APS Healthcare

Final Report

CAEQRO Report, FY13-14

Contra Costa

Conducted on

February 12, 2014

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❖INTRODUCTION❖

BACKGROUND AND METHODOLOGY

The California Department of Health Care Services (DHCS) is charged with the responsibility of evaluating the quality of specialty mental health services provided to beneficiaries enrolled in the Medi-Cal managed mental health care program.

This report presents the fiscal year 2013-14 (FY13-14) findings of an external quality review of the Contra Costa County mental health plan (MHP) by the California External Quality Review Organization (CAEQRO), a division of APS Healthcare, on February 12, 2014.

Based upon an amended contract due to a budget reduction for FY13-14, DHCS and CAEQRO identified fifteen MHPs which would receive a less intensive review. This is intended to result in somewhat less robust pre-review documentation and a shorter report following each review, with all such reviews limited to one day. The fifteen MHPs identified were those with the highest total performance in the Key Components, organized by quality, access, timeliness, and outcomes. Therefore, reports for these fifteen reviews will not include ratings on those elements.

The CAEQRO review draws upon prior year's findings, including sustained strengths, opportunities for improvement, and actions in response to recommendations. Other findings in this report include:

- Changes, progress, or milestones in the MHP's approach to performance management – emphasizing utilization of data, specific reports, and activities designed to manage and improve quality.
- Discussions associated with the four domains: quality, access, timeliness, and outcomes. Submitted documentation as well as interviews with a variety of key staff, contracted providers, advisory groups and other stakeholders which inform the evaluation within these domains.
- Analysis of Medi-Cal Approved Claims data
- Two active Performance Improvement Projects (PIPs) – one clinical and one non-clinical
- Two 90-minute focus groups with beneficiaries and family members
- Information Systems Capabilities Assessment (ISCA) V7.3.2

❖FY13-14 REVIEW FINDINGS❖

STATUS OF FY12-13 REVIEW RECOMMENDATIONS

In the FY12-13 site review report, CAEQRO made a number of recommendations for improvements in the MHP's programmatic and/or operational areas. During this year's FY13-14 site visit, CAEQRO and MHP staff discussed the status of those FY12-13 recommendations, which are summarized below.

ASSIGNMENT OF RATINGS

- Fully addressed – The issue may still require ongoing attention and improvement, but activities may reflect that the MHP has either:
  - resolved the identified issue
  - initiated strategies over the past year that suggest the MHP is nearing resolution or significant improvement
  - accomplished as much as the organization could reasonably do in the last year

- Partially addressed – Though not fully addressed, this rating reflects that the MHP has either:
  - made clear plans and is in the early stages of initiating activities to address the recommendation
  - addressed some but not all aspects of the recommendation or related issues

- Not addressed – The MHP performed no meaningful activities to address the recommendation or associated issues.

KEY RECOMMENDATIONS FROM FY12-13

- When the IS implementation begins, assure contract provider communication to assess interest in utilizing the new system; query them to establish data/reporting needs which could be met with the new system. Assure interoperability with the County Epic system:
  ☒ Fully addressed ☐ Partially addressed ☐ Not addressed

  - A contractor meeting was held in June 2013 to solicit input from contract providers regarding their interest in using the upcoming new system. The meeting presented the MHP's current status in the selection process while in vendor contract negotiations. Contractors with their own electronic health record (EHR) systems expressed concerns regarding potential interoperability issues, data exchange and potential dual data entry for their organizations.

- Contractors have been kept informed of the ongoing progress in the selection of a new information system in various forums including at the Contractors' Luncheons and at the PSP User Group meetings.
- A survey was sent to contract providers in January 2014 to obtain feedback regarding the contractors' current positions and concerns regarding the upcoming new MHP EHR system.

- Undertake efforts that include Program Chiefs/Managers, Supervisors and Team Leads to create equitable effective policies/procedures/business practices across the system, especially where differences lead to sub-optimal outcomes. Identify and standardize identified best practices related to such activities as scheduling MD appointments, assigning on-duty medical/clinical staff, team/team leader meetings, triaging new referrals, use of case conferencing, medical necessity criteria application, safety responses, and AOD resources use:
  ☒ Fully addressed ☐ Partially addressed ☐ Not addressed

  - The MHP provided examples of efforts towards standardization of workforce and personnel issues including creating policies or addressing issues around telecommuting and workplace safety and emergency preparedness concerns, as well as developing consistent forms (such as releases of authorization) across the Behavioral Health (BH) Division.
  - The MHP standardized timeliness to services goals among the regions (East, West and Central) as well as between the age groups (adults and children's), acknowledging that differences in practices and resources among these geographic and/or demographic cohorts did not constitute a sufficient basis for maintaining disparate goals.
  - The MHP has standardized multiple processes related to referrals, eligibility determinations, assessment practices, and behavioral/medical risk identification issues, as well as the use of a standardized set of clinical forms among clinics.
  - The MHP response to this recommendation did not specifically outline the role of management staff in identifying and implementing these changes over the past year.

- Commit to leadership communication efforts that create a transparent environment which promotes communication and productive change; ensure routine stakeholder opportunities for all, so that clinical and C/FM staff, as well as contractors, feel like valuable contributors:
  ☒ Fully addressed ☐ Partially addressed ☐ Not addressed

  The MHP points to a number of ongoing activities designed to foster input, communication and transparency regarding the efforts to integrate mental health, substance abuse and homeless services into a BH department over the past number of

years including the Integration Steering Committee (ISC) meetings, Services and Programs Integration Implementation Design team (SPIID) meetings, the BH Newsletter and the virtual suggestion box. The MHP developed a "Vision Award" to recognize staff contributions to the integration process. Within the past year, the public-access BH website has been updated, and the Office of Consumer Empowerment (OCE) launched a new Peer Perspectives newsletter.

The MHP has made efforts to improve communication with various stakeholder groups: contract providers, consumers and parents receiving services from the Children's System of Care (CSOC) and consumer employees were all surveyed on topics relevant to their specific relationships with the MHP. Routine meetings involving the county and contracting agencies and consumers such as Consolidated Planning and Advisory Workgroup (CPAW) and Clerical Operations Group (COG) continued on a routine basis.

Despite these new and ongoing efforts, and perhaps partially due to turnover and vacancies in key leadership roles, input from a variety of stakeholders during the site review process reflected themes of inconsistent and uni-directional communication, similar to those that have surfaced during previous reviews.

- As planned, continue to map the crosswalk between Level of Care scores and services/programs, as well as build triggers for automatic case review and/or certain risk variables. Develop system levels of care to correspond with consumer needs:
  ☐ Fully addressed ☒ Partially addressed ☐ Not addressed

  - The Level of Care Utilization System (LOCUS) and the Child and Adolescent Level of Care Utilization System (CALOCUS) continue to be used in select parts of the service system. For example, the County-wide Assessment Team (CWAT) uses cutoff scores from CALOCUS assessments of new children/adolescents entering the system in crisis to determine whether members of this cohort should be enrolled in the Full Service Partnership (FSP) or treated in the county regional clinics. FSPs in particular appear to use the CA/LOCUS tools to describe the course of consumers in treatment by diagnostic and other categories, and to use this information to guide care decisions.
  - The CA/LOCUS are also used routinely in Utilization Review and Quality of Care reviews and are being considered for use in assessing and placing referrals from the Contra Costa Health Plan (CCHP) upon implementation of the Affordable Care Act (ACA).
  - While clinical line staff have access to trended individual-level CALOCUS data, neither LOCUS nor CALOCUS scores appear to be used as a system-wide tool to monitor consumer outcomes or guide flow through levels of care. While a crosswalk of levels of care onto the service system was in planning at the point of the prior year's review, the crosswalk does not appear to be in broad use.

- In addition to ongoing building efforts, assess clinic/regional barriers and ongoing improvement efforts to timely service provision as the majority of consumers are not being served within established time goals. Reassess disparate child versus adult benchmarks:
  ☐ Fully addressed ☒ Partially addressed ☐ Not addressed

  - The MHP's centralized Access function faces multiple challenges in striving to integrate the access point for mental health, substance abuse and homeless services, including barriers due to understaffing, heavy workloads and lack of sufficient generalist expertise, as well as physical space and technology limitations. To divert demand from the central Access function, the MHP has implemented several new programs/initiatives, including the CWAT (April 2013) described above, as well as the Rapid Access Entry Point (July 2013) which provides a mechanism for consumers discharged from psychiatric beds or PES to receive appointments at the regional clinics; and the Children/Adolescent Entry Point (November 2013) a system whereby the Children's Mental Health Hospital Liaison contacts the county regional clinic's Program Manager to secure a follow up visit. The MHP has standardized wait time expectations across the system, is tracking wait times in the regional clinics as monitored by frequent phone calls, and has recruited new psychiatrists to increase capacity.
  - To bolster external capacity, the MHP has been working collaboratively with the ambulatory care system in efforts to increase expertise in treating individuals with mild to moderate mental health challenges within the Federally Qualified Health Center (FQHC) system. As a result, Concord Health Center 2 (CHC2) added two behaviorists and a 0.5 FTE psychiatrist to provide behavioral health services at the FQHC.
  - On-site interviews with stakeholders described multiple areas of the county-operated and contracted services as being at or nearing capacity. It is unclear whether the data supports this perception, and CAEQRO encourages further assessment of capacity utilizing locally-available data. Interviewees also highlighted difficulties in graduating or stepping consumers to lower levels of services or out of services altogether due to lack of a structure and supports to do so. With impediments to flow through the system, and the likelihood of increasing demand, any capacity challenges that exist would be expected to intensity barring intervention.

CHANGES IN THE MHP ENVIRONMENT AND WITHIN THE MHP

Changes since the last CAEQRO review, identified as having a significant effect on service provision or management of those services are discussed below. This section emphasizes systemic changes that affect access, timeliness, quality, and outcomes, including those changes that provide context to areas discussed later in this report.

- The MHP Director left the agency in December 2013. The existing BH Director was approved by the BOS to take on the MHP Director position in addition to her regular duties. The executive team is considering options for a new administrative structure that better reflects BH's integration efforts, this will likely include the creation of a Deputy Director for Behavioral Health who will have oversight for many of the day-to-day operations, particularly in the mental health programs. Additional management positions are in transition, including vacancies in the Homeless Services Manager, the Conservatorship/Guardianship Program Manager and the Adult Family Services Coordinator positions. Additionally, three Planner/Evaluator positions are vacant.
- The MHP continued integration efforts with its behavioral health partners—substance abuse and homeless services. Efforts are underway at multiple levels simultaneously, including work on integrating separate advisory boards and separate access functions as well as administrative functions and clinical services.
- The MHP continued integration efforts with primary care. Strategies being implemented include: a 20 hour/week primary care clinic co-location at the Concord Adult MH clinic site which began in November 2013, the addition of behaviorist staff at Concord Health Center 2 (CHC2), and plans for additional FQHC satellites co-located with existing MH sites. Integration of mental health with additional Public Health programs include the implementation of English and Spanish language Cognitive Behavioral Therapy (CBT) for depression groups as well as limited psychiatry hours in the Women, Infants and Children (WIC) office and the embedding of a 0.5 FTE psychiatrist in the homeless shelter.
- The executive team completed an initial training in implementing Lean methods and has scheduled a five day kaizen training and "waste walkthrough" for early 2014. An initial goal to continue to streamline the processes will focus on the BH Access function.
- The MHP completed construction on its new Crisis Residential Facility, and is awaiting completion of the credentialing process. The facility will be run by an identified contractor and is anticipated to open soon. Likewise, progress on the Assessment and Recovery Center continues—which is

scheduled to open in July 2014.

PERFORMANCE & QUALITY MANAGEMENT KEY COMPONENTS

CAEQRO's overarching principle for review emphasizes the MHP's use of data to promote quality and improve performance. Components widely recognized as critical to successful performance management – an organizational culture with focused leadership and strong stakeholder involvement, effective use of data to drive quality management, a comprehensive service delivery system, and workforce development strategies which support system needs – are discussed below.

Quality

CAEQRO identifies the following components of an organization that is dedicated to the overall quality services. Effective quality improvement activities and data-driven decision making requires strong collaboration among staff, including consumer/family member staff, working in information systems, data analysis, executive management and program leadership. Technology infrastructure, effective business processes, and staff skills in extracting and utilizing data for analysis must be present in order to demonstrate that analytic findings are used to ensure overall quality of the service delivery system and organizational operations.

- The MHP submitted a current Quality Improvement (QI) Work Plan and an evaluation of the previous year's Work Plan. The Work Plan evaluation contains a thorough discussion of goals and activities, supported by ample evidence of data collection and measurement. QI Work Plan goals stretch beyond standard compliance with the minimum standards of the MHP contract and address key aspects of quality, access, timeliness, outcomes and consumer satisfaction. The MHP provided minutes from monthly Quality Management Committee meetings, documenting robust attendance by and activities from representatives of a variety of stakeholder groups. The current Quality Improvement Coordinator has announced his intention to retire within the coming year.
- From the MHP document submissions and on-site discussions it is clear that the MHP makes use of the available data for decision making and reporting to the extent possible; however, in general this ability is greatly hampered by the lack of a fully functional EHR.
- In September 2013, the MHP began multiple monthly claiming cycles, as opposed to a single monthly claim, in order to provide improved tracking of revenue. A Pending Claims Report was created and the PSP356 report was enhanced to include void and replaced claims that were previously combined into one category.

- Stakeholder feedback regarding communication remains similar to that provided last year and mixed in nature. A variety of new and ongoing communication venues exist, while at the same time information sharing is described as largely unidirectional and often untimely or incomplete. While significant strides have been made in standardizing policies and practices system-wide, multiple stakeholder groups continued to be challenged by the disjointed practices and differing interpretation of policies across the MHP.
- Peer and Family Member employee positions exist within the MHP and contract provider organizations. A limited career ladder exists, although some designated positions have remained unfilled. For example, a peer position in Access remains unfilled because of lack of physical space. Peers report that they value their opportunities to have a positive impact on the lives of those receiving services at the MHP and that they would appreciate more training and supervision to support their positions.

Access

CAEQRO identifies the following components as representative of a broad service delivery system which provides access to consumers and family members. Examining capacity, penetrations rates, cultural competency, integration and collaboration of services with other providers form the foundation of access to and delivery of quality services.

- The MHP has one threshold language, Spanish. Timeliness of access to services for a sample of Spanish-speaking adults was monitored and found to be similar to that for English-speaking consumers. Retention and services utilization by language is not routinely monitored. The MHP employs a number of bilingual staff and additionally utilizes on-demand video interpretation services through the Health Care Interpreter Network (HCIN)—many of the in-house MHP staff respond to the MHP Spanish-language interpretation requests through the HCIN. Face-to-face interpretation is also an option for consumers who prefer to not use video interpretation. Interpreters are trained in general medical interpretation.
- The MHP tracks positions flagged as bilingual-only recruitment positions as well as tracking numbers of staff who receive a salary differential for language proficiency. The number in each category increased substantially from CY12 to CY13, with 42 flagged positions (CY12 = 37) and 81 staff receiving differentials (CY 12 = 69). The majority of these staff and positions are bilingual in Spanish, although the complete list includes 16 additional languages. The MHP and contractor agencies additionally leverage internship programs to enhance language capacity and broaden the potential bilingual/bicultural recruitment pool. Expanding the strategies utilized to

recruit qualified individuals for bilingual positions appears warranted, as on-site discussions referenced the demand for Spanish speakers and current difficulties in hiring from fairly limited bilingual lists.

- In addition to Spanish-language services, the MHP reported that the relatively small percentage of Asian/Pacific Islander eligibles (10.19%) who request services represent a large number of preferred languages.
- The MHP continues to produce or update various penetration and retention rate reports, trending data elements from 2007 through 2012 (updated most recently in October 2013), and including services by age, gender and type of service. The MHP compares local data to the benchmarks of statewide averages.
- The MHP has set a goal for that 95% of staff participate in at least one cultural competence training annually. In this initial year, 76% of staff completed a preparatory online training in cultural diversity. Program managers will be utilized to bring their staff into compliance with this new training expectation, and the annual training requirement will renew each year.
- The MHP and Child Welfare Services (CWS) are working in concert to implement the *Katie A.* settlement agreement. The MHP started assessment of the approximately 1,200 open CWS cases for subclass inclusion with children and youth residing in group homes and those in Intensive Treatment Foster Care (ITFC) settings. The MHP intends to continue on to review children in kinship placements as staffing allows. At the time of the review, the MHP had reviewed 39% (n = 466) of the open cases for subclass inclusion and found 57% of those reviewed (n = 265) to meet subclass criteria. The MHP requested eight new staff positions to meet the increased need for services; the four positions that were ultimately approved to be added are not considered to be adequate to meet the need. Staff have been trained on Child and Family Teaming (CFT) and use of the new *Katie A.* procedure codes. Core Practice Model (CPM) training for both staffs is planned for May 2014. The MHP is considering several outcomes tools including the CALOCUS and the CANS, as well as tools that are more specific to assessing the presence and impact of trauma.

Timeliness

CAEQRO identifies the following components as necessary to support a full service delivery system that provides timely access to mental health services. The ability to provide timely services ensures successful engagement with consumers and family members and can improve overall outcomes while moving beneficiaries throughout the system of care to full recovery.

- The MHP continues to track timeliness to initial appointment and to initial

psychiatry by using projected wait times rather than actual kept appointment data. MHP personnel place routine calls to the Access Line and to regional clinics to document the first and third available appointments for each service type—using the third available service as the proxy for wait times to service. This method allows for an approximation of wait times in the absence of an EHR. As mentioned earlier, the MHP has standardized wait time goals across the MHP, with a standard of 15 days to initial appointment and 30 days to initial psychiatry. Timeliness to initial appointment averages 18 days for adults and 10 days for children, with 56% of adult appointments and 92% of the child appointments in the sample meeting the stated goal (n = 78). The 30 day standard for psychiatry was met 100% for adults and 81% for children for the sample provided (n= 58), with an average wait of 15 days for adults and 16 days for children.

- Access Line staff send out weekly updates on appointment availability across the system of care. This information gives management current information on system demand and allows for the possibility of flexible redeployment of staffing resources within the system.
- The MHP provided timeliness monitoring to first appointment for a sample of non-English speakers—wait times were slightly longer than those of English speakers in this sample, with an additional 0.3 days noted.
- For urgent conditions, the response standard is noted to be two days, with an average wait time of three days reported. The process for obtaining urgent appointments differs between the adult and child systems, and for this reason, timeliness tracking for adult appointments is monitored by actual scheduled appointments, while for child appointments, use of the above projected wait time method continues. As stated earlier, a number of initiatives have been developed over the previous year to streamline entry into services and circumvent use of the access line. Methods for measuring the impacts of these new programs have not yet been fully developed.
- The MHP maintains a standard of seven days to post-hospital follow up, with an average of ten days for adult appointments and 6.6 days for child appointments noted. However, of the reported 1,714 hospital admissions during CY2013, the MHP calculated this follow up rate from a sample of 246 discharges, primarily from the adult system. Overall follow up tracking is not available for the entire system at this time given that the method of receiving appointments and care post hospitalization varies from clinic to clinic and between the child and adult systems. CAEQRO suggests standardizing these procedures and tracking to allow the MHP to obtain system-wide data on post-hospital follow up that can drive decision making regarding resource deployment.

Outcomes

CAEQRO identifies the following components as essential elements of producing measurable outcomes for beneficiaries and the service delivery system. Evidence of consumer run programs, viable performance improvement projects, consumer satisfaction surveys and measuring functional outcomes are methods to evaluate the effectiveness of a service delivery system as well as identifying and promoting necessary improvement activities to increase overall quality and promote recovery for consumers and family members.

- The MHP recently ended its contract with the peer organization that ran the MHPs three regional Wellness Centers. The MHP has issued an RFP to continue these services with a new contractor. In the interim, an informal wellness center presence has been maintained in the regions by a core group of consumers.
- The MHP has been using the CA/LOCUS as its level of care instrument, as well as additional tools such as the Eyberg Child Behavior Inventory and the Milestones of Recovery Scale (MORS). In planning for the upcoming statewide performance outcomes system for EPSDT youth, the MHP is initiating use of the Child and Adolescent Needs and Strengths (CANS) assessment. The MHP program staff were trained on the CANS in December 2013—a number of staff also received train-the-trainer certification. The CANS has been embedded in the comprehensive assessment tool and implementation will begin by county staff with new child consumers upon entry to the system. Training of contract provider staff and assessment of children already open to services will occur in the future.
- The MHP has continued to develop its use of Evidence-Based Practices (EBP) in the children's system. Currently utilized EBPs include CBT, Trauma-Focused Cognitive Behavioral Therapy (TF-CBT) and Dialectical Behavior Therapy (DBT). In addition to ongoing contact with the developers, the MHP has now assigned an EBP lead for each EBP at every clinic to provide consultation and ensure fidelity. Youth FSP teams have added Multisystemic Therapy (MST) and Multidimensional Family Therapy (MDFT) for treatment of its juvenile justice population and youth with co-occurring disorders populations respectively. The First Hope EBP for treatment of early psychosis continues, and has treated over 100 individuals since its implementation in January 2013.
- The MHP submitted two active PIPs. The clinical PIP focuses on ensuring appropriate care for children receiving high cost services through enhanced care coordination, while the non-clinical PIP focuses on reducing the abandoned call rate in Access. Further details for both PIPs are found below.
- The MHP administered the Mental Health Statistics Improvement Program (MHSIP) survey as required by DHCS. The MHP QI staff elicited feedback

from survey sites regarding barriers to acceptable response rates, and based on this, implemented a variety of strategies including training a substantial volunteer workforce to assist with participant recruitment and survey completion. The MHP created graphic Likert scales to assist consumers with literacy issues, utilized bilingual volunteers to help capture responses from consumers/parents who preferred a language other than English. Additionally, the MHP provided water and snacks, and offered two gift cards to raffle to participants at each clinic site. As a result of these efforts, the MHP doubled its MHSIP response rate. Quantitative and qualitative results included overall positive feedback on the impact of MHP services on improvement of items such as family relationships and school performance; challenges noted were in the areas of access and timeliness, difficulty obtaining medication refills, and impolite staff. The MHP reports it plans to present results to a variety of stakeholder groups and to implement responses to concerns. For example, a clinic has been selected to pilot work on customer service and welcoming.

❖CURRENT MEDI-CAL CLAIMS DATA FOR MANAGING SERVICES❖

Information to support the tables and graphs, labeled as Figures 5 through 15, is derived from four source files containing statewide data.[1] A description of the source of data and summary reports of Medi-Cal approved claims data – overall, foster care, and transition age youth – follow as an attachment. The MHP was also referred to the CAEQRO Website at www.caeqro.com for additional claims data useful for comparisons and analyses.

RACE/ETHNICITY OF MEDI-CAL ELIGIBLES AND BENEFICIARIES SERVED

The following figures show the ethnicities of Medi-Cal eligibles compared to those who received services in CY12. Charts which mirror each other would reflect equal access based upon ethnicity, in which the pool of beneficiaries served matches the Medi-Cal community at large.

Figure 5 shows the ethnic breakdown of Medi-Cal eligibles statewide, followed by those who received at least one mental health service in CY12. Figure 6 shows the same information for the MHP's eligibles and beneficiaries served. Similar figures for the foster care and TAY populations are included in Attachment D following the MHP's approved claims worksheets.

[1] Percentages may not add up to 100% in some of the figures due to rounding of decimal points.

Figure 5a. Statewide Medi-Cal Average Monthly Unduplicated Eligibles, by Race/Ethnicity CY12

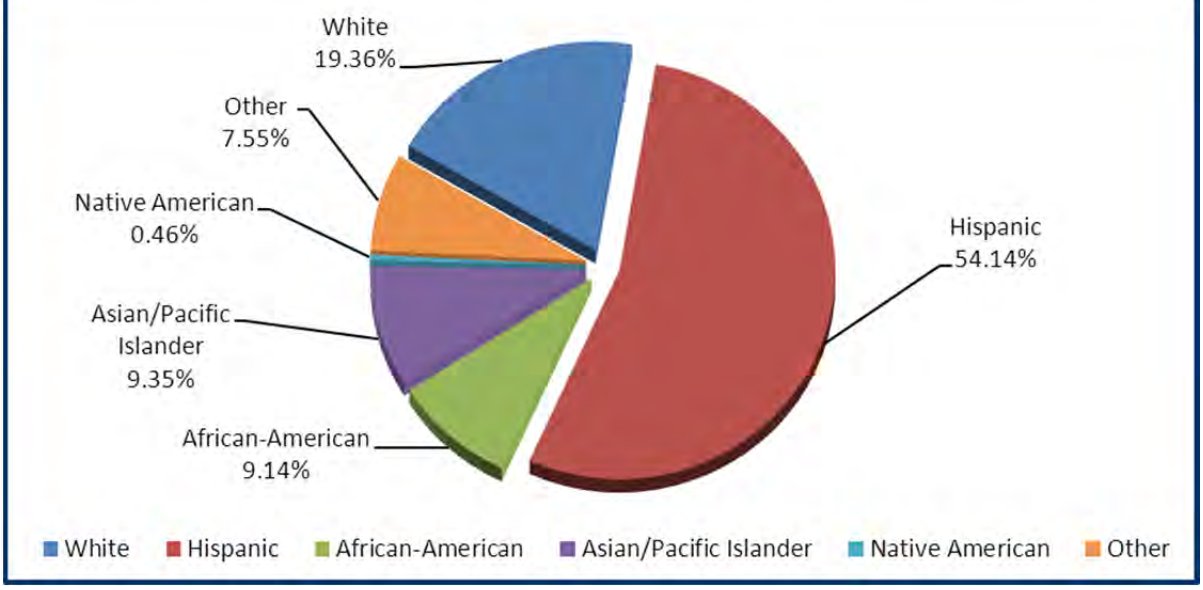


Figure 5b. Statewide Medi-Cal Beneficiaries Served, by Race/Ethnicity CY12

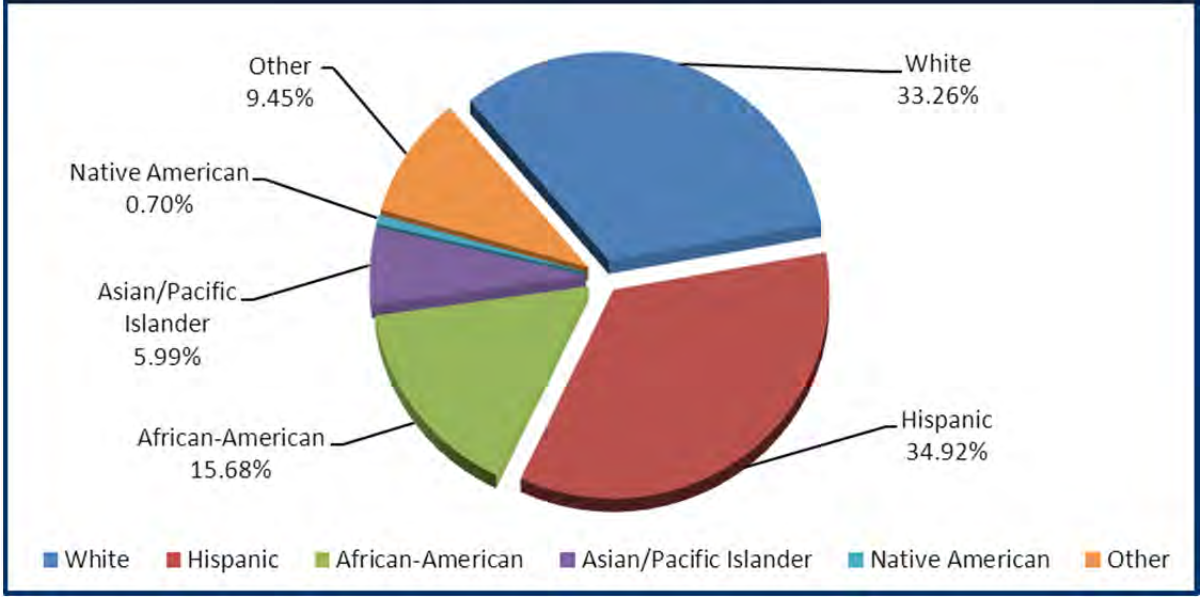


Figure 6a. MHP Medi-Cal Average Monthly Unduplicated Eligibles, by Race/Ethnicity CY12

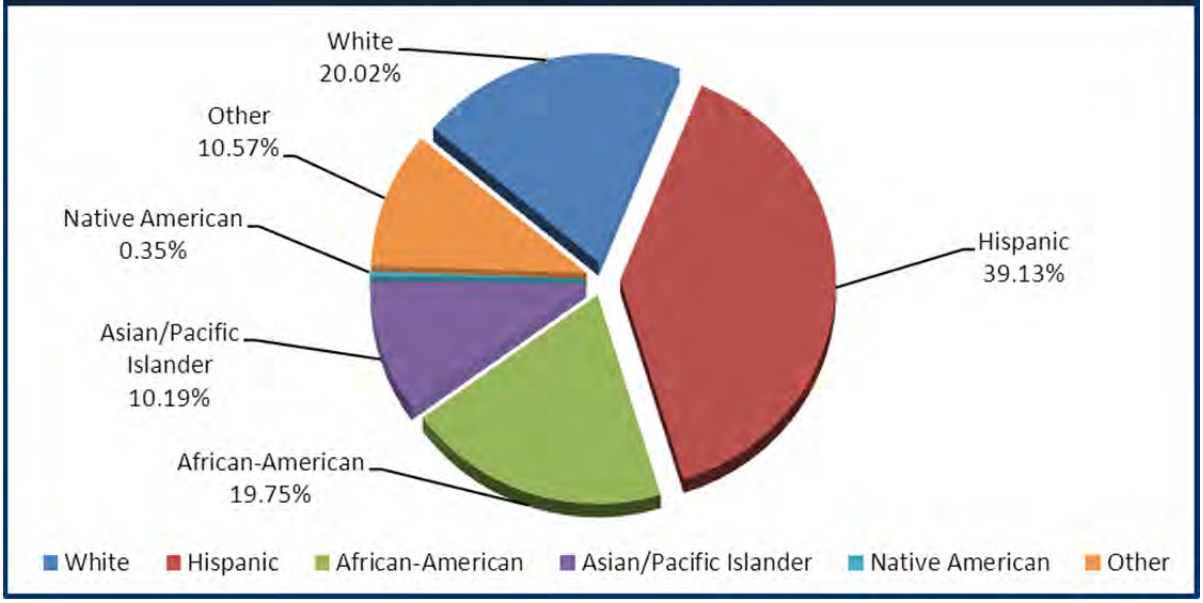
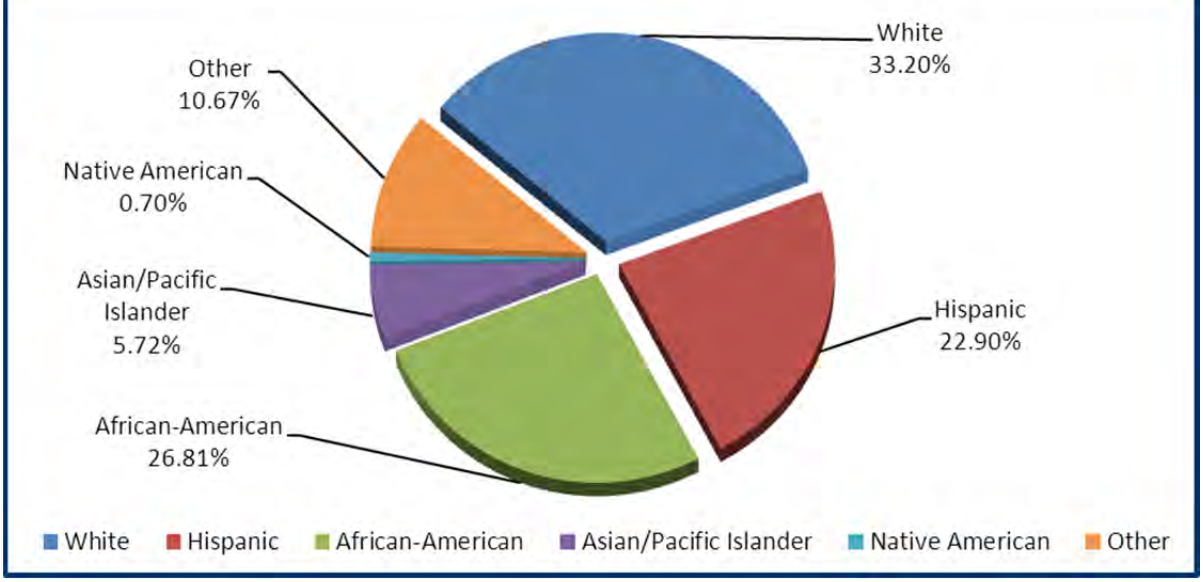


Figure 6b. MHP Medi-Cal Beneficiaries Served, by Race/Ethnicity CY12



PENETRATION RATES AND APPROVED CLAIM PER BENEFICIARY

The penetration rate is calculated by dividing the number of unduplicated beneficiaries served by the monthly average eligible count. The average approved claims per beneficiary served per year is calculated by dividing the total annual dollar amount of Medi-Cal approved claims by the unduplicated number of Medi-Cal beneficiaries served per year. Rankings, where included, are based upon 56 MHPs, where number 1 indicates the highest rate or dollar figure and number 56 indicates the lowest rate or dollar figure.

