APS Healthcare

Final Report

# CAEQRO Report, FY13-14

# Sacramento

**Conducted on**

**September 25, 2013**

# ❖TABLE OF CONTENTS❖

# ❖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 Sacramento County mental health plan (MHP) by the California External Quality Review Organization (CAEQRO), a division of APS Healthcare, on September 25, 2013.

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.
- Discussion of activities and practices 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

- Develop a Quality Improvement process or workgroup to identify performance management indicators to monitor which will become available as CWS implementation is completed:
  ☒ Fully addressed ☐ Partially addressed ☐ Not addressed
  - The MHP continues to implement electronic Utilization Review using Netsmart's ScriptLink with Avatar Clinical Work Station (CWS) that identify compliance with MHP policies. Various reports exist in CWS to assist staff in identifying documentation errors. Report examples include missing information and staff productivity.

- The Department of Health and Human Services implemented a "Strategic Advance" work group to identify outcome measures for each division. The goal of the planning process is to become a more measurement-oriented organization. The Behavioral Health Division completed a plan for the data to be collected and analyzed which is currently in draft and is intended to be finalized by October 2013.
- The upcoming Strategic Advance includes a number of clinically related performance outcomes that will be presented in the form of a dashboard, which will include the rates of:
  - Timeliness to first psychiatric appointment
  - Timeliness to first psychiatric appointment after inpatient discharge
  - Acute admissions
  - 30-day readmissions
  - Discharge from the ISU to the community
  - Readmissions among high utilizers

- Formalize/standardize communications between providers and MHP liaisons with clear timelines, policies and response tracking:
  ☒ Fully addressed ☐ Partially addressed ☐ Not addressed
  - Regular meetings with Adult and Children contract providers continue to be scheduled where executive and clinical leaders and County liaison staff participate. Meeting minutes are recorded and distributed to all providers. The MHP updated its distribution lists to distribute to a key person in each agency that is responsible for internal distribution.
  - The Avatar User Forum occurs monthly and informs users of updates and is used to resolve Practice Management and CWS issues. Forum minutes are available on the Avatar website, and there is also an FAQ link.
  - Avatar monthly drop-in sessions which target billing or report issues are available to all providers.

- Consider the development of systemwide policies that speak to ADA responsiveness specific to consumer and family member employee mental health needs and strategies to address the ongoing recovery of staff with lived experience:
  ☐ Fully addressed ☒ Partially addressed ☐ Not addressed

  The MHP's management team received a presentation from "Wellness Works," which is an educational program designed to raise awareness of issues in the workplace that impact coworkers experiencing mental health challenges – not specifically for consumer-employees but for all employees that at some point could experience a mental health

issue that impacts their work. County Human Resources is examining how this program would apply within the existing framework of ADA policies; therefore the impact of this particular strategy is undetermined at this point. This should be examined further as part of next year's review.

- Reassess/create/refine a variety of true wellness and recovery services/treatment approaches, as well as additional treatment options, for older adult consumers:
  ☒ Fully addressed ☐ Partially addressed ☐ Not addressed

  - The MHP's PEI program for older adults, Supporting Community Connections, became fully operational in FY12-13. Services focus on underserved non-English speaking older adults. A peer counseling program matches isolated seniors with trained older adult volunteers. The program also provides phone support, outreach, and support groups.
  - The Del Oro Caregiver Resource Center provides respite services for family/caregivers at risk of a mental health crisis as they care for older adults.
  - The MHP, El Hogar, and the Older Adult Coalition are hosting in October 2013 a one-day conference on older adult treatment, "Innovative Perspectives on Mental Health and Aging." The MHP has also provided a number of trainings to providers on older adult issues.
  - The MHP will soon be starting a WRAP group for older adults.

- Consider a quality improvement/tracking project that specifically addresses community consumers discharged from inpatient hospitalization that fail to engage actively with the MHP's system, despite scheduled follow-up appointment:
  ☐ Fully addressed ☒ Partially addressed ☐ Not addressed

  - Two years ago, the MHP initiated a Community Support Team (CST) which contacts new consumers following an inpatient admission to provide support and assistance until their outpatient appointment. No-show rates for post-discharge follow-up are at 50%. The impact of the CST intervention has not been monitored to determine if those consumers who engage with a CST provider have a higher engagement rate with outpatient services. In addition there is no monitoring to determine the CST engagement rate for the desired population.
  - The CST expands upon the pre-existing T-CORE program which serves high risk consumers post-discharge during their waiting period. This program however does not have enough capacity to engage all individuals after discharge.

## 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 is undergoing a change in leadership with the current MHP Director transitioning to retirement at the time of the review; a new director was recently promoted from within the existing management team.
- The MHP continued its five-year IT Plan for implementing its EHR. All county – and the contract providers that opted to use the county managed EHR – are live with the full EHR. The county-run inpatient unit is scheduled to go live in October 2013.
    - The Child Adolescent Needs and Strengths (CANS) tool is part of the Clinicians Workstation (CWS) and is used simultaneously with the Avatar training.
    - The MHP and Netsmart Technologies are in the final contract negotiation stage to implement a three-year contract extension that will provide additional capabilities to support coordinated care and interoperability between the MHP and contract providers that have their own EHR systems to provide a methodology for two way exchange of consumer-level health information.
- In October 2012 the Mental Health Treatment Center implemented an intake stabilization unit (ISU) which admits consumers from the local emergency rooms, providing the county and hospitals a new diversion option. This unit serves to reduce impact on the emergency room but does not provide the option for consumers in crisis to self-refer or fulfill the need for non-emergency room crisis response. This is particularly important in this large mental health system where timely access is hindered.
    - The MHP reports a 20% rate of stabilization and diversion from inpatient admission. Further, 40% of the emergency room referrals are either admitted to the ISU or transitioned directly to one of the Crestwood PHFs.
- The *Napper* lawsuit consent decree ended January 2013 with a written agreement regarding system plans. This includes the consolidation of two county programs onto the campus where the inpatient unit is housed. Capital facilities work for the relocation of the county clinic is anticipated next year.
    - Because the lawsuit required that the MHP continue to fund its contract providers as it had done historically, the county's general fund permitted

the MHP to accomplish this obligation. The MHP now has a balanced budget with revenue accruals paid.

- MHSA expansion funding anticipated in the next year will be used in combination with the settlement, the prior IDEA Consulting system report, and other stakeholder processes to determine next steps for program development. The stakeholder process is intended to consider all identified gaps in the settlement to determine next steps.

- The MHP has an arrangement with local inpatient facilities in that they pay the facility a higher inpatient rate for Medi-Cal beneficiaries, and in exchange the hospitals do not charge the MHP for indigent consumers. As a result, with the upcoming Medi-Cal expansion, this is likely to have both positive and negative fiscal impact as more indigent consumers become Medi-Cal beneficiaries.
  - The MHP continues to run its own 40-bed psychiatric health facility (PHF) and contracts for two additional PHFs that are contractor-run.
- The MHP is initiating a program that will provide targeted services to people who have multiple admissions to inpatient or the jail yet do not engage in outpatient care. This will be staffed with two deputy conservators, each with small caseloads. The MHP is working with the Public Defender's office to define the program's target population. The Board of Supervisors approved general fund dollars for this program.
- The MHP began using MHSA innovation funds to provide crisis respite services through contract providers.
- The MHP continued its crisis responder training for the Sacramento Sheriff's department and expanded to the Rancho Cordova Police department.
- The MHP is currently in the testing phase to begin billing Medicare.

## 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 utilizes a current QI Work Plan and recently completed a report of results based upon the Work Plan for the periods of FY11-12 and FY12-13. (There had been some changes in staffing that resulted in lack of timely reporting on FY11-12). The Work Plan evaluation shows year-to-year findings within each item. The report would benefit from analysis of whether such findings are considered sufficient compared to targeted goals, whether additional improvement activities are warranted, and if so, what those activities will be. The QI Work Plan would benefit from identifying targeted areas to "improve" based upon findings rather than to "monitor."
- The MHP has a staffed Research Evaluation and Performance Outcomes unit that runs routine service utilization and outcome reports. The unit is poised to fill two additional positions. While evaluation efforts show an emphasis on MHSA programs, PIP implementation, and inpatient utilization, the unit will be expanding its scope of responsibility to include Alcohol and Drug Services. The MHP also conducts its own analysis of the state required consumer perception survey.
- The MHP has not yet moved to a dashboard approach to priority reporting. However there are many management reports available in Avatar.
- Medi-Cal claims submissions and claim volume were consistent during the past year. The MHP's denial rate (7.2%) for CY12 was slightly higher than statewide denial rate of (6.2%) for the same period.
- Collaboration with various partners continues to appear strong and communication also reportedly improved in this large system which relies heavily upon partnerships.
    - In particular the MHP has continued to move forward in its primary health care integration projects. This includes a primary care provider stationed at the Stockton Avenue MHP clinic and two psychiatrists providing part-time consultation within the regional service teams (RSTs) that provide most of the adult outpatient services within the system.
    - RSTs are providing groups focused on diet and smoking cessation, using dieticians, RNs, and LVNs.

- The MHP uses four locally developed, practice- and literature-informed, psychiatry algorithms. The child psychiatry medical director created a new algorithm for the treatment of ADHD, particularly to address the increased off-label use of atypical anti-psychotics for treating ADHD in youth. Other MHPs would benefit from this practice.

## 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.

- For system access, the MHP maintains its Access phone line that refers to the county Adult and Child programs and contract provider network for intake and subsequently authorization for services.
- The MHP currently has five threshold languages, though the specific languages tend to vary between seven languages. The MHP monitors access by age and race but not specifically by language. However language access is monitored through a report from the vendor that provides interpretation services. Based upon the wait times by race, the data suggests that language needs probably do not result in any longer wait times.
    - The EHR progress note has two required data fields that record the language in which the service was provided and whether an interpreter was used. This would enable to the MHP to provide reports of service access and utilization by language preference.
- The MHP conducts its own penetration rate analyses, both based upon Medi-Cal eligibles and 200% of poverty.
- The MHP has several outreach programs designed to reach under-served ethnic groups. The MHP maintains several goals associated with a recent Cultural Competence Plan, most of the goals are large overarching system goals, held long-term from prior Cultural Competence Plans.
- Implementation of the *Katie A* settlement agreement is being actively and collaboratively planned. The MHP and Child Welfare Services (CWS) maintain a steering committee that is co-chaired by the department directors, meeting every two weeks with involved managers and program planners. Subcommittees include one that focuses on project-related data. The MHP is in the process of identifying its subclass, beginning with those youth already in intensive MHP programs. CWS youth who are subclass eligible for other

reasons have not yet been included, but CWS will begin using a screening tool to identify potential subclass members.

- Services to *Katie A* members will begin in the MHP's programs which are most prepared to implement a Child/Family Team (CFT) and adapt their services as needed to the Core Practice Model. This will include the wraparound programs and the Flexible Integrated Treatment (FIT) programs. Both programs can increase or decrease the frequency of services and provide them in the most suitable environment.
- It is undetermined how the MHP will address the needs of subclass members who are in existing non-intensive programs that do not have the flexibility to offer a CFT or ICC/IHBS. This could require contract amendments to enable those providers to augment their services, collaborate with a program designed to provide ICC/IHBS, or less desirably, transition care to another provider.
- The MHP has initiated a manual process for identifying those youth "at-risk" of higher level services by querying workers of existing MHP caseloads.

### 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's service system remains impacted, as shown by long time frames for initiating services. This has been a longstanding issue and would require multiple strategies for improvement, and likely expansion of staffing in order to meet the community need.
- In the prior year the MHP initiated a policy of requiring RSTs to provide timely post-discharge appointments following inpatient admissions. This has proved to be burdensome on the front end of the system, in particular because over the past year over 1,000 of the individuals hospitalized either had no prior MHP service history or had not had an open case within the prior four-month period. This prioritization has resulted in longer waits for initial routine psychiatry appointments.
- For initiating service requests, the MHP averages roughly one month for adults and two weeks for children. Both age groups have a 14-day standard, and achievement of this standard on a quarterly basis ranges from 35% to 43% for adults and 52% to 64% for children.

