data analysis plan and other pertinent methodological features.
<p>Data analysis will be conducted every 6 months (twice/year), with the goal of achieving a significant change in mean scores, at the .05 level, from the FY 06 FBH state survey or benchmark, on three MHSIP items. Once a significant change in mean score is achieved, the goal is to sustain that significant improvement for two 6 month study periods. The data analysis plan includes the following steps:</p> <ol style="list-style-type: none"> 1. Surveys will be mailed quarterly with a self-addressed stamped envelop to return to the FBH Research Dept. 2. The Administrative Assistant will enter the survey data into SPSS, as the surveys are returned. 3. Only one wave of surveys will be mailed. Effort will be made to locate correct addresses and resend surveys for surveys returned with bad addresses. 4. Twice/year analyses, on returned surveys, from the two quarterly mailings, will be conducted 5. The t-test will be used to assess change in mean score on the three MHSIP items between results for each 6 month period (two quarterly mailings) and those on the previous re-measurement period. On the last re-measurement a t-test will also be conducted between the baseline and the last re-measurement mean scores. Significance will be determined based on a $p=.05$ level. Additional analyses will include descriptive information, summarizing consumer characteristics from the demographic data collection form sent with the survey as to whether there are any significant differences between baseline sample respondent characteristics and those in of the respondents from the re-measurement.

Appendix A: Colorado 2008–2009 PIP Summary Form: Supporting Recovery for Foothills Behavioral Health, LLC

G. Activity VIIb: Implement intervention and improvement strategies. Real, sustained improvements in care result from a continuous cycle of measuring and analyzing performance, as well as, developing and implementing systemwide improvements in care. Describe interventions designed to change behavior at an institutional, practitioner, or consumer level.

Describe interventions.

Baseline to Remeasurement 1 *updates are in bold and underlined

Below are strategies implemented before or during study period, July 1, 2006-Dec 31, 2006. Re-measurement completed February, 2007.

Information/education for Consumers (to improve consumer ratings on item "Staff here believe I can grow, change, and recover (item 10)" and "Staff helped me obtain information so that I could take charge of managing my illness (item 19)":

1. Develop and disseminate an education brochure orienting consumer as to what is recovery, what the provider will do to assist in their recovery, how they can help themselves in recovery, etc. to be distributed by providers at various points along the treatment process. Brochures completed and began distribution in Fall (Sept/Oct), 2006 at JCMH (see Attachment G_JCMH Recovery brochure.pdf and Attachment G_MHCBBC Recovery brochure.pdf)
2. Design posters with recovery messages to be framed and hung in Network MHC offices In JCMH offices Fall (Sept/Oct) 2006 at JCMH; not implemented yet at MHCBBC
3. Began minimal dissemination of 10 Tips (see Attachment H_10 Tips Recovery Schizophrenic Illness.pdf and Attachment H_10 Tips Recovery Bipolar Illness.pdf)

Information/education for Providers (to improve consumer ratings on item "Staff here believe I can grow, change, and recover" and "I, not staff, decided my treatment goals":

1. Support implementation of recovery trainings, at least annually, with the Network MHCs to educate providers on recovery issues, methods for supporting recovery, and how to involve consumers in treatment planning and goals. JCMH staff training on Recovery based treatment plans (Oct, 2006); JCMH recovery training conducted by peer specialists October, November 2006 at JCMH. No trainings at MHCBBC in this measurement period.
2. Train providers at the MHCs to use their electronic client record system to review and revise treatment goals with consumers regularly, not just at the 6-month update. MHCBBC developed new electronic treatment plans in June, 2006 – partially implemented during study period. No changes at JCMH

Support development of the Peer Specialist position in Network MHCs (to improve consumer ratings on all three items)

1. JCMH hired two specialists in June, 2006 and started first staff training in recovery in Fall, 2006; MHCBBC hired 3 peer specialists in Aug, 2006. Began WRAP training with consumers in fall, 2006.