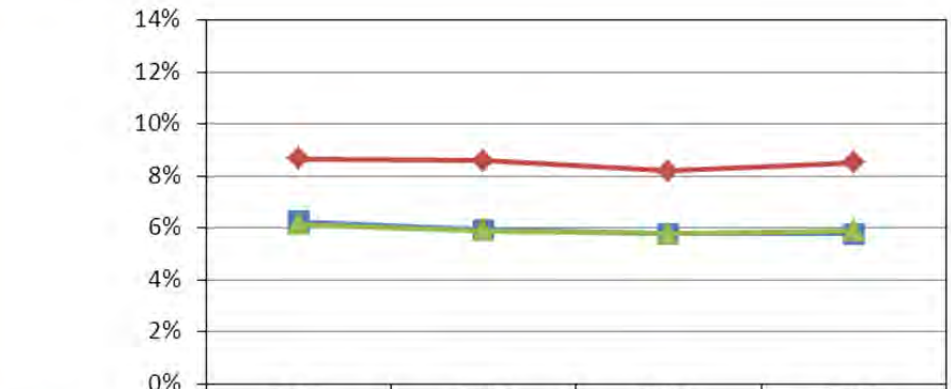
Figure 7 displays key elements from the approved claims reports for the MHP, MHPs of similar size (large, medium, small, or small-rural), and the state.

Figure 7. CY12 Medi-Cal Approved Claims Data

Element	MHP	Rank	Large MHPs	Statewide
Total approved claims	$70,861,195	N/A	$1,011,905,446	$2,400,665,781
Average number of eligibles per month	151,528	N/A	3,750,774	7,956,900
Number of beneficiaries served	12,877	N/A	216,335	469,651
Penetration rate	8.50%	15	5.77%	5.90%
Approved claims per beneficiary Served	$5,503	18	$4,677	$5,112
Penetration rate – Foster care	52.71%	24	48.04%	53.34%
Approved claims per beneficiary served – Foster care	$11,315	9	$8,343	$8,485
Penetration rate – TAY	10.26%	14	6.86%	7.03%
Approved claims per beneficiary served – TAY	$6,821	15	$5,753	$6,331
Penetration rate – Hispanic	4.97%	16	3.63%	3.81%
Approved claims per beneficiary served – Hispanic	$5,110	18	$4,417	$4,913
Penetration rate – African-American	11.53%	22	9.65%	10.13%
Approved claims per beneficiary served – African-American	$6,114	12	$5,444	$5,318

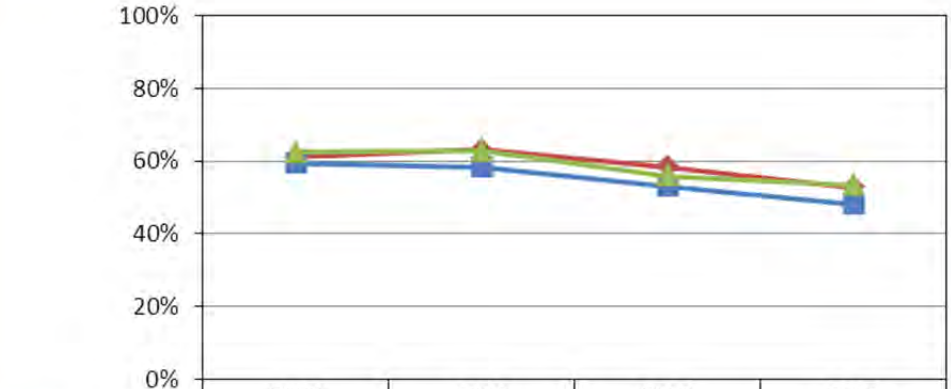
Figures 8 through 11 highlight four year trends for penetration rates and average approved claims.

Figure 8. Overall Penetration Rates CY09-CY12



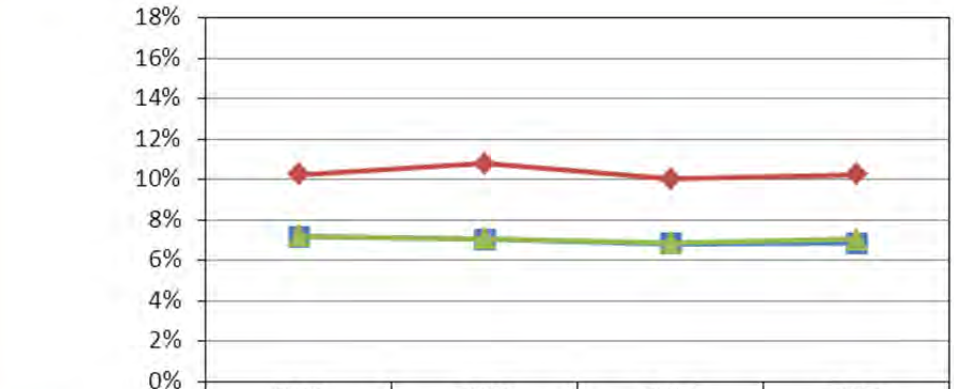
	CY09	CY10	CY11	CY12
MHP	8.66%	8.59%	8.20%	8.50%
Large MHPs	6.25%	5.92%	5.76%	5.77%
Statewide	6.15%	5.89%	5.78%	5.90%

Figure 9. Foster Care Penetration Rates CY09-CY12



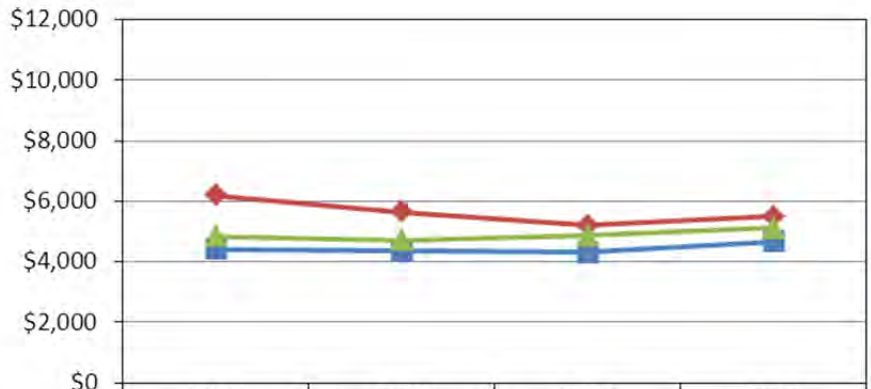
	CY09	CY10	CY11	CY12
MHP	61.03%	63.08%	58.28%	52.71%
Large MHPs	59.43%	58.33%	52.99%	48.04%
Statewide	62.43%	62.67%	55.88%	53.34%

Figure 10. Transition Age Youth Penetration Rates CY09-CY12



	CY09	CY10	CY11	CY12
MHP	10.25%	10.80%	10.03%	10.26%
Large MHPs	7.17%	7.05%	6.83%	6.86%
Statewide	7.21%	7.06%	6.86%	7.03%

Figure 11. Average Approved Claims per Beneficiary Served CY09-CY12



	CY09	CY10	CY11	CY12
MHP	$6,199	$5,647	$5,198	$5,503
Large MHPs	$4,410	$4,351	$4,319	$4,677
Statewide	$4,841	$4,723	$4,872	$5,112

MEDI-CAL APPROVED CLAIMS HISTORY

The table below provides trend line information from the MHP's Medi-Cal eligibility and approved claims files from the last five fiscal years. The dollar figures are not adjusted for inflation.

Figure 12. MHP Medi-Cal Eligibility and Claims Trend Line Analysis

Fiscal Year	Average Number of Eligibles per Month	Number of Beneficiaries Served per Year	Penetration Rate		Total Approved Claims	Approved Claims per Beneficiary Served per Year	
			%	Rank		$	Rank
FY11-12	149,323	12,494	8.37%	14	$69,669,736	$5,576	14
FY10-11	140,539	11,755	8.36%	20	$60,908,088	$5,181	19
FY09-10	139,120	11,618	8.35%	16	$67,589,390	$5,818	11
FY08-09	130,259	11,045	8.48%	25	$69,284,284	$6,273	10
FY07-08	123,576	9,532	7.71%	32	$55,374,161	$5,809	9

Review of Medi-Cal approved claims data, displayed in Figures 5 through 12 reflect the following issues that relate to quality and access to services:

- In CY12, the MHP's overall penetration rate (8.50%) was 47% greater than the large county average (5.77%) and 44% greater than the statewide average (5.90%) Penetration rate ranking was in the top third statewide. The MHP's approved claims dollars per beneficiary served ($5,503) was 18% greater than the large county average ($4,677) and 8% greater than the statewide average ($5,112). The MHP's overall approved claims dollars per beneficiary served ranking was also in the top third statewide.
- The penetration rate for Foster Care (52.71%) was 10% greater than the large county average (48.04%) and comparable to the statewide average (53.34%). Penetration rate ranking was at the statewide median, 28th of 56 MHP's. The statewide foster care penetration rate declined from 62.43% in CY09 to 53.34% in CY12. The MHP's penetration rate declined at a comparative rate, from 61.03% in CY09 to 52.71% in CY12. The approved claims per beneficiary served for this group ($11,315) was 36% greater than the large county average ($8,343) and 33% greater than the statewide average ($8,485). Approved claims dollars per beneficiary served ranking was in the top quartile.

- TAY approved claims dollars per beneficiary served ($6,821) was 19% greater than the large county average ($5,753) and 8% greater than the statewide average ($6,331). Approved claims dollars per beneficiary served ranking was in the top half statewide. Penetration rate for this group (10.26%) was 50% greater than that of the large county average (6.86%) and 46% greater than the statewide average (7.03%). Penetration rate ranking was in the top third statewide.
- Hispanic eligibles represented 39.13% of the MHP's monthly unduplicated eligibles compared to the statewide eligible demographic of 54.14%. Approved claims dollars per Hispanic beneficiary served ($5,110) was 16% greater than the large county average ($4,417) and comparable to the statewide average ($4,913). Approved claims dollars per beneficiary served ranking was in the top third statewide. Hispanic penetration rate (4.97%) was 37% greater than the large county average (3.63%) and 30% greater than the statewide average (3.81%). Penetration rate ranking was also in the top third statewide.
- In an examination of disparities, while the MHP's Hispanic penetration rate notably exceeds the statewide average (4.97% vs. 3.81%), its penetration rate ratio for Hispanics versus Whites indicates a slightly greater disparity than the statewide average (0.35 vs. 0.38) – a result of a higher than average penetration rate for the White beneficiary population, see Attachment D, Figure D-12. The approved claims dollar ratio for Hispanic versus White (1.00) was at parity, compared to the statewide average of 0.94.

HIGH-COST BENEFICIARIES

As part of an analysis of service utilization, CAEQRO compiled claims data to identify the number and percentage of beneficiaries within each MHP and the state for whom a disproportionately high dollar amount of services were claimed and approved. A stable pattern over the last five calendar years of data reviewed shows that statewide, roughly 2% of the beneficiaries served accounted for one-quarter of the Medi-Cal expenditures. The percentage of beneficiaries meeting the high cost definition has increased in each of the four years analyzed. For purposes of this analysis, CAEQRO defined "high cost beneficiaries" as those whose services met or exceeded $30,000 in the calendar year examined—this figure represents roughly three standard deviations from the average cost per beneficiary statewide.

Figure 13. High-Cost Beneficiaries (greater than $30,000 per beneficiary)						
	Beneficiaries Served			Approved Claims		
	# HCB	# Served	%	Average per HCB	Total Claims for HCB	% of total claims
Statewide CY12	12,479	469,651	2.66%	$50,451	$629,572,276	26.22%
MHP CY12	501	12,877	3.89%	$52,080	$26,091,910	36.82%
MHP CY11	442	12,203	3.62%	$50,302	$22,233,681	35.05%
MHP CY10	490	11,956	4.10%	$55,509	$27,199,342	40.29%
MHP CY09	562	11,655	4.82%	$54,540	$30,651,489	42.42%

CAEQRO also analyzed claims data for beneficiaries receiving $20,000 to $30,000 in services per year. Statewide, this population also represents a small percentage of beneficiaries for which a disproportionately high amount of Medi-Cal dollars is claimed. Statewide in CY12, 38.31% of the approved Medi-Cal claims funded 5.20% of the beneficiaries served when this second tier of high cost beneficiaries is included. For the MHP, 49.61% of the approved Medi-Cal claims funded 6.78% of the beneficiaries served. This information is also depicted in pie charts in Attachment D.

- In CY12, the MHP's percentage of spending on high cost beneficiaries continued to notably exceed the statewide average (36.82% vs. 26.22%). CY12 approved claims per high cost beneficiary was comparable to the statewide average ($52,080 vs. $50,451). The MHP's number of high cost beneficiaries rose from 442 in CY11 to 501 in CY12.
- The allocation of resources to high cost beneficiaries in turn appears to result in little flexibility in system design and service provision for those beneficiaries who are not high cost or have needs that fall within the middle of the continuum of care. Those beneficiaries who receive less than $20,000 in services receive a median amount of $1370 compared to $1727 statewide

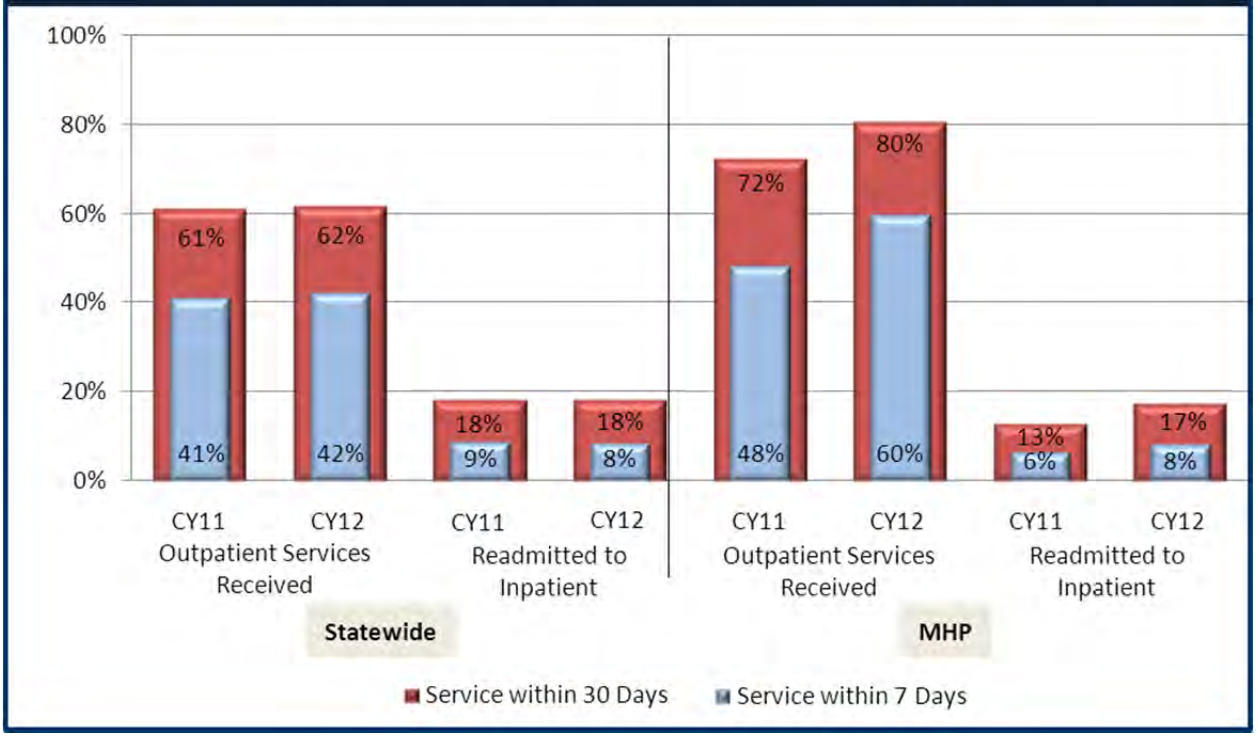
Timely Follow-up After Hospital Discharge

CAEQRO reviewed Medi-Cal approved claims to identify what percentage of beneficiaries statewide and within each MHP received a follow-up service after discharge from an inpatient setting -- within seven days and thirty days. Similarly, this analysis shows the percentage of beneficiaries who were re-hospitalized during those time frames. It should be

noted that when Medi-Cal beneficiaries are admitted to inpatient facilities that do not bill Medi-Cal, those inpatient episodes are not represented in the claims analysis. Also, this data includes only the first inpatient episode in that CY for a given beneficiary, from January through November.

Figure 14. Timely Follow-up: 7 and 30 days After Hospital Discharge

Percentage Receiving Outpatient Service or Readmitted MHP and Statewide, CY11 and CY12



Statewide in CY12, within seven days of discharge, 42% of beneficiaries received at least one non-inpatient service. Also within that time frame, 8% of beneficiaries were readmitted to an inpatient setting, a decrease over CY11 at 9%. Within a thirty day time frame, 62% of beneficiaries received a non-inpatient service after discharge in CY12, an increase from CY11 at 61%. The inpatient readmission rate held steady at 18%.

For the MHP, the follow-up and readmission rates reflect the following:

- In CY12, a higher percentage of MHP beneficiaries received at least one outpatient service within seven days of hospital discharge when compared to the statewide average (60% vs. 42%). Despite the higher follow-up rate, the percentage of MHP beneficiaries re-hospitalized within seven days was equal to that of the statewide average (8%).
- In the 30 day hospital follow up analysis, a higher percentage of MHP

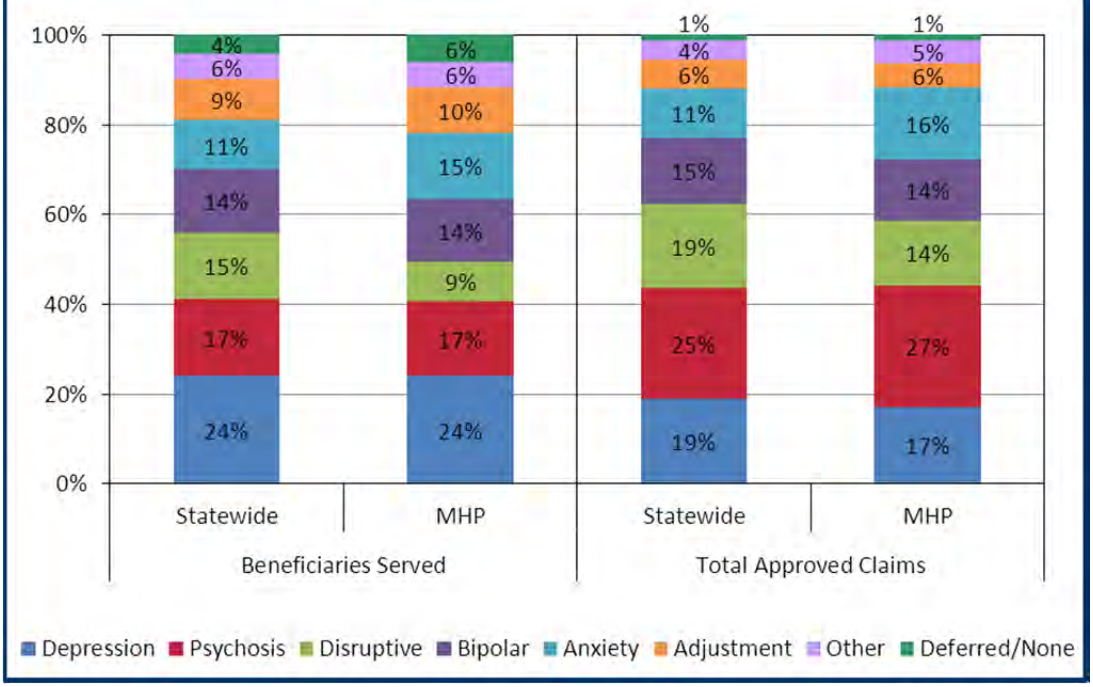
beneficiaries received at least one outpatient service within 30 days of discharge compared to the statewide average (80% vs. 62%). Despite the MHP's higher follow-up rate, the MHP's rate of readmission to an inpatient setting within 30 days was comparable to the statewide average (17% vs. 18%).

- Medi-Cal approved claims for MHP services within seven and 30 days of hospitalization suggest that the MHP provides a minimal amount of crisis intervention services compared to the amount offered in a similar cohort statewide within those time frames (<25th percentile for each). This service utilization pattern could provide some explanation of the readmission rates despite better than average follow up; CAEQRO suggests the MHP examines this issue further.

DIAGNOSTIC CATEGORIES

CAEQRO reviewed approved claims to analyze the frequency of primary diagnoses throughout the state and each MHP. Similarly, this analysis examined the dispersal of approved claims by diagnostic category. For a complete list of the diagnoses within each diagnostic category, please refer to the CAEQRO Website at www.caeqro.com. The diagnoses reflect the primary diagnosis as reported on the Medi-Cal approved claims.

Figure 15. Diagnostic Categories MHP and Statewide CY12



Statewide in CY12, depressive disorders are most frequent at 24%. This is followed by psychotic disorders at 17%, disruptive disorders at 15%, and bipolar disorders at 14%. When examining approved claims, there are proportionately more funds expended on psychotic disorders (25%) and disruptive disorders (19%) and proportionately fewer funds expended on depressive disorders (19%) and adjustment disorders (6%). Statewide, 4% of diagnoses are deferred/none, though they represent only 1% of claims. Statewide there is little change in the diagnostic data compared to CY11 patterns.

For the MHP, diagnostic categories show the following:

- Disruptive disorders were diagnosed less frequently at the MHP when compared to the statewide average (9% vs. 15%).
- Both depressive (24%) and psychotic disorders (17%) were diagnosed at the same rates as statewide averages. While diagnostic rates were identical, the MHP's approved claims for depressive disorders was slightly less than the statewide average (17% vs. 19%) while the MHP's approved claims for psychotic disorders slightly exceeded the statewide average (27% vs. 25%).

❖PERFORMANCE MEASUREMENT❖

Each year CAEQRO is required to work in consultation with DHCS to identify a performance measurement (PM) which will apply to all MHPs – submitted to DHCS within the annual report due on August 31, 2014. These measures will be identified in consultation with DHCS for inclusion in this year's annual report.

❖CONSUMER AND FAMILY MEMBER FOCUS GROUPS❖

FOCUS GROUPS SPECIFIC TO THE MHP

CAEQRO conducted two 90-minute focus groups with consumers and family members during the site review of the MHP. As part of the pre-site planning process, CAEQRO requested focus groups as follows:

1. A culturally diverse group of parents and caregivers of foster care youth who are receiving MHP services.

2. A culturally diverse group of adult consumers to prioritize those who have initiated services within the previous twelve months.

The focus group questions were specific to the MHP reviewed and emphasized the availability of timely access to services, recovery, peer support, cultural competence, improved outcomes, and consumer and family member involvement. CAEQRO provided gift certificates to thank the consumers and family members for their participation.

CONSUMER/FAMILY MEMBER FOCUS GROUP 1

This focus group of parents and caregivers of child consumers was held at the Central Children's Clinic in Concord, CA and included six adult participants. The six attendees represented the families of twelve children ranging in age from 12 to 18 years old who were presently receiving MHP services. Three participants were biological parents of children presently placed in foster care, one was a foster father (with a twenty year history of caring for foster children), and the remaining two parents had open Child Welfare Services (CWS) cases but presently had custody of their children. Two attendees were also consumers of MHP services.

Only two participants' children had entered services within the past year; for both the experience was described as "traumatic," as they resulted from the detention of their children by CWS either prior to or after an inpatient hospitalization. Overall, voluntary initial access to services was initiated as a result of a self-referral or a referral from the schools. Even the foster parent reported having to advocate and search for services for his foster son despite the child having an assigned CWS social worker. Many felt services were only offered to their child following CWS detention; parents expressed the opinion that had they been offered services in advance, the eventual detention may have been avoided. All agreed that once a family gets into services, routine access is much easier, with most children being seen by a provider every two weeks.

The reported wait for initial services was found to be acceptable to participants, although a delay of about 30 days from the referral to the initial psychiatric assessment was found to be difficult, especially if a child continued to decompensate during that time. All reported problems with the Access Line in that seeking services through this gateway is very frustrating and complicated. A common experience parents with open CWS cases had was that neither the MHP nor CWS would accept responsibility for opening a child to mental health care; each entity would refer the parent to the other entity. If a parent directly contacted a community based organization (CBO) for services, they were referred back to either the CWS social worker or to Access to get an authorization prior to being assisted. One parent reported this resulted in a lack of any services/support until after their child was hospitalized three times. For current crisis response, participants reported there is e a 24-hour phone number for the foster care mobile response unit that usually responds in person to the home in less than an hour.

The group indicated that intake paperwork clearly asks if an interpreter is needed and the MHP has racial/ethnic and linguistic diversity among the staff. They were aware of resources for consumers of different languages and cultures, including that monolingual Spanish-speakers have access to services in Spanish.

The group reported family members are allowed to be involved in treatment (unless contraindicated or court-barred), but the level of involvement is dependent on the individual provider and that often the parent/caretaker has to advocate to be included. Unfortunately, no one knew of the formal Change of Provider or Appeal processes/paperwork, although all said they would complain directly to their provider if they wanted to change.

The only recent problematic change noted by attendees was the loss of the AB3632 program, leaving enrolled children to be served by individual school districts, rather than by the MHP. This has made it more complicated to transfer services between school districts when families move within the county.

The group strongly felt there is an overall lack of relevant communication from the MHP, and that they specifically felt unprepared for service/program changes when they happened. None of the participants knew of any organized opportunities to give input, noting they might make a suggestion to their assigned parent partner or local county parent network instead. Participants felt that organized opportunities to provide input would be welcomed by many, including themselves. One participant had attended input forums but had not received follow up information on how the feedback was used. While participants were aware that parent partners exist in the system, they were not aware how to go about becoming either a volunteer or employee of the MHP.

Participants reported that contacting their case managers or therapists was difficult and that it could take upwards of ten days before their messages were returned. Participants attributed this long wait to providers carrying caseloads that are "unrealistically high." When calls are returned, the providers tended to be very helpful in providing useful answers and resources. Participants felt the therapists and psychiatrists at the MHP provided their children with a sense of hope and helped to destigmatize their use of medication and/or other services. The parents reported fear of speaking up about their needs to a CWS social worker given concerns that information could be used to their detriment in court.

Recommendations arising from this group include:

- Provide consistent aftercare/follow-ups post-discharge.
- Engage the entire family, i.e. screening all family members when one child experiences a trauma.
- Develop mechanisms that would allow staff to return calls in a timely manner.
- Increase opportunities for birth parents to engage in their child's treatment while they are placed out of the home.

- Develop specialized parenting classes for adult consumers (i.e., how to parent behaviorally challenging children while coping with a mental illness).
- Develop clearer explanations/transfer policies surrounding the "umbrella of services" a child is authorized for between regions/school districts.
- Troubleshoot the long wait times at Access.

Participants from the group provided the following demographic information:

Figure 16. Consumer/Family Member Focus Group 1

Number/Type of Participants	
Consumer Only	
Consumer and Family Member	2
Family Member of Adult	
Family Member of Child	4
Family Member of Adult & Child	
Total Participants	6

Ages of Participants	
Under 18	
Young Adult (18-24)	
Adult (25-59)	5
Older Adult (60 and older)	1

Preferred Languages	
English	6

Race/Ethnicity	
African American	1
Caucasian	1
Latino/a	3
Mixed Race	1

Gender	
Male	4
Female	2

Interpreter used for focus group 1: ☒ No ☐ Yes

CONSUMER/FAMILY MEMBER FOCUS GROUP 2

This focus group of adult consumers was held at the Central Adult Clinic in Concord, CA and included nine adult participants. MHP service length ranged from eight months to three years and included medication support/psychiatric services, case management (for three consumers), and group therapy(for three consumers).