- The MHP has a 28-day standard for an initial psychiatry appointment. There is no measurement conducted for child psychiatry, and adults average two-month wait times, with less than 25% of consumers receiving a service within the targeted time frame.
- The MHP also measures the wait time from intake to the next clinical (non-psychiatry) appointment. Results show roughly three weeks for adults and ten days for children. With a 30-day standard, the MHP shows higher performance on this measure, consistently over 50% for adults and over 90% for children.
- Services provided after a hospital discharge have a target for a non-psychiatry visit within 7 days and a psychiatry visit within 30 days. As with other timeliness measures, performance is stronger for timeliness to children's services, averaging less than one week on the 7-day metric and two weeks on the 30-day metric. Adult time frame averages on the 7-day metric are between 9 and 12 days, and on the 30-day metric, between two to three weeks.

## 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 has implemented the CANS systemwide, both in county and contract provider organizations. The CANS implementation has the MHP well prepared for the statewide EPSDT performance outcomes system – at least for population served within the children's system.
  - The MHP has not monitored the degree to which staff are compliant with using the CANS for remeasurement. It is, though, a mandatory screen within the Avatar system as part of the assessment to serve as a baseline.
  - The MHP will soon pull a systemwide report on CANS outcome results. The CANS has been used primarily at a consumer level. Aggregate results would be useful for managing programs and evaluating youth outcomes systemwide.
- The MHP does not have systemwide measures in place for adult services but plans to implement the Adults Needs and Strengths Assessment (ANSA).

- The MHP recently produced a report of its MHSA Full Service Partnership (FSP) outcomes for FY11-12, in which 1,766 individuals were served and up to 1,122 can be served at any one time.
- A peer program plans to pilot a recovery outcomes tool. A committee will be developed to select an appropriate tool and oversee its implementation.
- The MHP has two active PIPs. More information follows later in this report.

# ❖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**

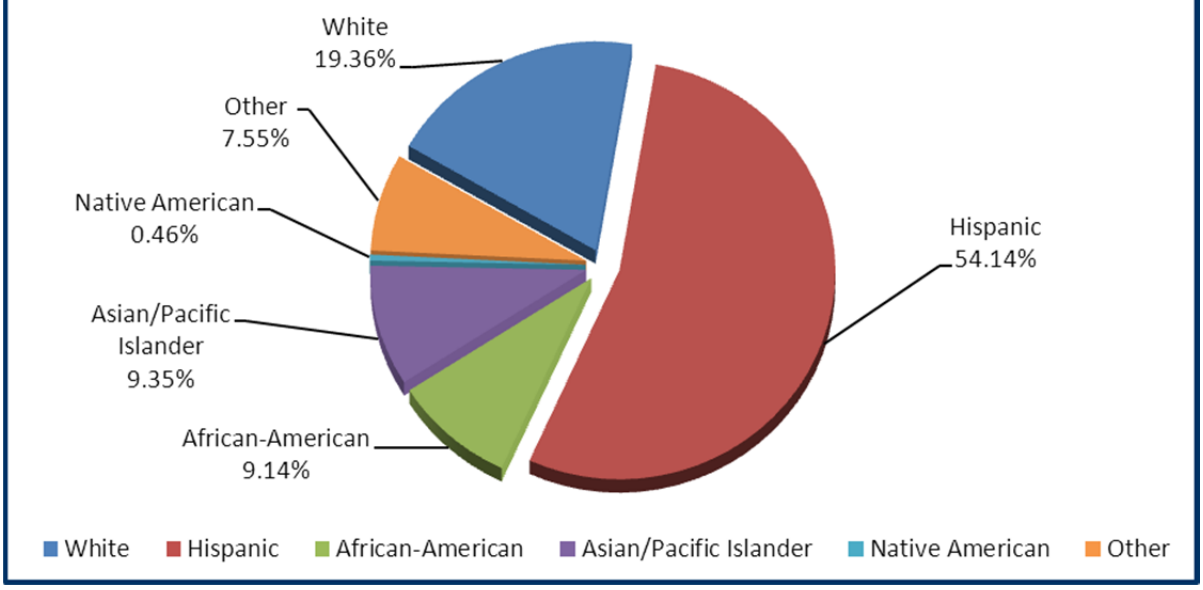



**Figure 5b. Statewide Medi-Cal Beneficiaries Served, by Race/Ethnicity CY12**

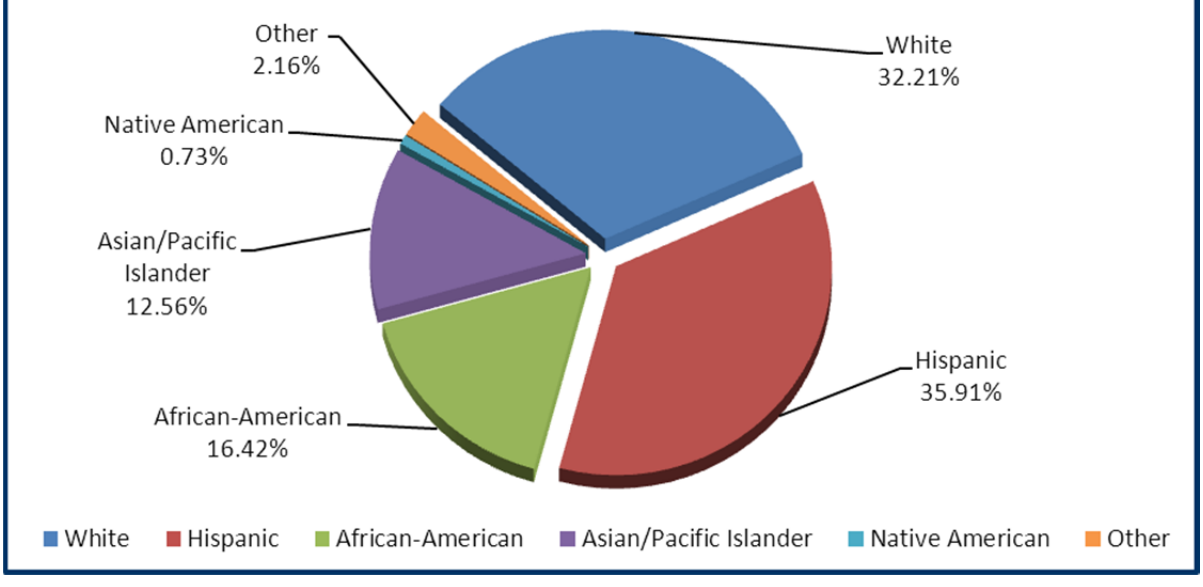


**Figure 6a. Sacramento Medi-Cal Average Monthly Unduplicated Eligibles, by Race/Ethnicity CY12**

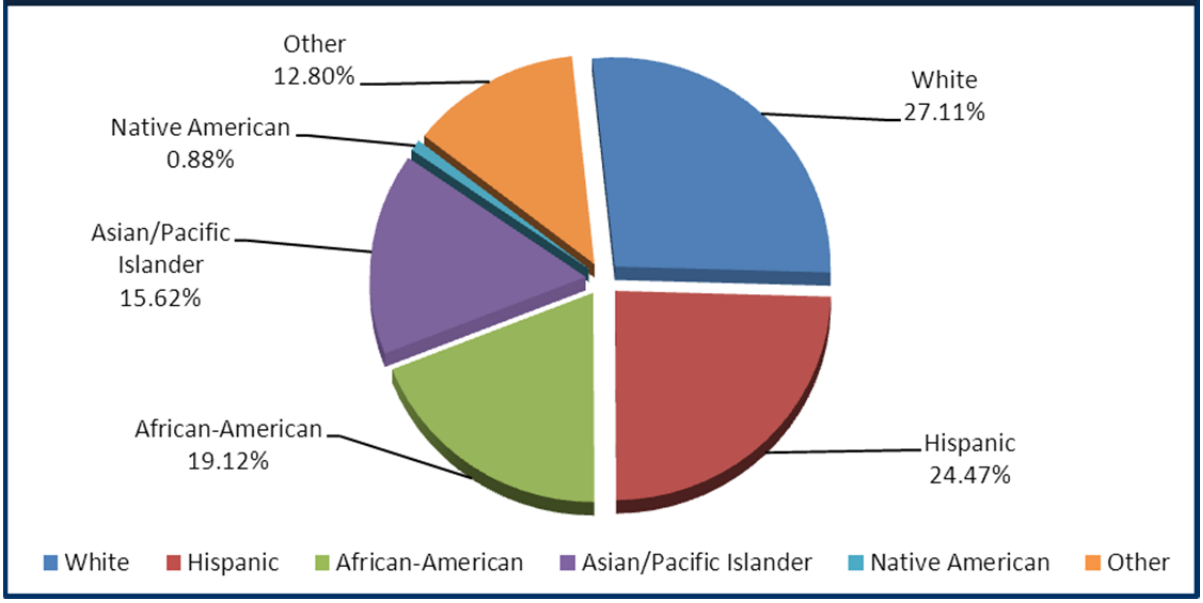
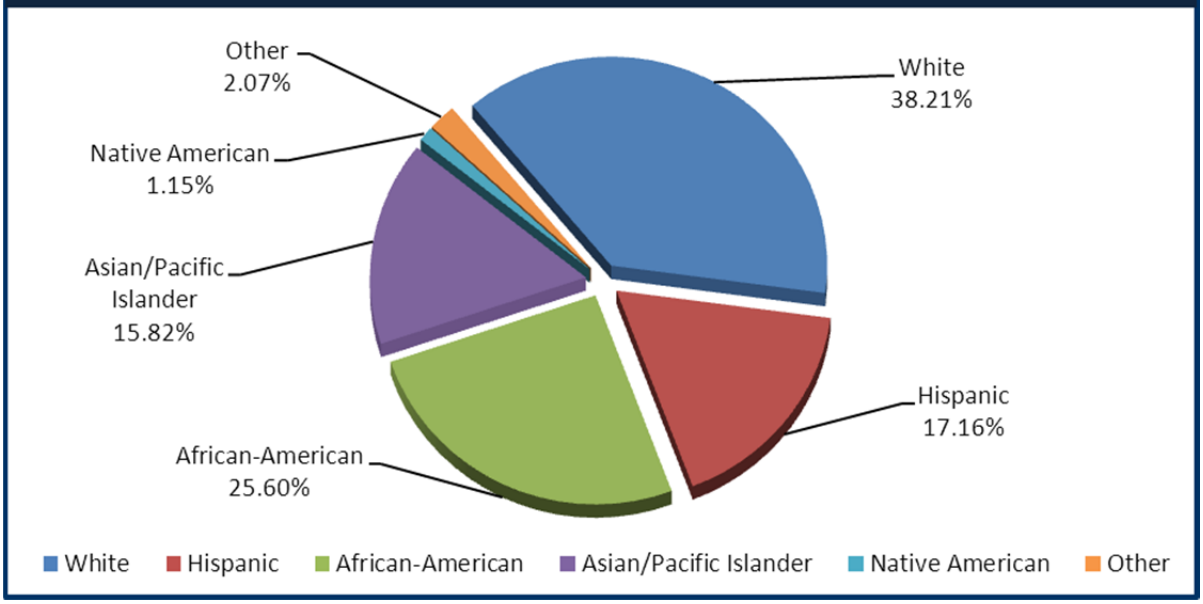



**Figure 6b. Sacramento Medi-Cal Beneficiaries Served, by Race/Ethnicity CY12**



## PENETRATION RATES AND APPROVED CLAIM DOLLARS 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 | Sacramento | Rank | Large MHPs | Statewide |
|---|---|---|---|---|
| **Total approved claims** | $81,339,243 | N/A | $985,477,065 | $2,354,984,998 |
| **Average number of eligibles per month** | 336,514 | N/A | 3,750,774 | 7,956,900 |
| **Number of beneficiaries served** | 18,860 | N/A | 214,398 | 465,331 |
| **Penetration rate** | 5.60% | 35 | 5.72% | 5.85% |
| **Approved claims per beneficiary Served** | $4,313 | 28 | $4,596 | $5,061 |
| **Penetration rate – Foster care** | 49.98% | 26 | 47.87% | 53.11% |
| **Approved claims per beneficiary served – Foster care** | $7,242 | 23 | $8,237 | $8,426 |
| **Penetration rate – TAY** | 6.23% | 41 | 6.80% | 6.97% |
| **Approved claims per beneficiary served – TAY** | $5,771 | 19 | $5,676 | $6,282 |
| **Penetration rate – African-American** | 7.50% | 42 | 9.77% | 10.51% |
| **Approved claims per beneficiary served – African-American** | $4,592 | 29 | $5,388 | $5,459 |
| **Penetration rate – Hispanic** | 3.93% | 23 | 3.60% | 3.88% |
| **Approved claims per beneficiary served – Hispanic** | $3,815 | 31 | $4,369 | $5,017 |