Appendix A: Colorado 2008–2009 PIP Summary Form: Supporting Recovery for Foothills Behavioral Health, LLC

G. Activity VIIb: Implement intervention and improvement strategies. Real, sustained improvements in care result from a continuous cycle of measuring and analyzing performance, as well as, developing and implementing systemwide improvements in care. Describe interventions designed to change behavior at an institutional, practitioner, or consumer level.

Remeasurement 1 to Remeasurement 2

Below are additional strategies implemented during study period January, 2007 through June, 2007. Re-measurement 2 completed end of August, 2007

Information/education for Consumers (to improve consumer ratings on item "Staff here believe I can grow, change, and recover (item 10)" and "Staff helped me obtain information so that I could take charge of managing my illness (item 19)":

1. Distribution of recovery brochure at both JCMH and MHCBBC (January, 2007)
2. Notepads (with recovery tips) and recovery folders used to put educational information developed and began inconsistent distribution January, 2007 (JCMH) and May, 2007 (MHCBBC)
3. Posters with recovery messages at MHCBBC offices by May, 2007 (all MHC offices by this date)
4. 10 Tips (Schizophrenia, Bipolar disorder, Depression) for consumers distributed, inconsistently, in folders at JCMH; less use at MHCBBC January, 2007

Information/education for Providers (to improve consumer ratings on item "Staff here believe I can grow, change, and recover" and "I, not staff, decided my treatment goals":

1. Staff recovery training: 2/14-2/15 at MHCBBC and JCMH on Recovery and Recovery treatment planning; ongoing monthly recovery discussions for staff at MHCBBC
2. Staff at MHCBBC fully trained to use electronic treatment plan with consumers to update according to their goals; no change at JCMH

Support development of the Peer Specialist position in Network MHCs (to improve consumer ratings on all three items)

1. Peer specialists: since January, 2007 ongoing consumer classes in Pathways to Recovery at JCMH, supporting consumer Recovery. Not much involvement in distributing educational material; MHCBBC peer specialists on-going community support for consumers but little participation in distributing educational materials

Remeasurement 2 to Remeasurement 3

Below are additional strategies implemented during study period July 1, 2007 through December 31, 2007.

Information/education for consumers (to improve consumer ratings on item "Staff here believe I can grow, change, and recover (item #10)" and "Staff helped me obtain information so that I could take charge of managing my illness (item 19):"

1. **Developed packets for prescribers that had 10 Tips for consumers by diagnosis to distribute to consumers at prescriber visits (implemented early July at JCMH but not yet at MHCBBC)**
2. **JCMH and MHCBBC began the EBP "Illness Management and Recovery" on a limited basis**

Remeasurement 3 to Remeasurement 4

No additional strategies implemented

Appendix A: Colorado 2008–2009 PIP Summary Form: Supporting Recovery for Foothills Behavioral Health, LLC

H. Activity VIIIa. Data analysis: Describe the data analysis process done in accordance with the data analysis plan and any ad hoc analyses (e.g., data mining) done on the selected clinical or nonclinical study indicators. Include the statistical analysis techniques used and *p* values.

Baseline Measurement

Baseline: An excel data file, from HCPF (n=105), with scores from the FY '06 DMH survey, for Members with Medicaid, was merged and saved in an SPSS data file. This data came from the survey distributed in late fall, 2005/early winter, 2006. Survey results were from Members with services from January 2005 through June 2005. Baseline 2 mean scores, standard deviations, and standard error, on items #10, #17, and #19, were computed. The 95% confidence interval for each of the means was determined

Remeasurement 1

Data, from returned surveys, for the six month study period, July – Dec, 2006, were entered into a SPSS file (see Data collection procedures, Attachment C). The first re-measurement analyzes were conducted in March, 2007, in advance of the next quarterly mailing. Results for the three items, #10, #17, and #19, from the first re-measurement period were merged with results from the same items from the baseline file. A t-test, comparing the means from the three items, from the first re-measurement and baseline, was conducted, to determine whether there were significant differences in mean scores at the $p=.05$ level. Additional analyzes were conducted to assess any significant differences, at $p=.05$ level, in available sample characteristics, between the re-measurement sample and baseline sample. More specifically, a chi-square, conducted for survey reported gender, age group, residence, ethnicity, race, marital status, and whether or not still in treatment, between the sample in re-measurement one and baseline, was non significant at the $p=.05$ level.