Participants reported initially entering service secondary to referrals from various entities including psychiatric emergency services (PES), as well as homeless shelters, primary care physicians, and other local community-based organizations. While some reported extended wait times upwards of eight weeks to initially access services, others reported initiating services

the same day or week they requested them. Routine psychiatry appointments occurred every six to eight weeks, but can occur more frequently depending on consumer need. Case management services occurred weekly.

If in crisis, the group reported they would go to a local ER, PES, call their case manager, or contact the psychiatric nurse. All group participants recalled being given a card at the start of services that contains numerous numbers to call if in crisis.

The group felt strongly that the staff at the Central Clinic is supportive and helps them greatly, that staff gives them a sense of hope and that recovery is possible. About half of the group had been referred to the medical doctor in the new first floor Wellness Clinic to address their physical health needs. For the most part, group participation and/or the one-on-one care provided by the psychiatrists was endorsed as the most helpful service. Participants did note that it is disruptive when psychiatrists are reassigned, which leads to having to retell their history to orient and build relationship with the new provider.

All consumers felt engaged in their own treatment and able to voice their opinions. However, none felt the MHP actively encouraged family member involvement although a few reported having advocated for and receiving family inclusion in their care. Participants were unaware of the Wellness Centers and the Putnam Club; two participants had heard of Wellness Recovery Action Plans (WRAP), one of whom had a WRAP Plan.

Information and communication is provided primarily through case managers, although some information can be found in flyers posted at the clinic. Participants were unaware of how they could give stakeholder input; they had neither heard of consumer stakeholder committees nor the County Mental Health Commission. A few participants knew about the SPIRIT program and had contact with a consumer employee at the clinic, but they were not aware that organized efforts existed to employ those with lived experience in various capacities. About half of the group members knew how to ask for a change in provider, but not aware of the relevant forms for those requests; the remaining group members said they would request at the front desk to be reassigned.

Recommendations arising from this group include:

- Develop more housing options for consumers with children.
- Provide personal transportation costs reimbursement.
- Increase opportunities for individual therapy.
- Reinstate the drop-in center/wellness activities in the unused downstairs space at Central Adult Clinic.

Participants from the group provided the following demographic information:

Figure 17. Consumer/Family Member Focus Group 2

Number/Type of Participants	
Consumer Only	4
Consumer and Family Member	4
Family Member of Adult	1
Family Member of Child	
Family Member of Adult & Child	
Total Participants	9

Ages of Participants	
Under 18	
Young Adult (18-24)	1
Adult (25-59)	8
Older Adult (60 and older)	

Preferred Languages	
English	9

Race/Ethnicity	
African American	2
Caucasian	6
Latino/a	1

Gender	
Male	4
Female	5

Interpreter used for focus group 2: ☒ No ☐ Yes

❖PERFORMANCE IMPROVEMENT PROJECT VALIDATION❖

CLINICAL PIP

The MHP presented its study question for the clinical PIP as follows:

> "Does the introduction of a 'Care Coordinator' and an increased frequency of UR review for clients who are receiving uncoordinated care, duplicated services, or an unnecessary level of service intensity, facilitate more efficient use of services in the system of care?"

Year PIP began: February 2012

Status of PIP:

- ☐ Active and ongoing
- ☒ Completed – active for review period
- ☐ Inactive, developed in a prior year
- ☐ Concept only, not yet active

☐ No PIP submitted

The MHP recognized that it was a State outlier in its number of high cost beneficiaries, noting that in 2010, 4.1 percent of the MHP's beneficiaries accounted for 40 percent of total Medi-Cal claims. Data revealed that more than half of the high utilizer beneficiaries were under the age of 18 and were predominantly served by an extensive network of contracting providers. The MHP identified barriers to effective utilization and control function that were produced by this decentralized, multi-provider network .These barriers were identified as contributing to poor care coordination, duplicative services, and unnecessary costs. Two general intervention approaches were applied: modifications to the UR process and the identification of cases to receive care coordination services. The study was initiated during 2012 and continued to be active through 2013; it is now formally concluded.

The study initially focused on high-utilizer children, with a plan to expand to adults in 2013. Due to unanticipated problems related to staff time available for UR, and to the extensive involvement of multiple providers per client, the implementation plan was adjusted and adults were not added to the study population. Changes in the UR chart review process from a review by provider to a review by client brought logistical issues. While collecting the physical charts from all agencies serving each client created a "whole picture" for review, it also complicated the review process, extending the time required to obtain all records. This difficulty, when coupled with staff time limitations for review and scoring, delayed application of the MHP's Quality and Care Coordination tool. The Q and CC tool had a dual purpose: the score was used to identify cases to receive care coordination services and it was also an indicator of improvement. Another unanticipated issue was that the time required to implement care coordination services was too close to the one-month post-intervention measure. This led the MHP to eliminate the first remeasurement, leaving three, six, and twelve month post-intervention measures. As a result of the staffing, design, and process difficulties, the measures for the Q and CC indicator were not available at the conclusion of the study. However, the remaining indicators that were available through the information system statistically supported the success of the PIP in achieving improvement. While the MHP will not continue this intervention as a PIP, it will continue as part of its routine clinical and operational strategies. This PIP shed further light on the abundance of providers involved with particular youth; this remains an issue for further MHP consideration of intervention to optimize care.

CAEQRO applied the PIP validation tool, which follows in Attachment E, to all PIPs – rating each of the 44 individual elements as either "met," "partial," "not met," or "not applicable." Relevant details of these issues and recommendations are included within the comments of the PIP validation tool.

Thirteen of the 44 criteria are identified as "key elements" indicating areas that are critical to the success of a PIP. These items are noted in grey shading in the PIP Validation Tool included as Attachment E. The results for these thirteen items are listed in the table below.

Figure 18. Non-Clinical PIP Validation Review—Summary of Key Elements				
Step	Key Elements	Present	Partial	Not Met
1	The study topic has the potential to improve consumer mental health outcomes, functional status, satisfaction, or related processes of care designed to improve same	X		
2	The study question identifies the problem targeted for improvement	X		
3	The study question is answerable/demonstrable	X		
4	The indicators are clearly defined, objective, and measurable	X		
5	The indicators are designed to answer the study question	X		
6	The indicators are identified to measure changes designed to improve consumer mental health outcomes, functional status, satisfaction, or related processes of care designed to improve same	X		
7	The indicators each have accessible data that can be collected	X		
8	The study population is accurately and completely defined	X		
9	The data methodology outlines a defined and systematic process that consistently and accurately collects baseline and remeasurement data	X		
10	The interventions for improvement are related to causes/barriers identified through data analyses and QI processes	X		
11	The analyses and study results are conducted according to the data analyses plan in the study design	X		
12	The analyses and study results are presented in an accurate, clear, and easily understood fashion	X		
13	The study results include the interpretation of findings and the extent to which the study demonstrates true improvement	X		
Totals for 13 key criteria		**13**	**0**	**0**

CAEQRO offered further technical assistance as needed as the MHP continues to develop, implement, and improve this or other PIPs. The PIPs as submitted by the MHP are included in an attachment to this report.

NON-CLINICAL PIP

The MHP presented its study question for the non-clinical PIP as follows:

> "Does increasing the number of clinical staff at Access Line and streamlining the duties of the staff at Access Line result in a reduction in the proportion of calls that are abandoned by beneficiaries and a reduction in the amount of time beneficiaries wait on hold to have their call answered?"

Year PIP began: June 2013

Status of PIP:

- ☒ Active and ongoing
- ☐ Completed
- ☐ Inactive, developed in a prior year
- ☐ Concept only, not yet active
- ☐ No PIP submitted

The MHP is focusing on the performance of its Access Line, addressing call response time in order to improve consumer satisfaction and to facilitate access to services. By analyzing data for answered calls and abandoned calls for English-speaking consumers, the MHP identified that the Access Line experiences continuously high call volumes. The calls are also reported as generated from several sources, including consumers needing services, providers requesting appointments in other areas of the system, and hospital/psychiatric emergency discharge planners.

While the MHP intends to include all callers in the study, the MHP analysis and interventions target callers who wait two or more minutes "on hold" and then either reach a clinician or abandon the call. Data is available through the Access Line call information system for the three indicators that have been identified; these measures will be evaluated within the context of reported staffing levels. The indicators are linked to interventions that include the use of consultation to optimize Access Line resources, the hiring and training of additional clinicians, and the management of referrals from the county's primary care through use of a centralized database.

This PIP is early in development, with its first intervention to be implemented in May 2014. While baseline measures and goals for improvement have been identified, these measures should be informed through the identification of benchmarks for call volume and related staffing, and particularly to assist in identifying acceptable call abandonment rates prior to establishing the performance goals This PIP is likely to undergo changes in the upcoming year as the MHP will review existing and alternative options to the phone system and to use external consultation in Lean methods to improve Access function workflows. Further investigation of barriers and call line practices may enhance identification of additional, proven interventions

that the MHP might apply to achieve improvement and to identify contingencies should adjustments to intervention plans or to goals be indicated.

CAEQRO applied the PIP validation tool, which follows in Attachment E, to all PIPs – rating each of the 44 individual elements as either "met," "partial," "not met," or "not applicable." Relevant details of these issues and recommendations are included within the comments of the PIP validation tool.

Thirteen of the 44 criteria are identified as "key elements" indicating areas that are critical to the success of a PIP. These items are noted in grey shading in the PIP Validation Tool included as Attachment E. The results for these thirteen items are listed in the table below.

Figure 19. Clinical PIP Validation Review—Summary of Key Elements

Step	Key Elements	Present	Partial	Not Met
1	The study topic has the potential to improve consumer mental health outcomes, functional status, satisfaction, or related processes of care designed to improve same	X		
2	The study question identifies the problem targeted for improvement	X		
3	The study question is answerable/demonstrable	X		
4	The indicators are clearly defined, objective, and measurable	X		
5	The indicators are designed to answer the study question	X		
6	The indicators are identified to measure changes designed to improve consumer mental health outcomes, functional status, satisfaction, or related processes of care designed to improve same	X		
7	The indicators each have accessible data that can be collected	X		
8	The study population is accurately and completely defined	X		
9	The data methodology outlines a defined and systematic process		X	
10	The interventions for improvement are related to causes/barriers identified through data analyses and QI processes		X	
11	The analyses and study results are conducted according to the data analyses plan in the study design			X

Figure 19. Clinical PIP Validation Review—Summary of Key Elements				
Step	Key Elements	Present	Partial	Not Met
12	The analyses and study results are presented in an accurate, clear, and easily understood fashion			**X**
13	The study results include the interpretation of findings and the extent to which the study demonstrates true improvement			**X**
Totals for 13 key criteria		**8**	**2**	**3**

CAEQRO offered further technical assistance as needed as the MHP continues to develop, implement, and improve this or other PIPs. The PIPs as submitted by the MHP are included in an attachment to this report.

❖INFORMATION SYSTEMS REVIEW❖

Knowledge of the capabilities of an MHP's information system is essential to evaluate the MHP's capacity to manage the health care of its beneficiaries. CAEQRO used the written response to standard questions posed in the California-specific ISCA Version 7.3.2, additional documents submitted by the MHP, and information gathered in interviews to complete the information systems evaluation.

MHP INFORMATION SYSTEMS OVERVIEW

KEY ISCA INFORMATION PROVIDED BY THE MHP

The information below is self-reported by the MHP in the ISCA and/or the site review:

- Of the total number of services provided, what percentage is provided by:

Type of Provider	Distribution
County-operated/staffed clinics	35%
Contract providers	50%
Network providers	15%
	100%

- Normal cycle for submitting current fiscal year Medi-Cal claim files:

☐ Monthly ☒ More than 1x month ☐ Weekly ☐ More than 1x weekly

- Reported percent of consumers served with co-occurring (substance abuse and mental health) diagnoses:

17%

- Reported average monthly percent of missed appointments:

13%

- Does MHP calculate Medi-Cal beneficiary penetration rates?

☒ Yes ☐ No

- Penetration and retention rates are calculated once per year.

CURRENT OPERATIONS

- There has been no change in the information system since the last CAEQRO review; the MHP continues to utilize InSyst, a legacy system implemented in 1989. NetPro, implemented in 1990, is used for Managed Care.
- SD/MC Phase II monthly claim production during FY12-13 was submitted on a timely basis. The monthly denial rate for this period was 4.5%, just above the statewide average of 4.1%.

MAJOR CHANGES SINCE LAST YEAR

- To improve revenue tracking, claiming is now on a multiple claiming cycle with two to three claims submitted monthly.
- 2013 CPT coding changes were completed (crosswalks, discontinued codes).
- *Katie A.* modifications to system and related training of staff was completed.
- Enhancements were completed on a revenue management report (PSP 356).
- A fulltime consultant has been was hired to fill the EHR Project Manager position.
- The helpdesk was restructured; helpdesk requests are now logged by email which allows for improved tracking of time to issue resolution.
- Specifications were developed for an 835 database which will centrally store all 835 transaction files for reference, reporting and analysis.

PRIORITIES FOR THE COMING YEAR

- Finalize a contract and begin implementation of a replacement information system.
- Design workflows cross training and data exchange with the Epic System.
- Continue reporting for *Katie A.* sub-class consumers.
- Maintain compliance with claiming issues regarding CCHP Mental Health/AOD low acuity referrals.
- Complete the 835 database.

OTHER SIGNIFICANT ISSUES

- The managed care system, Netpro, is no longer supported and the CPT codes cannot be updated.

The table below lists the primary systems and applications the MHP uses to conduct business and manage operations. These systems support data collection and storage, provide electronic health record (EHR) functionality, produce Short-Doyle/Medi-Cal (SD/MC) and other third party claims, track revenue, perform managed care activities, and provide information for analyses and reporting.

Figure 20. Current Systems/Applications

System/ Application	Function	Vendor/Supplier	Years Used	Operated By
InSyst	Practice Management	The Echo Group	25	Health Services IS
NetPro	Managed Care	Health Services IS	14	Health Services IS
Epic	Provider Portal	Epic	<2	Health Services IS
Panasoft	Conservatorship	Panoramic	2+	Health Services IS

PLANS FOR INFORMATION SYSTEMS CHANGE

The MHP plans to finalize selection and begin implementation of a replacement information system/EHR in the coming year.

ELECTRONIC HEALTH RECORD STATUS

See the table below for a listing of EHR functionality currently in widespread use at the MHP.

Figure 21. Current EHR Functionality

Function	System/Application	Rating			
		Present	Partially Present	Not Present	Not Rated
Assessments				X	
Clinical Decision Support				X	
Document imaging				X	
Electronic signature - client				X	
Electronic signature - provider				X	
Laboratory results (eLab)	MedTech through Provider Portal (read-only)		X		

Figure 21. Current EHR Functionality					
Function	System/Application	Rating			
		Present	Partially Present	Not Present	Not Rated
Outcomes				X	
Prescriptions (eRx)				X	
Progress notes				X	
Treatment plans				X	
Contract Providers				X	

Progress and issues associated with implementing an electronic health record over the past year are discussed below:

- There have been no changes in IS status over the past year. Although many staff continue to hand-write progress notes, structured, newly updated templates are available for use on the computer. If information is entered into the structured template, after completion it is printed, signed, and filed in the chart. These notes are not part of an integrated EHR.

- The new system, which is in the contract negotiation phase, will replace InSyst as well as the managed care functionality of NetPro. Interoperability with the Epic system is considered a high priority. New client numbers are currently assigned through Epic.

- Psychiatrists are piloting use of Epic for entering medications and notes. Full access to Epic has not been granted; however, medication entry will alert primary care providers (PCP) to medications prescribed by MHP psychiatrists. Lab results are available through Provider Portal; however this access is also read-only.

❖SITE REVIEW PROCESS BARRIERS❖

The following conditions significantly affected CAEQRO's ability to prepare for and/or conduct a comprehensive review:

- There were no barriers affecting the preparation or the activities of this review.

❖CONCLUSIONS❖

During the FY13-14 annual review, CAEQRO found strengths in the MHP's programs, practices, or information systems that have a significant impact on the overall delivery system and its supporting structure. In those same areas, CAEQRO also noted opportunities for quality improvement. The findings presented below relate to the operation of an effective managed care organization, reflecting the MHP's processes for ensuring access and timeliness of services and improving the quality of care.

STRENGTHS

1. The MHP is implementing multiple strategies to provide integrated mental health, substance use, homeless, and primary care services to its beneficiaries.
   [Quality, Access]

2. The MHP has made efforts to standardize policies, procedures and goals across the regions and age groups to improve consistency and equity of services for beneficiaries and expectations for providers.
   [Quality, Timeliness]

3. The MHP redesigned the claiming process which will improve revenue tracking. The development of the 835 database will further enhance this process as well as increase fiscal tracking and reporting capabilities.
   [Information Systems, Other: Fiscal]

4. Psychiatrists are piloting use of Epic for entering medications and notes. Full access to Epic has not been granted; however, medication entry will alert primary care providers to medication prescribed by MHP psychiatrists.
   [Information Systems, Quality, Other: Healthcare Integration]

5. The MHP has created additional structural supports for maintaining the use and fidelity of EBPs in the directly-operated clinics.
   [Quality, Outcomes]

OPPORTUNITIES FOR IMPROVEMENT

1. The MHP's access function is severely challenged by lack of resources including lack of physical space, lack of adequate professional and peer staffing, and lack of combined generalist expertise in mental health, substance abuse and homeless resources.
   [Access, Other: Workforce]

2. The continued lack of an EHR limits the data available to the organization. The managed care system, Netpro, is no longer supported; CPT codes cannot be updated. The length

of time support will be available for the legacy system, InSyst, is unknown.
[Information Systems]

3. Routine use of a level of care tool that maps onto defined continuum of care options that allow consumers to "step down" to lower intensity services and ultimately to successful discharge from specialty mental health services continue to be works in progress. This contributes to reports that multiple areas of the services system are understaffed and at capacity.
[Quality, Access, Outcomes]

4. Consumer employment opportunities currently exist such as existing positions for peers to place reminder calls that are not being utilized due to space issues and other barriers.
[Quality, Other: Consumer Employment]

5. The imminent departure of the Quality Improvement Coordinator coupled with the already vacant planner/evaluator positions could negatively impact the effectiveness of the Quality Management Program.
[Quality, Other: Workforce]

RECOMMENDATIONS

The following recommendations are in response to the opportunities for improvement identified during the review process, identified as an issue of access, timeliness, outcomes, quality, information systems, or others that apply:

1. Prioritize providing space and staffing resources to the MHP access function that are commensurate with the demands on that service.
[Access, Other: Workforce]

2. Upon EHR vendor contract finalization, assure adequate personnel resources are provided to meet the implementation schedule. Create a work-around for the unsupported Netpro product in which CPT codes cannot be updated.
[Information Systems]

3. Identify and enhance step down services and graduation pathways for consumers and utilize the available level of care measures on a consistent basis to promote movement towards wellness and resiliency goals and flow through the MHP system. Additionally continue to support community capacity to provide mild to moderate mental health services to those who need them.
[Access, Outcomes]

4. Examine staffing ratios by type of service to determine the MHP capacity to deliver timely and effective services within its continuum of care. The system's large proportion of high cost beneficiaries appears to be impacting the ability for the system to provide

for those beneficiaries who have needs along the continuum of care, perhaps including some high cost beneficiaries who could step down in services if such services were available. Examine the movement of consumers through key junctures in the service delivery system including intake, initial stabilization, treatment, and planned step down from or completion of services to determine whether staffing deployment is optimal. [Access, Quality]

5. Utilize and expand peer staffing resources to augment the MHP's capacity to provide timely access to services.
   [Quality, Access, Other: Peer Employment]

ATTACHMENTS

Attachment A: Review Agenda

Attachment B: Review Participants

Attachment C: Approved Claims Source Data

Attachment D: Data Provided to the MHP

Attachment E: CAEQRO PIP Validation Tools

Attachment F: MHP PIP Summaries Submitted

A. Attachment—Review Agenda

<table>
<tr><td>Time</td><td colspan="3">Wednesday, February 12, 2014 - Activities
Unless noted, all sessions held at 1340 Arnold Drive, Martinez, CA</td></tr>
<tr><td rowspan="3">9:00-11:00</td><td colspan="3"><u>Performance Management</u>

Access, Timeliness, Outcomes, and Quality</td></tr>
<tr><td colspan="2">• Introduction of participants
• Overview of review intent
• Significant MHP changes in past year
• Last Year’s CAEQRO Recommendations</td><td>• Performance improvement measurements utilized to assess access, timeliness, outcomes, and quality
• Examples of MHP reports used for to manage performance and decisions
• CAEQRO approved claims data</td></tr>
<tr><td colspan="3">Participants – Those in authority to identify relevant issues, conduct performance improvement activities, and implement solutions –including but not limited to:
• MHP Director, senior management team, and other managers/senior staff in: Fiscal, program, IS, medical, QI, research, patients’ rights advocate
• Involved consumer and family member representatives
1320 Arnold Drive, Martinez, CA</td></tr>
<tr><td>11:00–12:00</td><td><u>Katie A. Implementation</u>

Include staff involved in the implementation and monitoring of Katie A. and at least one Child Welfare Partner
• Discussions of implementation readiness, strategies, and activities</td><td>APS Staff – Working Lunch

Travel 11:45-12:00</td><td><u>Contract Provider Interview Group</u>

Group interview with clinical and business administrators from 6-8 contract providers representing both adults and children’s services.</td></tr>
<tr><td>Time</td><td colspan="3">Activities</td></tr>
<tr><td>12:00-1:00</td><td>APS Staff – Working Lunch</td><td rowspan="2">(12:00-1:30)

<u>Consumer/Family Member Focus Group –as specified</u>

A culturally diverse group of 8-10 parents and caregivers of foster care youth who are receiving MHP services.
Central Children’s Clinic
2425 Bisso Lane, Concord</td><td>APS Staff – Working Lunch</td></tr>
<tr><td>See cells for times</td><td>(1:00-2:15)

<u>MHP Clinical Supervisors Group Interview</u>

6-8 MHP and contract provider program supervisory staff (all peers) representing various programs and geographical areas.</td><td>(1:00-2:15)

<u>IS Manager/Key IS Staff Group Interview</u>

• Review and discuss ISCA
• FY12-13 CAEQRO information technology recommendations</td></tr>
<tr><td></td><td></td><td>Travel 1:30-1:45</td><td></td></tr>
</table>

See cells for times	**(2:30-3:30)** **Performance Improvement Projects** • Discussion includes topic and study question selection, baseline data, barrier analysis, intervention selection, methodology, results, and plans • Participants should be those involved in the development and implementation including, but not necessarily limited to: PIP committee, MHP Director and other senior managers	**(1:45 -3:00)** **Consumer Employee Group Interview** 6-8 MHP employees who are consumers, such as Peer Advocates, Peer Support Specialist, or Consumer Liaisons. **Central Adult MH** **1420 Willow Pass Rd, 1st Floor** **Concord**	**(2:15 – 3:30)** **SD/MD Claims Processing** • Short-Doyle Phase 2 Claim Process • Medicare/Medi-Cal claim submissions for contract Providers • Void & Replace claim transactions • New policies and procedures since last review
See cells for times	**(3:30-4:30)** **Outcomes/Timeliness** • MHP examples of data used to measure timeliness, functional outcomes and satisfaction • MHP's readiness for the upcoming EPSDT Performance Outcomes System as will be implemented by DHCS • Timely access for non-English speakers	**(3:00-4:15)** **Consumer/Family Member Focus Group –as specified** A culturally diverse group of 8-10 **Adults who have initiated MHP services within the past twelve months.** **Central Adult MH** **1420 Willow Pass Rd, 1st Floor, Concord** **Travel 4:15-4:30**	
Time	**Activities**		
4:30 – 4:45	**APS Staff Meeting**		
4:45 – 5:00	**Final Questions Session** MHP Director, QI Director, Senior leadership, and APS staff only • Clarification discussion on any outstanding review elements • MHP opportunity to provide additional evidence of performance • CAEQRO Next steps after the review		

B. Attachment—Review Participants

CAEQRO REVIEWERS

Dawn Kaiser, LCSW, CPHQ, Lead Reviewer
Lisa Farrell, Information Systems Reviewer
Marilyn Hillerman, Consumer/Family Member Consultant
Mila Green, PhD, CPHQ, Reviewer

Additional CAEQRO staff members were involved in the review process, assessments, and recommendations. They provided significant contributions to the overall review by participating in both the pre-site and the post-site meetings and, ultimately, in the recommendations within this report.

SITES OF MHP REVIEW

CAEQRO staff visited the locations of the following county-operated and contract providers:

County provider sites

Contra Costa Mental Health Administrative Offices:
1320 Arnold Drive
Martinez, CA 94553

1340 Arnold Drive
Martinez, CA 94553

Central County Adult Mental Health
1420 Willow Pass Rd
Concord, CA 94520

Central County Child and Adolescent Clinic
2425 Bisso Lane
Concord, CA 94520

PARTICIPANTS REPRESENTING THE MHP

Anita DeVera, MH Supervisor
Bernie Sanabra, MH Supervisor
Betsy Orme, MH Supervisor
Brett Beaver, Program Manager,
Caroline Sison, Ethnic Services & Training Coordinator
Cassandra W. Robinson, Family Partner Community Support Worker
Charlene Bianchi, UR Program Supervisor
Chet Spikes, IT Assistant Director

Chris Stoner-Mertz, Chief Executive Officer, Lincoln Child Center
Christine Catabay, MH Clinical Specialist UR
Christine Madruga, MH Supervisor
Christine Bohsquez, MH UR Coordinator
David Cassell, MH Quality Improvement Coordinator
David Seidner, Forensics Manager
Denise Chmiel, MH Supervisor,
Diana Kurlander, Senior Director, Fred Finch Youth Center
Eric Duran, EMR Project Manager
Erin McCarty, MHSA Project Manager,
Eva Crose, Family Partner, East County Children's MH
Gerold Loenicker, MHSA Program Supervisor
Guillermo L. Cuadra, Program Manager
Helen Kearns, MH Project Manager
J. Nicole Tigre, Social Work Supervisor
Jan Cobaleda-Kegler, MH Program Manager
Jennifer Cardenas, QA Director, Seneca Center
Jessica Dominguez, Program Manager/Supervisor, La Clinica de La Raza
JR Ang, Patient Accounting Manager
Karen Casto, IT Systems Specialist
Katy White, MH Supervisor
Ken Gallagher, Research & Evaluation Manager,
Kenneth Kim, Interim Executive Director, Community Health for Asian Americans
Kennisha Johnson, MH Program Supervisor
Linda Alves, HS Planner/Evaluator
Linda Orrante, Consultant, CFS/MH
Lisa Richardson, Parent Partner, West County
Lynn Field, UR Coordinator RN
Mathew Luu, MH Manager
Mike Penkunas, HS Planner/Evaluator
Natasha Coleman, Children's MH Program Manager
Peggy Harris, Community Support Worker, Office for Consumers Empowerment
Priscilla Olivas, HS Planner/Evaluator
Rich Weisgal, Program Manager
Robert Thigpen, Family Support, Concord Adult MH
Rubi Cuevas, Family Partner,
Sarah Marsh, MH Supervisor
Shelley Okey, Program Manager
Steve Hahn-Smith, Quality Management Program Coordinator
Steve Wilbur, MH Program Supervisor
Steven Villafranca, Health Services Planner/Evaluator
Susan Kalaei, CCMH Pharmacist, Medication Monitoring
Susan Medlin, Program Coordinator

Teri Williams, IT System Analyst
Thomas Tighe, MH Supervisor
Travis Curran, Administrator, Crestwood Pleasant Hill
Vern Wallace, Children's Program Chief
Vern Wallace, MH Program Chief
Vic Montoya, MH Program Chief
Vicki Hahn, Consultant
Warren Hayes, MHSA Program Manager
Ziba Rahimzadeh, Provider Services

C. Attachment—Approved Claims Source Data

APS Healthcare

Medi-Cal Approved Claims Code Definitions and Data Sources

Last Modified by: Rachel Phillips, February 2014 Source: Medi-Cal Aid Code Chart Master dated – October 28,2013

Source: Data in Figures 5 through 15 and Attachment D are derived from three statewide source files.

Short-Doyle/Medi-Cal approved and denied claims (SD/MC) from the Department of Health Care Services (DHCS)

Inpatient Consolidation approved claims (IPC) from DHCS

Monthly MEDS Extract Files (MMEF) from DHCS

Selection Criteria:

Medi-Cal beneficiaries for whom the MHP is the "County of Fiscal Responsibility" are included, even when the beneficiary was served by another MHP

Medi-Cal beneficiaries with aid codes eligible for SD/MC program funding are included

Process Date: The date DHCS processes files for CAEQRO. The files include claims for the service period indicated, calendar year (CY) or fiscal year (FY), processed through the preceding month. For example, the CY2008 file with a DHCS process date of April 28, 2009 includes claims with service dates between January 1 and December 31, 2008 processed by DHCS through March 2009. Process dates are in parenthesis.