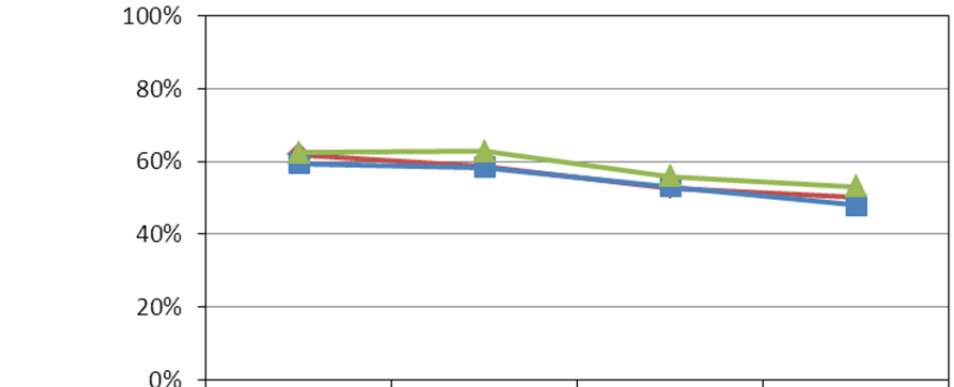
| Figure 7. CY12 Medi-Cal Approved Claims Data | | | | |
|---|---|---|---|---|
| **Element** | **Sacramento** | **Rank** | **Large MHPs** | **Statewide** |
| **Penetration rate – White** | 7.90% | 43 | 10.12% | 9.73% |
| **Approved claims per beneficiary served – White** | $4,407 | 28 | $4,380 | $4,956 |

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

**Figure 8. Overall Penetration Rates CY09-CY12**

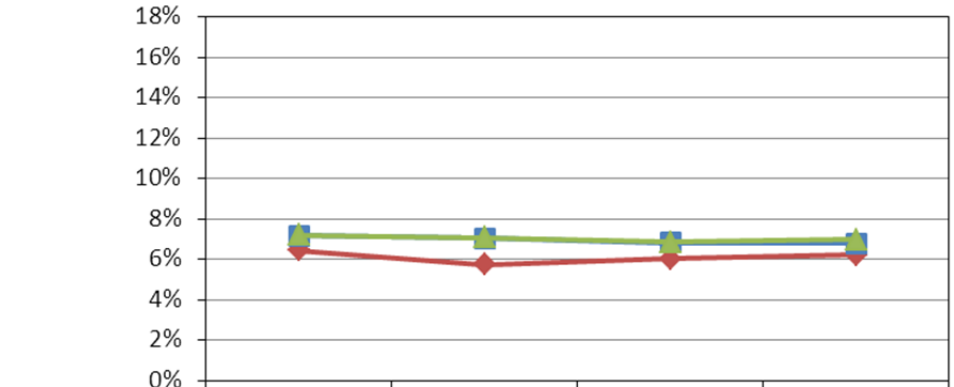

| | CY09 | CY10 | CY11 | CY12 |
|---|---|---|---|---|
| Sacramento | 6.54% | 5.36% | 5.46% | 5.60% |
| Large MHPs | 6.25% | 5.92% | 5.76% | 5.72% |
| Statewide | 6.15% | 5.89% | 5.78% | 5.85% |

## Figure 9. Foster Care Penetration Rates CY09-CY12



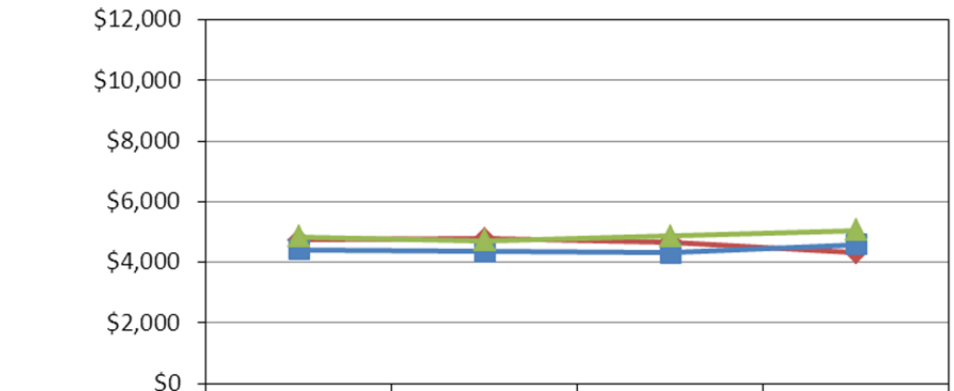

| | CY09 | CY10 | CY11 | CY12 |
|---|---|---|---|---|
| Sacramento | 61.92% | 58.51% | 52.77% | 49.98% |
| Large MHPs | 59.43% | 58.33% | 52.99% | 47.87% |
| Statewide | 62.43% | 62.67% | 55.88% | 53.11% |

## Figure 10. Transition Age Youth Penetration Rates CY09-CY12




| | CY09 | CY10 | CY11 | CY12 |
|---|---|---|---|---|
| Sacramento | 6.44% | 5.73% | 6.01% | 6.23% |
| Large MHPs | 7.17% | 7.05% | 6.83% | 6.80% |
| Statewide | 7.21% | 7.06% | 6.86% | 6.97% |

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




| | CY09 | CY10 | CY11 | CY12 |
|---|---|---|---|---|
| Sacramento | $4,744 | $4,774 | $4,682 | $4,313 |
| Large MHPs | $4,410 | $4,351 | $4,319 | $4,596 |
| Statewide | $4,841 | $4,723 | $4,872 | $5,061 |

## 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. Sacramento 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 | 333,589 | 18,549 | 5.56% | 36 | $81,878,140 | $4,414 | 24 |
| FY10-11 | 316,661 | 17,385 | 5.49% | 43 | $82,609,717 | $4,752 | 22 |
| FY09-10 | 322,288 | 17,570 | 5.45% | 40 | $85,762,859 | $4,881 | 20 |
| FY08-09 | 307,246 | 20,238 | 6.59% | 36 | $87,413,863 | $4,319 | 26 |
| FY07-08 | 291,374 | 20,545 | 7.05% | 38 | $95,483,507 | $4,648 | 23 |

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:

- For CY12 the overall penetration rate (5.60%) is slightly lower than the large MHP average (5.72%) and the statewide average (5.85%). It is, however, slightly increased over CY11 (5.46%).
- During CY12 the MHP's approved claims dollars per beneficiary served ($4,313) is slightly lower than the large MHPs average ($4,596) and 15% lower than the statewide average ($5,061).
- The MHP's foster care penetration rate has decreased annually from 61.92% in CY09 to 49.98% in CY12.
- For CY12 foster care approved claims dollars per beneficiary served ($7,242) is 12% lower than the large MHPs average ($8,237) and 14% lower than the statewide average ($8,426).
- Approved claims dollars per Hispanic beneficiary served ($3,815) is 13% lower than large MHPs average ($4,369) and 24% lower than the statewide average ($5,017). The Hispanic penetration rate (3.93%) is 8% higher than large MHPs average (3.60%) and slightly higher than the statewide average (3.88%).

## 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" (HCBs) 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** | 12,083 | 465,331 | 2.60% | $50,256 | $607,242,338 | 25.79% |
| **Sacramento CY12** | 259 | 18,860 | 1.37% | $44,362 | $11,489,853 | 14.13% |
| **Sacramento CY11** | 294 | 18,097 | 1.62% | $45,422 | $13,354,031 | 15.76% |
| **Sacramento CY10** | 316 | 17,089 | 1.85% | $44,676 | $14,117,730 | 17.30% |
| **Sacramento CY09** | 466 | 20,582 | 2.26% | $45,435 | $21,172,488 | 21.69% |

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, 37.86% of the approved Medi-Cal claims funded 5.12% of the beneficiaries served when this second tier of high cost beneficiaries is included. For the MHP, 23.52% of the approved Medi-Cal claims funded 3.03% of the beneficiaries served. This information is also depicted in pie charts in Attachment D.

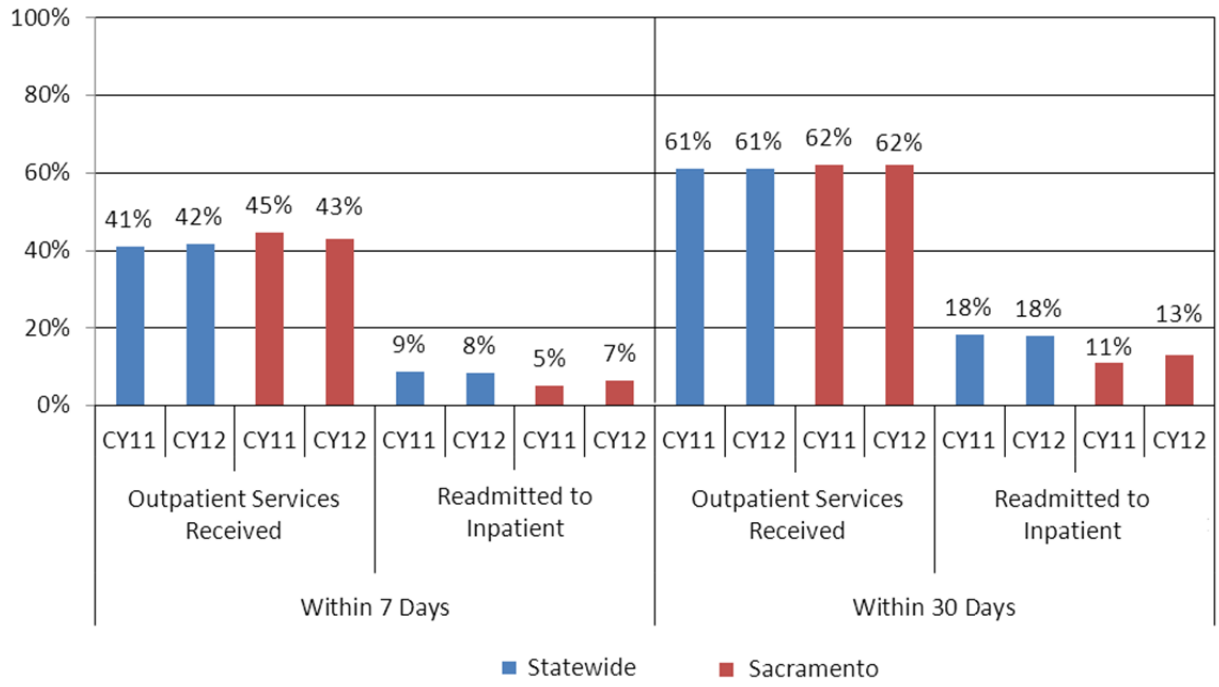
- The number of HCBs served from CY09 to CY12 decreased each year, ranging from 466 in CY09 to 259 in CY12.
- HCBs represent (1.37%) of all MHP beneficiaries served, which is nearly half of the statewide average (2.60%).
- The total dollars approved for HCBs represent 14.13% of Medi-Cal claims, compared to statewide representation of 25.79%. The MHP percent of HCB dollars has been significantly less than the statewide percentages during past four years.
- The MHP funded the balance of its Medi-Cal services (96.97% for 18,288 beneficiaries) with 76.48% of its approved claims dollars. The average approved claims for the balance of these beneficiaries who received less than $20,000 in services was $3,402.

## 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 Sacramento 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, 61% of beneficiaries received a non-inpatient service after discharge in CY12 and CY11, and the inpatient readmission rate also held steady at 18%.