Remeasurement 2

Data, from returned surveys, for the six month study period, January-June, 2007, were entered into a SPSS file (see Data collection procedures, Attachment B). The second re-measurement analyzes were conducted in October, 2007, in advance of the next quarterly mailing. Results for the three items, #10, #17, and #19, from the second re-measurement period were merged with results from the same items from the baseline file and *re-measurement 1*. A t-test, comparing the means from the three items, from the second re-measurement and *re-measurement 1*, was conducted, to determine whether there were significant differences in mean scores, at the $p=.05$ level. Additional analyzes were conducted to assess any significant differences, at $p=.05$ level, in available sample characteristics, between the *two* re-measurement samples and baseline sample. More specifically, a chi-square was conducted between reported gender, age group, residence, ethnicity/race, marital status, and whether or not the consumer was still in treatment, between the re-measurement 2 sample and the baseline sample. Results indicated there were no significant differences, at the $p=.05$ level, in the two sample characteristics.

Remeasurement 3

Data from returned surveys, for the six month study period, July – December, 2007, were entered into a SPSS file (see Data collection procedures, Attachment B). The third re-measurement analyzes were conducted in May, 2008, in advance of the next quarterly mailing. Results for the three items, #10, #17, and #19, from the third re-measurement period were merged with results from the same items from the baseline file and re-measurement 1 and 2. A t-test, comparing the means from the three items, from re-measurement 3 and re-measurement 2, was conducted, to determine whether there were significant differences in mean scores, at the $p=.05$ level. Additional analyzes were conducted to assess any significant differences, at $p=.05$ level, in available sample characteristics, between the third re-measurement sample and the baseline sample. More specifically, a chi-square was conducted between reported gender, age group, ethnicity/race, marital status, and whether or not the consumer was still in treatment, between re-measurement 3 sample and the baseline sample. Results indicated there were no significant differences, at the $p=.05$ level, in the two sample characteristics.

**Appendix A: Colorado 2008–2009 PIP Summary Form:
Supporting Recovery
for Foothills Behavioral Health, LLC**

H. Activity VIIIa. Data analysis: Describe the data analysis process done in accordance with the data analysis plan and any ad hoc analyses (e.g., data mining) done on the selected clinical or nonclinical study indicators. Include the statistical analysis techniques used and *p* values.

Remeasurement 4

Data from returned surveys, for the six month study period, Jan-June, 2008, were entered into a SPSS file (see Data collection procedures, Attachment B). Remeasurement 4 analyzes were conducted in November, 2008, in advance of the next quarterly mailing. Results for the three items, #10, #17, and #19, from the fourth re-measurement period were merged with results from the same items from the baseline file and re-measurement 1, 2, and 3. A t-test, comparing the means for the three items, from re-measurement 4 and re-measurement 3, was conducted, to determine whether there were significant differences in mean scores, at the $p=.05$ level. Additional analyzes were conducted to assess any significant differences, at $p=.05$ level, in available sample characteristics, between the fourth re-measurement sample and the baseline sample. More specifically, a chi-square was conducted between reported gender, age group, ethnicity/race, marital status and whether or not the consumer was still in treatment, between re-measurement 4 sample, and the baseline sample. Results indicated there were no significant differences, at the $p=.05$ level, in the two sample characteristics.