CY2012 includes SD/MC (November 2013), IPC (December 2013) and MMEF (March 2013) approved claims

CY2011 includes SD/MC (December 2012), IPC (March 2013) and MMEF (April 2012) approved claims

CY2010 includes SD/MC (June 2012), IPC (November 2012) and MMEF (April 2011)approved claims

CY2009 includes SD/MC (February 2011), IPC (October 2010) and MMEF (April 2010) approved claims

FY11-12 includes SD/MC (December 2012), IPC (March 2013) and MMEF (October 2012) approved claims

FY10-11 includes SD/MC (June 2012), IPC (March 2013) and MMEF (October 2011) approved claims

FY09-10 includes SD/MC (February 2011), IPC (October 2010) and MMEF (October 2010) approved claims

FY08-09 includes SD/MC (December 2009), IPC (December 2009) and MMEF (October 2009) approved claims

FY07-08 includes SD/MC (April 2009), IPC (April 2009) and MMEF (January 2009) approved claims

FY12-13 denials include SD/MC claims (not IPC claims) with process date November 2013

Most recent MMEF includes Medi-Cal eligibility for April (CY) or October (FY) and 15 prior months

Service Activity: Defined by Service Modes and Functions

Inpatient Services	Local Hospital Inpatient, Hospital Administrative Days, Psychiatric Health Facility, and Professional Inpatient Visit
Residential Services	Adult Crisis Residential and Adult Residential
Crisis Stabilization	Crisis Stabilization
Day Treatment	Day Intensive Treatment and Day Rehabilitative
Case Management	Case Management/Brokerage
Mental Health Services	Mental Health Services
Medication Support	Medication Support
Crisis Intervention	Crisis Intervention
TBS	Therapeutic Behavioral Services
Outpatient Services (applicable only to inpatient follow-up services)	Residential, Crisis Stabilization, Day Treatment, Case Management, Mental Health, Medication Support, Crisis Intervention, TBS Services

APS Healthcare

Medi-Cal Approved Claims Code Definitions and Data Sources

Last Modified by: Rachel Phillips, February 2014 Source: Medi-Cal Aid Code Chart Master dated – October 28,2013

Data Definitions: Selected elements displayed in many figures within this report are defined below.	
Penetration rate	The number of Medi-Cal beneficiaries served per year divided by the average number of Medi-Cal eligibles per month. The denominator is the monthly average of Medi-Cal eligibles over a 12-month period.
Approved claims per beneficiary served per year	The annual dollar amount of approved claims divided by the unduplicated number of Medi-Cal beneficiaries served per year
Age Group	A beneficiary's age group is determined by beneficiary's age on July 1 of the reporting calendar year.
Eligibility Categories	Medi-Cal aid codes used for approved claims reporting by eligibility category. **Bolded/Blue Aid Codes** indicate EPSDT status with enhanced FFP funding for beneficiaries whose age is less than 21 years on date of service.
Claims Codes	
Disabled	**2H, 36, 60, 63, 64, 66, 67, 6C, 6E, 6G, 6H, 6N, 6P,** 6R, 6U, **6V, 6W, 6X, 6Y,** C3, C4, C7, C8, D4, D5, D6, D7
Foster Care	**40, 42, 43, 46, 49, 4F, 4G, 4H, 4L, 4N, 4S, 4T, 4W, 5K**
Other Child	Beneficiary age is less than 18 AND has one of the following aid codes: **0A, 0M, 0N, 0P, 0W, 01,** 1U, **02, 03, 04, 06, 07, 08, 2A, 2E, 20, 23, 24, 26, 27, 30, 32, 33, 34, 35, 37, 38, 39, 3A, 3C, 3D, 3E, 3G,** 3F, **3H, 3L, 3M, 3N, 3P, 3R,** 3T, **3U,** 3V, **3W,** 44, **45, 47,** 48, **4A, 4E, 4M, 4P, 4R, 54,** 55, 58, **59, 5C, 5D, 5E,** 5F, 5J, 5R, 5T, 5W, 69, **6A,** 6J, 6K, 6M, **72,** 74, 76, **7A,** 7C, **7J,** 7K, **7X, 82, 83,** 86, 87, **8E, 8G,** 8N, **8P, 8R,** 8T, **8U, 8V, 8W, 8X,** C1, C2, C5, C6, C9, D1, E1, **E2,** E4, **E5, E7,** G0, G1, G2, G5, G6, G7, G8, G9, **H0, H1, H2, H3, H4, H5, H6, H7, H8, H9,** J1, J2, J3, J4, J5, J6, J7, J8, K1, M0, M3, M4, **M5,** M6, M7, M8, P0, **P1,** P2, P3, P4, **P5,** P6, **P7,** P8, **P9,** T0, **T1, T2, T3, T4, T5,** T6, T7, T8, T9.
Family Adult	Beneficiary age is greater than or equal to 18 AND has one of the following aid codes: 0A, 0W, 0M, 0N, 0P, 01, 1U, 02, 03, 04, 06, 07, 08, 2A, 2E, 20, 23, 24, 26, 27, 30, 32, 33, 34, 35, 37, 38, 39, 3A, 3C, 3D, 3E, 3G, 3F, 3H, 3L, 3M, 3N, 3P, 3R, 3T, 3U, 3V, 3W, 44, 45, 47, 48, 4A, 4E, 4M, 4P, 4R, 54, 55, 58, 59, 5C, 5D, 5E, 5F, 5J, 5R, 5T, 5W, 69, 6A, 6J, 6K, 6M, 72, 74, 76, 7A, 7C, 7J, 7K, 7X, 82, 83, 8E, 8G, 8N, 8P, 8R, 8T, 8U, 8V, 8W, 8X, C1, C2, C5, C6, C9, D1, E1, E2, E4, E5, E7, G2, G6, G8, G9, H0, H1, H2, H3, H4, H5, H6, H7, H8, H9, J3, J4, J6, J8, M0, M4, M5, M6, M8, P1, P4, P5, P6, P7, P8, P9, T0, T1, T2, T3, T4, T5, T6, T7, T8, T9.
Other Adult	Beneficiary age is greater than 19 AND has one of the following SD/MC program aid codes: 0U, 0V, 1E, 1H, 1X, 1Y, 10, 13, 14, 16, 17, 6J, 80, 86, 87, D2, D3, D8, D9, E1, L1, M1, M2, N0, N5, N6, N7, N8, N9, P2, P3.
EPSDT Eligible Aid Codes	Beneficiary age is less than 21 AND has one of the following aid codes: **0A, 0M, 0N, 0P, 0W, 01, 02, 2A, 2E, 2H, 03, 04, 06, 07, 08, 20, 23, 24, 26, 27, 30, 32, 33, 34, 35, 36, 37, 38, 39, 3A, 3C, 3D, 3E, 3G, 3H, 3L, 3M, 3N, 3P, 3R, 3U, 3W, 40, 42, 43, 45, 46, 47, 49, 4A, 4E, 4F, 4G, 4H, 4L, 4M, 4N, 4P, 4R, 4S, 4T, 4W, 54, 59, 5C, 5D, 5E, 5K, 60, 63, 64, 66, 67, 6A, 6C, 6E, 6G, 6H, 6N, 6P, 6V, 6W, 6X, 6Y, 72, 7A, 7J, 7X, 82, 83, 8E, 8G, 8P, 8R, 8U, 8V, 8W, 8X, E2, E5, E7, H0, H1, H2, H3, H4, H5, H6, H7, H8, H9, M5, P1, P5, P7, P9, T1, T2, T3, T4, T5.**
Aid codes excluded for claims reporting purposes - as they are not SD/MC funded aid codes	0, 00, 0R, 0T, 09, 18, 28, 2G, 31, 3J, 3K, 3X, 3Y, 41, 43, 4C, 4K, 50, 51, 53, 56, 5X, 5Y, 61, 62, 65, 68, 6D, 6F, 6T, 78, 7M, 7N, 7P, 7R, 81, 84, 85, 88, 89, 8A, 8F, 8H, 8Y, 9A, 9C, 9E, 9F, 9G. 9H, 9J, 9K, 9M, 9N, 9R, 9S, 9X, FX, IE, R1, RR.

APS Healthcare

Medi-Cal Approved Claims Code Definitions and Data Sources

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MEDS Race/Ethnicity Codes			
1 = White	2 = Hispanic	3 = Black	4 = Asian/Pacific Islander
5 = Alaska native or American Indian	7 = Filipino	8 = No valid data reported	9 = Decline to state
A = Amerasian	C = Chinese	H = Cambodian	J = Japanese
K = Korean	M = Samoan	N = Asian Indian	P = Hawaiian
R = Guamanian	T = Laotian	V = Vietnamese	Z = Other

Race/Ethnicity Group	MEDS Code
White	1
Hispanic	2
African-American	3
Asian/Pacific Islander	4 & 7 + A thru V
Native American	5
Other	8 & 9 + Z

01 = Alameda	02 = Alpine	03 = Amador	04 = Butte
05 = Calaveras	06 = Colusa	07 = Contra Costa	08 = Del Norte
09 = El Dorado	10 = Fresno	11 = Glenn	12 = Humboldt
13 = Imperial	14 = Inyo	15 = Kern	16 = Kings
17 = Lake	18 = Lassen	19 = Los Angeles	20 = Madera
21 = Marin	22 = Mariposa	23 = Mendocino	24 = Merced
25 = Modoc	26 = Mono	27 = Monterey	28 = Napa
29 = Nevada	30 = Orange	31 = Placer/Sierra	32 = Plumas
33 = Riverside	34 = Sacramento	35 = San Benito	36 = San Bernardino
37 = San Diego	38 = San Francisco	39 = San Joaquin	40 = San Luis Obispo
41 = San Mateo	42 = Santa Barbara	43 = Santa Clara	44 = Santa Cruz
45 = Shasta	47 = Siskiyou	48 = Solano	49 = Sonoma
50 = Stanislaus	51 = Sutter/Yuba	52 = Tehama	53 = Trinity
54 = Tulare	55 = Tuolumne	56 = Ventura	57 = Yolo

Counties by DHCS Regions	
Bay Area	01,07,21,27,28,35,38,41,43,44,48,49
Central	02,03,05,09,10,16,20,22,24,26,31,34,39,50,51,54,55,57
Los Angeles	19
Southern	13,15,30,33,36,37,40,42,56
Superior	04,06,08,11,12,14,17,18,23,25,29,32,45,47,52,53

Counties by DHCS County Sizes	
Large	01,07,10,15,30,33,34,36,37,38,43,56
Medium	04,21,24,27,31,39,40,41,42,44,48,49,50,54,57
Small	09,12,13,16,17,20,23,28,29,35,45,51,52,55
Small-Rural	02,03,05,06,08,11,14,18,22,25,26,32,47,53
Very Large	19

APS Healthcare

Medi-Cal Approved Claims Code Definitions and Data Sources

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Diagnosis Category	Diagnosis Codes Found in CY12 SD/MC II Approved Claims Files
Depressive Disorders	296.20 - 296.26, 296.83, 296.30 – 296.36, 300.4, 311.
Psychotic Disorders	293.81, 295.10 – 295.90, 297.1, 297.3, 298.8.
Disruptive Disorders	312.81 - 312.89, 312.9, 313.81, 314.00, 314.01, 314.9.
Bipolar Disorders	296.01 – 296.06, 296.40 - 296.76, 296.80, 296.89, 301.13.
Anxiety Disorders	293.84, 300.00 – 300.03, 300.21 - 300.23, 300.29, 308.3, 309.81.
Adjustment Disorders	309.0 – 309.9.
Other Disorders	Substance-Related disorders: 291.0 - 291.2, 291.3, 291.5, 291.89, 291.9, 292.0, 292.11, 292.12, 292.81 - 292.84, 292.89, 292.9, 303.00, 303.90, 304.00 - 304.90, 305.00, 305.20, 305.30, 305.40, 305.50, 305.60, 305.70, 305.90. Childhood disorders: 315.00, 315.1-315.4, 317, 318.0 – 318.2, 319, 299.00, 299.10, 299.80, 307.0, 307.52, 307.59, 307.20 - 307.23, 307.6, 307.7, 307.9, 313.82, 313.23, 313.89, 787.6. Amnesic/Cognitive /Movement disorders: 294.0, 290.10-290.13, 290.20-290.21, 290.40 - 290.43, 293.0, 294.8 - 294.11, 300.6, 300.9, 307.3, 307.89, 333.1, 333.82, 333.90, 780.09, 995.81. Personality disorders: 301.0, 301.22, 301.4, 301.50, 301.6, 301.7, 301.81 - 301.83, 301.9. Sexual/Impulse-Control disorders: 302.72, 302.75, 302.2, 302.3, 302.4, 302.6, 302.81, 302.84, 302.85, 302.89, 302.9, 312.31- 312.34, 312.39, 607.84. Sleep/Eating/Body/Other: 293.9, 300.7300.11, 300.18, 300.81, 300.82, 300.16, 300.19, 306.51, 307.42, 307.1, 307.45 - 307.47, 347, 307.50, 307.51, 307.80, 310.1, 310.20, 780.52, 780.54, 780.59. Relational Problems/Clinical Conditions: V15.81, V61.10, V61.12, V61.20, V61.21, V61.8, V61.9, V62.2, V62.3, V62.4, V62.81, V62.82, V62.89, V65.2, V71.01, V71.02. Other Conditions – 316, 332.1
Deferred and No Diagnoses	799.9, V71.09.

D. Attachment— Medi-Cal Approved Claims Worksheets and Additional Tables

Medi-Cal Approved Claims Data for CONTRA COSTA County MHP Calendar Year 12

Date Prepared:	01/24/2014, Version 1.3
Prepared by:	Rachel Phillips, APS Healthcare / CAEQRO
Data Sources:	DHCS Approved Claims and MMEF Data - Notes (1) and (2)
Data Process Dates:	11/22/2013, 12/26/2013, and 03/27/2013 - Note (3)

	CONTRA COSTA					LARGE		STATEWIDE	
	Average Number of Eligibles per Month (4)	Number of Beneficiaries Served per Year	Approved Claims	Penetration Rate	Approved Claims per Beneficiary Served per Year	Penetration Rate	Approved Claims per Beneficiary Served per Year	Penetration Rate	Approved Claims per Beneficiary Served per Year
TOTAL									
	151,528	12,877	$70,861,195	8.50%	$5,503	5.77%	$4,677	5.90%	$5,112
AGE GROUP									
0-5	26,506	594	$4,311,892	2.24%	$7,259	1.56%	$4,361	1.88%	$4,150
6-17	40,848	4,093	$32,578,960	10.02%	$7,960	7.29%	$5,719	7.80%	$6,472
18-59	60,939	7,076	$29,608,246	11.61%	$4,184	7.68%	$4,181	7.37%	$4,455
60+	23,236	1,114	$4,362,098	4.79%	$3,916	3.33%	$3,398	3.45%	$3,529
GENDER									
Female	86,635	7,165	$33,042,196	8.27%	$4,612	5.25%	$4,154	5.31%	$4,593
Male	64,893	5,712	$37,818,999	8.80%	$6,621	6.44%	$5,224	6.66%	$5,640
RACE/ETHNICITY									
White	30,333	4,275	$21,950,017	14.09%	$5,135	10.20%	$4,424	10.14%	$5,245
Hispanic	59,290	2,949	$15,070,672	4.97%	$5,110	3.63%	$4,417	3.81%	$4,913
African-American	29,934	3,452	$21,105,251	11.53%	$6,114	9.65%	$5,444	10.13%	$5,318
Asian/Pacific Islander	15,435	737	$3,363,962	4.77%	$4,564	3.63%	$4,008	3.78%	$4,089

	CONTRA COSTA					LARGE		STATEWIDE	
	Average Number of Eligibles per Month (4)	Number of Beneficiaries Served per Year	Approved Claims	Penetration Rate	Approved Claims per Beneficiary Served per Year	Penetration Rate	Approved Claims per Beneficiary Served per Year	Penetration Rate	Approved Claims per Beneficiary Served per Year
Native American	524	90	$600,649	17.18%	$6,674	10.19%	$5,469	9.09%	$5,548
Other	16,014	1,374	$8,770,644	8.58%	$6,383	7.06%	$5,415	7.39%	$5,650
ELIGIBILITY CATEGORIES									
Disabled	27,444	6,036	$34,439,532	21.99%	$5,706	17.26%	$4,904	17.60%	$5,109
Foster Care	1,201	633	$7,162,646	52.71%	$11,315	48.04%	$8,343	53.34%	$8,485
Other Child	63,339	3,762	$23,010,780	5.94%	$6,117	4.21%	$4,388	4.65%	$4,950
Family Adult	30,184	2,331	$4,148,868	7.72%	$1,780	4.19%	$2,229	3.96%	$2,604
Other Adult	29,613	542	$2,099,369	1.83%	$3,873	1.01%	$3,545	1.00%	$3,535
SERVICE CATEGORIES									
Inpatient Services	151,528	661	$8,300,349	0.44%	$12,557	0.44%	$7,835	0.45%	$7,723
Residential Services	151,528	191	$1,988,582	0.13%	$10,411	0.08%	$7,525	0.06%	$7,775
Crisis Stabilization	151,528	1,964	$4,013,569	1.30%	$2,044	0.49%	$2,176	0.38%	$1,948
Day Treatment	151,528	225	$3,302,698	0.15%	$14,679	0.10%	$11,381	0.06%	$12,207
Case Management	151,528	3,415	$4,513,513	2.25%	$1,322	2.19%	$1,041	2.41%	$899
Mental Health Serv.	151,528	9,255	$34,085,778	6.11%	$3,683	4.52%	$2,996	4.82%	$3,478
Medication Support	151,528	6,912	$10,749,254	4.56%	$1,555	2.97%	$1,153	2.94%	$1,332
Crisis Intervention	151,528	496	$506,855	0.33%	$1,022	0.47%	$814	0.59%	$1,046
TBS	151,528	227	$3,400,597	0.15%	$14,981	0.11%	$10,644	0.10%	$12,091

Footnotes:

1 - Includes approved claims data on DHCS eligible beneficiaries who were served by other MHPs, based on Medi-Cal recipient's "County of Fiscal Responsibility"

2 - Includes Short-Doyle/Medi-Cal (SD/MC) and Inpatient Consolidation (IPC) approved claims for those whose aid codes were eligible for SD/MC program funding

3 - The most recent data processing dates for SD/MC and IPC approved claims and MEDS Monthly Extract File (MMEF) respectively by DHCS for the reported calendar year

4 - County total number of yearly unduplicated Medi-Cal eligibles is 185,696

CONTRA COSTA County MHP Medi-Cal Services Retention Rates CY12

	CONTRA COSTA			STATEWIDE			
Number of Services Approved per Beneficiary Served	# of beneficiaries	%	Cumulative %	%	Cumulative %	Minimum %	Maximum %
1 service	1,182	9.18	9.18	9.38	9.38	4.90	18.87
2 services	793	6.16	15.34	6.29	15.67	0.00	12.84
3 services	646	5.02	20.35	5.38	21.06	2.94	11.11
4 services	717	5.57	25.92	4.93	25.98	1.93	9.40
5 - 15 services	4,257	33.06	58.98	32.38	58.36	21.24	40.93
> 15 services	5,282	41.02	100.00	41.64	100.00	23.68	60.46

Prepared by APS Healthcare / CAEQRO

Source: Short-Doyle/Medi-Cal approved claims as of 11/22/2013; Inpatient Consolidation approved claims as of 12/26/2013

Note: Number of services is counted by days for any 24 hours and day services, and by visits or encounters for any outpatient services

Medi-Cal Approved Claims Data for CONTRA COSTA County MHP Calendar Year CY12

Foster Care

Date Prepared:	01/24/2014, Version 1.2
Prepared by:	Rachel Phillips, APS Healthcare / CAEQRO
Data Sources:	DHCS Approved Claims and MMEF Data - Notes (1) and (2)
Data Process Dates:	11/22/2013, 12/26/2013, and 03/27/2013 - Note (3)

	CONTRA COSTA					LARGE		STATEWIDE	
	Average Number of Eligibles per Month (4)	Number of Beneficiaries Served per Year	Approved Claims	Penetration Rate	Approved Claims per Beneficiary Served per Year	Penetration Rate	Approved Claims per Beneficiary Served per Year	Penetration Rate	Approved Claims per Beneficiary Served per Year
TOTAL									
	1,201	633	$7,162,646	52.71%	$11,315	48.04%	$8,343	53.34%	$8,485
AGE GROUP									
0-5	273	72	$654,849	26.37%	$9,095	28.63%	$4,165	36.10%	$3,952
6+	929	561	$6,507,797	60.39%	$11,600	55.72%	$9,193	60.04%	$9,544
GENDER									
Female	587	316	$3,489,501	53.83%	$11,043	47.16%	$8,077	52.55%	$8,240
Male	615	317	$3,673,145	51.54%	$11,587	48.86%	$8,584	54.09%	$8,707
RACE/ETHNICITY									
White	339	197	$2,284,375	58.11%	$11,596	51.72%	$7,476	56.34%	$9,153
Hispanic	218	123	$1,126,387	56.42%	$9,158	45.66%	$7,690	51.29%	$6,995
African-American	555	256	$3,016,318	46.13%	$11,782	48.89%	$9,687	50.68%	$8,767
Asian/Pacific Islander	52	33	$408,712	63.46%	$12,385	50.99%	$8,868	53.73%	$8,121

	CONTRA COSTA					LARGE		STATEWIDE	
	Average Number of Eligibles per Month (4)	Number of Beneficiaries Served per Year	Approved Claims	Penetration Rate	Approved Claims per Beneficiary Served per Year	Penetration Rate	Approved Claims per Beneficiary Served per Year	Penetration Rate	Approved Claims per Beneficiary Served per Year
Native American	12	9	$154,325	75.00%	$17,147	50.28%	$6,375	45.17%	$6,902
Other	28	15	$172,528	53.57%	$11,502	39.00%	$12,941	41.80%	$10,199
SERVICE CATEGORIES									
Inpatient Services	1,201	22	$199,577	1.83%	$9,072	1.72%	$6,922	2.09%	$7,484
Residential Services	1,201	0	$0	0.00%	$0	0.01%	$6,987	0.01%	$9,294
Crisis Stabilization	1,201	39	$77,259	3.25%	$1,981	1.34%	$1,580	1.16%	$1,547
Day Treatment	1,201	69	$1,353,581	5.75%	$19,617	3.07%	$13,670	2.31%	$13,509
Case Management	1,201	289	$406,350	24.06%	$1,406	19.66%	$1,530	23.26%	$1,128
Mental Health Serv.	1,201	608	$3,765,266	50.62%	$6,193	44.78%	$5,545	50.68%	$5,890
Medication Support	1,201	193	$314,270	16.07%	$1,628	14.99%	$1,414	16.68%	$1,710
Crisis Intervention	1,201	47	$65,756	3.91%	$1,399	2.61%	$1,072	3.40%	$1,587
TBS	1,201	66	$939,300	5.50%	$14,232	3.49%	$10,248	3.57%	$11,250

Footnotes:

1 - Includes approved claims data on DHCS eligible beneficiaries who were served by other MHPs, based on Medi-Cal recipient's "County of Fiscal Responsibility"

2 - Includes Short-Doyle/Medi-Cal (SD/MC) and Inpatient Consolidation (IPC) approved claims for those whose aid codes were eligible for SD/MC program funding

3 - The most recent data processing dates for SD/MC and IPC approved claims and MEDS Monthly Extract File (MMEF) respectively by DHCS for the reported calendar year

4 - County total number of yearly unduplicated Medi-Cal eligibles is 1,691

CONTRA COSTA County MHP Medi-Cal Services Retention Rates CY12

Foster Care

	CONTRA COSTA			STATEWIDE			
Number of Services Approved per Beneficiary Served	# of beneficiaries	%	Cumulative %	%	Cumulative %	Minimum %	Maximum %
1 service	33	5.21	5.21	6.08	6.08	0.00	50.00
2 services	17	2.69	7.90	4.91	11.00	0.00	17.65
3 services	20	3.16	11.06	4.25	15.24	0.00	19.35
4 services	25	3.95	15.01	3.34	18.58	0.00	33.33
5 - 15 services	155	24.49	39.49	25.11	43.69	0.00	100.00
> 15 services	383	60.51	100.00	56.31	100.00	0.00	77.78

Prepared by APS Healthcare / CAEQRO

Source: Short-Doyle/Medi-Cal approved claims as of 11/22/2013; Inpatient Consolidation approved claims as of 12/26/2013

Note: Number of services is counted by days for any 24 hours and day services, and by visits or encounters for any outpatient services

Medi-Cal Approved Claims Data for CONTRA COSTA County MHP Calendar Year 12

Transition Age Youth (Age 16-25)

Date Prepared:	01/24/2014, Version 1.1
Prepared by:	Rachel Phillips, APS Healthcare / CAEQRO
Data Sources:	DHCS Approved Claims and MMEF Data - Notes (1) and (2)
Data Process Dates:	11/22/2013, 12/26/2013, and 03/27/2013 - Note (3)

	CONTRA COSTA					LARGE		STATEWIDE	
	Average Number of Eligibles per Month (4)	Number of Beneficiaries Served per Year	Approved Claims	Penetration Rate	Approved Claims per Beneficiary Served per Year	Penetration Rate	Approved Claims per Beneficiary Served per Year	Penetration Rate	Approved Claims per Beneficiary Served per Year
TOTAL									
	21,296	2,184	$14,896,471	10.26%	$6,821	6.86%	$5,753	7.03%	$6,331
AGE GROUP									
16-17	6,211	834	$7,247,612	13.43%	$8,690	9.37%	$6,651	9.89%	$7,412
18-21	9,301	866	$5,224,106	9.31%	$6,032	6.25%	$5,351	6.35%	$5,747
22-25	5,785	484	$2,424,753	8.37%	$5,010	4.95%	$4,637	4.82%	$5,039
GENDER									
Female	12,574	1,193	$7,357,326	9.49%	$6,167	5.79%	$5,441	5.94%	$6,055
Male	8,723	991	$7,539,145	11.36%	$7,608	8.41%	$6,065	8.58%	$6,603
RACE/ETHNICITY									
White	3,990	592	$4,083,512	14.84%	$6,898	10.90%	$5,309	11.62%	$6,681
Hispanic	8,265	567	$3,209,322	6.86%	$5,660	4.86%	$5,130	5.09%	$5,777
African-American	5,422	691	$5,089,430	12.74%	$7,365	10.80%	$6,657	10.78%	$6,545
Asian/Pacfic Islander	1,731	96	$630,657	5.55%	$6,569	3.36%	$6,527	3.50%	$6,494

	CONTRA COSTA					LARGE		STATEWIDE	
	Average Number of Eligibles per Month (4)	Number of Beneficiaries Served per Year	Approved Claims	Penetration Rate	Approved Claims per Beneficiary Served per Year	Penetration Rate	Approved Claims per Beneficiary Served per Year	Penetration Rate	Approved Claims per Beneficiary Served per Year
Native American	77	19	$128,051	24.68%	$6,740	10.05%	$6,961	9.47%	$6,893
Other	1,815	219	$1,755,499	12.07%	$8,016	10.44%	$7,213	10.08%	$7,408
ELIGIBILITY CATEGORIES									
Disabled	3,002	685	$5,708,403	22.82%	$8,333	19.73%	$6,644	20.83%	$7,046
Foster Care	310	199	$2,757,270	64.19%	$13,856	59.17%	$9,663	65.95%	$9,649
Other Child	5,566	629	$3,583,323	11.30%	$5,697	7.74%	$5,007	8.30%	$5,665
Family Adult	9,628	642	$1,914,772	6.67%	$2,983	4.07%	$3,319	4.22%	$3,791
Other Adult	2,874	160	$932,703	5.57%	$5,829	3.63%	$4,321	3.29%	$4,587
SERVICE CATEGORIES									
Inpatient Services	21,296	170	$1,968,262	0.80%	$11,578	0.82%	$7,186	0.83%	$6,922
Residential Services	21,296	30	$226,936	0.14%	$7,565	0.07%	$6,878	0.06%	$8,030
Crisis Stabilization	21,296	416	$660,058	1.95%	$1,587	0.78%	$1,727	0.62%	$1,661
Day Treatment	21,296	82	$1,212,395	0.39%	$14,785	0.21%	$12,669	0.16%	$13,319
Case Management	21,296	841	$1,154,511	3.95%	$1,373	2.73%	$1,207	2.99%	$1,001
Mental Health Serv.	21,296	1,813	$7,107,559	8.51%	$3,920	5.61%	$3,536	5.93%	$4,260
Medication Support	21,296	976	$1,418,621	4.58%	$1,454	3.16%	$1,147	3.14%	$1,351
Crisis Intervention	21,296	113	$138,232	0.53%	$1,223	0.77%	$862	0.97%	$1,090
TBS	21,296	66	$1,009,897	0.31%	$15,301	0.16%	$10,245	0.16%	$10,312

Footnotes:

1 - Includes approved claims data on DHCS eligible beneficiaries who were served by other MHPs, based on Medi-Cal recipient's "County of Fiscal Responsibility"

2 - Includes Short-Doyle/Medi-Cal (SD/MC) and Inpatient Consolidation (IPC) approved claims for those whose aid codes were eligible for SD/MC program funding

3 - The most recent data processing dates for SD/MC and IPC approved claims and MEDS Monthly Extract File (MMEF) respectively by DHCS for the reported calendar year

4 - County total number of yearly unduplicated Medi-Cal eligibles is 30,011

CONTRA COSTA County MHP Medi-Cal Services Retention Rates CY12

Transition Age Youth (Age 16-25)

	CONTRA COSTA			STATEWIDE			
Number of Services Approved per Beneficiary Served	# of beneficiaries	%	Cumulative %	%	Cumulative %	Minimum %	Maximum %
1 service	225	10.30	10.30	9.96	9.96	0.00	21.54
2 services	125	5.72	16.03	6.31	16.27	0.00	18.00
3 services	112	5.13	21.15	5.29	21.56	0.00	21.43
4 services	111	5.08	26.24	4.59	26.15	0.00	33.33
5 - 15 services	629	28.80	55.04	28.93	55.08	15.91	40.98
> 15 services	982	44.96	100.00	44.92	100.00	21.05	65.91

Prepared by APS Healthcare / CAEQRO

Source: Short-Doyle/Medi-Cal approved claims as of 11/22/2013; Inpatient Consolidation approved claims as of 12/26/2013

Note: Number of services is counted by days for any 24 hours and day services, and by visits or encounters for any outpatient services

SD/MC Claims Processing Summary

The following table provides a summary of the MHP's SD/MC claims processed for services claimed during FY12-13. The data presents claims processed by the State as of November 2013 and may not yet include all original or replacement claim transactions for FY12-13. To meet timely processing rules, MHPs have 12 months from the service month to submit original claim transactions and 15 months from the service month to submit replacement claim transactions.

Figure D-1. Monthly Summary of SD/MC Claims – FY12-13
Claims Processed as of November 2013

Service Month	Gross Dollars Billed by MHP	Denied Dollars	Denial Rate	Number Denied Claims	Claims Adjudicated	Claim Adjustments	Approved Dollars	Percent Approved	Number Approved Claims	Replaced Claim Dollars	Number Replaced Claims
JUL12	$6,995,534	$378,451	5.4%	1,436	$6,617,083	$1,356,295	$5,260,788	79.5%	27,610	$2,482	13
AUG12	$6,995,716	$347,838	5.0%	1,171	$6,647,878	$1,383,647	$5,264,230	79.2%	26,903	$48,014	169
SEP12	$7,337,755	$351,033	4.8%	1,272	$6,986,722	$1,496,066	$5,490,657	78.6%	28,796	$12,924	51
OCT12	$8,486,481	$404,660	4.8%	1,445	$8,081,821	$1,674,238	$6,407,583	79.3%	34,502	$0	0
NOV12	$7,348,422	$361,213	4.9%	1,209	$6,987,209	$1,415,311	$5,571,898	79.7%	29,690	$0	0
DEC12	$6,470,841	$340,481	5.3%	1,245	$6,130,360	$1,206,677	$4,923,683	80.3%	26,065	$0	0
JAN13	$7,683,754	$327,058	4.3%	1,380	$7,356,696	$1,455,154	$5,901,542	80.2%	32,193	$0	0
FEB13	$7,212,007	$342,967	4.8%	1,455	$6,869,040	$1,414,239	$5,454,800	79.4%	30,193	$0	0
MAR13	$8,366,476	$337,154	4.0%	1,473	$8,029,322	$1,649,156	$6,380,167	79.5%	33,634	$0	0
APR13	$8,165,343	$284,834	3.5%	1,199	$7,880,509	$1,615,975	$6,264,534	79.5%	33,953	$0	0
MAY13	$8,565,985	$350,943	4.1%	1,422	$8,215,042	$1,693,554	$6,521,488	79.4%	35,876	$0	0
JUN13	$6,539,279	$231,180	3.5%	927	$6,308,099	$1,299,969	$5,008,130	79.4%	26,348	$0	0
FY12-13	**$90,167,595**	**$4,057,813**	**4.5%**	**15,634**	**$86,109,782**	**$17,660,281**	**$68,449,501**	**79.5%**	**365,763**	**$63,420**	**233**
Statewide	**$2,567,475,896**	**$104,321,260**	**4.1%**	**425,147**	**$2,463,154,636**	**$129,763,039**	**$2,333,391,598**	**94.7%**	**11,907,471**	**$240,828**	**789**

DENIED CLAIMS

The following tables provide a summary of SD/MC denied claims processed during FY12-13. The data presents claims processed by the State as of November 2013 and may not yet include all original or replacement claim transactions for FY12-13. MHPs have 15 months from the service month for replacement claim transactions to correct and convert denied claims to approved claims.