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

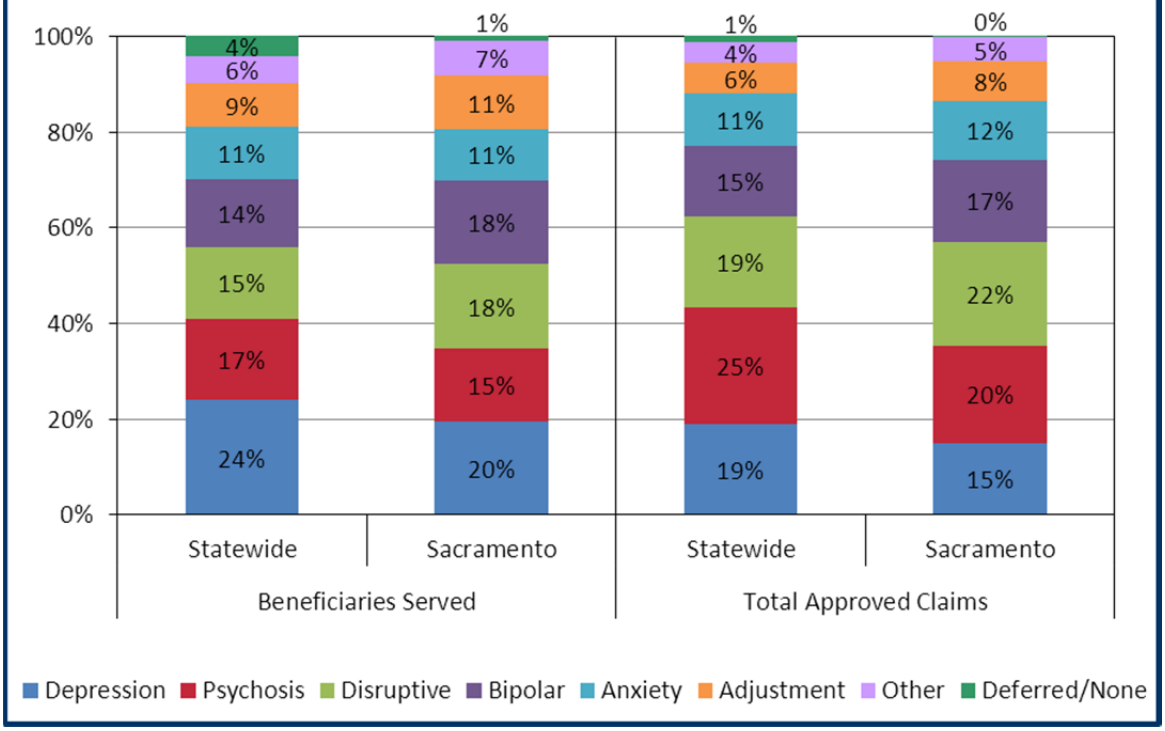
- In CY12 outpatient services were provided to 43% of beneficiaries within seven days following hospital discharge, compared to 42% statewide; this is slightly less than the 45% MHP follow-up rate in CY11. During the seven day timeframe, the MHP's readmission rate was 7%, slightly less than statewide rate of 8%, but higher than the MHP's CY11 rate of 5%. -

- In CY12 outpatient services were provided to 62% of beneficiaries within thirty days following hospital discharge, the same as in CY11, and slightly more than the statewide rate of 61%. During this timeframe the MHP's readmission rate was 13%, well below the statewide rate of 18%.
- When viewing the MHP's hospitalization and rehospitalization data for the past two years, it is important to consider the increase in Medi-Cal inpatient beds and the reduction of its larger non-Medi-Cal inpatient facility; therefore the MHP shows more hospitalizations in the Medi-Cal data than in years past. Local MHP data would be necessary to assess the actual changes in inpatient use over the past few years.

## 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**
**Sacramento 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.

For the MHP, diagnostic categories show the following:

- The MHP has a higher percentage of bipolar disorder diagnoses (18%) compared to statewide (14%), but these diagnoses comprise a less disparate percentage of approved dollars (17% versus 15%).
- The MHP has a higher percentage of disruptive disorder diagnoses (18%) compared to statewide (15%), and the percentage is correspondingly higher than the statewide approved dollars (22% versus 19%). This is the MHP's largest claims category, whereas statewide the largest proportion is for psychotic disorders.
- Psychosis disorder diagnoses are evident at a lower level within the MHP's treated population (15% versus 17%) and comparatively fewer dollars are claimed for this population (20% versus 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. 8-10 ethnically diverse consumers who receive coordinated health and mental health services

2. 8-10 individuals who have received services through the intake stabilization unit (ISU)

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 was held at Visions Unlimited and had four attendees, though nine participants had been expected. Three spoke English, and one spoke Mien, so an interpreter was provided. Service lengths ranged from four to twenty years. All four had a personal service coordinator (PSC). As this group was intended to focus on individuals who received coordinated physical and mental health care through the MHP, three had been actively involved in the smoking cessation group; one other was also in the Diabetes group. All four received medication services through a psychiatrist as well as contact with a nurse. Only one consistently uses the Marconi wellness center, although a second consumer knew about the Franklin Center. The Asian consumer did not know about any wellness center, including the Transcultural wellness program specifically serving Asian Pacific Islander (API) consumers.

Each person saw a psychiatrist every three months and felt that if they needed assistance between appointments they could call the nurse, their PSC or their psychiatrist. If in crisis, all reported they would go to an ER, call 911, or call a family member. Two of the four knew about the crisis line but no one had ever called it.

Staff was seen as capable and sensitive to the diversity of consumers and the system was perceived as having good language capacity. In general all staff was welcoming and "relatable," although it was unclear if any specific cultural practices had been added into treatment plans. Despite being a sample of integrated care consumers, no one was aware of any care coordination between their MHP nurse/psychiatrist and an external primary care provider –

however three of the participants saw private medical care providers and needed to keep them updated on their own.

Family members were encouraged to be involved and offers were made to do this if a consumer was interested, although no one present had chosen to do so. All agreed the system provided them a sense of hope and recovery. Staff care about the consumers and are respectful, as well as allow the consumers to express their opinions about their treatment. They felt wellness was a concept that was stressed and all were aware of employed peers in different locations. One consumer had developed a WRAP plan with MHP staff assistance but others were unfamiliar with the concept.

Most of the four consumers felt empowered to speak up and tell another provider if they had a problem with someone and wanted to change. One person knew there was a formal process to request such a change but had never used it. Another consumer recounted her plan to request a change in psychiatrist despite having a long period of care with him. Her concern was, after being seen by an on-call psychiatrist recently, that her existing psychiatrist had not been properly monitoring her blood levels as required for Lithium treatment management. Only two consumers knew about the available Appeal form and process.

At both their RST and the wellness center, consumers reported monthly calendars, flyers, and printouts of activities, as well as seeing information on clinic bulletin boards, and getting information from their PSC. The Mein-speaking consumer reported all flyers he sees are in English and someone has to translate them. Everyone reported seeing the Stop Stigma campaign throughout the city, although they did not know it was an MHP initiative.

No one was presently active in any committee or stakeholder opportunity; nobody had been involved in or was aware of the *Napper* forums held in the fall. No one recalled at any time being asked to give their input on system improvement. The three English-speaking consumers reported completing satisfaction surveys in the past; however, the Mien-speaking consumer had never done so. One consumer knew about the Speakers' Bureau but not its purpose.

Recommendations from this group included:

- Provide more opportunities for socialization among consumers.

Participants from the group provided the following demographic information:

**Figure 16. Consumer/Family Member Focus Group 1**

| Number/Type of Participants | |
|---|---|
| Consumer Only | 4 |
| Consumer and Family Member | |
| Family Member of Adult | |
| Family Member of Child | |
| Family Member of Adult & Child | |
| **Total Participants** | **4** |

| Ages of Participants | |
|---|---|
| Under 18 | |
| Young Adult (18-24) | |
| Adult (25-59) | 2 |
| Older Adult (60 and older) | 2 |

| Preferred Languages | |
|---|---|
| English | 3 |
| Mien | 1 |
| | |

| Race/Ethnicity | |
|---|---|
| Caucasian/White | 2 |
| Asian/Pacific Islander | 1 |
| African American | 1 |

| Gender | |
|---|---|
| Male | 3 |
| Female | 1 |

Interpreter used for focus group 1: ☐ No ☒ Yes Language(s): Mien

## CONSUMER/FAMILY MEMBER FOCUS GROUP 2

This focus group was held at T-CORE, with an emphasis on the input of consumers who have been served at the ISU. Ten participants had lengths of services ranging from a few months to 40 years; two had a history of services in other nearby counties.

For those to consumers with short service histories, access was not a problem as both came directly from hospitals and went straight into a RST. Only one consumer reported a delay in getting into the Visions RST about two years ago, the delay resulting in a hospitalization. In many cases, consumers discharged from the hospital within the last year received a scheduled follow-up within 30 days, but those discharged in late 2012 reported only getting referred to the Adult Access number and were told to follow-up themselves.

The group reported on average seeing their psychiatrist every two months, but in a few cases once a month when clinically indicated. All said they could see a doctor sooner if they told their PSC they needed an appointment. A few noted longer delays between appointments - up to or more than three months if they missed an appointment, as there is very limited flexibility in the psychiatry schedule to accommodate a rescheduled appointment. A small majority reported trouble in communicating to their psychiatrist their struggles or concerns during appointments. About four female consumers collectively reported very negative, shaming experiences at the Mental Health Treatment Center's inpatient unit when they reported sexual abuse histories to a

psychiatrist (so much so that they wished they said nothing, although it was a key factor in their crises).

No one reported any care integration between a psychiatrist and a primary care provider when they had a diagnosed serious medical condition. Most reported seeing their PSC monthly but it could be as frequent as daily depending on the intensity of the program they are enrolled in.

Specifically with regard to their experience in the ISU, most felt that they were simply being "housed" until a bed at an inpatient facility was available. They felt that staff did not continue to assess their needs or interact with them. A few recalled talking to a psychiatrist while there but most felt the ISU staff "did not care about their crisis." They reported that consumers in the ISU are encouraged to walk around and are actually locked out of their rooms early in the morning to prevent further isolation. Only one participant found the ISU to be a very positive experience and found the staff welcoming and calming. From the ISU, some went to the crisis residential, some went to the MHTC, but most went to the Crestwood PHF Engle location (all but one said that PHF was in "terrible condition" while they were there). None were discharged back to the community.

If in crisis, consumers reported they would call 911, go to an ER, call their clinic if it was open, or call their assigned PSC, whom they felt confident would pick them up and take them directly to an ER. All agreed that the system had good cultural competence, met their needs, and is respectful in general of different cultures and religious beliefs.

The majority of the group knew about one or both wellness centers and felt that these had good resources, groups, and activities. Of those, a few knew there were peer counselors available at these centers and said they were very helpful. Three consumers had a WRAP plan, and a few others knew about them, while the rest had no idea what one was. Nearly everyone present was aware the system had employed peers and spoke highly of various vocational supports provided by RSTs. Participants felt that the most helpful services were assistance with housing and having MHP staff help address complicated medical issues.

Attendees reported seeing flyers at various locations and getting word-of-mouth information from PSCs. Family members were seen to get information on various clinic bulletin boards. No one present had served on a stakeholder committee and no one was aware these opportunities existed or knew that the MHP leadership had visited all RSTs last fall to host a consumer forum.

Recommendations from this group included:

- Provide more frequent psychiatric contact rather than every two to three months.
- Make more effort to listen to consumers when they assert they need hospital admission.
- Encourage the RSTs to post larger systemwide information/events on their bulletin boards, not just information pertaining to the specific program, including development and dissemination of a monthly letter to consumers listing systemwide events that can be given out when a PSC meets with a consumer.

## Figure 17. Consumer/Family Member Focus Group 2

| Number/Type of Participants | |
|---|---|
| Consumer Only | 9 |
| Consumer and Family Member | 1 |
| Family Member of Adult | |
| Family Member of Child | |
| Family Member of Adult & Child | |
| **Total Participants** | **10** |

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

| Preferred Languages | |
|---|---|
| English | 10 |
| | |
| | |

| Race/Ethnicity | |
|---|---|
| Caucasian/White | 4 |
| African American | 3 |
| Mixed/Other/Unknown | 3 |

| Gender | |
|---|---|
| Male | 1 |
| Female | 9 |

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:

> "Will increasing efforts to document, coordinate and follow-up on medical issues with the consumer's primary care provider lead to improved primary care access/follow-up and treatment for mental health consumers served in standard outpatient clinic care?"