Along with assessing differences in means, between the re-measurement 4 and re-measurement 3, a t-test was conducted between the means for re-measurement 4 and baseline, to determine whether there were significant differences in mean scores, at the $p=.05$ level.

Appendix A: Colorado 2008–2009 PIP Summary Form: Supporting Recovery for Foothills Behavioral Health, LLC

H. Activity VIIIb. Interpretation of study results: Describe the results of the statistical analysis, interpret the findings, and compare and discuss results/changes from measurement period to measurement period. Discuss the successfulness of the study and indicate follow-up activities. Identify any factors that could influence the measurement or validity of the findings.

Baseline Measurement

Baseline results from State FBH survey, FY 06 (n=102): Mean score for item #10 was 2.07 (95% CI=2.07 +/- .21), item #17 was 2.31 (95% CI=2.31 +/- .22), and #19 mean score was 2.20 (95% CI=2.20 +/- .22). Sample characteristics included: gender, age group (18-20; 21-30; 31-45; 46-64; 65+), still in treatment, ethnicity/race. Baseline sample description: 68% female, 44% age 46-64, 80% reported race as white, and 87% still in treatment.

Remeasurement 1

There was a 13-month gap between the baseline measurement and re-measurement 1. The reason for this gap is that the baseline survey was conducted by the state and, although baseline results were for the Jan-June, 2005 period, survey results were not received by the BHO until summer, 2006. We would have had to wait until summer of 2007 for results from Jan-June, 2006.

Re-measurement mean score results from FBH survey, study period July-December, 2006, for item #10, “staff here believe I can grow, change, and recover,” was 1.93 (95% CI=1.93 +/- .20; n=102). Although the mean score, on re-measurement 1 was lower (increased agreement), the mean difference was non significant. Mean score re-measurement results, on item #19, “staff helped me obtain information to help me manage my illness,” was 1.98 (95% CI=1.98 +/- .23, n=101). The mean score for item #19 was lower (higher agreement) than the baseline mean but non significant. Mean score re-measurement results, on item #17, “I, not staff, decided my treatment goals,” was 1.95 (95% CI=1.95 +/- .22, n=104), which was significantly lower, at the p<.05 level, compared to the baseline mean score for this item.

Although there was improvement on all three indicators (lower mean score), only one indicator was significantly lower. The particular item with a significantly lower mean score was also the item with the worst or highest mean score, at 2.31, on baseline, providing more opportunity for improvement. Strategies implemented, during this study period, was limited, that is, either just at one MHC or implemented towards the end of the study period. Along with inadequate implementation of study strategies there were other issues affecting internal validity of the study, because of the lack of a control group. First, there are efforts at both MHC, to improve their recovery focus, which may be positively affecting consumer perception, rather than the project strategies. Other, perhaps negative uncontrolled changes, occurring at the MHCs, in particular staff changes, changes in policies or types of services provided, may be affecting consumer perception of staff recovery support and/or affect staff time to provide educational material. Although the sample is randomly selected, results, if any, from this study may not be generalizable to a non MHC system or to a population of adults with SMI that may be less severely ill than the population in a MHC.

Appendix A: Colorado 2008–2009 PIP Summary Form: Supporting Recovery for Foothills Behavioral Health, LLC

H. Activity VIIIb. Interpretation of study results: Describe the results of the statistical analysis, interpret the findings, and compare and discuss results/changes from measurement period to measurement period. Discuss the successfulness of the study and indicate follow-up activities. Identify any factors that could influence the measurement or validity of the findings.