Figure D-2. Denied Claims by Reason – Statewide Top 10 (FY12-13)
Claims Processed as of November 2013

Denial Code Description	Denial Code	Number Claims	Gross Dollars Denied	Percent Denied
Other health coverage must be billed before the submission of this claim.	CO 22	86,004	$18,657,343	17.9%
Medicare must be billed prior to the submission of this claim.	CO 22 N192	85,464	$18,505,933	17.7%
Beneficiary not eligible. Aid code invalid for DHCS.	CO 177,CO 31	39,732	$9,196,747	8.8%
Emergency Services Indicator must be "Y" or Pregnancy Indicator must be "Y" for this aid code.	CO 204 N30	28,935	$6,313,852	6.1%
Service line is a duplicate and a repeat service procedure modifier is not present.	CO 18 M86	35,150	$5,496,524	5.3%
Invalid procedure code and modifier combination. Service Facility Location provider NPI is not eligible to provide this service.	CO 109 M51,CO B7 N65	22,839	$5,448,775	5.2%
Aid code invalid for DHCS.	CO 31	15,721	$4,713,495	4.5%
Beneficiary not eligible. TBS valid only with Full Scope Aid Code and an EPSDT Aid Code. Aid code invalid for DHCS.	CO 177,CO 204,CO 31	22,762	$4,551,006	4.4%
Service Facility Location provider NPI is not eligible to provide this service within the submitting county.	CO B7	15,411	$3,855,122	3.7%
Only SED services are valid for Healthy Families aid code.	CO 185	16,441	$3,566,065	3.4%

Figure D-3. Denied Claims by Reason – MHP Top 5 (FY12-13)
Claims Processed as of November 2013

Denial Code Description	Denial Code	Number Claims	Gross Dollars Denied	Percent Denied
Medicare must be billed prior to the submission of this inpatient claim.	CO 22 N192	4,147	$1,239,187	30.5%
Emergency Services Indicator must be "Y" or Pregnancy Indicator must be "Y" for this aid code.	CO 204 N30	3,166	$715,378	17.6%
Other health coverage must be billed before the submission of this claim.	CO 22	2,862	$652,407	16.1%
Aid code invalid for DHCS.	CO 31	2,251	$605,113	14.9%
Therapeutic Behavioral Service valid only with a Full Scope Aid Code and an EPSDT Aid Code. Aid code invalid for DHCS.	CO 204,CO 31	1,040	$254,173	6.3%

RETENTION RATES

Figure D-4. Retention Rates
MHP CY09-CY12 and Statewide CY12

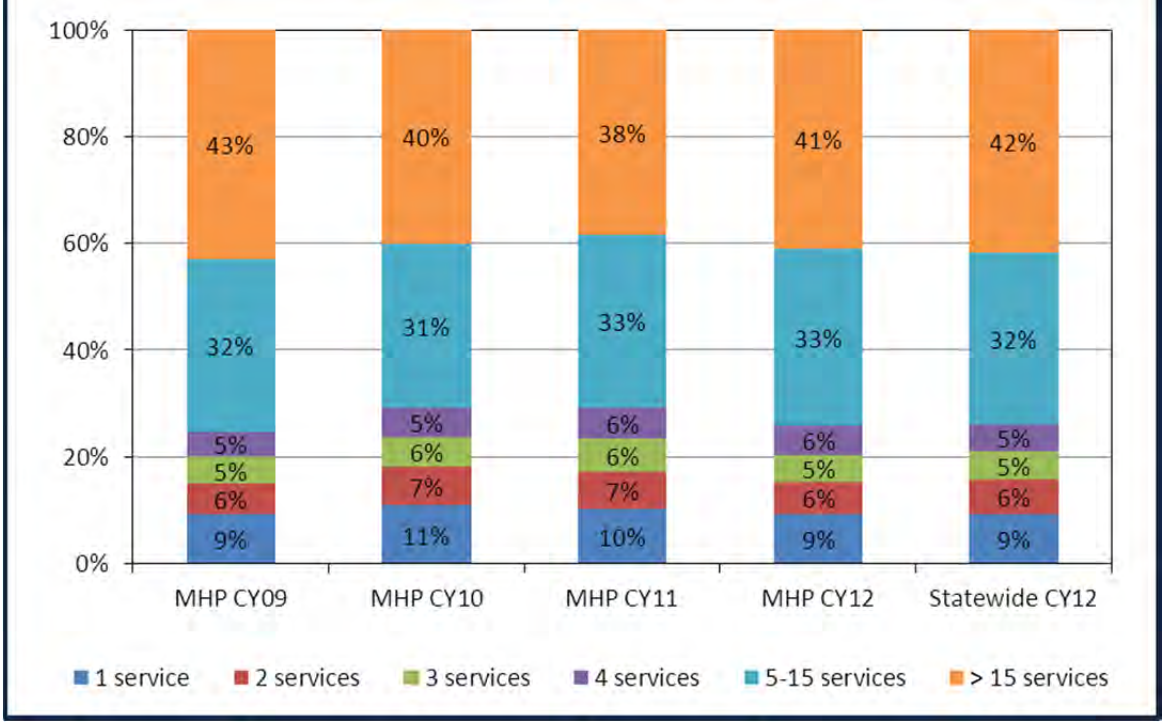


Figure D-5. CY12 Retention Rates with Average Approved Claims per Category

Number of Services Approved per Beneficiary Served	MHP Number of beneficiaries served	MHP $ per beneficiary served	Statewide $ per beneficiary served
1 service	1,182	$376	$338
2 services	793	$504	$520
3 services	646	$638	$675
4 services	717	$718	$815
5 – 15 services	4,257	$1,554	$1,672
> 15 services	5,282	$11,828	$10,637

SERVICE TYPE BY ETHNICITY - STATEWIDE

The following stacked bar charts show the average claims by service modality and ethnicity. It should be noted that these elements are not additive (i.e., the height of the bar has no meaning), and the main use for comparison is the differential use of particular services across various ethnicities. The blue diamond shows the average approved claims by ethnicity for all service modalities. Again, there is no direct relationship between the height of the bar (claims per service modality) and the average claims for that ethnicity.

Figure D-6. Statewide Approved Claims per Beneficiary CY12 - Race/Ethnicity by Service Type

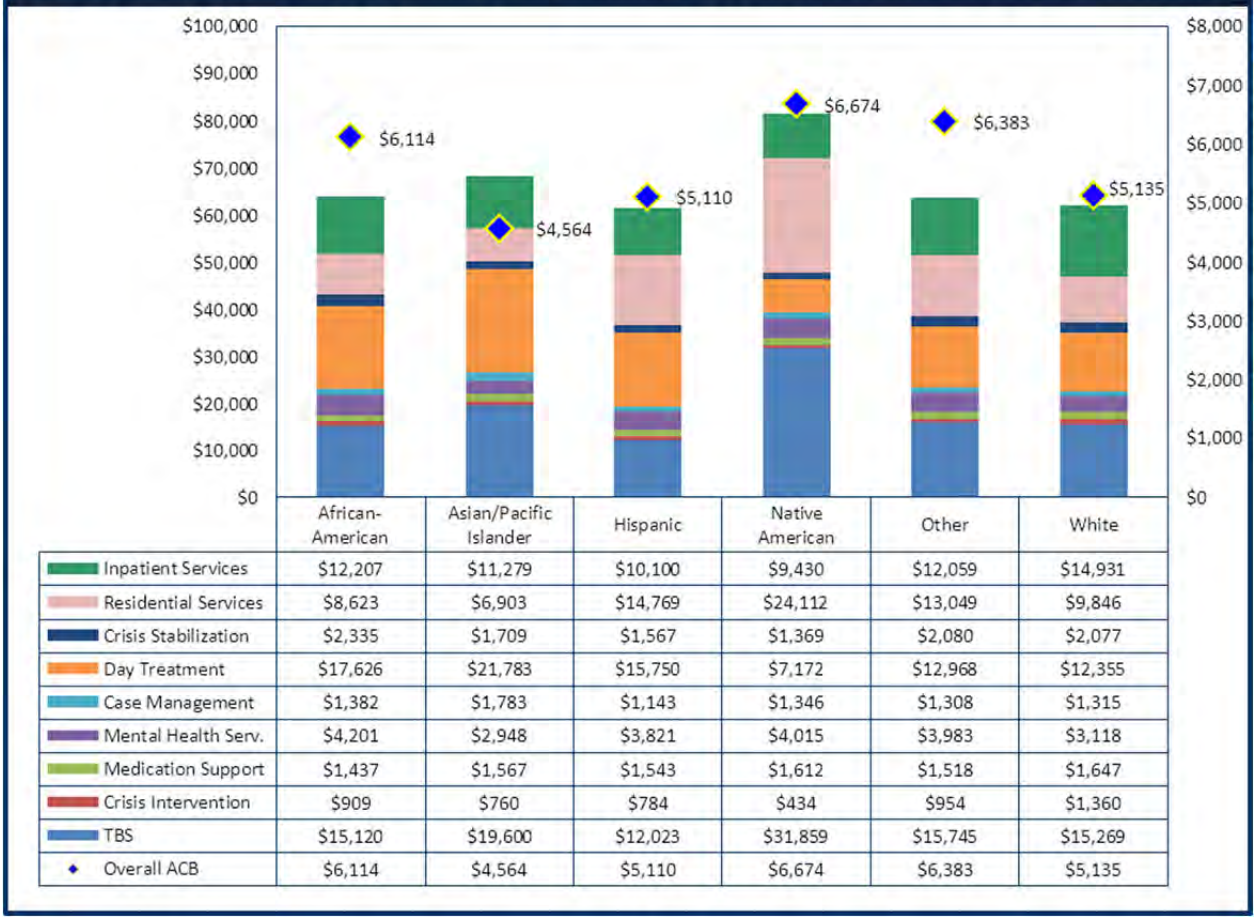
	African-American	Asian/Pacific Islander	Hispanic	Native American	Other	White
Inpatient Services	$8,795	$9,603	$6,433	$8,523	$9,151	$7,497
Residential Services	$7,524	$8,976	$8,355	$7,783	$8,450	$7,349
Crisis Stabilization	$2,108	$2,115	$1,602	$2,299	$2,169	$1,986
Day Treatment	$13,033	$12,263	$11,646	$11,585	$12,640	$11,868
Case Management	$879	$886	$806	$1,098	$992	$973
Mental Health Serv.	$3,440	$2,671	$3,648	$3,531	$3,369	$3,466
Medication Support	$1,216	$1,153	$1,309	$1,482	$1,336	$1,435
Crisis Intervention	$1,067	$1,019	$1,069	$820	$1,029	$1,035
TBS	$11,600	$13,315	$11,435	$10,861	$12,473	$12,823
Overall ACB	$5,318	$4,089	$4,913	$5,548	$5,650	$5,245

Note: The left axis refers to the columns, and the right refers to the diamonds (overall ACB for each category)

Figure D-7. Statewide Number of Beneficiaries Served CY12 - Race/Ethnicity by Service Type						
	African-American	Asian/Pacific Islander	Hispanic	Native American	Other	White
All	73,641	28,112	164,001	3,299	44,391	156,207
Inpatient Services	6,324	1,713	10,405	293	4,274	12,891
Residential Services	871	221	691	47	831	2,370
Crisis Stabilization	6,991	1,412	7,700	265	3,709	10,543
Day Treatment	1,304	185	1,301	43	594	1,740
Case Management	31,017	11,332	64,914	1,497	19,193	63,856
Mental Health Serv.	58,075	21,451	143,412	2,650	34,236	123,718
Medication Support	39,280	17,653	63,114	1,621	26,677	85,861
Crisis Intervention	7,547	1,731	13,210	451	4,839	19,288
TBS	1,229	121	2,792	55	798	2,795

SERVICE TYPE BY ETHNICITY - MHP

Figure D-8. MHP Approved Claims per Beneficiary CY12 - Race/Ethnicity by Service Type



	African-American	Asian/Pacific Islander	Hispanic	Native American	Other	White
Inpatient Services	$12,207	$11,279	$10,100	$9,430	$12,059	$14,931
Residential Services	$8,623	$6,903	$14,769	$24,112	$13,049	$9,846
Crisis Stabilization	$2,335	$1,709	$1,567	$1,369	$2,080	$2,077
Day Treatment	$17,626	$21,783	$15,750	$7,172	$12,968	$12,355
Case Management	$1,382	$1,783	$1,143	$1,346	$1,308	$1,315
Mental Health Serv.	$4,201	$2,948	$3,821	$4,015	$3,983	$3,118
Medication Support	$1,437	$1,567	$1,543	$1,612	$1,518	$1,647
Crisis Intervention	$909	$760	$784	$434	$954	$1,360
TBS	$15,120	$19,600	$12,023	$31,859	$15,745	$15,269
Overall ACB	$6,114	$4,564	$5,110	$6,674	$6,383	$5,135

Note: The left axis refers to the columns, and the right refers to the diamonds (overall ACB for each category)

Figure D-9. MHP Number of Beneficiaries Served CY12 - Race/Ethnicity by Service Type

	African-American	Asian/Pacific Islander	Hispanic	Native American	Other	White
All	3,452	737	2,949	90	1,374	4,275
Inpatient Services	206	39	113	8	96	199
Residential Services	55	15	16	n<5	35	68
Crisis Stabilization	560	98	315	20	243	728
Day Treatment	68	n<5	37	n<5	34	81
Case Management	982	218	832	26	372	985
Mental Health Serv.	2,508	441	2,470	62	920	2,854
Medication Support	1,793	499	1,032	53	837	2,698
Crisis Intervention	158	25	98	5	50	160
TBS	73	5	39	n<5	36	72

HIGH COST BENEFICIARIES

Figure D-10. Statewide High-Cost Beneficiaries CY12

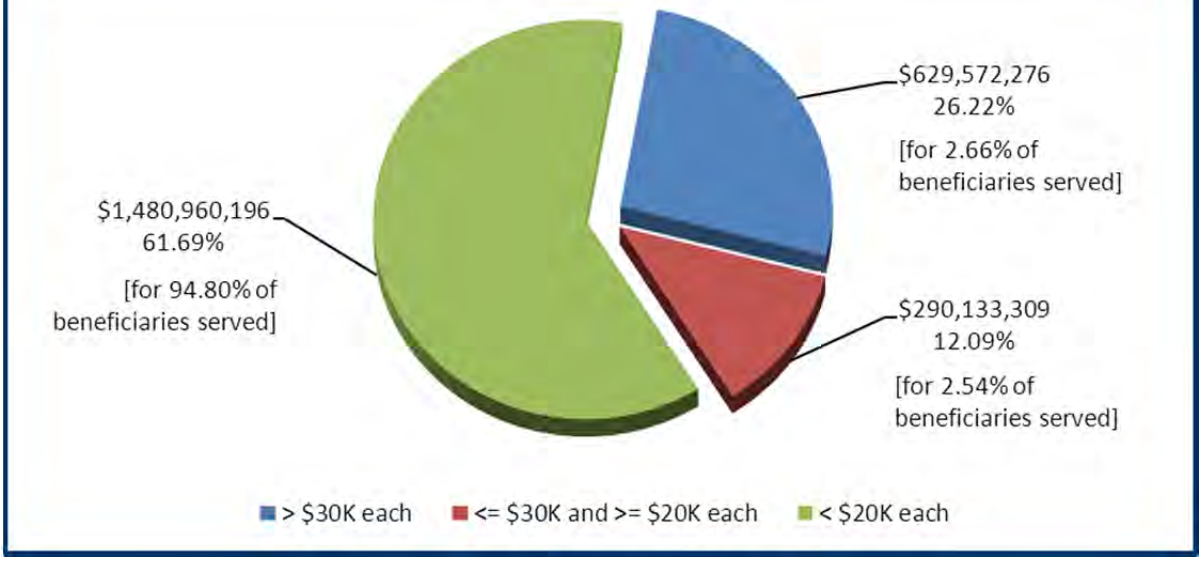
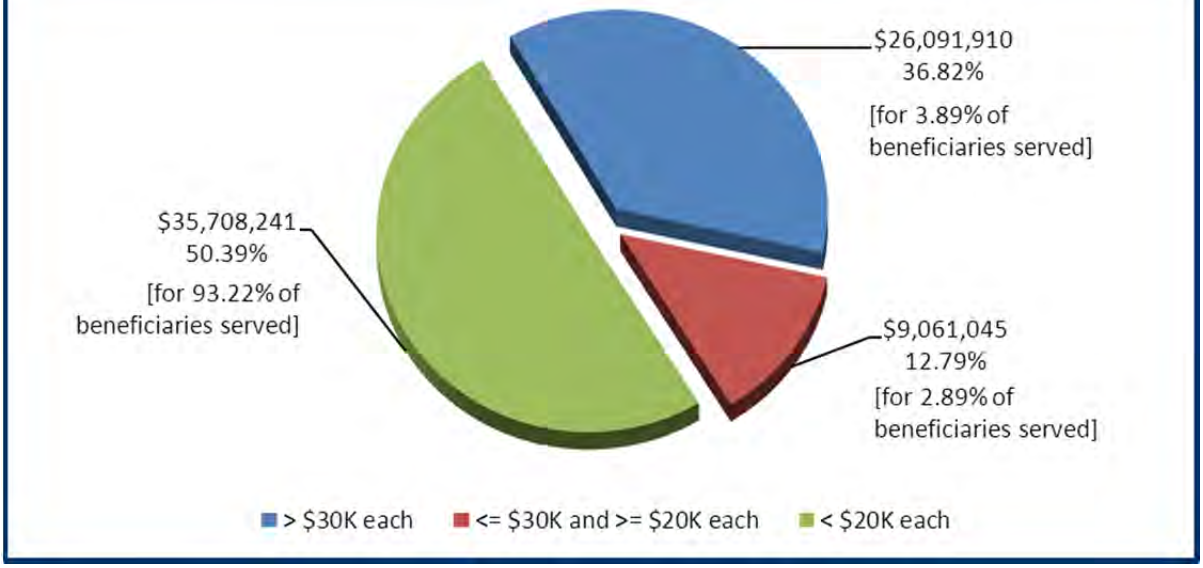


Figure D-11. MHP High-Cost Beneficiaries CY12



EXAMINATION OF DISPARITIES

Statewide disparities remain for Hispanic and female beneficiaries:

- Approved claims for Hispanic beneficiaries are now at parity with White beneficiaries. While the relative penetration rate disparity has decreased significantly, due to both a decrease in White penetration rate and an increase in Hispanic penetration rate, there remains a continued notable disparity in access.
- The relative access and the average approved claims for female beneficiaries are lower than for males. These disparities have remained relatively stable over the last five years.

For each variable (Hispanic/White and female/male), two ratios are calculated to depict relative access and relative approved claims. The first figure compares approved claims data and penetration rates between Hispanic and White beneficiaries. This penetration rate ratio is calculated by dividing the Hispanic penetration rate by the White penetration rate, resulting in a ratio that depicts the relative access for Hispanics when compared to Whites. The approved claims ratio is calculated by dividing the average approved claims for Hispanics by the average approved claims for Whites. Similar calculations follow in the second figure for female to male beneficiaries.

For all elements, ratios depict the following:

- 1.0 = parity between the two elements compared
- Less than 1.0 = disparity for Hispanics or females
- Greater than 1.0 = no disparity for Hispanics or females. A ratio of greater than one indicates higher penetration or approved claims for Hispanics when compared to Whites or for females when compared to males.

Figure D-12. Examination of Disparities—Hispanic versus White								
Calendar Year	Number of Beneficiaries Served & Penetration Rate per Year				Approved Claims per Beneficiary Served per Year		Ratio of Hispanic versus White for	
	Hispanic		White		Hispanic	White	PR Ratio	Approved Claims Ratio
	# Served	PR %	# Served	PR %				
Statewide CY12	164,001	3.81%	156,207	10.14%	$4,913	$5,245	.38	.94
MHP CY12	2,949	4.97%	4,275	14.09%	$5,110	$5,135	.35	1.00
MHP CY11	2,886	4.93%	4,214	13.96%	$4,781	$4,573	.35	1.05
MHP CY10	2,629	4.75%	4,140	14.55%	$5,141	$5,054	.33	1.02
MHP CY09	2,303	4.36%	4,036	14.33%	$5,530	$5,669	.30	.98

Figure D-13. Examination of Disparities—Female versus Male								
Calendar Year	Number of Beneficiaries Served & Penetration Rate per Year				Approved Claims per Beneficiary Served per Year		Ratio of Female versus Male for	
	Female		Male		Female	Male	PR Ratio	Approved Claims Ratio
	# Served	PR %	# Served	PR %				
Statewide CY12	237,195	5.31%	232,456	6.66%	$4,593	$5,640	.80	.81
MHP CY12	7,165	8.27%	5,712	8.80%	$4,612	$6,621	.94	.70
MHP CY11	6,674	7.84%	5,529	8.69%	$4,310	$6,270	.90	.69
MHP CY10	6,610	8.28%	5,346	8.99%	$4,416	$7,169	.92	.62
MHP CY09	6,522	8.41%	5,133	9.00%	$4,908	$7,840	.93	.63

ELIGIBLES VERSUS BENEFICIARIES SERVED - FOSTER CARE

Figure D-14. MHP Medi-Cal Average Monthly Unduplicated Eligibles, by Race/Ethnicity - Foster Care CY12

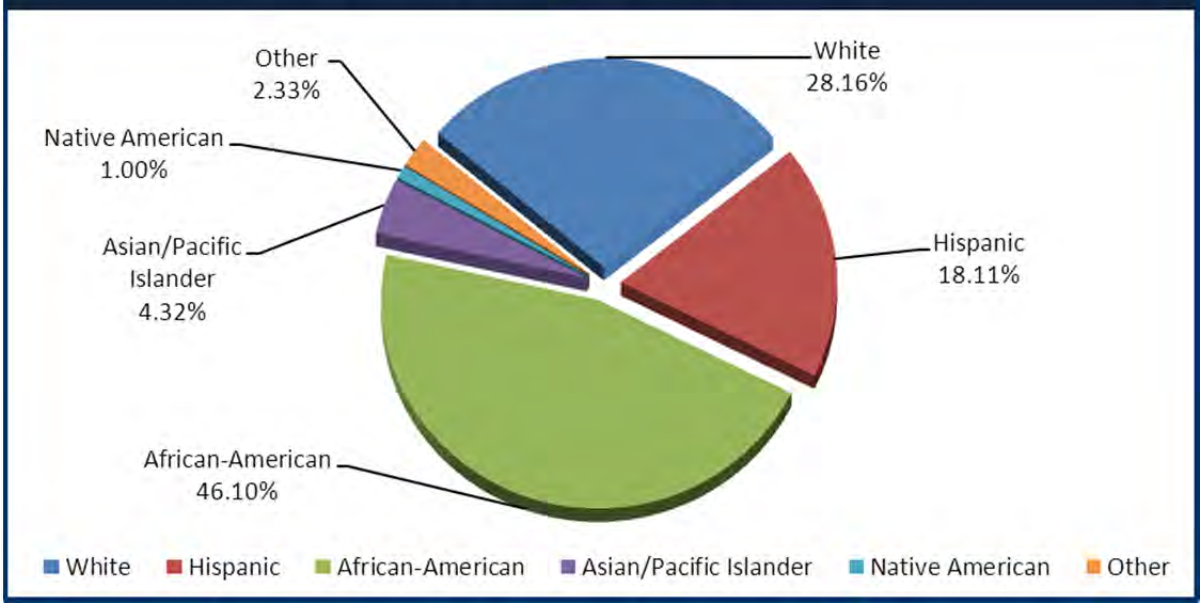
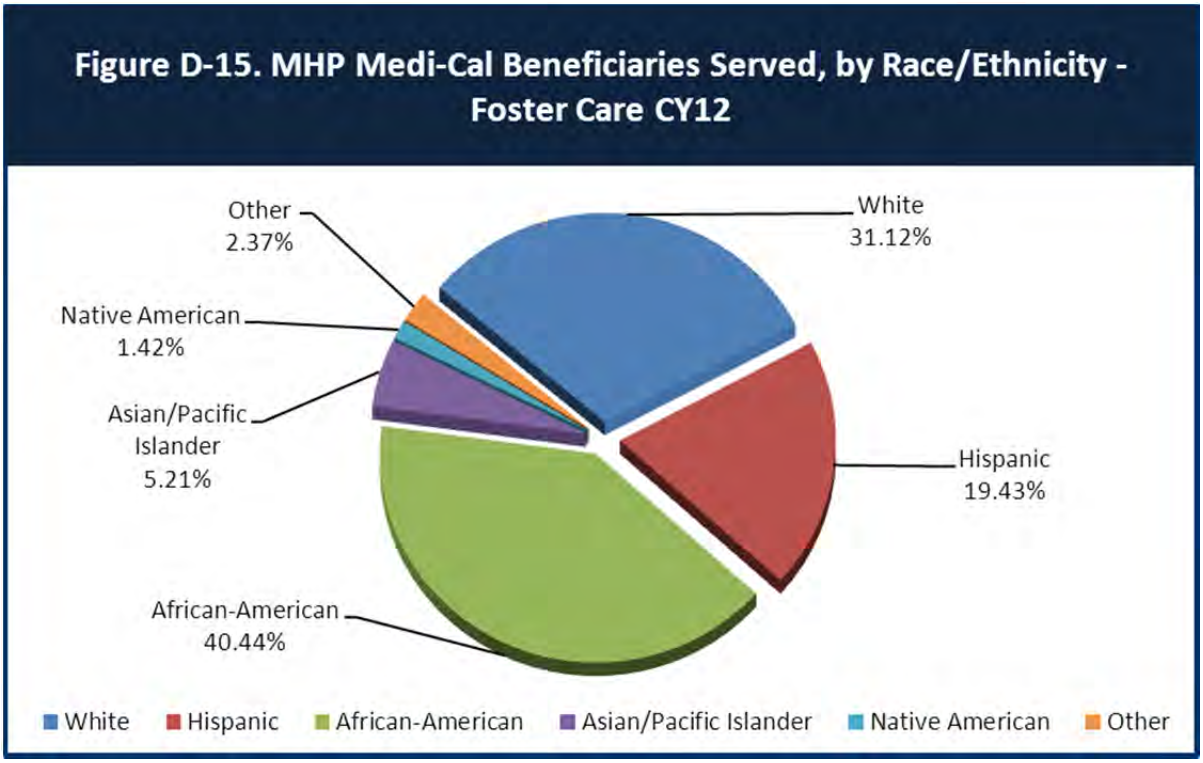


Figure D-15. MHP Medi-Cal Beneficiaries Served, by Race/Ethnicity - Foster Care CY12



ELIGIBLES VERSUS BENEFICIARIES SERVED - TRANSITION AGE YOUTH

Figure D-16. MHP Medi-Cal Average Monthly Unduplicated Eligibles, by Race/Ethnicity - Transition Age Youth CY12

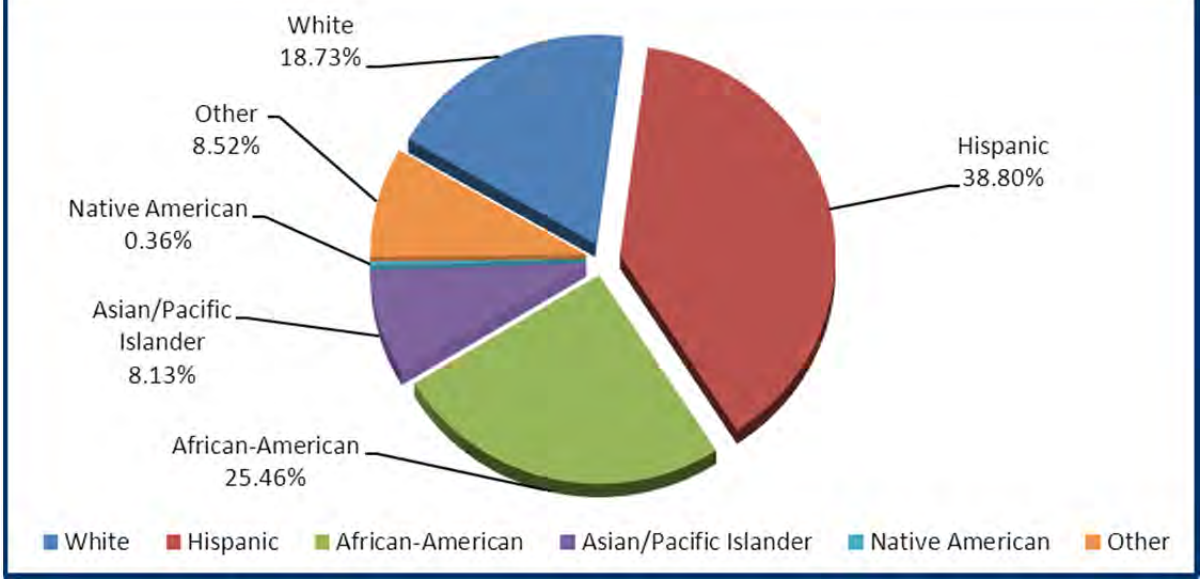
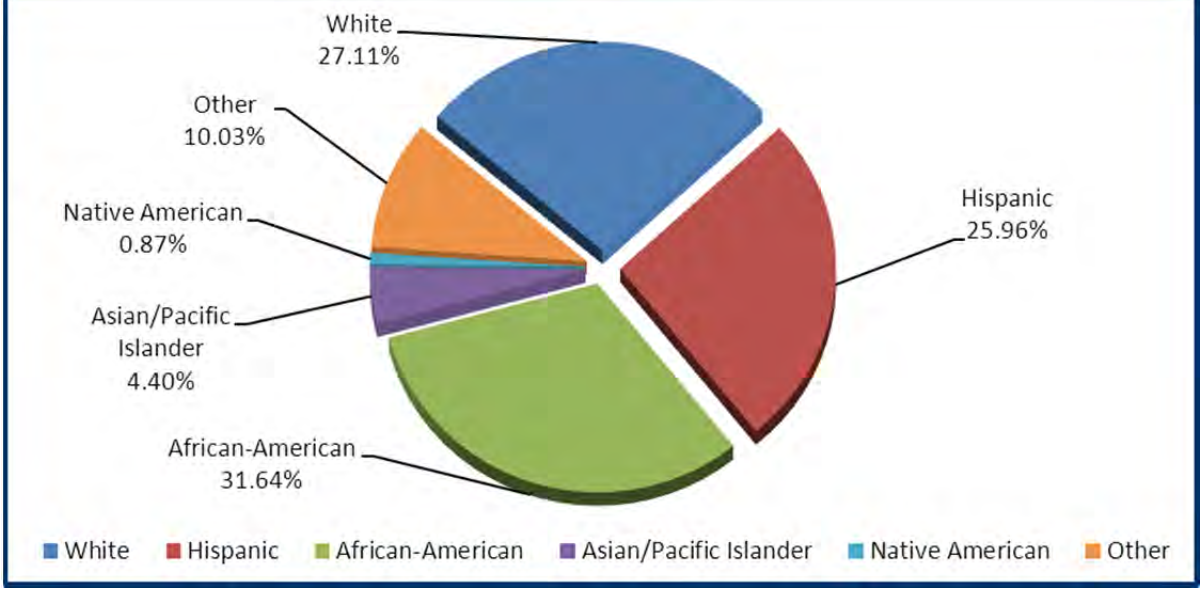