Year PIP began: 2012

Status of PIP:

- ☐ Active and ongoing
- ☒ Completed (active during the review period)
- ☐ Inactive, developed in a prior year
- ☐ Concept only, not yet active
- ☐ No PIP submitted

This PIP continued a focus at the four RST clinic sites on the physical health of consumers who have three or more medical conditions. The prior PIP was successful with improved documentation of health conditions and 90% of consumers with an identified primary care provider – the MHP will conduct another chart review to monitor for sustained results. This year the MHP developed a new study question and focused this year's efforts on the consumer and staff relationship and their ability to manage health conditions. This was assessed by survey to measure awareness, comfort, knowledge, and confidence in discussing health conditions. Both consumers (n=793) and staff (n=88) were surveyed in those four domains the MHP deemed to influence whether the consumer and MHP staff could effectively collaborate on the consumer's health conditions – and the areas in which interventions could be necessary. The MHP plans to re-survey consumers and staff in March 2014 with hopes of higher reported scores in the survey.

Interventions were conducted in April 2013. The MHP conducted staff training to increase staff comfort in dealing with health issues. They developed a letter of agreement with primary care providers to promote care coordination. Each RST was provided with brochures, posters, and video presentations to promote health care to consumers. Two physicians provide a few hours per week of support to each of the clinics to assist with staff health education, provide case consultation, and create group curriculums (health/wellness and smoking cessation). Dietician interns have developed nutrition group curriculum and nursing staff co-lead or assist in smoking cessation groups.

For groups conducted, the MHP's Research staff receive pre/post surveys from participants. This data have not yet been reviewed. Prior plans for this PIP included enhanced transition of consumers from the MHP to primary care for their psychiatric needs, but this has not occurred.

The MHP should initiate a new PIP and continue these activities as part of routine clinical and quality management operations.

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. 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 |
| 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** | | **10** | | **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.

## NON-CLINICAL PIP

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

> "Can CANS data be used to identify clients with needs that correlate to hospitalization or MERT usage so that subsequent (new and continuing) CANS assessments can be used to focus on interventions to prevent hospitalization and use of MERT? Is the Adjustment to Trauma element useful in correlating trauma to hospitalization or MERT usage or suggesting the need to adopt the Trauma Module in CANS?"

Year PIP began: January 2010

Status of PIP:

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

The MHP continued to develop its PIP which began in 2010 along with the implementation of the CANS throughout the children's system of care. The MHP initiated this PIP to continue its efforts to reduce hospitalizations and minor emergency response team (MERT) utilization within its intensive programs – wraparound and FIT. Analysis was conducted on youth divided into four groups – hospitalized vs. not hospitalized and those with or without trauma, as indicated by the CANS Adjustment to Trauma subscale. Analysis showed a higher rate of trauma in the hospitalized group of youth. As a result the MHP decided to add the trauma module to CANS. More youth have subsequently been identified for Trauma-Focused CBT (TF-CBT).

This past year the MHP focused on continued emphasis on CANS use and support of its use by educating parent partners more on the tool. With a better understanding of the assessment tool, parent partners can better support families in participating in using the CANS. Programs are showing higher compliance of CANS utilization and this has correlated with CANS-driven treatment planning and modification as well as reduced hospitalizations and MERT utilization.

This PIP is concluded and the MHP should continue to monitor outcomes as part of its routine clinical and quality management operations.

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. 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** | | **12** | **1** | |

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.

### 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 | 8.10% |
| Contract providers | 91.54% |
| Network providers | 0.36% |
| | 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:

8%

- Reported average monthly percent of missed appointments:

3.3%

- Does MHP calculate Medi-Cal beneficiary penetration rates?

☒ Yes ☐ No

The following should be noted with regard to the above information:

- The MHP reported a co-occurring diagnosis rate 8% for FY13-14, while they reported rate of 24% for FY12-13. Last year the MHP indicated the 24% figure as probably understated and they expected that a more accurate figure would be available once electronic assessments were initiated. The MHP has yet to implement electronic assessments. It is unknown why the co-occurring diagnosis rate dropped so dramatically from year to year.
- The MHP reported missed appointments rate of 3.3% for FY13-14, while they reported a rate of 8.9% for FY12-13. The MHP tracks consumer no-shows or called and cancelled appointments, but they do not track staff cancelled or staff unavailable appointments.

## CURRENT OPERATIONS

- The MHP continues a phased implementation of Netsmart Technologies Avatar system. They went live with Avatar Practice Management application May 2009 and Avatar Clinician's Workstation (CWS) in Sep 2011. They currently expect to fully deploy Avatar by 2016.
- The MHP currently has approximately 1,350 Avatar user licenses.
- Currently IS staffing includes nine full-time equivalent (FTE) positions. Since the FY12-13 CAEQRO review, they filled one position and had two staff persons leave. At the time of the review, there was one vacant position.
- Avatar CWS user training and support was contracted to a vendor. Currently four FTEs provide training support for MHP programs and contract providers.

## MAJOR CHANGES SINCE LAST YEAR

- The MHP continued the five year IT Plan to implement a full Electronic Health Record which over the past year included:
  - Avatar Infoscriber: Go live with eRX for outpatient providers
  - Avatar CWS: Go live with electronic clinical documentation for all outpatient providers
  - Avatar: Go live with document (imaging) management for outpatient providers

- CSI data submissions to the State are current.

## PRIORITIES FOR THE COMING YEAR

- Implement Medicare Part B billing and claim submissions.
- Avatar OrderConnect: Implement Inpatient Electronic Order Entry.
- Avatar OrderConnect: Implement Outpatient Electronic Order Entry.
- Avatar CWS: For Access Team.
- Avatar CareConnect: Connect third-party lab services for sending and receiving lab reports and orders. In the future, CareConnect will also support interoperability between the MHP and contract providers.

## OTHER SIGNIFICANT ISSUES

- The use of paper Treatment Authorization Requests (TAR) forms for outpatient service approval, and faxing of the forms from contract providers to Access Teams is prone to missing pages. In turn, the providers are not notified of failed transmissions, which requires phone or email query to determine if TAR forms were properly transited.
- Contract providers who maintain their own EHR systems also need to enter data directly into Avatar. Double data entry is both prone to errors and requires transaction reconciliation between the systems to ensure data integrity.
- For Document (imaging) Management implementation clinicians convert client paper chart documents into electronic form and upload into Avatar. The imaging process is only for "going forward" documents. They currently have no plans to image consumers' historical medical record documents.

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** |
| Avatar – Cal-PM | Practice Management | Netsmart Technologies | 4 | MHP IS Netsmart |
| Avatar – CWS | EHR | Netsmart Technologies | 2 | MHP IS Netsmart |
| Avatar – Infoscriber/ Order Connect | Prescriptions | Netsmart Technologies | 2 | MHP IS Netsmart |

## PLANS FOR INFORMATION SYSTEMS CHANGE

- The primary information system remains Netsmart Technologies' Avatar system, adding EHR functionality to Avatar and related applications with the goal to achieve a paperless EHR environment.
- At the time of the review, the MHP and Netsmart Technologies were in the final stages of implementing a three-year contract extension that will provide additional capabilities to support coordinated care and interoperability between MHP and contract providers.

## 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** | Avatar CWS | | X | | |
| **Clinical Decision Support** | | | | X | |
| **Document imaging** | Avatar | | X | | |
| **Electronic signature – client** | Avatar | X | | | |
| **Electronic signature – provider** | Avatar | X | | | |
| **Laboratory results (eLab)** | | | | X | |
| **Outcomes** | CANS | | X | | |
| **Prescriptions (eRx)** | Infoscriber/Order Connect | | X | | |

| Figure 21. Current EHR Functionality | | | | | |
|---|---|---|---|---|---|
| **Function** | **System/Application** | **Rating** | | | |
| | | **Present** | **Partially Present** | **Not Present** | **Not Rated** |
| **Progress notes** | Avatar CWS | | X | | |
| **Treatment plans** | Avatar CWS | | X | | |
| **Contract providers** | Avatar CWS | | X | | |

Progress and issues associated with implementing an EHR over the past year are discussed below:

- For document imaging management, the MHP elected to image documents "going forward" and not the consumers' historical medical records at this time.
- The MHP will implement CareConnect for laboratory results in the future. That will connect with third-party lab service for sending and receiving lab reports and orders.
- The MHP completed CANS training in conjunction with CWS go-live for all youth providers. They have plans to implement ANSA for adults in the future.
- OrderConnect replaced the InfoScriber application and includes e-prescribing and medication management.
- Contact provider users who use direct data entry into Avatar have the capability to make use of Practice management application, document imaging, electronic signatures, outcomes, and progress notes.
- Those contract providers that have their own EHR systems continue to perform double data entry into their system and Avatar without the availability of electronic data exchange. This is a time consuming activity, prone to errors, and requires reconciliation process to ensure data integrity between the systems.

## ❖SITE REVIEW PROCESS BARRIERS❖

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. After years of budget reductions, the MHP is beginning to fill positions and examine ways to use new funding to fill gaps in the outpatient service system.
   [Access]

2. The MHP initiated a contract to provide Avatar training support through a team of four persons who are available five days a week for classroom trainings and technical support.
   [Information Systems]

3. The county's Strategic Advance supports quality management and improvement. It will provide leadership and the QIC to identify priority areas to initiate improvement efforts.
   [Quality]

4. The MHP's roll-out of the CANS tool sets a model for implementing the ANSA for adult outcomes.
   [Outcomes]

5. Reducing the large inpatient facility and supporting two smaller Medi-Cal reimbursable facilities has enabled the MHP to recoup Medi-Cal dollars to support programming.
   [Access]

## OPPORTUNITIES FOR IMPROVEMENT

1. The MHP continues to experience severely long wait times for the initiation of services.
   [Timeliness]

2. While the initiation of the ISU has added a level of support for emergency room patient flow, it has not actually added crisis intervention capacity to the system. Since the closure of the prior crisis unit, the MHP lacks a mechanism for urgent care provision outside of the hospital ER environment. In addition, recent users of the ISU did not

perceive actual crisis intervention for possible stabilization but rather a waiting period for an inpatient bed.
[Access]

3. The continued use of paper and faxing Treatment Authorization Requests (TAR) forms from outpatient contract providers to Access Teams is prone to error and processing delays.
[Access]

4. Contract providers who maintain their own EHR systems also need to enter data directly into Avatar. Double data entry process is prone to errors and requires transaction reconciliation between the systems to ensure data integrity.
[Information Systems, Quality]

5. Foster care beneficiaries penetration rates have declined over the past few years to 49.98%.
[Access]

## 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. Conduct an analysis that determines the actual capacity of the current system to serve beneficiaries, particularly in the adult system which is severely impacted. Identify true staffing needs that can help inform the stakeholder processes that will drive decisions for additional MHSA funds.
[Access]

2. Begin an initiative to improve timely access to services systemwide, given long wait times (some of the longest wait times in the state). This may require adapting models for existing service access – separating more urgent requests from routine – and other aspects of service provision and level of care adjustments for long-term consumers.
[Access, Timeliness]

3. Evaluate the feasibility of using electronic assessment forms for TARs to automate the process between contract providers and Access Team to improve processing time and eliminate paper-processing errors.
[Access, Information Systems]

4. Investigate the feasibility to implement Netsmart Technologies CareConnect application earlier than currently planned in order to reduce or eliminate the need for double data entry by some contract providers.
   [Information Systems, Quality]

5. Examine the system's ability to provide urgent services. Develop a comprehensive plan so that consumers' urgent needs can be met at the clinic sites rather than hospital emergency rooms.
   [Access]

6. Investigate the reasons for declining foster care beneficiary penetration rates and initiate activities to improve access for this high risk population.
   [Access]