Remeasurement 2

Re-measurement 2 mean score results from the FBH survey, study period January-June, 2007, for item #10, “staff here believe I can grow, change, and recover,” was 1.96 (95% CI=1.96+-.22; n=89). The mean score, on re-measurement 2 was higher (decreased agreement) from the re-measurement 1 mean for this item, although the mean difference was non significant and essentially unchanged. Mean score re-measurement 2 results, on item #19, “staff helped me obtain information to help me manage my illness,” was 2.24 (95% CI=2.24+-.25, n=92). The mean score for Item #19 was higher (decreased agreement) than the re-measurement 1 mean and was also higher than the mean score on baseline. Mean score re-measurement 2 results, on item #17, “I, not staff, decided my treatment goals,” was 2.12 (95% CI=2.12+-.23, n=91). The mean score for Item #17 was higher (decreased agreement) than the re-measurement 1 mean score but non significant and was non-significantly lower (increased agreement) than the mean score for this item from baseline.

Results for re-measurement 2 were disappointing, particularly given the fact that there were no significant differences in available sample characteristics, between the baseline same and the sample in re-measurement 2. Although non significant there was an increase in mean score (decreased agreement) for all three indicators from re-measurement 1. In addition, for indicator #3 results were worse than baseline, that is, Member respondents indicated less agreement on this indicator than the respondents on baseline. Because results for this indicator were less positive the project teams from the two MHCs met to discuss results. MHCBBC staff indicated that the Tip Sheets were not being distributed to consumers; in addition both MHC staff expressed concern that this type of information should also be distributed by the prescribers. A plan was developed to work with the prescribers at both Centers on distributing educational material. Additional extraneous variables, perhaps negatively affecting Member perception regarding all three items, were major changes at both MHCs in their outpatient model. In particular both MHCs, in an effort to assist Members in moving forward in their recovery, were working to increase Member use of community resources and reduce dependency on the MHC. These changes may be perceived by Members as non supportive and may have a more powerful effect on Members than the PIP strategies. In addition, although the sample is random, characteristic differences, unavailable from the survey, e.g. diagnosis or length of time in service, may be affecting responses.

Other concerns, specific to the PIP strategies, are the inconsistencies in implementation across the MHCs, making it difficult to know if all Members in the sample are experiencing the activities implemented. The project team recommended implementation of an EBP called Illness Management and Recovery or Pathways to Recovery, which provide education, support, in understanding mental illness and how to participate in the treatment process. The MHCs had already considered this plan and will work to move this forward.

Last, because of the continued decrease in sample size, efforts will be implemented to improve the return rate in re-measurement 3.

Remeasurement 3

Re-measurement 3 mean score results, from the FBH survey, study period July-Dec, 2007, for item #10, “staff here believe I can grow, change, and recover,” was 1.76 (95% CI=1.76+-.18, n=104). The mean score, on re-measurement 3 was lower (increased agreement) from re-measurement 2 mean for this item, although the mean difference was non-significant. Mean score, on re-measurement 3, for Item #10 was significantly lower than baseline, at t=2.22, p=.028. Mean score re-measurement 3 results compared to re-measurement 2, on item #19, “staff helped me obtain information so that I can take charge of managing my illness,” was lower (95% CI=2.11+-.22, n=102). The mean score for Item #19 was lower (increased agreement) than re-measurement 2 mean but non-significant and non-significantly lower than baseline. Mean score re-measurement 3 results on Item #17, “I, not staff, decided my treatment goals,” was 2.06 (95% CI=2.06+-.21, n=108). The mean score for Item #17 was lower (increased agreement) than the re-measurement 2 mean but non-significant and non-significantly lower than baseline.

Appendix A: Colorado 2008–2009 PIP Summary Form: Supporting Recovery for Foothills Behavioral Health, LLC

H. Activity VIIIb. Interpretation of study results: Describe the results of the statistical analysis, interpret the findings, and compare and discuss results/changes from measurement period to measurement period. Discuss the successfulness of the study and indicate follow-up activities. Identify any factors that could influence the measurement or validity of the findings.