Figure D-17. MHP Medi-Cal Beneficiaries Served, by Race/Ethnicity - Transition Age Youth CY12



E. Attachment—PIP Validation Tool

FY13-14 Review of: Contra Costa ☒ Clinical ☐ Non-Clinical

PIP Title: Improving Coordination of Care for High Utilization Clients

Date PIP Began: Feb 2012

PIP Category: ☐Access ☐Timeliness ☒Quality ☐Outcomes ☐Other

Descriptive Category: Improved diagnosis or treatment processes

Target Population: other age group: children

Step		Rating				Comments/Recommendations
		Met	Partial	Not Met	N/A	
1	**Study topic** *The study topic:* poor coordination of care/info sharing for high cost consumers, the bulk of whose services are often at contractors					
1.1	Focuses on an identified problem that reflects high volume, high risk conditions, or underserved populations	X				High volume of services to small number of clients: in 2010, 4.1% of clients accounted for 40% of total cost of services in the CCMHP. Several factors might contribute to higher cost/inefficient use of resources in providing services, including a possible lack of coordination in care, treatment plans with varying goals, issues with transitions to other possible treatment modalities/a deficit in info sharing.
1.2	Was selected following data collection and analysis of data that supports the identified problem	X				Clients' record of service utilization, lists of service providers used by clients, costs associated with the services being provided, and clients' CALOCUS scores. During 2013, review of findings led to adjustment in problem definition to focus on clients using large number of services close to review date in order to maximize the benefit clients received from increased care coordination.
1.3	Addresses key aspects of care and services	X				Coordination of care, communication between providers
1.4	Includes all eligible populations that meet the	X				Study criteria do not exclude based on special

Step		Rating				Comments/Recommendations
		Met	Partial	Not Met	N/A	
	study criteria, and does not exclude consumers with special needs					needs. Criteria include: clients whose CALOCUS score does not correspond with the amount of costs accrued, clients who accrued very high costs through the use of contract providers and received very few services through county providers, clients who are receiving long duration services that appears to lack justification given the treatment goal.
1.5	Has the potential to improve consumer mental health outcomes, functional status, satisfaction, or related processes of care designed to improve same	**X**				Can improve process of care through selective case coordination and improve match to appropriate level of care through enhanced UR
	Totals for Step 1:	**5**	**0**	**0**	**0**	
2	**Study Question Definition** *The written study question:* Does the introduction of a "Care Coordinator" and an increased frequency of UR review for clients who are receiving uncoordinated care, duplicated services, or an unnecessary level of service intensity facilitate more efficient use of services in the system of care?					
2.1	Identifies the problem targeted for improvement	X				Uncoordinated care, duplicated services, unnecessary level of service intensity
2.2	Includes the specific population to be addressed	**X**				Final population in study is small. Expected half the identified clients to be referred for case coordination intervention; 30% were referred (21 out of 69 clients). Additional adjustments to study design reduced number of clients for post-intervention first measurement period to 15 clients (22%). In 2013, plan to include adults did not happen due to staffing constraints and logistical issues in arranging care coordination. Selection criteria further defined. Total of 51 cases met criteria in 2013 when a full 3-month period post review was required for inclusion. Yielded 15 clients for care coordination and 36 clients not referred. Plan to measure 1, 3, 6, and 12 months post-

Step		Rating				Comments/Recommendations
		Met	**Partial**	**Not Met**	**N/A**	
						intervention.
2.3	Includes a general approach to interventions	**X**				Study identifies clients meeting established criteria for inclusion, identifies pre and post – intervention periods of measure, and then examines measures using statistical tools to establish significance. Differences in measures across clients in the pre and post intervention periods are analyzed, with adjustments made to study design as indicated. No changes to intervention.
2.4	Is answerable/demonstrable	**X**				Application of Q and CC tool labor-intensive, this measure not available as readily as expected
2.5	Is within the MHP's scope of influence	**X**				Addition of providers and family representatives to committee may enhance scope of influence
Totals for Step 2:		**5**	**0**	**0**	**0**	
3	Clearly Defined Study Indicators *The study indicators:* • Quality and Coordination of Care (Q and CC) score from UR • Total number of days with greater than 5 hours of service in a single day (revised 2013) • Number of weeks with greater than 8 hours of services provided (revised 2013) • Number of services provided during the 3 month time period after the review (added 2013 • Total cost of services provided during the 3 month time period after the (added 2013)					

Step		Rating				Comments/Recommendations
		Met	Partial	Not Met	N/A	
3.1	Are clearly defined, objective, and measurable	X				Indicators were adjusted and additional indicators were added in 2013 to reflect characteristics of delivery system and logic of study design (e.g.: eliminated post-intervention 1-month measure as inadequate time for intervention to transpire) and to reflect available data and staff time available for review. Definitions for some indicators (e.g.: efficient) are vague and implied by choice of indicator/desired outcome.
3.2	Are designed to answer the study question	X				Indicators were revised and supplemented in 2013. The study question definitions would benefit from supporting definitions for uncoordinated care, duplicated services, unnecessary level of service, efficient use of SOC.
3.3	Are identified to measure changes designed to improve consumer mental health outcomes, functional status, satisfaction, or related processes of care designed to improve same	X				Indicators collectively assess the clients' need for and response to the introduction of a care coordinator and also characterize utilization and costs of services
3.4	Have accessible data that can be collected for each indicator	X				Barriers identified as related to lack of coordination and duplication of services, such as multiple providers with separate medical records, also challenged identification of clients for study groups and initiation of interventions, including collection of multiple charts for each client, review of charts/ use of tools, initiation of care coordination Initial study focused on high-utilizer children, with plan to expand to adults in 2013; this was not possible. Necessary to continue with same focus on children due to extensive use of contract agencies among children and resources required for review and care coordination services.

Step		Rating				Comments/Recommendations
		Met	Partial	Not Met	N/A	
3.5	Utilize existing baseline data that demonstrate the current status for each indicator	X				All indicators are fully delineated
3.6	Identify relevant benchmarks for each indicator		X			MHP describes internal information that was reviewed in identifying the problem but does not identify benchmarks. Goals were set based on baseline measures.
3.7	Identify a specific, measurable goal(s) for each indicator	X				Increases and decreases by numerical thresholds established
Totals for Step 3:		**5**	**2**	**0**	**0**	
4	Correctly Identified Study Population *The method for identifying the study population:* Selection criteria is a combination of data from information system and then, using chart review, to consider benefit of case coordinator and assignment to study population/enhanced UR: • client under age 19 • total cost accumulation during the past 12 months of > $30,000 • number of service providers open to the client over the past 12 months • number of county and non-county service providers open to the client during the past 12 months • CALOCUS score for the client • number of excessively long services • Quality and Coordination of Care (Q and CC) score calculated from the UR review					
4.1	Is accurately and completely defined	X				Study remained focused on clients under age 19 for administrative reasons, not extending to adults as was planned. Study question would have benefitted from greater definition/specification; the indicators dictate the definitions rather than being determined by the question.
4.2	Included a data collection approach that captures all consumers for whom the study question applies	X				Child consumers receiving uncoordinated, duplicated and/or redundant care (screening out those evaluated as receiving appropriate/non-redundant care). Relies on reviewer determination for assignment to study group and to care coordination.
Totals for Step 4:		**2**	**0**	**0**	**0**	

Step		Rating				Comments/Recommendations
		Met	Partial	Not Met	N/A	
5	Use of Valid Sampling Techniques *The sampling techniques:* 10% of child consumers who have accrued over $30,000 for enrollment in the intervention					
5.1	Consider the true or estimated frequency of occurrence in the population	X				Frequency of occurrence in the population was considered; size of population meeting selection criteria for intervention was overestimated. Some factors not considered, such as changes in staff completing chart reviews/ Q and CC worksheet, caused concern regarding timeliness of scoring and reliability of scores.
5.2	Identify the sample size	X				Initially 30 children from 60 (total) anticipated. After consideration of study design (time needed for intervention to occur) and staffing limitations, 15 children who were referred for intervention had pre and post-intervention services of adequate duration and could be included in study group for pre/post comparison (was there a confirmation following referral that case coordination occurred?)
5.3	Specify the confidence interval to be used	X				Included in post-implementation analysis
5.4	Specify the acceptable margin of error	X				Included in post-implementation analysis
5.5	Ensure a representative and unbiased sample of the eligible population that allows for generalization of the results to the study population	X				MHP reported that sample was selected without bias, attempting to review a set of cases that represent the demographic diversity of the county. Did not exclude cases due to ethnicity, gender, location. Assessed list of clients for review to ensure bias not arising. .
Totals for Step 5:		**5**	**0**	**0**	**0**	
6	**Accurate/Complete Data Collection** ***The data techniques:***					
6.1	Identify the data elements to be collected	X				Q and CC worksheet, service and client-level utilization and finance/cost data

Step		Rating				Comments/Recommendations
		Met	Partial	Not Met	N/A	
6.2	Specify the sources of data	X				Q and CC data will be obtained from the UR team's pre- and post-intervention reviews. Data on duration of services per day/number of hours of service per month will be collected from PSP system. Reliability of measures using tool may be a concern due to staff changes.
6.3	Outline a defined and systematic process that consistently and accurately collects baseline and remeasurement data	X				Once inclusion in the study was determined, the MHP collected utilization and cost data for both UR-only individuals and for individuals who received the UR intervention and also the care coordinator intervention. For the individuals assigned to the care coordinator intervention, a Q and CC pre-intervention measure was also collected but the 3-month post intervention measure was not reported; unclear if yet collected. This was attributed to changes in the staff completing the tool and to changes in clinician documentation practices. This brings into question the reliability of the tool. Methodology for baseline utilization and cost comparison measure is a variable/ moving time period of 12 months. The measures for the care coordination/ enhanced UR group and the UR-only group are specified as immediately before intervention and at 3 months following intervention. Presumably, for both groups, the enhanced UR intervention continues at 3-month intervals for 12 months post intervention.

Step		Rating				Comments/Recommendations
		Met	Partial	Not Met	N/A	
6.4	Provides a timeline for the collection of baseline and remeasurement data	X				The baseline is determined by examining utilization over a 12-month period and CALOCUS score to identify potential study population. Remeasurement is 3 months post-intervention. Not clear if there are gaps in time between the end of the 12-month period used to identify clients and the actual activity to assign clients for care coordination and/or enhanced review. Not clear when the 3-month post-intervention period starts and the 3-month post intervention measure is determined- is it consistent across clients?
6.5	Identify qualified personnel to collect the data	X				
Totals for Step 6:		**5**	**0**	**0**	**0**	
7	**Appropriate Intervention and Improvement Strategies** ***The planned/implemented intervention(s) for improvement:*** **care coordinator, enhanced UR at pre-set intervals for all PIP cases (1,**					
7.1	Are related to causes/barriers identified through data analyses and QI processes	X				Care coordinator intervention needs to be broken down into smaller units of activities for better measurement, ability to replicate, assessment, understanding. The consistency of the time involved in assignment to study group, provision of care coordination services and remeasure is unclear. The actual time over which services were rendered and the intensity of the care coordination services could be highly variable.
7.2	Have the potential to be applied system wide to induce significant change	X				Enhanced UR refers to existing level 3 UR review at Central admin. This could be applied system wide. The change to selection for UR chart review by client instead of by site expanded the time needed to collect the charts as some clients were served multiple sites.

Step		Rating				Comments/Recommendations
		Met	Partial	Not Met	N/A	
7.3	Are tied to a contingency plan for revision if the original intervention(s) is not successful	X				The care coordination role/duties were changed in 2012. In 2013, several modifications were made in response to issues encountered during implementation of study: • Shifted from selecting the top 10% of clients, by cost, and focused on the clients that were accruing a large number of services in a time frame closer to the review date • UR staff had capacity to review charts for children only and only one Care Coordinator was available to manage the intervention. Therefore, adult consumers were not included in the 2013 review process • Eliminated the 1-month post-intervention measure as it was too early for interventions to have been adequately implemented • The service indicators were adjusted to reflect measurement in terms of weeks instead of months as there was only 3 months of post-review data to be analyzed by the end of 2013 • 2 additional indicators were added to examine the impact of enhanced UR in decreasing volume and cost of potentially duplicative/redundant services provided • The Q and CC score post intervention is being reconsidered and data has not been analyzed. • Contract children's provider representation and family representation was added to the committee

Step		Rating				Comments/Recommendations
		Met	Partial	Not Met	N/A	
7.4	Are standardized and monitored when an intervention is successful	X				MHP intends to examine an additional 3 months of data extending into 2014. This will provide information to see if improvement is sustained over time. MHP intends to continue intervention of enhanced review and care coordination. May consider adding formal position to deliver care coordination as cost reduction was significant. The MHP notes that the CANS has been implemented and that this could provide outcomes information to pair with Q and CC scoring.
Totals for Step 7:		**4**	**0**	**0**	**0**	
8	**Analyses of Data and Interpretation of Study Results** ***The data analyses and study results:***					
8.1	Are conducted according to the data analyses plan in the study design	X				Q and CC pre and post measures pending; analysis conducted as planned
8.2	Identify factors that may threaten internal or external validity	X				MHP recognized limitations: • internal validity: absence of matched control group • external validity: applicability limited due to small sample size, age restriction to under 19, selectivity in identifying sample to receive interventions
8.3	Are presented in an accurate, clear, and easily understood fashion	X				Results for each performance indicator are presented in table format; presentation of statistical findings, while using a commonly accepted format, might be more useful for discussion if presented as a table.

Step		Rating				Comments/Recommendations
		Met	Partial	Not Met	N/A	
8.4	Identify initial measurement and remeasurement of study indicators	X				There is consistency in use of tools across measurement periods and across indicators. Modifications to original plan are explained and enhance implementation of study and understanding of findings.
8.5	Identify statistical differences between initial measurement and remeasurement	X				Findings are reported using accepted statistical procedures to identify differences and significance in pre and post measures including use of t test.
8.6	Include the interpretation of findings and the extent to which the study was successful	X				Methodical discussion of findings, supported by statistical analysis. Success is interpreted in terms of the usefulness of interventions in improving services and controlling for factors related to utilization of services.
Totals for Step 8:		**6**	**0**	**0**	**0**	
9	**Improvement Achieved** ***There is evidence for true improvement based on:***					
9.1	A consistent baseline and remeasurement methodology	X				Timelines identified for measure and remeasure periods with consideration for time to implement interventions
9.2	Documented quantitative improvement in processes or outcomes of care	X				Tools used to quantify both utilization patterns of and clinical status of clients
9.3	Improvement appearing to be the result of the planned interventions(s)	X				MHP recognizes limitations in assigning causation that are imposed by the selection criteria for inclusion in study and by the small sample size
9.4	Statistical evidence for improvement	X				Statistical testing for difference pre and post and significance
Totals for Step 9:		**4**	**0**	**0**	**0**	
10	**Sustained Improvement Achieved** ***There is evidence for sustained improvement based on:***					

Step		Rating				Comments/Recommendations
		Met	Partial	Not Met	N/A	
	Repeated measurements over comparable time periods that demonstrate sustained improvement, or that any decline in improvement is not statistically significant			X		Measurements have not been repeated over time. While the MHP considers the study to be formally concluded, there are plans to examine an additional 3 months of data during first quarter 2014 and to continue interventions.
Totals for Step 10:		**0**	**0**	**1**	**0**	

FY13-14 Review of: Contra Costa ☐ Clinical ☒ Non-Clinical

PIP Title: Client Access Line and Linkage (CALL)

Date PIP Began: June 2013

Date PIP Completed

PIP Category: ☒Access ☐Timeliness ☐Quality ☐Outcomes ☐Other

Descriptive Category: Business process improvement

Target Population: All Population

Step		Rating				Comments/Recommendations
		Met	Partial	Not Met	N/A	
1	**Study topic** *The study topic:*					
1.1	Focuses on an identified problem that reflects high volume, high risk conditions, or underserved populations	X				High volume of calls that potentially includes high-risk conditions
1.2	Was selected following data collection and analysis of data that supports the identified problem	X				Data from call system of answer time and abandoned called, anecdotal reports of excessive wait time and consumer dissatisfaction
1.3	Addresses key aspects of care and services	X				Timely access to services
1.4	Includes all eligible populations that meet the study criteria, and does not exclude consumers with special needs		X			The PIP is intended to include all callers to Access Line. However, the "preliminary" data collection is for the > 92% of incoming callers speaking English. MHP intends for analysis to include English and Spanish-speaking callers. Language is only special need exclusion that is identified at the current stage of PIP development.
1.5	Has the potential to improve consumer mental health outcomes, functional status, satisfaction, or related processes of care designed to improve same	X				Prompt call response times can be reasonably associated with consumer satisfaction, access to timely services, prompt assessment of higher-risk conditions

Step		Rating				Comments/Recommendations
		Met	Partial	Not Met	N/A	
Totals for Step 1:		**4**	**1**	**0**	**0**	
2	**Study Question Definition** *The written study question:* Does increasing the number of clinical staff at Access Line and streamlining the duties of the staff at Access Line result in a reduction in the proportion of calls that are abandoned by beneficiaries and a reduction in the amount of time beneficiaries wait on hold to have their call answered?					
2.1	Identifies the problem targeted for improvement	**X**				Extended wait time Access Line calls are "on hold" with 22% of English-speaking callers waiting more than12 minutes before the call is answered or abandoned. High level of English-speaking abandoned calls with 26% of these calls abandoned after waiting at least 2 minutes.
2.2	Includes the specific population to be addressed	**X**				Callers to Access Line who are placed "on hold" in Access Line call system and waited at least 2 minutes for response or abandoned call
2.3	Includes a general approach to interventions	**X**				Describes a significant problem based on analysis of data and other information. Analyzes barriers and determines interventions related to barriers. Describes measures to identify improvement.
2.4	Is answerable/demonstrable	**X**				Uses data available from call-answering system. Unknown if additional interventions might be implemented or if additional indicators might be generated by consultation to be provided to address use of "Access Line resources"
2.5	Is within the MHP's scope of influence		**X**			Not clear to what extent the MHP can influence work flows, particularly the practices of other providers in the county health system, such as the Regional Medical Center, that is identified as using the Access Line for discharge planning to make appointments and is consuming Access Line staff time.
Totals for Step 2:		**4**	**1**	**0**	**0**	
3	**Clearly Defined Study Indicators** *The study indicators:* • Proportion of calls answered within 6 minutes • Proportion of calls that waited more than 12 minutes before being answered or abandoned					

Step		Rating				Comments/Recommendations
		Met	Partial	Not Met	N/A	
	• Proportion of abandoned calls that waited at least 2 minutes before abandoned					
3.1	Are clearly defined, objective, and measurable	X				Clearly stated, the inclusion of examples for goals greatly enhances comprehension of study design
3.2	Are designed to answer the study question	X				Indicators are directly related to stated study question
3.3	Are identified to measure changes designed to improve consumer mental health outcomes, functional status, satisfaction, or related processes of care designed to improve same	X				Addresses beneficiary satisfaction and processes of referral for care
3.4	Have accessible data that can be collected for each indicator	X				If PIP is to include all callers, how will data be collected for Spanish and other language choices? Are non-English callers placed "on hold" in system and included in automated call system performance measures?
3.5	Utilize existing baseline data that demonstrate the current status for each indicator	X				
3.6	Identify relevant benchmarks for each indicator			X		Other than existing performance levels used as baseline, there is no indication that benchmarks were used to identify acceptable levels of call line performance.
3.7	Identify a specific, measurable goal(s) for each indicator	X				
Totals for Step 3:		**6**	**0**	**1**	**0**	
4	**Correctly Identified Study Population** *The method for identifying the study population:*					
4.1	Is accurately and completely defined	X				All callers to Access Line
4.2	Included a data collection approach that captures all consumers for whom the study question applies		X			Approach to be used to include all consumers is not described. What happens to callers needing other than English-speaker clinician?
Totals for Step 4:		**1**	**1**	**0**	**0**	
5	**Use of Valid Sampling Techniques** *The sampling techniques:*					
5.1	Consider the true or estimated frequency of				X	MHP plans to include all callers- no sampling

Step		Rating				Comments/Recommendations
		Met	Partial	Not Met	N/A	
	occurrence in the population					
5.2	Identify the sample size				X	
5.3	Specify the confidence interval to be used				X	
5.4	Specify the acceptable margin of error				X	
5.5	Ensure a representative and unbiased sample of the eligible population that allows for generalization of the results to the study population				X	
Totals for Step 5:					**5**	

6	**Accurate/Complete Data Collection**
	The data techniques:
	• MHP Program Manager to provide FTE data
	• The Access Line automated call system software generates data including:
	  • Incoming call volume
	  • Time until call is answered
	  • Time until call is abandoned					

6.1	Identify the data elements to be collected	X				
6.2	Specify the sources of data	X				
6.3	Outline a defined and systematic process that consistently and accurately collects baseline and remeasurement data		X			Early in study. Baseline measures are defined and established. Intervals for remeasurement not specified.
6.4	Provides a timeline for the collection of baseline and remeasurement data		X			Early in study. Baseline is established for indicators. To apply first intervention May 2014 (use of ccLINK to manage primary care referrals). Timeline for remeasurement not specified. Methodology to include all callers to Access Line not specified.
6.5	Identify qualified personnel to collect the data		X			Not clear how or who-MHP or possibly a contractor- will be collecting and reporting the Access Line data.
Totals for Step 6:		**3**	**1**	**0**	**0**	
7	**Appropriate Intervention and Improvement Strategies** *The planned/implemented intervention(s) for improvement:* • Rona Consulting – LEAN assessment					

Step		Rating				Comments/Recommendations
		Met	Partial	Not Met	N/A	
	• Hiring and training an additional 2 FTE clinicians to staff the Access Line • Receiving referrals from primary care through ccLINK					
7.1	Are related to causes/barriers identified through data analyses and QI processes		X			Data analyses incomplete. The identified interventions are not adequately discussed to determine if they are related to causes/barriers identified through data analyses. One of the interventions, the LEAN assessment of Access Line resources, may provide useful information in design of study, particularly in the identification of barriers and interventions.
7.2	Have the potential to be applied system wide to induce significant change			X		This PIP is early in development and insufficient information is provided regarding role/function of Access Line within MHP system. Contingencies and study design is not completely defined. This step and remaining steps are rated as Not Met.
7.3	Are tied to a contingency plan for revision if the original intervention(s) is not successful			X		
7.4	Are standardized and monitored when an intervention is successful			X		
Totals for Step 7:		**0**	**1**	**3**	**0**	
8	**Analyses of Data and Interpretation of Study Results** *The data analyses and study results:*					
8.1	Are conducted according to the data analyses plan in the study design			X		
8.2	Identify factors that may threaten internal or external validity			X		
8.3	Are presented in an accurate, clear, and easily understood fashion			X		
8.4	Identify initial measurement and remeasurement of study indicators			X		
8.5	Identify statistical differences between initial measurement and remeasurement			X		
8.6	Include the interpretation of findings and the extent to which the study was successful			X		
Totals for Step 8:		**0**	**0**	**6**	**0**	

Step		Rating				Comments/Recommendations
		Met	Partial	Not Met	N/A	
9	**Improvement Achieved** *There is evidence for true improvement based on:*					
9.1	A consistent baseline and remeasurement methodology			X		
9.2	Documented quantitative improvement in processes or outcomes of care			X		
9.3	Improvement appearing to be the result of the planned interventions(s)			X		
9.4	Statistical evidence for improvement			X		
Totals for Step 9:		**0**	**0**	**4**	**0**	
10	**Sustained Improvement Achieved** *There is evidence for sustained improvement based on:*					
	Repeated measurements over comparable time periods that demonstrate sustained improvement, or that any decline in improvement is not statistically significant			X		
Totals for Step 10:		**0**	**0**	**1**	**0**	

F. Attachment—MHP PIPs Submitted

High-Utilization Performance Improvement Project

Contra Costa Mental Health Services

Research and Evaluation Unit

January 2014

CONTRA COSTA
HEALTH SERVICES

California EQRO

Regarding this PIP Submission Document:

- **This outline is a compilation of the "Road Map to a PIP" and the PIP Validation Tool that CAEQRO uses in evaluating PIPs. The use of this format for PIP submission will assure that the MHP addresses all of the required elements of a PIP.**
- **You are not limited to the space in this document. It will expand, so feel free to use more room than appears to be provided, and include relevant attachments.**
- **Emphasize the work completed over the past year, if this is a multi-year PIP. A PIP that has not been active and was developed in a prior year may not receive "credit."**
- **PIPs generally should not last longer than roughly two years.**

CAEQRO PIP Outline via Road Map

MHP: Contra Costa County Mental Health Plan
Date PIP Began: 2/1/2012
Title of PIP: Improving Coordination of Care for High Utilization Clients
Clinical or Non-Clinical: Non-clinical

Assemble multi-functional team

1. Describe the stakeholders who are involved in developing and implementing this PIP.

Utilization Review Staff, Clinical Program Chiefs, Quality Management staff, Research & Evaluation staff, Clinic Managers.

2012 Update: Addition of Children's Mental Health Contract Providers and The Children's Family Services Coordinator.

"Is there really a problem?"

2. Define the problem by describing the data reviewed and relevant benchmarks. Explain why this is a problem priority for the MHP, how it is within the MHP's scope of influence, and what specific consumer population it affects.

The Contra Costa Mental Health Plan (CCMHP) has been identified as an outlier in terms of high utilization clients. For example, in 2010 4.1% of clients accounted for 40% of total cost of services in the Contra Costa Mental Health Plan (CCMHP). Over half of high utilization clients are children under that age of 18. Currently, 262 out of the top 500 highest cost clients are under the age of 18. Collectively, services for these 262 clients totaled almost $18 million for the year under review at an average cost of almost $61,000 (published rate) per client. Contra Costa uses an extensive contract agency network, especially for children's services. In fact, when examining the service setting for the top 262 clients, contract agencies accounted for the top 12 reporting units. Below is a sorted list of reporting units where at least $500,000 of services were provided to children in the top 500 high utilization list:

ProviderName	RU Total Cost
	$1,028,767
	$866,338
	$799,697
	$796,137
	$716,272
	$695,582
	$668,572
	$626,302
	$590,510
	$584,784
	$553,273
	$504,854

Having services provided by such a vast array of agencies is beneficial in that clients' needs can be better matched to resources and specialty services that are available at contracting agencies and network providers.

The decentralized nature of services, however, presents challenges in terms of ensuring coordination of care and ensuring optimal use of resources. Contra Costa County does not have a centralized electronic medical record that can be used to manage care provided by outside agencies and this lack of service management may account for some of the unnecessary costs accrued by high utilization clients. Research has indicated that providing disorganized treatment services and redundant assessments increases individual expenditures by many thousands of dollars, and simply providing service coordination substantially reduces spending without sacrificing quality of care (Sweeney, Halpert, & Waranoff, 2007). Additionally, adults in the public mental health system who do not have a coordinated care plan have been found to accumulate greater expenses for both physical and mental health care (Parks, Swinfard, & Stuve, 2010). In Kentucky, this issue was addressed for children in the mental health system by introducing case management, allowing for the formation of cost effective individualized treatment plans. As a result, multidisciplinary teams coordinated care effectively, without redundancy, and in a true collaboration which lead to positive behavior changes, more stable placements, and fewer psychiatric hospitalizations (Illback & Neill, 1995). Information sharing is also an issue in the county, in part due to the absence of a centralized electronic health record. Each provider keeps its own clinical record, which presents real challenges in terms of efficiency, avoiding duplication of services, having common goals, and generally providing client-centered care. For our population of consumers, it appears that several factors might contribute to higher cost and inefficient use of resources in providing services to these youth, including a possible lack of coordination in care, treatment plans with varying goals, issues with transitions to other possible treatment modalities, and a deficit in information sharing.

Illback, R. J., & Neill, T. K. (1995). Service coordination in mental health systems for children, youth, and families: Progress, problems, prospects. *Journal of Mental Health Administration*, *22*(1), 17–28.

Parks, J. J., Swinfard, T., & Stuve, P. (2010). Mental health community case management and its effect on healthcare expenditures. *Psychiatric Annals*, *40*(8), 415–419.

Sweeney, L., Halpert, A., & Waranoff, J. (2007). Patient-centered management of complex patients can reduce costs without shortening life. *American Journal of Managed Care*, *13*, 84–92.

Team Brainstorming: "Why is this happening?"
Root cause analysis to identify challenges/barriers

3. a) Describe the data and other information gathered and analyzed to understand the barriers/causes of the problem that affects the mental health status, functional status, or satisfaction. How did you use the data and information to understand the problem?