# ❖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><th>Time</th><th colspan="3">Wednesday – September 25, 2013 – Activities<br>Unless noted, all sessions held at 7001-A East Parkway, Ste. 400, Sacramento</th></tr>
<tr><td rowspan="3">9:00-<br>10:30</td><td colspan="3"><u>Performance Management</u><br>Overview of Access, Timeliness, Outcomes, and Quality</td></tr>
<tr><td colspan="2">• Introduction of participants<br>• Overview of review intent<br>• Significant MHP changes in past year<br>• Last Year's CAEQRO Recommendations<br>• System wide healthcare integration activities</td><td>• Performance improvement measurements utilized to assess access, timeliness, outcomes, and quality<br>• Examples of MHP reports used for to manage performance and decisions</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:<br>• MHP Director, senior management team, and other managers/senior staff in: Fiscal, program, IS, medical, QI, research, patients' rights advocate<br>• Involved consumer and family member representatives<br><br>Conference Room 2</td></tr>
<tr><td>10:30 –<br>12:00</td><td colspan="3"><u>Outcomes/Timeliness/Disparities</u><br><br>• MHP examples of data used to measure timeliness, functional outcomes and satisfaction<br>• MHP's readiness for the upcoming EPSDT Performance Outcomes System as will be implemented by DHCS<br>• Timely access for non-English speakers<br>• Review of Cultural Competency strategies to improve access/engagement and improve health equity<br>• Review of activities to address overall capacity<br>• Review of CAEQRO approved claims data<br><br>Conference Room 2</td></tr>
<tr><td>12:00-<br>1:00</td><td colspan="3">APS Staff – Working Lunch & Travel</td></tr>
<tr><td>1:00 –<br>2:30</td><td><u>Performance Improvement Projects</u><br>PIP Committee and<br>Senior Management<br><br>• Discussion includes topic and study question selection, baseline data, barrier analysis, intervention selection, methodology, results, and plan.<br><br>Conference Rm. 2</td><td><u>Consumer/Family Member Focus Group –as specified</u><br><br>8-10 participants who participated in the Adult PIP survey and groups.<br><br>Visions Unlimited<br>6833 Stockton Blvd. Suite 485<br>Sacramento<br><br>2:30 – 3:00 Travel</td><td><u>1:00 – 2:00</u><br><br><u>Avatar Hands-On Review</u><br><u>Two experienced clinical staff</u><br><u>CWS users</u><br><br>• one who works primarily in the clinic<br>• one who works primarily in the field<br><br>Sacramento Children's Home<br>2750 Sutterville Road<br>Sacramento<br><br>2:00 – 2:30 Travel</td></tr>
</table>

<table>
<tr><th>Time</th><th colspan="3">Activities - continued</th></tr>
<tr><td>2:30-<br>4:00</td><td colspan="2"><u>3:00 – 4:00</u><br><u>Katie A. Implementation</u><br><br>Include staff involved in the implementation and monitoring of Katie A. and at least one Child Welfare Partner<br><br>• Discussion of implementation readiness, strategies, and activities<br><br>Conference Room 2</td><td><u>2:30 – 4:00</u><br><u>Contract Provider Group Discussion</u><br><br>6-8 senior managers from larger providers representing both adult and child services<br>(one person per agency)<br><br>• Emphasizing those that provide services in collaborative or integrated care models, either with other agencies or the MHP<br><br>Conference Room 301</td></tr>
<tr><td>4:00–<br>5:00</td><td><u>REPO Staff Discussion</u><br><br>Staff responsible for analytic work that supports program evaluation or quality improvement<br><br>Conference Room 2</td><td><u>3:00 – 4:30</u><br><br><u>Consumer/Family Member Focus Group – as specified</u><br><br>8-10 consumers discharged from the ISU<br><br>TCORE<br>3737 Marconi Ave.<br>Sacramento</td><td><u>ISCA/Billing</u><br>Key IS, Fiscal, Billing Staff<br><br>• Review and discuss ISCA<br>• FY12-13 CAEQRO information technology recommendations<br>• Claiming processes – deny & replace transactions<br>• Help Desk & EHR training and support<br><br>Conference Room 301</td></tr>
<tr><td>5:00</td><td colspan="3">No Wrap-Up Discussion Scheduled</td></tr>
</table>

# *B. Attachment—Review Participants*

## CAEQRO REVIEWERS

Sandra Sinz, LCSW, Lead Reviewer, Director of Operations
Bill Ullom, Senior Systems Analyst, IS Reviewer
Kathleen Robb, Consumer/Family Member Consultant
Mila Green, Ph.D., Site 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

Sacramento County Department of Health and Human Services
7001-A East Parkway, Suite 400
Sacramento, CA 95823

Contract provider organizations

Sacramento Children's Home
2750 Sutterville Road
Sacramento, CA 95820

T-CORE
3737 Marconi Ave.
Sacramento, CA 95821

Visions Unlimited
6833 Stockton Blvd., Suite 485
Sacramento, CA 95823

## PARTICIPANTS REPRESENTING THE MHP

Alex Rechs, Program Coordinator
Amy Fierro, Chief Program Officer, River Oak
Andrea Hillerman-Crook, Consumer Advocate Liaison
Anne-Marie Rucker, Program Planner

Billee Willson, Program Planner
Daniel Steinhart, Executive Director, Asian Pacific Community Counseling
Dorian Kittrell, MHP Director
Jane Ann LeBlanc, Program Manager
Jeffrey King, Senior Administrative Analyst
Jesus Cervantes, Program Coordinator
John Woolcott, Clinical Program Manager, Sacramento Children's Home
Karen Hamamusn, Program Specialist
Kathy Aposhian, Interim Program Manager
Lafika Algarwani, Clinical Director, TLCS/New Direction
Lisa Harmon, Program Planner
Lisa Sabillo, Division Manager
Maria Elena Juarez, Regional Manager, Well Space Health
Marlyn Sepulveda, Program Director, TLCS/HRC-TCORE
Mary Ann Carrasco, MHP Director
Michelle Schuhmann, Program Planner
Paul Heffner, Program Director, El Hogar
Rob Kesselring, Program Director, El Hogar
Robert Hales, Medical Director
Robert Gillette, Accounting Manager
Robert Horst, Children's Medical Director
Roland Udy, Director Clinical Support, River Oak
Romeal Samuel, Program Planner
Sheila Brush, Program Planner
Stepanie Ramos, Family & Youth Coordinator,
Thom Sterling, Program Manager, Well Space Health
Uma Zykofsky, Division Manager
Wendy Hoffman-Blank, Program Manager, Visions
Wendy Greene, Program Manager

# *C. Attachment—Approved Claims Source Data*

- 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.
  - CY2012 includes SD/MC and IPC approved claims with process date June 2013
  - CY2011 includes SD/MC and IPC approved claims with process date December 2012
  - CY2010 includes SD/MC and IPC approved claims with process date June 2012
  - CY2009 includes SD/MC and IPC approved claims with process date February 2011
  - CY2008 includes SD/MC and IPC approved claims with process date December 2009
  - CY2007 includes SD/MC and IPC approved claims with process date April 2009
  - CY2006 includes SD/MC and IPC approved claims with process date October 2007
  - CY2005 includes SD/MC and IPC approved claims with process date July 2006
  - FY11-12 includes SD/MC and IPC approved claims with process date December 2012
  - FY10-11 includes SD/MC and IPC approved claims with process date November 2011
  - FY09-10 includes SD/MC and IPC approved claims with process date February 2011
  - FY08-09 includes SD/MC and IPC approved claims with process date December 2009
  - FY07-08 includes SD/MC and IPC approved claims with process date April 2009
  - FY06-07 includes SD/MC and IPC approved claims with process date May 2008
  - FY05-06 includes SD/MC and IPC approved claims with process date October 2007
  - FY04-05 includes SD/MC and IPC approved claims with process date April 2006
  - FY03-04 includes SD/MC and IPC approved claims with process date October 2005
  - FY02-03 includes SD/MC and IPC approved claims as of final reconciliation
  - FY11-12 denials include SD/MC claims (not IPC claims) with process date December 2012
  - FY10-11 denials include SD/MC claims (not IPC claims) with process date June 2012
  - FY08-09 denials include SD/MC claims (not IPC claims) processed between July 1, 2008 and June 30, 2009 (without regard to service date) with process date November 2009. Same methodology is used for prior years.
  - Most recent MMEF includes Medi-Cal eligibility for April (CY) or October (FY) and 15 prior months
- 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
- MHP Size: Categories are based upon DHCS definitions by county population.
  - Small-Rural MHPs = Alpine, Amador, Calaveras, Colusa, Del Norte, Glenn, Inyo, Lassen, Mariposa, Modoc, Mono, Plumas, Siskiyou, Trinity
  - Small MHPs = El Dorado, Humboldt, Imperial, Kings, Lake, Madera, Mendocino, Napa, Nevada, San Benito, Shasta, Sutter/Yuba, Tehama, Tuolumne
  - Medium MHPs = Butte, Marin, Merced, Monterey, Placer/Sierra, San Joaquin, San Luis Obispo, San Mateo, Santa Barbara, Santa Cruz, Solano, Sonoma, Stanislaus, Tulare, Yolo
  - Large MHPs = Alameda, Contra Costa, Fresno, Kern, Orange, Riverside, Sacramento, San Bernardino, San Diego, San Francisco, Santa Clara, Ventura
  - Los Angeles' statistics are excluded from size comparisons, but are included in statewide data.

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

# Medi-Cal Approved Claims Data for SACRAMENTO County MHP Calendar Year 12


| | |
|---|---|
| Date Prepared: | 09/09/2013, Version 1.0 |
| Prepared by: | Saumitra SenGupta, APS Healthcare / CAEQRO |
| Data Sources: | DHCS Approved Claims and MMEF Data - Notes (1) and (2) |
| Data Process Dates: | 06/11/2013, 03/04/2013, and 03/27/2013 - Note (3) |

| | SACRAMENTO | | | | | 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 | | | | | | | | | |
| | 336,514 | 18,860 | $81,339,243 | 5.60% | $4,313 | 5.72% | $4,596 | 5.85% | $5,061 |
| AGE GROUP | | | | | | | | | |
| 0-5 | 59,828 | 1,139 | $3,362,631 | 1.90% | $2,952 | 1.55% | $4,256 | 1.87% | $4,110 |
| 6-17 | 92,696 | 7,721 | $41,088,265 | 8.33% | $5,322 | 7.25% | $5,646 | 7.76% | $6,428 |
| 18-59 | 141,377 | 8,801 | $32,398,058 | 6.23% | $3,681 | 7.59% | $4,094 | 7.28% | $4,393 |
| 60+ | 42,614 | 1,199 | $4,490,289 | 2.81% | $3,745 | 3.30% | $3,306 | 3.42% | $3,467 |
| GENDER | | | | | | | | | |
| Female | 187,593 | 9,691 | $39,718,235 | 5.17% | $4,098 | 5.20% | $4,085 | 5.26% | $4,550 |
| Male | 148,921 | 9,169 | $41,621,008 | 6.16% | $4,539 | 6.38% | $5,130 | 6.60% | $5,582 |
| RACE/ETHNICITY | | | | | | | | | |
| White | 91,238 | 7,206 | $31,760,281 | 7.90% | $4,407 | 10.12% | $4,380 | 9.73% | $4,956 |
| Hispanic | 82,332 | 3,236 | $12,344,243 | 3.93% | $3,815 | 3.60% | $4,369 | 3.88% | $5,017 |
| African-American | 64,335 | 4,828 | $22,171,427 | 7.50% | $4,592 | 9.77% | $5,388 | 10.51% | $5,459 |
| Asian/Pacific Islander | 52,548 | 2,984 | $11,527,373 | 5.68% | $3,863 | 7.36% | $4,093 | 7.85% | $4,250 |