Results for re-measurement 3 were an improvement from re-measurement 2, with a decrease in mean score for all three indicators from both re-measurement 2 and from baseline. Discussion with the project team indicated that there was continued increase in peer specialists, assisting with distribution of educational materials and recovery brochure and implementation, at both MHCs of the Illness Management and Recovery evidence-based program (EBP). In addition, prescribers began distribution of the Tips Sheets. Other factors affecting internal validity of the strategies include implementation of the Miller Stages of Change program at one MHC, which, although not part of the PIP, is supportive of increased empowerment and a strength-based focus for the client. In addition, there are efforts at both MHCs to decrease use of outpatient commitment and monitoring medications through daily administration. Decreased use of both of these procedures supports item #10 and #17. Finally, although the sample is random, characteristic differences, unavailable from the survey, e.g. diagnosis or length of time in service, may be affecting responses. There was an increase in the return rate, with the largest number of returned surveys since beginning measurement. Results though, because of the specific focus on strategy implementation with the MHC clients, may not be generalizable to a non-MHC population.

Remeasurement 4

Re-measurement 4 mean score results, from the FBH survey, study period Jan-June, 2008, for item #10, “staff here believe I can grow, change, and recovery,” was 1.83 (95% CI 1.83+-.19). The mean score, on re-measurement 4 was slightly higher (slightly decrease in agreement) from re-measurement 3 mean for this item, The difference was non-significant but the slight increase reduced the mean difference with the baseline score, with a non-significant difference with baseline. Mean score re-measurement results compared to re-measurement 3, on item #19, “staff helped me obtain information so that I can take charge of managing my illness,” was also slightly higher but non-significant (95% CI=2.14+-.25). In addition, although lower than baseline, the mean difference, with item #19 re-measurement 4, was non-significant. Last, mean score re-measurement 4 results on Item #17, “I, not staff, decided my treatment goals,” was 2.19 (95% CI=2.19+-.23), which was higher (less agreement) than re-measurement 3, but non-significant. Although lower than baseline, the mean difference between re-measurement 4, on Item #17, was non-significant.

Non-significant improvement was made on all three items from baseline to re-measurement 4. Attachment I shows this improvement, beginning with FY '05 results, which prompted the development of this project. Progress on item #10 was the most consistent, with item #17 showing a similar decrease in mean scores but not as consistent. Because none of the items were significantly improved from baseline to re-measurement 4, improvement could have occurred by chance. In addition, other changes occurring within the two network MHCs, such as attending to and revising policies that are non-empowering/non-recovery oriented and changes in staff, may be affecting consumer responses. Other issues affecting internal validity include unknown difference, such as diagnosis, length of treatment, in the respondents. Because all improvement strategies were implemented within the MHCs, ability to generalize results outside of the MHC is limited (external validity).

The item of most concern, because of lack of improvement in the mean score, is item #19. Item #19, specific to improving consumer self-help education, was a significant focus of the PIP, with strategies aimed at staff dissemination of TIP Sheets for Schizophrenia and Bipolar illness (developed by FBHP Guideline committee and working with peer specialists to ensure brochures on illness-specific information were available. In addition, both MHCs began implementation, in FY '08, of the evidence-based practice of “Illness Management and Recovery (IMR).” FBH will implement, with the two network MHCs, an informal focused study to determine the extent to which the IMR practices are adhering to fidelity of the model, the penetration of the program within the population of consumers with severe and persistent mental illness, and implement the MHSIP survey at the beginning and completion of the program to determine whether there is significant improvement in all three items studied in this PIP, in particular item #19. In conducting the smaller study there will be increased control over consumer receipt of treatment interventions.

**Appendix A: Colorado 2008–2009 PIP Summary Form:
Supporting Recovery
for Foothills Behavioral Health, LLC**

H. Activity VIIIb. Interpretation of study results: Describe the results of the statistical analysis, interpret the findings, and compare and discuss results/changes from measurement period to measurement period. Discuss the successfulness of the study and indicate follow-up activities. Identify any factors that could influence the measurement or validity of the findings.