The data gathered primarily consists of clients' record of service utilization, lists of service providers used by clients, the costs associated with the services being provided, and clients' CALOCUS scores. We are using these data to select clients who are potentially in need of service coordination in three ways. First, we have identified clients whose CALOCUS score does not correspond with the amount of costs accrued; that is, clients who have accrued a large cost in the past 12 months yet scored relatively low on the CALOCUS. Using our second method, we have identified a group of clients who have accrued very high costs through the use of contract providers and have received very few services through county providers. We speculate that these clients using primarily non-county providers may be receiving care from contract providers with an undesirable level of oversight from a county professional and are thus receiving services that are more likely to be duplicated, redundant, and lacking coordination. Lastly, our third methodology identifies clients who are receiving long duration services (e.g., 6 hours in length) that, on the face of it, appears to lack justification given the treatment goal. Here, we have attempted to pinpoint which contractors are providing excessive amounts of particular services, such as more than four hours of rehabilitation during a single day, for review. Our methodology aims to identify specific clients that are receiving excessive services, the specific provider responsible for the services, and the individual staff member providing the potentially unwarranted service.

2013 update: After using the different techniques mentioned above to identify possible clients in need of increased care coordination, it was evident based on a review of the charts by the Quality of Care Committee that clients who received the most services and accrued the highest costs during a one year period were generally in need of high intensity services. Additionally, we made some changes to the review strategy. For instance, we determined that examining a full one year of service data can result in misleading information; clients may accrue a large number of services during a three month period at the beginning of the year but then taper down their service usage during the remaining nine months. We decided to shift our focus away from the top 10% of clients, by cost, and to focus on the clients that were accruing a large number of services in a time frame closer to the review date. These changes to the selection criteria ensured that we were reviewing clients who were currently utilizing a large amount of services and that we were not selecting clients who accrued high costs several months prior to the review. This selection method allowed us to highlight the clients that may be most likely to benefit from increased care coordination.

b) What are barriers/causes that require intervention? <u>Use Table A, and attach any charts, graphs, or tables to display the data.</u>

Table A – List of Validated Causes/Barriers

Describe Cause/Barrier	Briefly describe data examined to validate the barrier
Minimal oversight of contract agencies and clients they see.	Review of all charts from all providers for sample of clients. In some cases there was not even a county clinic episode opened and, therefore, no county staff acting as a case manager. In these cases, contractors showed evidence of referring to one another.
Charts for review come in piecemeal fashion, by RU. Can't see the whole picture.	Examination of Level 1 authorization process. Charts are called in by reporting unit. New review process calls in charts from all agencies rendering services to the client.
Lack of staff resources to review charts fully for quality issues. Existing UR is mostly for compliance issues.	System serves nearly 20,000 clients each year. The reviewers on site can do little more than check off the chart to make sure all the required paperwork is present. For the most part, they don't review the chart for quality or coordination of services.
Review happens only once a year.	This barrier is again traced to resource issues and the cumbersome nature of collecting charts, the UR review only occurs once a year for most clients. Changing to a 6-month schedule would double the work load and there is not adequate staffing for such a change.
There is a deficit with the documentation for requesting a re-authorization. Level 1 UR is perfunctory and generally does not examine quality or coordination of care.	Feedback from UR staff.
Poor gatekeeping	Lack of adequate tools that help determine the proper level of care for the client, and lack of flexibility in the re-authorization process in terms of referrals to other providers (e.g., step down to the network). We are currently exploring use of Level of Care tools such as LOCUS and CALOCUS, but these in and of themselves are not enough for LOC determination.

Formulate the study question

4. State the study question. This should be a single question in 1-2 sentences which specifically identifies the problem that the interventions/approach for improvement.

Does the introduction of a "Care Coordinator" and an increased frequency of UR review for clients who are receiving uncoordinated care, duplicated services, or an unnecessary level of service intensity facilitate more efficient use of services in the system of care?

5. Does this PIP include all beneficiaries for whom the study question applies? If not, please explain.

The PIP focuses on both child and adult clients who are high utilizers of services. Both age groups have been reviewed as the study methodology has gone through developmental refinements. The current focus is on youth under age 18 due to the extensive use of the contract agencies and high cost for outpatient services. As the PIP evolves and more resources are available for the review of cases, more focus will be paid to adult clients, most likely in spring of 2013. Currently, this PIP focuses on those clients under the age of 19 who are receiving services that are potentially redundant, excessive in terms of treatment goals, duplicated, and/or uncoordinated.

2013 update: During 2013, the UR staff had capacity to review charts for children only and could hire only one Care Coordinator to manage the intervention. Adult consumers were not included in the 2013 review process.

6. Describe the population to be included in the PIP, including the number of beneficiaries.

The population to be included in this PIP will initially be child consumers who are accruing high service costs (over $30,000 in a 12 month period) and have been identified as clients receiving uncoordinated, duplicated and/or redundant care. We have identified the top 262 children, by cost of services, accessing treatment though the county mental health system. We are in the process of identifying specific children who would benefit from the addition of a care coordinator. Because clients are constantly accruing costs and the client's extremely complex and volatile situations influence their rate of cost accrual, we are unable to determine how many beneficiaries will be included in the PIP. We plan to repopulate the list of potential clients to include in the PIP on a quarterly basis to continuously identify clients that may be in need of a care coordinator. We aim to review 60 cases during the initial year of this PIP. Of the 60 cases reviewed, we anticipate that approximately half will be

assigned a care coordinator as a result of their Coordination and Quality of Care review. The review sample will be expanded to include adult consumers during 2013.

2013 Update: A total of 69 cases were reviewed for this PIP. The data for only 51 clients is discussed herein as the 18 reminding clients had less than 3 months of post-review data to compare to their pre-review baseline.

7. Describe how the population is being identified for the collection of data.

The population is being identified by reviewing the charts of clients who are accumulating high service costs and determining whether or not additional care coordination is needed for each individual. The population is being identified by considering each client's total cost accumulation during the past 12 months, the number of service providers open to the client over the past 12 months, the number of county and non-county service providers open to the client during the past 12 months, the CALOCUS score for the client, the number of excessively long services, and the Quality and Coordination of Care score calculated from the UR review. See attached Quality and Coordination of care Worksheet.

8. a) If a sampling technique was used, how did the MHP ensure that the sample was selected without bias?

It is our aim to review as many charts as possible out of the top 262 children consumers. The ideal sample would include all children with cost accruals above $30,000, but with such a large number of clients accruing high service costs and with different children accruing large costs during different periods of time, we cannot realistically review every high cost case. We are currently exploring a variety of techniques for identifying clients that would benefit from improved care coordination and increased UR review including identifying clients with little county involvement, identifying clients with costs that do not correspond to their CALOCUS assessment scores, identifying clients who are receiving services for excessively long durations, and identifying clients who are in the second and third quartile in cost accrual assuming that the top quartile of clients are truly in need of exceptionally high level of services. To ensure our sample was selected without bias, we have attempted to review a set of cases that represent the demographic diversity of the county as a whole. We did not exclude any case from review because of ethnicity, gender, or location and actively assess our list of clients for review to ensure bias is not arising.

b) How many beneficiaries are in the sample? Is the sample size large enough to render a fair interpretation?

Our sample will include those clients accruing high service costs who have been assigned a care coordinator. Initially, we hope to select 10% of child consumers who have accrued over $30,000 for enrollment in the intervention. If the trend of high cost child clients continues as in previous years, this method should yield approximately 30 children for

our sample. As 2013 progresses and additional resources become available, we will begin reviewing adult clients that are accruing costs over $30,000. We again aim to enroll 10% of these clients in the PIP resulting in approximately 15 clients in our sample. This total sample of approximately 45 to 50 clients will be sufficiently large to render fair interpretation of the effectiveness of the PIP and we likely will not be able to increase the sample size because of the large amount of staff resources required to identify clients through the review process and to coordinate care for each client in the intervention with a case manager.

2013 Update: A total of 69 clients were reviewed for the purpose of this PIP. Of these 69 clients, 21 were referred to the intervention for increased care coordination. Since clients who were reviewed near the end of 2013 did not have a full 3 months of post-review data to compare to their pre-review baseline, analyses were conducted on a total of 51 clients, 15 who were referred to the Care Coordination intervention and 36 who had their charts reviewed but were not referred to the intervention.

"How can we try to address the broken elements/barriers?"
Planned interventions

Specify the performance indicators in Table B and the Interventions in Table C.

9. a) Why were these performance indicators selected?

Quality and Coordination of Care score from UR – the difference between the pre- and post-intervention scores will indicate the effectiveness of the care coordinator in increasing collaboration between providers.

Volume of potentially redundant services administered for greater than 5 hours in single day – decrease of high dosage services post-intervention compared to pre-intervention will indicate that the addition of the care coordinator was effective in reducing redundant services.

Number of ~~months~~ weeks with greater than ~~30 hours~~ 8 hours of services provided – a post-intervention reduction in the number of ~~months~~ weeks which a client is receiving a high volume of services (greater than ~~30 hours per month~~ 8 hours per week) will indicate that the amount that redundancy in services has decreased as through increasing the coordination of care.

2013 Update:

The service indicators above was changed to reflect measurement in terms of weeks instead of months since our clients have only 3 months of post-review data to be analyzed.

Two additional performance indicators were also added:

Services volume for three months pre-review compared to services volume for three months post-review – a post-review reduction in the volume of services received by the client will indicate that the increased level of review imposed by the UR team has decreased the volume potentially duplicative/redundant services provided to the client.

Cost of services for three months pre-review compared to cost of services for three months post-review – a post-review reduction in the cost of services accrued by the client will indicate that the increased level of review imposed by the UR team has decreased the cost of services due to potentially duplicative/redundant services provided to the client.

b) How do these performance indicators measure changes in mental health status, functional status, beneficiary satisfaction, or process of care with strong associations for improved outcomes?

These performance indicators collectively assess the clients' need for and response to the introduction of a care coordinator. Care coordinators will be assigned to only those clients with evidence of uncoordinated/duplicated services as determined by the UR team. Presumably through the introduction of the care coordinator, the client will receive fewer redundant services and a greater depth of appropriate services thus improving the mental health status and the client's overall quality of life.

Clients assigned care coordinators will be reviewed four times during the 12 month period post-intervention: at 1 month, 3 months, 6 months, and 12 months after the introduction of the care coordinator. At the time of the 1 month post-intervention assessment, a blanket improvement in the indicators listed above will indicate a decrease in duplicated services and an improvement in the process of care received by our clients. We do not expect the improvement in coordination to be linear over the 12 month period but anticipate the greatest reduction in redundancy to be evident at the 1 and 3 month reviews with the 6 and 12 month reviews showing the sustained effects of the intervention but indicating little additional change. Particularly of interest is the change in the Quality and Coordination of Care score after the care coordinator has been introduced. A marked increase in this indicator will indicate that the introduction of a care coordinator decreases the redundancy of treatments and increases collaboration between providers.

2013 Update:

The UR staff at CCMHP decided not to conduct the 1 month follow-up review since the case conferencing and coordination required by the intervention take several weeks to fully implement and the resulting changes would not be present in the chart. At the time of writing, there was not sufficient data from the Quality and Coordination of Care worksheets to determine the effectiveness of the intervention on the metrics included on the worksheet such as coordination of services, redundancy, and communication between providers.

A reduction measured in the two new indicators added for 2013 will indicate that the increased review process enacted by the MHP administration has prompted the providers to reduce the number of duplicative and overlapping services to not only those clients who were referred to the intervention but to all clients who had their charts reviewed. This decrease in redundancy may allow clients to more fully realize the benefit of the services they are being provided.

Remember the difference between *percentage* changed and *percentage points* changed – a very common error in reporting the goal and also in the re-measurement process.

Table B – List of Performance Indicators, Baselines, and Goals

#	Describe Performance Indicator	Numerator	Denominator	Baseline for performance indicator	Goal
1	Quality and Coordination of Care score from UR Team	Care coordination score post-intervention minus care coordination pre-intervention	Care coordination score pre-intervention	Pre-intervention data	Increase average care coordination score by ~~20%~~ 10 % at ~~12~~ 3 months post-intervention compared to baseline
2	Total ~~volume~~ number of days ~~services lasting for~~ with greater than five hours of services in a single day	Number of ~~services~~ days with greater than five hours ~~in length~~ of services post-intervention minus number of ~~services~~ days with greater than	Number of ~~services~~ days with greater than five hours ~~in length~~ of services pre-intervention	Pre-intervention data	Decrease number of ~~services~~ days with greater than five hours of services ~~in length~~ by ~~50%~~ 25% at ~~12~~ 3 months post-intervention compared

#	Describe Performance Indicator	Numerator	Denominator	Baseline for performance indicator	Goal
		five hours ~~in length~~ of service pre-intervention			to baseline
3	Number of ~~months~~ weeks with greater than ~~30~~ 8 hours of services provided	Total number of ~~months~~ weeks with greater than ~~30~~ 8 hours of services provided for the ~~6~~ 3 months post-intervention minus the number of ~~months~~ weeks with greater than ~~30~~ 8 hours of services for ~~6~~ 3 months prior to intervention	Total number of ~~months~~ weeks with greater than ~~30~~ 8 hours of services for ~~6~~ 3 months prior to intervention	Pre-intervention data	Decrease number of ~~months~~ weeks with ~~30~~ 8 or more hours of services by ~~50%~~ 25% at ~~6~~ 3 month post-intervention review period
2013 Update					
4	Number of services provided during the 3 month time period after the review	Total number of services provided for 3 months prior to review minus the number of services provided in during the 3 months after the review	Total number of services provided for 3 months prior to the review	Pre-review data	Decrease the number of services by 15% post-review compared to pre-review
5	Total cost of services provided during the 3 month time period after the review	Total number of services provided for 3 months prior to review minus the number of services provided in during the 3 months after the review	Total costs of services for 3 months prior to the review	Pre-review data	Decrease the total costs of services by 15% post-review compared to pre-review

10. Use Table C to summarize interventions. In column 2, describe each intervention. Then, for each intervention, in column 3, identify the barriers/causes each intervention is designed to address. Do not cluster different interventions together.

Table C - Interventions

Number of Intervention	List each specific intervention	Barrier(s)/causes each specific intervention is designed to target	Dates Applied
1	Introduction of care coordinator	Lack of care coordination	7/1/2013
~~2~~	Introduction of enhanced UR interval for identified cases (e.g., 1, 3, 6, 12 months)	More focused treatment services, step down	10/2012

Apply Interventions: "What do we see?"
Data analysis: apply intervention, measure, interpret

11. Describe the data to be collected.

For the purposes of this PIP, data will be collected for individuals who were assigned a care coordinator only. The care coordinator will be a county employee who is specifically aligned with a single client in order to aid in the management of services for the client. Initially, the role of care coordinator may be fulfilled by clinic line-staff or clinic managers.
Data will be collected at 1 month, 3 months, 6 months, and 12 months post-intervention to assess the influence of introducing a care coordinator in decreasing service costs. The primary data will consist of the Quality and Coordination of Care score produced by the UR team, the number of potentially redundant lasting over five hours in a day services, and the number of service hours per month.

2013 Update: In addition to the Quality and Coordination of Care score produced by the UR team for clients referred to the intervention, the service and cost data for all clients who were reviewed was extracted from our internal billing system, PSP. These data were extracted for the 3 month time period before and the 3 month time period after clients' charts were reviewed.

12. Describe method of the data collection and the sources of the data to be collected. Did you use existing data from your Information System? If not, please explain why.

The Quality and Coordination of Care data will be obtained from the UR team's pre- and post-intervention reviews. Data on the duration of services per day and the number of hours of service per month will be collected from the PSP system currently operating in Contra Costa County. PSP is the billing tracking system for the county and yields the most reliable data on service utilization.

13. Describe the plan for data analysis. Include contingencies for untoward results.

Data will be analyzed by comparing pre-intervention data to the data collected at the 1, 3, 6, and 12 month post-intervention reviews. If a marked decrease in the clients' Quality and Coordination of Care score or a marked increase in service usage or service duration is found during the 1 or 3 month post-intervention reviews then a full chart review will be ordered for the client.

2013 Update: For the Quality and Coordination of Care scores, only the pre-intervention and 3 month re-review data were compared. At the time of writing, there were not sufficient data from the Quality and Coordination of Care worksheets to measure the effect of the intervention on the metrics included on the worksheet. The services and cost data extracted from PSP as well as the Quality and Coordination of Care scores was analyzed using paired-samples *t*-tests.

14. Identify the staff that will be collecting data as well as their qualifications, including contractual, temporary, or consultative personnel.

Data will be collected and analyzed by the Research and Evaluation Unit of the Behavioral Health Division at Contra Costa Health Services. The Research and Evaluation Unit is comprised of seven full time Health Services Planner/Evaluators, all with Master's or Doctoral level training. Oleg Andreev, MD, will be responsible for obtaining the client level data from PSP for the pre- and post-intervention periods. Michael Penkunas, Ph.D., will be the Planner/Evaluator leading data analysis efforts. Additional assistance may be requested from other Research and Evaluation staff. Steve Hahn-Smith, Ph.D., will supervise progress and review intervention results throughout the implementation of the PIP.

The UR team will conduct the Quality and Coordination of Care Reviews to determine clients to be involved in the PIP and at the 1, 3, 6, and 12 month post-intervention intervals. The UR team is comprised of clinicians and professional administrators employed by Contra Costa County Health Services. As it stands, the UR team consists of: Charlene Bianchi, MFT, Christine Bohorquez, RN, David Cassell, LCSW, Natasha Coleman, Psy.D, Jeffery Cotta, LSW, Jennifer Jeffrey-Kent, MFT, Grace Marlar, MPA, and Diane Renton, RN.

2013 Update: Jeffery Cotta and Grace Marlar are no longer working at the County. New UR team employees involved with the PIP are Lynn Field, RN, and Christine Catabay, MFT. In addition, Carol Frank, the Associate Director of one of CCMHP contract providers, joined the committee to represent contract providers in the children's system of care. Jennifer Tuipulotu, the Children's Family Services Coordinator for CCMPH, joined the committee to represent family members of children receiving treatment through CCMPH.

15. Describe the data analysis process. Did it occur as planned? Did results trigger modifications to the project or its interventions? Did analysis trigger other QI projects?

Because of the within-subjects design, repeated measures analysis of variance (ANOVA) will likely be employed to compare the pre-intervention data to post-intervention data. We hypothesize that the introduction of a care coordinator to aid in managing clients' care will result in an increase in the client's Quality and Coordination of Care coordination score, a decrease in the number of long duration services, and a decrease the total number of service hours provided per month. More complex analyses can also be performed on the data collected. Linear mixed modeling could be employed given that we will have data for each client for five separate time points. A variety of demographic and clinical variables such as gender,

diagnosis, duration of treatment, location within the county, etc, could be entered into the model as fixed and random effects to determine the influence of specific client characteristics in lowering excelling in this PIP. Furthermore, segmented regression analysis could be useful since both pre- and post-intervention data will be available. This analysis would allow us to compare the trend over time for particular indicators (i.e. number of services, proportion of long duration services, etc.) to the trend over time post-intervention to determine both the immediate influence of the intervention and its effect throughout the post-intervention time period.

2012 Update: The data analysis was preformed for two separate subgroups of beneficiaries included in the PIP, those who had their charts reviewed but were not referred to the intervention and those who had their charts reviewed and were aided by the Care Coordinator. Although a total of 69 charts were reviewed by the UR team, data for only 51 clients were analyzed since the chart reviews for 18 of the clients were completed within 3 months of the time of writing so these clients did not have 3 month of post-review data. Data analysis was conducted using paired-samples *t*-tests. Additionally, although 21 clients were referred to the Care Coordinator for the intervention, only a small number of clients with sufficient post-intervention data were re-reviewed using the Quality and Coordination of Care worksheet.

16. **Present objective data results for each performance indicator. Use Table D and attach supporting data as tables, charts, or graphs.**

Include the raw numbers that serve as numerator and denominator!

Table D - Table of Results for Each Performance Indicator and Each Measurement Period

Describe performance indicator	Date of baseline measurement	Baseline measurement (numerator/ denominator)	Goal for % improvement	Intervention applied & dates applied	Date of re-measurement	Re-measurement Results (numerator/ denominator)	% improvement achieved
THIS IS THE BASELINE INFORMATION FROM TABLES A, B, AND C USED HERE FOR COMPARISON AGAINST RESULTS							
For intervention clients, Quality and Coordination of Care score from UR Team	*Varied throughout 2012 and 2013*	TBD	*10% decrease*	*Varied throughout 2012 and 2013*	3 months after intervention dates in 2013	*TBD*	*TBD*

Describe performance indicator	Date of baseline measurement	Baseline measurement (numerator/ denominator)	Goal for % improvement	Intervention applied & dates applied	Date of re-measurement	Re-measurement Results (numerator/	% improvement achieved
For intervention clients, total number of days with greater than five hours of services in a single day	*Varied throughout 2012 and 2013*	*81*	*25% decrease*	*Varied throughout 2012 and 2013*	3 months after intervention dates in 2012 and 2013	*51*	*37.0% decrease*
For intervention clients, number of weeks with greater than 8 hours of services provided	*Varied throughout 2012 and 2013*	*84*	*25% decrease*	*Varied throughout 2012 and 2013*	3 months after intervention dates in 2012 and 2013	*53*	*36.9% decrease*
For intervention clients, number of services provided during the 3 month time period after the review	Various review dates in 2012 and 2013	1,129	*15% decrease*	Various dates in 2012 and 2013	3 months after intervention dates in 2012 and 2013	*831*	*26.4% decrease*
For intervention clients, total	Various review dates in 2012 and	*$239,558*	*15% decrease*	Various dates in 2012 and	3 months after intervention dates in 2012	*$171,509*	*28.4% decrease*

Describe performance indicator	Date of baseline measurement	Baseline measurement (numerator/ denominator)	Goal for % improvement	Intervention applied & dates applied	Date of re-measurement	Re-measurement Results (numerator/	% improvement achieved
cost of services provided during the 3 month time period after the review	2013			2013	and 2013		
For review-only clients, total number of days with greater than five hours of services in a single day	Various review dates in 2012 and 2013	*227*	*15% decrease*	Various dates in 2012 and 2013	3 months after intervention dates in 2012 and 2013	*243*	*7.1% increase*
For review-only clients, number of weeks with greater than 8 hours of services provided	Various review dates in 2012 and 2013	*205*	*15% decrease*	Various dates in 2012 and 2013	3 months after intervention dates in 2012 and 2013	*145*	*29.3% decrease*
For review-only clients, number of services provided during the 3 month time period after	Various review dates in 2012 and 2013	*2,460*	*15% decrease*	*Various dates in 2012 and 2013*	*3 months after review date*	*2,079*	*15.5% decrease*

Describe performance indicator	Date of baseline measurement	Baseline measurement (numerator/ denominator)	Goal for % improvement	Intervention applied & dates applied	Date of re-measurement	Re-measurement Results (numerator/	% improvement achieved
the review							
For review-only clients, total cost of services provided during the 3 month time period after the review	Various review dates in 2012 and 2013	*$560,633*	*15% decrease*	*Various dates in 2012 and 2013*	*3 months after review date*	*$521,670*	*7% decrease*

"Was the PIP successful?" What are the outcomes?

17. Describe issues associated with data analysis:

a. Data cycles clearly identify when measurements occur.

Since clients were reviewed in groups on specific dates throughout the year, there is no single day delineating the when pre- and post-review periods begin or end. Similarly, the intervention enacted by the Care Coordinator began on different days for different clients making the dates for the pre- and post-intervention periods variable across clients.

b. Statistical significance

Quality and Coordination of Care score – TBD

Total days with greater than 5 hours of service for intervention clients – There was a nearly significant difference in the number of days intervention clients received services for greater than 5 hours during the 3 months before the intervention (M = 5.40; SD = 3.81) compared to the 3 months after the intervention (M = 3.40; SD = 4.26); $t(14) = 2.08$, $p = .056$.

Number of weeks with greater than 8 hours of services provided for intervention clients – Clients in the intervention group had significantly more weeks where they received greater than 8 hours of service in a week during the 3 months before the review (M = 5.60; SD = 3.58) compared to the 3 months after the intervention (M = 3.53; SD = 3.94); $t(14) = 2.20$, $p = .045$.

Number of services provided during the 3 month time period after review for intervention clients – Clients in the intervention group received significantly more services during the 3 month period prior to the intervention (M = 75.27; SD = 40.50) compared to the 3 month period after the intervention (M = 55.40; SD = 35.56); $t(14) = 2.88$, $p = .012$.

Total cost of services provided during the 3 month time period after the review for intervention clients – Clients in the intervention group accrued significantly more costs during the 3 month period prior to the intervention (M = $15,970.55; SD = $6,402.91) compared to the 3 month period after the intervention(M = $11,433.95; SD = $7,781.37); $t(14) = 3.0$, $p = .01$.

Total days with greater than 5 hours of service for review-only clients – There was no significant difference in the number of days review-only clients received services for greater than 5 hours during the 3 months before the review (M = 6.31; SD = 7.33) compared to the 3 months after the review (M = 6.75; SD = 12.40); $t(35) = -0.32$, $p = .75$.

Number of weeks with greater than 8 hours of services provided for review-only clients – There was a statistically reliable difference in the number of weeks review-only clients received services for greater than 8 hours during the 3 months before the review (M = 5.69; SD = 4.30) compared to the 3 months after the review (M = 4.03; SD = 4.94); $t(35) = 3.15$, $p = .003$.

Number of services provided during the 3 month time period after review for review-only clients – Clients in the review-only group received significantly more services during the 3 month period prior to the review (M = 68.33; SD = 38.16) compared to the 3 month period after the review (M = 57.75; SD = 44.63); $t(35) = 2.08$, $p = .045$.

Total cost of services provided during the 3 month time period after the review for review-only clients – The total cost of services for the review-only clients did not differ reliably between the 3 months prior to the review M = $15,573.13; SD = $8,080.16) compared to the 3 months after the review (M = $14,490.82; SD = $13,122.45); $t(35) = 0.84$, $p = .41$.

c. Are there any factors that influence comparability of the initial and repeat measures?
The initial and repeat measures for the Quality and Coordination of Care worksheet may not be fully comparable since different UR team members may have completed the initial and follow up reviews. Additionally, the clinical staff may have changed their note writing techniques between the initial and follow up reviews which would have influenced the scores on the Quality and Coordination of Care worksheet differently.

d. Are there any factors that threaten the internal or the external validity?
The internal validity is threatened since we were unable to include an age, gender, and diagnosis matched control group that was not reviewed and did not receive additional care coordination. Because we are only reporting on clients that were reviewed, we cannot exclude the possibility that other factors (i.e. clients may be progressing positively in treatment; clients' lives at home may be stabilizing) are not responsible for the changes in Quality and Coordination of Care scores, service utilization, and costs.

The external validity is threatened by the fact that only clients who were under 19 at the time of review were included in this PIP. We are unable to generalize these results to adults since only children were included in the reviews, care coordination intervention, and follow-up periods. We also are unable to determine based on the relatively small sample size whether these findings could be generalized to other clients in the children's system of care. Operationalizing how this sample is selected is still in the discovery phase to some extent. For instance, would these findings generally be true for clients who are lower cost, or receiving different kinds of services, or are there other client specific or program specific variables that are driving the results.

18. To what extent was the PIP successful? Describe any follow-up activities and their success.
Quality and Coordination of Care – Even though the PIP is formally over, the Quality of Care review committee would like to continue the process of reviewing and intervening on cases that could possibly benefit from having a Care Coordinator. The reduction in costs is significant, and this might be used as the basis for formally adding a position to handle this type of care coordination. A number of hurdles will have to be overcome if we are to continue the review and intervention process enacted by this PIP. First, we discovered that the review and identification process for clients to be referred to the intervention is time consuming. Clients' charts must be requested from the providers several weeks in advance and the UR staff must dedicate several hours to reviewing the charts. This long process may be completed hat slowed the review and intervention process. First, ch

Now that we have implemented the CANS for the Children's System of Care clients, in combination with the CALOCUS, we will be able to pair the Quality of Care review process with data on client outcomes in addition to utilization data. While we do

have evidence that the intervention lowered service utilization (and presumably improved service coordination and reduced duplication), we also need to ensure that clinical outcomes improved as well.

The PIP was also successful because it has changed the focus of some of the UR processes toward review of the quality of services rather than extensively focusing on the compliance issues (e.g., signature on page, dated, goals articulated clearly, etc.). This has been a positive process for UR staff. It has also demonstrated how CALOCUS can be used as a tool for helping determine level of care decisions.

19. Describe how the methodology used at baseline measurement was the same methodology used when the measurement was repeated. Were there any modifications based upon the results?

To ensure that the methodology used at baseline was the same at follow-up, we utilized the same Quality and Coordination of Care worksheet at the initial review and at follow-up for clients who were referred to the Care Coordinator. Second, we utilized out internal billing system to extract unbiased service and cost data for all clients who were reviewed. Based upon the results of this PIP, the UR team will continue to review high-utilization clients into 2014 and will refer clients to the Care Coordinator as they see fit. We hope to make this review and referral system a standard procedure for high-utilization clients in Contra Costa County.

20. Does data analysis demonstrate an improvement in processes or client outcomes?

The analyses of client's services utilization indicated that both the intervention and review-only clients utilized fewer services during the post-review period compared to the pre-review period. These reductions illustrate a probable improvement in processes as evidenced by a reduction in excessively long services and a reduction in the number of weeks with a large number of services provided. An analysis of the Quality and Coordination of Care scores pre- and post-intervention will validate whether improvements in coordination and communication between providers is related to the service utilization reductions.

21. Describe the "face validity" – how the improvement appears to be the result of the PIP intervention(s).

By comparing those clients who were referred to the intervention with those clients who only had their charts reviewed, we are able to show that effect of the intervention is greater than that of the review alone. Clients who were assisted by the Care Coordinator generally realized greater decreases in service redundancies and exhibited a greater reduction in costs compared to clients who had their charts reviewed but were not involved in the intervention (Table D). This difference between the intervention and review-only groups supports the claim that the change in service utilization and coordination for those clients in the intervention is a result of the Care Coordinator's involvement.

22. Describe statistical evidence that supports that the improvement is true improvement.

The statistical evidence provided under 17b indicates that nearly all measures of service utilization were significantly lower during the 3 months after the intervention compared to the 3 months before the intervention. The one exception is the measure for total number of days with greater than 5 hours of service which is trending towards statistical significance. These results suggest that when a Care Coordinator is introduced for clients with patterns of high service utilization, the amount of services delivered to the clients decreases.

23. Was the improvement sustained over repeated measurements over comparable time periods?

CCMHP has been unable to determine whether or not the improvements were sustained over time. We plan on examining an additional 3 months of data during the first quarter of 2014.