| | SACRAMENTO | | | | | 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 | 2,975 | 216 | $1,078,840 | 7.26% | $4,995 | 10.28% | $5,621 | 9.39% | $5,604 |
| Other | 43,087 | 390 | $2,457,079 | 0.91% | $6,300 | 1.49% | $7,862 | 1.67% | $8,865 |
| ELIGIBILITY CATEGORIES | | | | | | | | | |
| Disabled | 67,570 | 8,666 | $35,507,511 | 12.83% | $4,097 | 17.05% | $4,800 | 17.37% | $5,038 |
| Foster Care | 3,139 | 1,569 | $11,363,032 | 49.98% | $7,242 | 47.87% | $8,237 | 53.11% | $8,426 |
| Other Child | 142,648 | 6,957 | $27,608,156 | 4.88% | $3,968 | 4.18% | $4,329 | 4.63% | $4,918 |
| Family Adult | 82,594 | 2,083 | $5,468,598 | 2.52% | $2,625 | 4.15% | $2,204 | 3.92% | $2,586 |
| Other Adult | 41,292 | 405 | $1,391,946 | 0.98% | $3,437 | 0.99% | $3,462 | 0.98% | $3,486 |
| SERVICE CATEGORIES | | | | | | | | | |
| Inpatient Services | 336,514 | 1,111 | $8,093,272 | 0.33% | $7,285 | 0.44% | $7,783 | 0.45% | $7,665 |
| Residential Services | 336,514 | 82 | $356,894 | 0.02% | $4,352 | 0.07% | $7,565 | 0.06% | $7,812 |
| Crisis Stabilization | 336,514 | 485 | $614,036 | 0.14% | $1,266 | 0.47% | $2,149 | 0.37% | $1,913 |
| Day Treatment | 336,514 | 55 | $903,745 | 0.02% | $16,432 | 0.10% | $11,340 | 0.06% | $12,122 |
| Case Management | 336,514 | 13,951 | $9,407,643 | 4.15% | $674 | 2.18% | $1,027 | 2.39% | $891 |
| Mental Health Serv. | 336,514 | 17,246 | $49,116,379 | 5.12% | $2,848 | 4.47% | $2,967 | 4.77% | $3,467 |
| Medication Support | 336,514 | 10,537 | $10,596,289 | 3.13% | $1,006 | 2.91% | $1,111 | 2.89% | $1,306 |
| Crisis Intervention | 336,514 | 775 | $346,103 | 0.23% | $447 | 0.46% | $805 | 0.58% | $1,045 |
| TBS | 336,514 | 319 | $1,904,880 | 0.09% | $5,971 | 0.11% | $10,473 | 0.10% | $11,983 |

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 408,481

# SACRAMENTO County MHP Medi-Cal Services Retention Rates CY12

| | SACRAMENTO | | | STATEWIDE | | | |
|---|---|---|---|---|---|---|---|
| Number of Services Approved per Beneficiary Served | # of beneficiaries | % | Cumulative % | % | Cumulative % | Minimum % | Maximum % |
| 1 service | 935 | 4.96 | 4.96 | 9.47 | 9.47 | 4.93 | 18.87 |
| 2 services | 706 | 3.74 | 8.70 | 6.36 | 15.83 | 0.00 | 12.67 |
| 3 services | 768 | 4.07 | 12.77 | 5.48 | 21.30 | 2.30 | 11.30 |
| 4 services | 702 | 3.72 | 16.50 | 4.93 | 26.23 | 1.94 | 8.81 |
| 5 - 15 services | 6,069 | 32.18 | 48.67 | 32.34 | 58.57 | 21.05 | 44.10 |
| > 15 services | 9,680 | 51.33 | 100.00 | 41.43 | 100.00 | 22.56 | 60.86 |

Prepared by APS Healthcare / CAEQRO

Source: Short-Doyle/Medi-Cal approved claims as of 06/11/2013; Inpatient Consolidation approved claims as of 03/04/2013

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 SACRAMENTO County MHP Calendar Year CY12

## Foster Care

| | |
|---|---|
| Date Prepared: | 09/09/2013, Version 1.0 |
| Prepared by: | Saumitra SenGupta, APS Healthcare / CAEQRO |
| Data Sources: | DHCS Approved Claims and MMEF Data - Notes (1) and (2) |
| Data Process Dates: | 06/11/2013, 03/04/2013, and 03/27/2013 - Note (3) |

| | SACRAMENTO | | | | | 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 | | | | | | | | | |
| | 3,139 | 1,569 | $11,363,032 | 49.98% | $7,242 | 47.87% | $8,237 | 53.11% | $8,426 |
| AGE GROUP | | | | | | | | | |
| 0-5 | 755 | 216 | $694,291 | 28.61% | $3,214 | 28.49% | $4,106 | 36.01% | $3,927 |
| 6+ | 2,384 | 1,353 | $10,668,741 | 56.75% | $7,885 | 55.54% | $9,076 | 59.75% | $9,480 |
| GENDER | | | | | | | | | |
| Female | 1,543 | 734 | $5,283,968 | 47.57% | $7,199 | 47.00% | $7,977 | 52.29% | $8,188 |
| Male | 1,597 | 835 | $6,079,064 | 52.29% | $7,280 | 48.68% | $8,472 | 53.87% | $8,643 |
| RACE/ETHNICITY | | | | | | | | | |
| White | 973 | 525 | $3,679,769 | 53.96% | $7,009 | 50.92% | $7,271 | 39.55% | $8,659 |
| Hispanic | 506 | 239 | $1,717,726 | 47.23% | $7,187 | 43.87% | $7,715 | 67.24% | $7,548 |
| African-American | 1,264 | 640 | $4,691,445 | 50.63% | $7,330 | 47.85% | $9,735 | 64.39% | $9,666 |
| Asian/Pacific Islander | 151 | 105 | $792,677 | 69.54% | $7,549 | 114.79% | $9,180 | 130.79% | $8,306 |

| | SACRAMENTO | | | | | 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 | 57 | 32 | $210,096 | 56.14% | $6,565 | 49.72% | $8,254 | 46.10% | $7,632 |
| Other | 191 | 28 | $271,319 | 14.66% | $9,690 | 17.93% | $9,637 | 38.29% | $9,089 |
| SERVICE CATEGORIES | | | | | | | | | |
| Inpatient Services | 3,139 | 48 | $325,360 | 1.53% | $6,778 | 1.72% | $6,922 | 2.09% | $7,484 |
| Residential Services | 3,139 | 0 | $0 | 0.00% | $0 | 0.01% | $6,987 | 0.01% | $9,294 |
| Crisis Stabilization | 3,139 | 29 | $25,754 | 0.92% | $888 | 1.34% | $1,580 | 1.16% | $1,547 |
| Day Treatment | 3,139 | 27 | $548,001 | 0.86% | $20,296 | 3.07% | $13,670 | 2.31% | $13,509 |
| Case Management | 3,139 | 1,280 | $1,730,497 | 40.78% | $1,352 | 19.66% | $1,530 | 23.26% | $1,128 |
| Mental Health Serv. | 3,139 | 1,535 | $7,259,079 | 48.90% | $4,729 | 44.78% | $5,545 | 50.68% | $5,890 |
| Medication Support | 3,139 | 574 | $792,735 | 18.29% | $1,381 | 14.99% | $1,414 | 16.68% | $1,710 |
| Crisis Intervention | 3,139 | 59 | $31,779 | 1.88% | $539 | 2.61% | $1,072 | 3.40% | $1,587 |
| TBS | 3,139 | 105 | $649,826 | 3.35% | $6,189 | 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 4,157

# SACRAMENTO County MHP Medi-Cal Services Retention Rates CY12

## Foster Care

| | SACRAMENTO | | | STATEWIDE | | | |
|---|---|---|---|---|---|---|---|
| Number of Services Approved per Beneficiary Served | # of beneficiaries | % | Cumulative % | % | Cumulative % | Minimum % | Maximum % |
| 1 service | 45 | 2.87 | 2.87 | 6.11 | 6.11 | 0.00 | 52.38 |
| 2 services | 35 | 2.23 | 5.10 | 4.94 | 11.05 | 0.00 | 17.65 |
| 3 services | 52 | 3.31 | 8.41 | 4.20 | 15.25 | 0.00 | 19.35 |
| 4 services | 46 | 2.93 | 11.34 | 3.36 | 18.61 | 0.00 | 33.33 |
| 5 - 15 services | 367 | 23.39 | 34.74 | 25.20 | 43.81 | 0.00 | 100.00 |
| > 15 services | 1,024 | 65.26 | 100.00 | 56.19 | 100.00 | 0.00 | 77.78 |

Prepared by APS Healthcare / CAEQRO

Source: Short-Doyle/Medi-Cal approved claims as of 06/11/2013; Inpatient Consolidation approved claims as of 03/04/2013

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 SACRAMENTO County MHP Calendar Year 12

## Transition Age Youth (Age 16-25)


| | |
|---|---|
| Date Prepared: | 09/09/2013, Version 1.0 |
| Prepared by: | Saumitra SenGupta, APS Healthcare / CAEQRO |
| Data Sources: | DHCS Approved Claims and MMEF Data - Notes (1) and (2) |
| Data Process Dates: | 06/11/2013, 03/04/2013, and 03/27/2013 - Note (3) |

| | SACRAMENTO | | | | | 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 | | | | | | | | | |
| | 52,117 | 3,249 | $18,750,287 | 6.23% | $5,771 | 6.80% | $5,676 | 6.97% | $6,282 |
| AGE GROUP | | | | | | | | | |
| 16-17 | 14,680 | 1,416 | $9,160,234 | 9.65% | $6,469 | 9.32% | $6,578 | 9.83% | $7,366 |
| 18-21 | 23,188 | 1,412 | $8,109,890 | 6.09% | $5,744 | 6.20% | $5,275 | 6.30% | $5,700 |
| 22-25 | 14,251 | 421 | $1,480,163 | 2.95% | $3,516 | 4.87% | $4,531 | 4.74% | $4,960 |
| GENDER | | | | | | | | | |
| Female | 30,532 | 1,627 | $9,151,026 | 5.33% | $5,624 | 5.73% | $5,383 | 5.89% | $6,019 |
| Male | 21,586 | 1,622 | $9,599,261 | 7.51% | $5,918 | 8.35% | $5,968 | 8.51% | $6,541 |
| RACE/ETHNICITY | | | | | | | | | |
| White | 13,025 | 1,086 | $6,580,986 | 8.34% | $6,060 | 10.85% | $5,145 | 11.14% | $6,152 |
| Hispanic | 12,403 | 621 | $3,088,483 | 5.01% | $4,973 | 4.80% | $5,160 | 5.14% | $5,957 |
| African-American | 12,359 | 1,006 | $5,955,524 | 8.14% | $5,920 | 10.92% | $6,576 | 10.99% | $6,729 |
| Asian/Pacific Islander | 8,202 | 424 | $2,094,123 | 5.17% | $4,939 | 7.97% | $5,820 | 8.50% | $5,901 |

| | SACRAMENTO | | | | | 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 | 577 | 34 | $230,807 | 5.89% | $6,788 | 9.52% | $7,743 | 9.51% | $7,019 |
| Other | 5,554 | 78 | $800,365 | 1.40% | $10,261 | 2.60% | $11,293 | 2.94% | $11,801 |
| ELIGIBILITY CATEGORIES | | | | | | | | | |
| Disabled | 6,491 | 1,035 | $6,237,754 | 15.95% | $6,027 | 19.47% | $6,525 | 20.56% | $6,965 |
| Foster Care | 852 | 512 | $4,010,091 | 60.09% | $7,832 | 58.92% | $9,553 | 65.56% | $9,598 |
| Other Child | 13,025 | 966 | $4,669,934 | 7.42% | $4,834 | 7.70% | $4,957 | 8.25% | $5,637 |
| Family Adult | 26,820 | 771 | $3,089,362 | 2.87% | $4,007 | 4.04% | $3,290 | 4.18% | $3,773 |
| Other Adult | 5,205 | 220 | $743,145 | 4.23% | $3,378 | 3.57% | $4,257 | 3.24% | $4,550 |
| SERVICE CATEGORIES | | | | | | | | | |
| Inpatient Services | 52,117 | 349 | $2,205,237 | 0.67% | $6,319 | 0.81% | $7,097 | 0.82% | $6,850 |
| Residential Services | 52,117 | 22 | $106,292 | 0.04% | $4,831 | 0.07% | $6,983 | 0.06% | $8,145 |
| Crisis Stabilization | 52,117 | 134 | $147,666 | 0.26% | $1,102 | 0.75% | $1,677 | 0.60% | $1,619 |
| Day Treatment | 52,117 | 24 | $384,964 | 0.05% | $16,040 | 0.21% | $12,660 | 0.16% | $13,256 |
| Case Management | 52,117 | 2,463 | $2,443,872 | 4.73% | $992 | 2.71% | $1,193 | 2.97% | $992 |
| Mental Health Serv. | 52,117 | 2,951 | $10,791,690 | 5.66% | $3,657 | 5.56% | $3,511 | 5.88% | $4,248 |
| Medication Support | 52,117 | 1,714 | $2,039,888 | 3.29% | $1,190 | 3.09% | $1,113 | 3.08% | $1,336 |
| Crisis Intervention | 52,117 | 179 | $89,267 | 0.34% | $499 | 0.76% | $857 | 0.96% | $1,090 |
| TBS | 52,117 | 91 | $541,411 | 0.17% | $5,950 | 0.16% | $10,143 | 0.16% | $10,269 |