FBH will be asking the Department to retire this PIP, as this is the 4th re-measurement, without significant improvement. As described above FBH will follow-up with an informal study of organized programs providing recovery self-help information in order to better pinpoint consumers with severe and persistent illness and the process of care occurring.

Appendix A: Colorado 2008–2009 PIP Summary Form: Supporting Recovery for Foothills Behavioral Health, LLC

I. Activity IX: Report improvement. Enter results for each study indicator, including benchmarks and statistical testing with complete *p* values, and statistical significance.

Quantifiable Measure 1: Adult Consumer mean rating on the MHSIP adult survey 5-point Likert agreement scale for the MHSIP survey item “Staff here believe I can grow, change, and recovery.”

Time Period Measurement Covers	Baseline Project Indicator Measurement	Numerator	Denominator	Rate or Results	Industry Benchmark	Statistical Test, Significance and <i>p</i> value
Baseline: January through June, 2005	<u>Baseline:</u>	203	n=98	Mean =2.07 (SD=1.06)		
July through Dec, 2006	Remeasurement 1:	197	n=102	Mean = 1.93 (SD=1.06)		t=-.959; p=.339 (mean difference non significant)
January through June, 2007	Remeasurement 2:	174	n=89	Mean = 1.96 (SD=1.05)		re-measurement 1 to 2: t=-.159, p=.874 (mean difference non-significant)
<u>July through Dec, 2007</u>	Remeasurement 3:	<u>183</u>	<u>N=104</u>	<u>Mean = 1.76 (SD=0.94)</u>		<u>re-measurement 2-3 t=1.372, p=.175 (mean difference non-significant)</u>
<u>Jan through June, 2008</u>	<u>Remeasurement 4:</u>	<u>177</u>	<u>n=97</u>	<u>Mean = 1.83</u>		<u>re-measurement 3 - 4 t=-.492 p=.623 (mean difference non-significant)</u> <u>baseline to re-measurement 4 t=1.725, p=.086 (mean difference non-significant)</u>

Describe any demonstration of meaningful change in performance observed from Baseline and each measurement period (e.g., Baseline to Remeasurement 1, Remeasurement 1 to Remeasurement 2, or Baseline to final re-measurement):

Appendix A: Colorado 2008–2009 PIP Summary Form: Supporting Recovery for Foothills Behavioral Health, LLC

I. Activity IX: Report improvement. Enter results for each study indicator, including benchmarks and statistical testing with complete *p* values, and statistical significance.

Quantifiable Measure 2: Adult Consumer mean rating on the MHSIP adult survey 5-point Likert agreement scale for the MHSIP survey item “Staff helped me obtain information so that I can take charge of managing my illness.”

Time Period Measurement Covers	Baseline Project Indicator Measurement	Numerator	Denominator	Rate or Results	Industry Benchmark	Statistical Test, Significance and <i>p</i> value
Baseline January through June, 2005	<u>Baseline:</u>	224	n=102	Mean=2.20 (SD=1.11)		
July through Dec, 2006	Remeasurement 1:	200	n=101	Mean=1.98 (SD=1.17)		t=-1.352, p=.178 (mean difference non significant)
January through June, 2007	Remeasurement 2:	206	n=92	Mean=2.24 (SD = 1.2)		re-measurement 1 to 2: t=-1.52, p=.130 (mean difference non significant)
<u>July through Dec, 2007</u>	Remeasurement 3:	<u>215</u>	<u>n=102</u>	<u>Mean=2.11</u> <u>(SD=1.14)</u>		<u>re-measurement 2-3 t=.770, p=.442</u> <u>(mean difference non-significant)</u>
<u>Jan through June, 2008</u>	<u>Remeasurement 4</u>	<u>193</u>	<u>n=90</u>	<u>Mean=2.14</u> <u>(SD=1.22)</u>		<u>re-measurement 3-4 t=-.214 p=.831</u> <u>(mean difference non-significant)</u> <u>baseline to remeasurement 4 t=.307</u> <u>p=.759 (mean difference non-significant)</u>

Describe any demonstration of meaningful change in performance observed from Baseline and each measurement period (e.g., Baseline to Remeasurement 1, Remeasurement 1 to Remeasurement 2, or Baseline to final remeasurement):

Appendix A: Colorado 2008–2009 PIP Summary Form: Supporting Recovery for Foothills Behavioral Health, LLC

I. Activity IX: Report improvement. Enter results for each study indicator, including benchmarks and statistical testing with complete *p* values, and statistical significance.