CENTRALIZED UTILIZATION REVIEW - QUALITY AUDITS
FY 2012 - 2013

October 11, 2012

- Quality Audit of high-utilization client identified through CALOCUS score & cost
- CUR committee present: Grace Marlar, Chris Bohorquez, Charlene Bianchi, David Cassell, Jeff Cotta, Diane Renton
- Focus (adolescent): MRN [redacted]
- Review period: 8/1/2010 through 10/2/2012
- Findings, see Charlene Bianchi, UR Supervisor

November 1, 2012

- Quality Audit of high-utilization client identified through CALOCUS score & cost
- CUR committee present: Grace Marlar, Chris Bohorquez, Charlene Bianchi, David Cassell, Jeff Cotta, Diane Renton, Jennifer Jeffries-Kent, Steve Hahn Smith, Michael Penkunas
- Focus (adolescent): MRN [redacted]
- Review period: 1/1/2010 through 9/30/2012
- Findings, see Charlene Bianchi, UR Supervisor

November 28, 2012

- Quality Audit of high-utilization clients identified through CALOCUS score & cost
- CUR committee present: Grace Marlar, Charlene Bianchi, David Cassell, Jeff Cotta, Chris Bohorquez, Diane Renton, Steve Hahn Smith, Michael Penkunas
- Focus (adolescents): MRN [redacted]
- Review period: 1/1/2010 through 11/16/2012
- Findings, see Charlene Bianchi, UR Supervisor

December 20, 2012

- Quality Audit of high-utilization clients identified through CALOCUS score & # open episodes
- CUR committee present: Grace Marlar, Charlene Bianchi, David Cassell, Jeff Cotta, Chris Bohorquez, Diane Renton, Jennifer Kent, Michael Penkunas, Steve Hahn Smith;
  Invited but unable to attend: Natasha Coleman, Manager H&R, Brett Beaver, Manager WRAP;
- Focus (adolescents): MRN [redacted]
  MRN 220436513 I.G. – D Renton, J Kent, Sara Marsh-follow-up review current services, individual therapy at Interfaith & Central Children's; S. Marsh to coordinate with Central Chns;
- Review period: 1/1/2010 through 11/30/2012
- Findings, see Charlene Bianchi, UR Supervisor

January 17, 2013

- Quality Audit of high-utilization clients identified through CALOCUS scores & cost
- CUR committee present: Grace Marlar, Chris Bohorquez, Charlene Bianchi, David Cassell, Jeff Cotta, Diane Renton, Jennifer Jeffries-Kent
- Focus: MRN [redacted]
- Review period: 1/1/2010 through 12/31/2012
- Findings, see Charlene Bianchi, UR Supervisor

February 5, 2013

- Quality Audit of high-utilization clients identified through CALOCUS scores & cost
- CUR committee present: Grace Marlar, Chris Bohorquez, Charlene Bianchi, Jeff Cotta, Diane Renton, Jennifer Jeffries-Kent
- Focus: MRN [redacted]
- Review period: 1/1/2010 through 12/31/2012
- Findings, see Charlene Bianchi, UR Supervisor

March 19, 2013

- Quality Audit of high-utilization child/adol clients identified through CALOCUS scores & cost over recent 3 month period
- CUR committee present: Charlene Bianchi, David Cassell, Chris Bohorquez, Jeff Cotta, Diane Renton, Lynn Field, Jennifer Jeffries-Kent, Mike Penkunas
- Focus - * indicates referral to Care Coordinator appropriate:
  MRN [redacted]
  MRN [redacted]
  MRN [redacted]
  MRN [redacted]
  MRN [redacted]
  MRN [redacted]
- Review period: 7/1/2011 through 12/31/2012
- Findings, see Charlene Bianchi, UR Supervisor

April 9, 2013

- Quality Audit of high-utilization child/adol clients identified through CALOCUS scores & cost
- CUR committee present: Charlene Bianchi, David Cassell, Chris Bohorquez, Diane Renton, Jennifer Jeffries-Kent, Lynn Field, Caroline Sisson
- Focus: MRN [redacted]
- Review period: 7/1/2011 through 3/31/2013 (269 services list)
- Findings, see Charlene Bianchi, UR Supervisor

May 14, 2013

- Quality Audit of high-utilization child/adol clients identified through CALOCUS scores & cost
- CUR committee present: Charlene Bianchi, David Cassell, Chris Bohorquez, Diane Renton, Jennifer Jeffries-Kent, Lynn Field, Jeff Cotta, Caroline Sison
- Focus: MRN [redacted]
- Review period: 7/1/2012 through 4/30/2013
- Findings, see Charlene Bianchi, UR Supervisor

June 25, 2013

- Quality Audit of high-utilization child/adol clients identified through CALOCUS scores & cost
- CUR committee present: Charlene Bianchi, David Cassell, Diane Renton, Jennifer Jeffries-Kent, Lynn Field, Mike Penkunas
- Focus: MRN [redacted]
- Review period: 1/1/2013 through 4/30/2013
- Findings, see Charlene Bianchi, UR Supervisor

July 16, 2013

- Quality Audit of high-utilization child/adol clients identified through CALOCUS scores & cost
- CUR committee present: Charlene Bianchi, David Cassell, Diane Renton, Jennifer Jeffries-Kent, Lynn Field, Mike Penkunas
- Focus: MRN [redacted]

- Review period: 1/1/2013 – 5/30/2013
- Findings, see Charlene Bianchi, UR Supervisor

July 30, 2013

- Quality Audit of high-utilization child/adol clients identified through CALOCUS scores & cost
- CUR committee present: Charlene Bianchi, David Cassell, Diane Renton, Jennifer Jeffries-Kent, Lynn Field, Mike Penkunas
- Focus: MRN [redacted]
- Review period: 1/1/2013 through 4/30/2013
- Findings, see Charlene Bianchi, UR Supervisor

August 13, 2013

- Quality Audit of high-utilization child/adol clients identified through CALOCUS scores & cost
- CUR committee present: Charlene Bianchi, David Cassell, Chris Bohorquez, Diane Renton, Lynn Field, Jennifer Jeffries-Kent, Mike Penkunas, Francisco Martinez
- Focus: MRN [redacted]
- Review period: 1/1/2013 – 6/30/2013
- Findings, see Charlene Bianchi, UR Supervisor

September 10, 2013

- Quality Audit of high-utilization child/adol clients identified through CALOCUS scores & cost
- CUR committee present: Charlene Bianchi, Chris Bohorquez, Diane Renton, Lynn Field, Jennifer Jeffries-Kent, Mike Penkunas
- Focus: MRN [redacted]
- Charlene review one record (not seen in 1st review): [redacted]
- Review period: 1/1/2013 – 6/30/2013
- Findings, see Charlene Bianchi, UR Supervisor

October 8, 2013

- Quality Audit of high-utilization child/adol clients identified through CALOCUS scores & cost
- CUR committee present: Charlene Bianchi, Chris Bohorquez, Diane Renton, Lynn Field, Mike Penkunas, Jennifer Kent, Christine Catabay
- Focus: MRN [redacted]
- [redacted]
- Charlene review one record (not seen in 1st review): MRN [redacted]
- Review period: 10/1/2012-9/30/2013
- Findings, see Charlene Bianchi, UR Supervisor

October 22, 2013

- Quality Audit of high-utilization child/adol clients identified through CALOCUS scores & cost
- CUR committee present: Chris Bohorquez, Diane Renton, Lynn Field, Mike Penkunas, Jennifer Kent, Christine Catabay
- Focus: MRN [redacted]
- Review period:
- Findings, see Charlene Bianchi, UR Supervisor

November 12, 2013

- Quality Audit of high-utilization child/adol clients identified through CALOCUS scores & cost
- CUR committee present: Charlene Bianchi, Michael Penkunas, Chris Bohorquez, Diane Renton, Lynn Field, Christine Catabay
- Focus: MRN [redacted]
- Second review/re-check done by Charlene Bianchi: [redacted]
- Review period:
- Findings, see Charlene Bianchi, UR Supervisor

December 10, 2013 [needs completion, D Renton not present at this review]

- Quality Audit of high-utilization child/adol clients identified through CALOCUS scores & cost
- CUR committee present:
- Focus: MRN Review period:
- Findings, see Charlene Bianchi, UR Supervisor

Access Line Performance Improvement Project

Contra Costa Mental Health Services

Research and Evaluation Unit

January 2014

CONTRA COSTA
HEALTH SERVICES

APS Healthcare

California EQRO

Feb 2013 – Updates to document noted in blue.

- This outline is a compilation of the "Road Map to a PIP" and the PIP Validation Tool that CAEQRO uses in evaluating PIPs. The use of this format for PIP submission will assure that the MHP addresses all of the required elements of a PIP. The MHP is not limited to using this format and may submit evidence of the PIP in other formats which address the required elements.
    - PDSA Cycles can be submitted as separate documents or outlined as part of #3 barrier analysis (understanding causes), #10 interventions (testing change ideas), as well as #15 data analysis and triggering changes. Conducting PDSA cycles is for purposes of learning and testing; many PDSA cycles in themselves do not complete a PIP.
- Your PIP should focus on a consumer-related problem (access, timeliness, outcomes) which is measured (indicators), for which interventions will be applied to create improvement. Simply setting up a monitoring system for some facet of care is not a PIP unless it is focused on improving an indicator.
- Do not set up a PIP to evaluate the effectiveness of a given program; this is a program evaluation. The individuals receiving the intervention need to be related to the identified problem, upon which various interventions (not just a program's services) can be tested and applied to create improvement.
- You are not limited to the space in this document. It will expand, so feel free to use more room than appears to be provided, and include relevant attachments.
- Emphasize the work completed over the past year, if this is a multi-year PIP. A PIP that has not been active and was developed in a prior year may not receive "credit."
- PIPs generally should not last longer than roughly two years. An MHP is advised to consult with CAEQRO before continuing a PIP into a third year.

CAEQRO PIP Outline via Road Map

MHP: Contra Costa Mental Health Plan
Date PIP Began: 6/1/2013

Title of PIP: Client Access Line and Linkage (CALL)
Clinical or Non-Clinical: Non-clinical

Assemble multi-functional team

1. Describe the stakeholders who are involved in developing and implementing this PIP.

Access Line staff, Care Management staff, Hospital Discharge Coordinators, PES Discharge Coordinators staff, Clinic Managers, Research and Evaluation Staff.

"Is there really a problem?"

2. Define the problem. Describe the data reviewed and relevant benchmarks that validate the problem exists. Explain why this is a problem priority for the MHP, how it is within the MHP's scope of influence, and what specific consumer population it affects.

The Access Line for the Contra Costa Mental Health Plan (CCMHP) experiences continuously high call volumes from consumers needing access to services, providers requesting appointments in other areas of the system, and hospital/psychiatric emergency services discharge planners charged with linking clients to appropriate outpatient services. During a single month, the Access Line typically receives roughly 2,000 incoming phone calls. Additionally, Access Line staff members make approximately 100 outgoing phone calls per day (over 2,000 per month, on average) to schedule appointments for clients at County Clinics and with Network Providers. At times, this high in-coming and out-going call volume translates into long wait times for beneficiaries, which then leads to a high number of abandoned calls.

For example, during a single week in December of 2013, nearly 220 calls from English speaking consumers were answered (Spanish speaking callers were examined separately). Figure 1 shows that the time to answer

the call follows a bimodal distribution with most calls either being answered within the first 2 minutes or after waiting for a full 16 minutes. During this same week, 140 calls were abandoned by English speaking callers before the line could be answered by an Access Line clinician. Figure 2 illustrates that approximately 45% of callers abandon within 2 minutes of being placed on hold. Callers who hang up after waiting for only a short time may have called the wrong number or were hoping to get through to a clinician immediately. We are not including these calls in our analyses since they do not represent beneficiaries who wait on the line for their call to be answered. Figure 2 shows that approximately 55% of callers remained on the line for more than 2 minutes with about 7% of clients waiting for over 16 minutes before they decided to hang up. As the Medi-Cal expansion goes into effect in 2014, CCMHP anticipates a 20% increase in the number of beneficiaries accessing care through CCMHP. Improving the functionality of the Access Line is a priority for CCMHP, especially in light of this expected increase in clients which will likely translate into a greater volume of telephone calls to the Access Line and an even longer delay for beneficiaries in need of services.

Figure 1. Percentage of answered calls, per week, for English speaking clients at the CCMHP Access Line

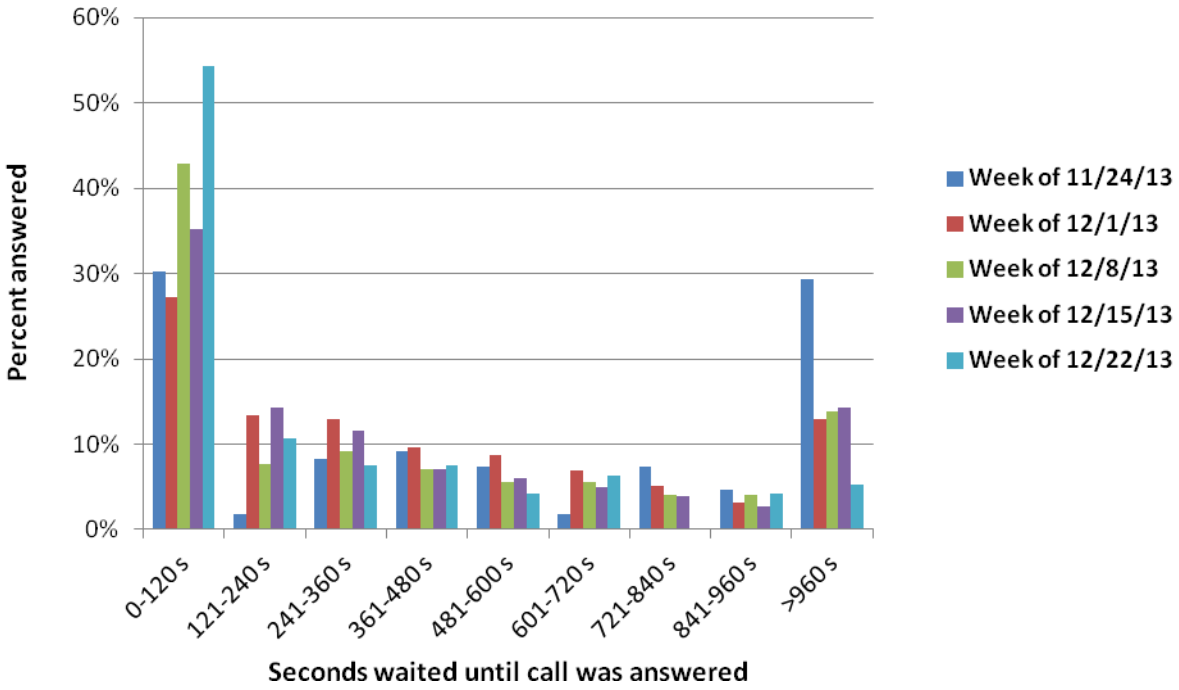
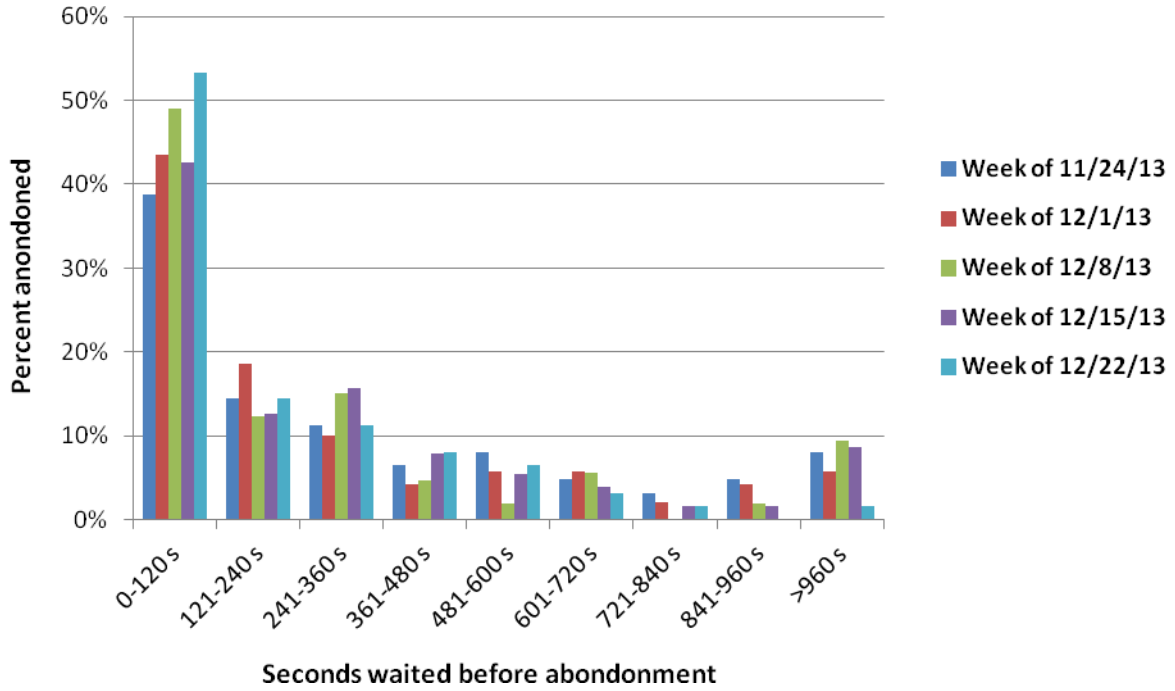


Figure 2. Percentage of abandoned calls, per week, for English speaking clients at the CCMHP Access Line



It appears that the high abandonment rates and long wait times for beneficiaries calling the Access Line are the results from two known deficits. First, referral workflows can be improved. The Access Line is sometimes unnecessarily involved in workflows when direct referrals are possible. For example, referrals from the Contra Costa Regional Medical Center to county clinics can be made without involving the Access Line. These unnecessary coordination services provided by Access Line staff limit their ability to answer the incoming calls from beneficiaries. Second, the Access Line is understaffed considering the volume of incoming and outgoing calls experienced by the Access Line. Between 3 and 5 full-time equivalent (FTE) clinicians staff the Access Line on an average day. With only a few staff available to answer incoming calls, clinicians are occupied continuously and, during times when the call volume is particularly high, beneficiaries wait a very long time for their call to be answered.

Team Brainstorming: "Why is this happening?"
Root cause analysis to identify challenges/barriers

3. a) What are the likely causes of the problem? Describe the data and other information gathered and analyzed to understand the barriers/causes of the problem that affects the mental health status, functional status, or satisfaction. How did you use the data and information to understand the problem?

The long wait times and high abandonment rate discussed above are likely caused by a lack of capacity at the Access Line and because Access Line staff are occupied with duties other than answering incoming calls from beneficiaries.

Data are gathered from the electronic tracking system used at Access Line, Avaya. We have formatted the reporting function to display data in 120 second increments as illustrated in Figures 1 and 2. These data allow us to understand how long clients are waiting before their call is either answered or abandoned, and allows us to determine how the lack of capacity at Access Line impacts beneficiaries' access to services. We have several antidotal reports from beneficiaries who report dissatisfaction with the function of the Access Line. For example, we recently heard of a client who called repeatedly over a number of days and was unable to get through to a clinician and gave up calling after becoming discouraged. Beneficiaries who share experiences like this one are likely very dissatisfied with the CCMHP before they even receive their first service. For clients who are experiencing the first signs of a mental illness, receiving a swift call response and subsequent referral to services from an Access Line clinician is imperative to their recovery process. CCMHP strives to make services accessible to all beneficiaries in a timely fashion, a process that begins for many with a telephone call to the Access Line.

b) What are barriers/causes identified that require intervention? Use Table A, and attach any charts, graphs, or tables to display the data.

Table A – List of Validated Causes/Barriers

Describe Cause/Barrier	Briefly describe data examined to validate the barrier
Workflows for referring clients to services are not optimal.	Outgoing call volume from Access Line staff to providers is rather high and reduces the amount of time Access Line staff can dedicate to answering calls from beneficiaries.
The Access Line is short staffed considering the volume of calls received	The high abandonment rate is likely due to clients not being able to get through to a clinician in the first few minutes after calling.
Despite the high call volume, the Access Line does not have the technological tools to build an efficient call response and referral system	The large number of faxes received from Primary Care for referrals indicates that CCMHP could benefit from an electronic referral system. The paper system currently in place is cumbersome and increases the amount of time that passes between a referral from Primary Care and an appointment at CCMPH.

Formulate the study question

4. State the study question. This should be a single question in 1-2 sentences which specifically identifies the problem for improvement, the general intervention, and the desired outcome.

Does increasing the number of clinical staff at Access Line and streamlining the duties of the staff at Access Line result in a reduction in the proportion of calls that are abandoned by beneficiaries and a reduction in the amount of time beneficiaries wait on hold to have their call answered?

5. Does this PIP include all beneficiaries for whom the study question applies? If not, please explain. (Remember that all PIPs must include Medi-Cal beneficiaries)

Yes, this PIP includes all beneficiaries who utilize the Access Line. Since the goal of this PIP is to decrease the wait time beneficiaries currently experience and decrease the number of calls abandoned by beneficiaries, all clients who call the Access Line will be included in this PIP

6. Describe the population to be included in the PIP, including the number of beneficiaries.

The PIP will include beneficiaries who call the Access Line. Approximately 350 incoming calls are made by beneficiaries per week to the Access Line, although we are unable to tell how many unduplicated clients are represented by these calls.

7. Describe how the population is being identified for the collection of data.

The population is all beneficiaries who call the Access Line. We report here preliminary data from only English speaking beneficiaries because the vast majority (over 92%) of incoming calls at the Access Line are made by English speakers. For the analysis, calls for both English and Spanish beneficiaries will be included.

8. a) If a sampling technique was used, how did the MHP ensure that the sample was selected without bias?

A sampling technique will not be used; the data for all beneficiaries who call the Access Line will be included in PIP

b) How many beneficiaries are in the sample? Is the sample size large enough to render a fair interpretation?

We are unable to determine how many beneficiaries will be included in the PIP since we do not know the precise number of unduplicated clients who call the Access Line each day. On average, the Access Line receives about 1,300 calls per month from beneficiaries. A fair interpretation will likely be rendered given the large sample size.

"How can we try to address the broken elements/barriers?"
Planned interventions

Specify the performance indicators in Table B and the Interventions in Table C.

9. What indicators were selected to measure improvement?

The proportion of calls that were answered by an Access Line clinician within 6 minutes, excluding calls that were abandoned in the first 2 minutes of being placed on hold.**

The proportion of calls that waited for more than 12 minutes before being answered or abandoned, excluding calls that were abandoned within the first 2 minutes of being placed on hold.

The proportion calls that were abandoned after waiting on hold for at least 2 minutes

** We decided to exclude calls that abandon within 2 minutes of being placed on hold since they constitute a large percentage (about 45%) of the calls that are abandoned and do not represent those beneficiaries that experience exceedingly long wait times. It is not possible to tell exactly why these calls are abandoned so early. Possibly it is because the call was the wrong number, or possibly it is because the caller wanted someone right away, was put on hold, then decided to try again later.

a) Why were these performance indicators selected?

Proportion of calls answered within 6 minutes - an increase in the proportion of calls that are answered within 6 minutes will indicate that a greater percentage of beneficiaries are connected with an Access Line clinician in a timely fashion. 6 minutes is considered a reasonable wait time and within the scope of the Access Line once the interventions are performed.

Proportion of answered calls that waited more than 12 minutes before being answered - a decrease in the proportion of calls that waited for more than 12 minutes (double the wait of our Goal Time) to be answered will show that clients do not have to wait on hold for excessively long periods of time before speaking with an Access Line clinician.

Proportion of calls that abandoned after waiting for over 2 minutes – a decrease in the overall abandonment rate will indicate that beneficiaries are connecting with Access Line clinicians in a more timely fashion.

b) How do these performance indicators measure changes in mental health status, functional status, beneficiary satisfaction, or process of care with strong associations for improved outcomes?
Include process indicators that reflect monitoring the application of the interventions.

Responding to calls to the Access Line in a timely fashion is a critical component to making the system accessible and reducing barriers for initial engagement with the system. One of the most irritating and frustrating aspects of call centers is navigating through phone trees and then being placed on hold for some indeterminate amount of time, especially for individuals who are seeking access to health care and who may already be in a stressful situation. An accessible and efficient Access Line is an essential part of the system of care and is strongly related to beneficiary satisfaction.

Remember the difference between *percentage* changed and *percentage points* changed – a very common error in reporting the goal and also in the re-measurement process.

Table B – List of Performance Indicators, Baselines, and Goals

#	Describe Performance Indicator	Numerator	Denominator	Baseline for performance indicator (number)	Goal (number)
1	Proportion of calls answered within 6 minutes	Proportion of all incoming calls that are answered within 6 minutes, excluding calls that abandon within 2 minutes of calling, during 15 weeks prior to intervention minus the proportion of all incoming calls that are answered within 6 minutes, excluding calls that abandon within 2 minutes of calling, during 15 weeks after the intervention	Proportion of calls answered within 6 minutes during 15 weeks prior to intervention	Proportion of calls answered within 6 minutes during 15 weeks prior to intervention (43% based on 4 weeks of data for English speaking beneficiaries)	50% increase (65% of calls answered within 6 minutes)
2	Proportion of calls that waited more than 12	Proportion of calls that waited more	Proportion of calls that	Proportion of calls that waited more than 12	32% decrease

#	Describe Performance Indicator	Numerator	Denominator	Baseline for performance indicator (number)	Goal (number)
	minutes before being answered or abandoning	than 12 minutes before being answered or abandoned during 15 weeks prior to intervention minus proportion of calls that waited more than 12 minutes before being answered or abandoned during 15 weeks after intervention	waited more than 12 minutes before being answered or abandoned during 15 weeks prior to intervention	minutes before being answered during 15 weeks prior to intervention (22% based on 4 weeks of data for English speaking beneficiaries)	(15% of calls waiting more than 12 minutes before being answered)
3	Proportion of abandoned calls that waited at least 2 minutes before abandoning	Proportion of abandoned calls that waited at least 2 minutes during 15 weeks prior to intervention minus proportion of abandoned calls that waited at least 2 minutes during 15 weeks after the intervention	Proportion of abandoned calls that waited at least 2 minutes during 15 weeks prior to intervention	Proportion of abandoned calls that waited at least 2 minutes during 15 weeks prior to intervention (26% based on 4 weeks of data for English speaking beneficiaries)	25% decrease (20% of calls were abandoned after waiting for more than 2 minutes)

10. <u>Use Table C to summarize interventions</u>.

a) In column 2, describe each intervention.
b) In column 3, identify the barriers/causes each intervention is designed to address.
c) In column 4, identify the corresponding indicator which will measure the performance of each intervention.
d) Do not cluster different interventions together.

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Table C - Interventions

1) Number of Intervention	2) List each specific intervention	3) Barrier(s)/causes each specific intervention is designed to target	4) Corresponding Indicator	5) Dates Applied
1	Rona Consulting – LEAN assessment	Access Line resources are not used at an optimal level	1, 2, 3	
2	Hiring and training an additional 2 FTE clinicians to staff the Access Line	The Access Line is short staffed considering the volume of calls received	1, 2, 3	
3	Receiving referrals from primary care through ccLINK	Improved efficiencies by using centralized database for sorting through referrals – allows for work queue and distribution to county clinics	1, 2, 3	May, 2014

Apply Interventions: "What do we see?"

Data analysis: apply intervention, measure, interpret

11. Describe the data to be collected.

Data will be collected from the automated call system, Avaya, currently used at the Access Line. Data will consist of incoming call volume, time until calls are answered, and time until a call is abandoned. Data on FTE clinicians working at the Access Line on a particular day will be collected by Access Line Program Manager, Shelley Okey. FTE will be calculated considering split work shifts, part-time employees, and trainees/trainer constraints.

12. Describe method of the data collection and the sources of the data to be collected. Did you use existing data from your Information System? If not, please explain why.

Data will be pulled from Avaya, the existing information system used to track call volume and wait times at the Access Line. Data on FTE Access Line clinical staff will be entered by Shelley Okey or designee in an Excel spreadsheet on a daily basis.

13. Describe the plan for data analysis. Include contingencies for untoward results.

Pre- and post-intervention data on the indicators listed above will be analyzed using *t*-tests. This method will allow us to test for mean differences between the two periods. Pearson's correlation coefficients will be calculated to explore the relationships between wait time, abandonment rate, call volume, and FTE staff. If untoward results are discovered, the CCMHP Executive Committee will be notified so that they may determine how to best manage the situation.

14. Identify the staff that will be collecting data as well as their qualifications, including contractual, temporary, or consultative personnel.

Data will be extracted from the Avaya call tracking system by the Quality Improvement Unit of CCMHP. Health Services Planner/Evaluators Michael Penkunas, PhD, and Priscilla Olivias, MPP, will be leading data collection and data analysis efforts. Steve Hahn-Smith, PhD, Quality Improvement Program Coordinator, will supervise progress and review intervention results throughout the implementation of the PIP. Program Manager Shelley Okey, MFT, and Acting Program Supervisor Katie White, MFT, will manage the implementation of the interventions at the Access Line and support data collection efforts. All of the staff involved in this PIP are full-time CCMHP employees.

15. Describe the data analysis process. Did it occur as planned? Did results trigger modifications to the project or its interventions? Did analysis trigger other QI projects?

16. Present objective data results for each performance indicator. <u>Use Table D and attach supporting data as tables, charts, or graphs.</u>

Include the raw numbers that serve as numerator and denominator!

Table D - Table of Results for Each Performance Indicator and Each Measurement Period

Describe performance indicator	Date of baseline measurement	Baseline measurement (numerator/ denominator)	Goal for % improvement	Intervention applied & dates applied	Date of re-measurement	Re-measurement Results (numerator/ denominator)	% improvement achieved
THIS IS THE BASELINE INFORMATION FROM TABLES A, B, AND C USED HERE FOR COMPARISON AGAINST RESULTS							

"Was the PIP successful?" What are the outcomes?

17. Describe issues associated with data analysis:

a. **Data cycles clearly identify when measurements occur. Provide explanation for any analysis occurring less frequently than quarterly. Some activities and outcomes benefit from or require close, routine monitoring.**

b. **Statistical significance**

c. **Are there any factors that influence comparability of the initial and repeat measures?**

d. **Are there any factors that threaten the internal or the external validity?**

18. To what extent was the PIP successful? Describe any follow-up activities and their success.

19. Describe how the methodology used at baseline measurement was the same methodology used when the measurement was repeated. Were there any modifications based upon the results?

20. Does data analysis demonstrate an improvement in processes or client outcomes?

21. Describe the "face validity" – how the improvement appears to be the result of the PIP intervention(s).

22. Describe statistical evidence that supports that the improvement is true improvement.

23. Was the improvement sustained over repeated measurements over comparable time periods? Or, what is the plan for monitoring and sustaining improvement?