Quantifiable Measure 3: Adult Consumer mean rating on the MHSIP adult survey 5-point Likert agreement scale for the MHSIP survey item “I, not staff, decided my treatment goals.”

Time Period Measurement Covers	Baseline Project Indicator Measurement	Numerator	Denominator	Rate or Results	Industry Benchmark	Statistical Test, Significance and <i>p</i> value
Baseline January through June, 2005	Baseline:	236	n=102	Mean=2.31 (SD=1.13)		t=-2.314, p=.022 (mean difference significant)* re-measurement 1 to 2: t=-1.050, p=.295 (mean difference non significant) re-measurement 2 to 3 t=.400 p=.689 (mean difference non significant) re-measurement 3 to 4 t=-.847 p=.398 (mean difference non significant) baseline to re-measurement 4 t=.772 p=.441 (mean difference non-significant)
July through Dec, 2006	Remeasurement 1:	203	n=104	Mean=1.95 (SD=1.11)		
January through June, 2006	Remeasurement 2:	193	n=91	Mean=2.12 (SD=1.13)		
July through Dec, 2007	Remeasurement 3:	222	n=108	Mean=2.06 (SD=1.13)		
Jan – June, 2008	Remeasurement 4:	208	n=95	Mean=2.19 (SD=1.12)		

Describe any demonstration of meaningful change in performance observed from Baseline and each measurement period (e.g., Baseline to Remeasurement 1, Remeasurement 1 to Remeasurement 2, or Baseline to final re-measurement):

**Appendix A: Colorado 2008–2009 PIP Summary Form:
Supporting Recovery
for Foothills Behavioral Health, LLC**

J. Activity X: Describe sustained improvement. Describe any demonstrated improvement through repeated measurements over comparable time periods. Discuss any random, year-to-year variations, population changes, sampling errors, or statistically significant declines that may have occurred during the remeasurement process.

Sustained improvement:

Except for Item #19 (“Staff helped me obtain information so that I could take charge of managing my illness) all mean scores were below the baseline means from the state survey, FY '06, through all four re-measurement periods, indicating a non-significant improvement from baseline (Attachment I). Of the one re-measurement (re-measurement 2) where the mean score for Item #19 was above the baseline mean, the difference was non-significant ($t=-1.52$, $p=.130$). Results over the two year period and four re-measurements suggest sustained improvement, although non-significant. There was random variation in the mean scores, from one re-measurement period to another but none of the increases in mean score (indicating a lack of improvement) were significant.

Over this two year period a number of initiatives were implemented, both through the PIP as well as other FBH and network MHC strategies to improve recovery elements of the FBH system of care (see Activity VIIIb). Although non-significant, the results from the three MHSIP survey items, provide some evidence of a positive effect from all of these strategies, which was a key objective for FBH, beginning with the first contract year or CY 2005, again, displayed in Attachment I. Interest remains in continuing to address item #19, which was a key focus of this PIP. As described in Activity VIIIb FBH will follow-up with a study to assess the affects of the evidence-based practice (EBP) of Illness Management and Recovery (IMR), which has been implemented at both network MHCs. The MHSIP survey will be one instrument used to determine outcomes, in particular whether or not this program can significantly affect consumer response on Item #19.

FBH requests that this PIP be retired (Also described in Activity VIIIb) given the positive, although non-significant, sustained improvement on the PIP indicators.