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 72,268

# SACRAMENTO County MHP Medi-Cal Services Retention Rates CY12

## Transition Age Youth (Age 16-25)

| | SACRAMENTO | | | STATEWIDE | | | |
|---|---|---|---|---|---|---|---|
| Number of Services Approved per Beneficiary Served | # of beneficiaries | % | Cumulative % | % | Cumulative % | Minimum % | Maximum % |
| 1 service | 185 | 5.69 | 5.69 | 10.00 | 10.00 | 0.00 | 21.65 |
| 2 services | 114 | 3.51 | 9.20 | 6.34 | 16.34 | 0.00 | 17.17 |
| 3 services | 131 | 4.03 | 13.23 | 5.36 | 21.70 | 0.00 | 21.43 |
| 4 services | 130 | 4.00 | 17.24 | 4.57 | 26.28 | 0.00 | 33.33 |
| 5 - 15 services | 849 | 26.13 | 43.37 | 28.90 | 55.18 | 15.91 | 40.98 |
| > 15 services | 1,840 | 56.63 | 100.00 | 44.82 | 100.00 | 19.70 | 65.91 |

Prepared by APS Healthcare / CAEQRO

Source: Short-Doyle/Medi-Cal approved claims as of 06/11/2013; Inpatient Consolidation approved claims as of 03/04/2013

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 FY11-12. The data presents claims processed by the State as of October 2012 and may not yet include all original or replacement claim transactions for FY11-12. 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 – FY11-12
Claims Processed as of October 2012

| 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| JUL11 | $6,731,417 | $578,197 | 8.6% | 3,458 | $6,153,220 | $36,855 | $6,116,365 | 99.4% | 42,301 | $0 | 0 |
| AUG11 | $7,875,110 | $872,675 | 11.1% | 4,198 | $7,002,435 | $27,090 | $6,975,346 | 99.6% | 49,177 | $0 | 0 |
| SEP11 | $7,448,771 | $569,133 | 7.6% | 3,766 | $6,879,638 | $34,721 | $6,844,917 | 99.5% | 47,446 | $0 | 0 |
| OCT11 | $7,322,978 | $451,162 | 6.2% | 3,087 | $6,871,816 | $52,111 | $6,819,705 | 99.2% | 47,689 | $0 | 0 |
| NOV11 | $6,952,632 | $537,885 | 7.7% | 3,425 | $6,414,747 | $48,046 | $6,366,701 | 99.3% | 44,904 | $0 | 0 |
| DEC11 | $6,390,712 | $397,684 | 6.2% | 2,720 | $5,993,028 | $33,101 | $5,959,927 | 99.4% | 41,918 | $0 | 0 |
| JAN12 | $6,973,128 | $403,183 | 5.8% | 2,743 | $6,569,945 | $32,433 | $6,537,512 | 100% | 46,836 | $0 | 0 |
| FEB12 | $6,852,925 | $370,110 | 5.4% | 2,584 | $6,482,815 | $27,185 | $6,455,631 | 100% | 46,138 | $0 | 0 |
| MAR12 | $7,347,205 | $385,483 | 5.2% | 2,676 | $6,961,722 | $41,097 | $6,920,626 | 99% | 49,638 | $0 | 0 |
| APR12 | $6,712,551 | $366,611 | 5.5% | 2,604 | $6,345,940 | $43,145 | $6,302,795 | 99.3% | 45,163 | $0 | 0 |
| MAY12 | $6,973,868 | $355,579 | 5.1% | 2,577 | $6,618,289 | $37,844 | $6,580,445 | 99% | 48,474 | $0 | 0 |
| JUN12 | $5,813,569 | $296,132 | 5.1% | 2,024 | $5,517,437 | $33,102 | $5,484,336 | 99% | 41,608 | $0 | 0 |
| FY11-12 | $83,394,870 | $5,583,835 | 6.7% | 35,862 | $77,811,035 | $446,729 | $77,364,306 | 99.4% | 551,292 | $0 | 0 |
| Statewide | $2,492,997,683 | $188,446,638 | 7.6% | 834,617 | $2,304,551,045 | $253,898,049 | $2,050,652,996 | 89.0% | 11,950,771 | $681,166 | 2,201 |

## DENIED CLAIMS

The following tables provide a summary of SD/MC denied claims processed during FY11-12. The data presents claims processed by the State as of October 2012 and may not yet include all original or replacement claim transactions for FY11-12. 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 (FY11-12)**
**Claims Processed as of October 2012**

| 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 | 281,915 | $58,676,130 | 31.1% |
| Medicare must be billed prior to the submission of this inpatient claim. | CO 22 N192 | 102,326 | $21,841,013 | 11.6% |
| Beneficiary not eligible. Aid code invalid for DHCS. | CO 177,CO 31 | 82,019 | $17,503,264 | 9.3% |
| Late claim denial. | CO 29 | 88,153 | $15,422,151 | 8.2% |
| Service Facility Location provider NPI is not eligible to provide this service within the submitting county. | CO B7 | 44,705 | $8,958,504 | 4.8% |
| Service line is a duplicate and a repeat service procedure modifier is not present. | CO 18 M86 | 44,857 | $7,410,100 | 3.9% |
| Emergency Services Indicator must be "Y" or Pregnancy Indicator must be "Y" for this aid code. | CO 204 N30 | 30,559 | $6,264,174 | 3.3% |
| Single service exceeds maximum minutes per day. | CO 119 N20 | 6,363 | $5,751,764 | 3.1% |
| Only SED services are valid for Healthy Families aid code. | CO 185 | 24,147 | $5,141,722 | 2.7% |
| Aid code invalid for DHCS. | CO 31 | 22,749 | $5,102,314 | 2.7% |

**Figure D-3. Denied Claims by Reason – Sacramento Top 5 (FY11-12)**
**Claims Processed as of October 2012**

| 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 | 12,266 | $1,558,562 | 27.9% |
| Other health coverage must be billed before the submission of this claim. | CO 22 | 6,187 | $1,088,488 | 19.5% |
| Beneficiary not eligible. Aid code not valid for DHCS. | CO 177,CO 31 | 5,296 | $755,901 | 13.5% |
| Late claim denial. | CO 29 | 3,220 | $635,784 | 11.4% |
| Coordination of Benefits(COB) is unbalanced. Incomplete/invalid explanation of benefits (COB or Medicare Secondary Payer). | CO A1 N480 | 2,878 | $449,585 | 8.1% |

## RETENTION RATES

**Figure D-4. Retention Rates**
**Sacramento CY09-CY12 and Statewide CY12**

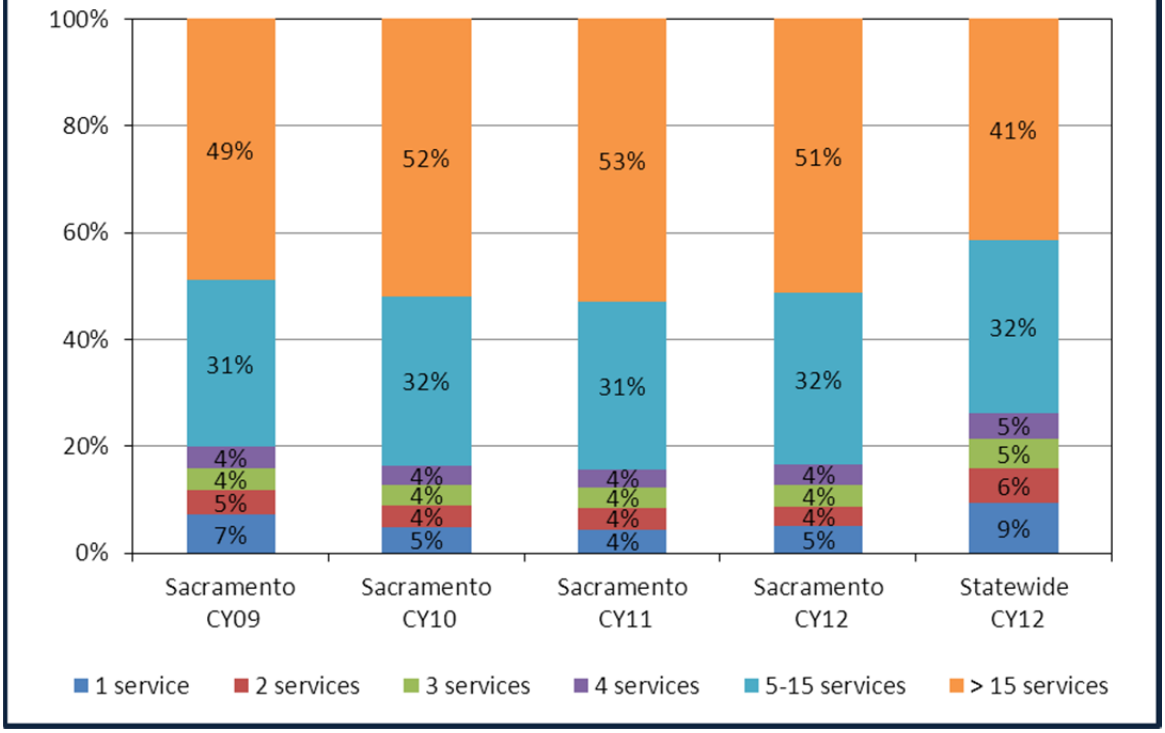


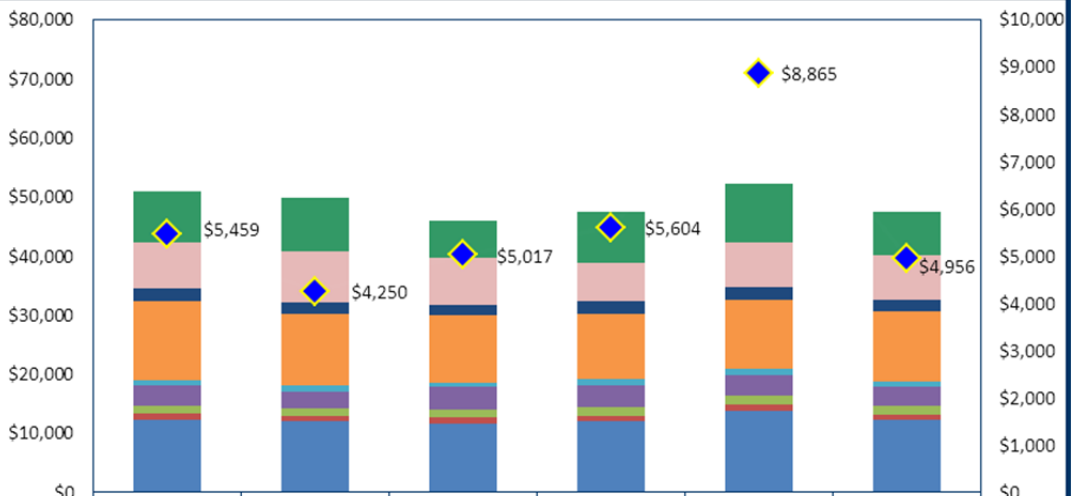

**Figure D-5. CY12 Retention Rates with Average Approved Claims per Category**

| Number of Services Approved per Beneficiary Served | Sacramento Number of beneficiaries served | Sacramento $ per beneficiary served | Statewide $ per beneficiary served |
|---|---|---|---|
| 1 service | 935 | $260 | $334 |
| 2 services | 706 | $443 | $513 |
| 3 services | 768 | $602 | $675 |
| 4 services | 702 | $744 | $815 |
| 5 – 15 services | 6,069 | $1,438 | $1,669 |
| > 15 services | 9,680 | $7,342 | $10,572 |

## 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**



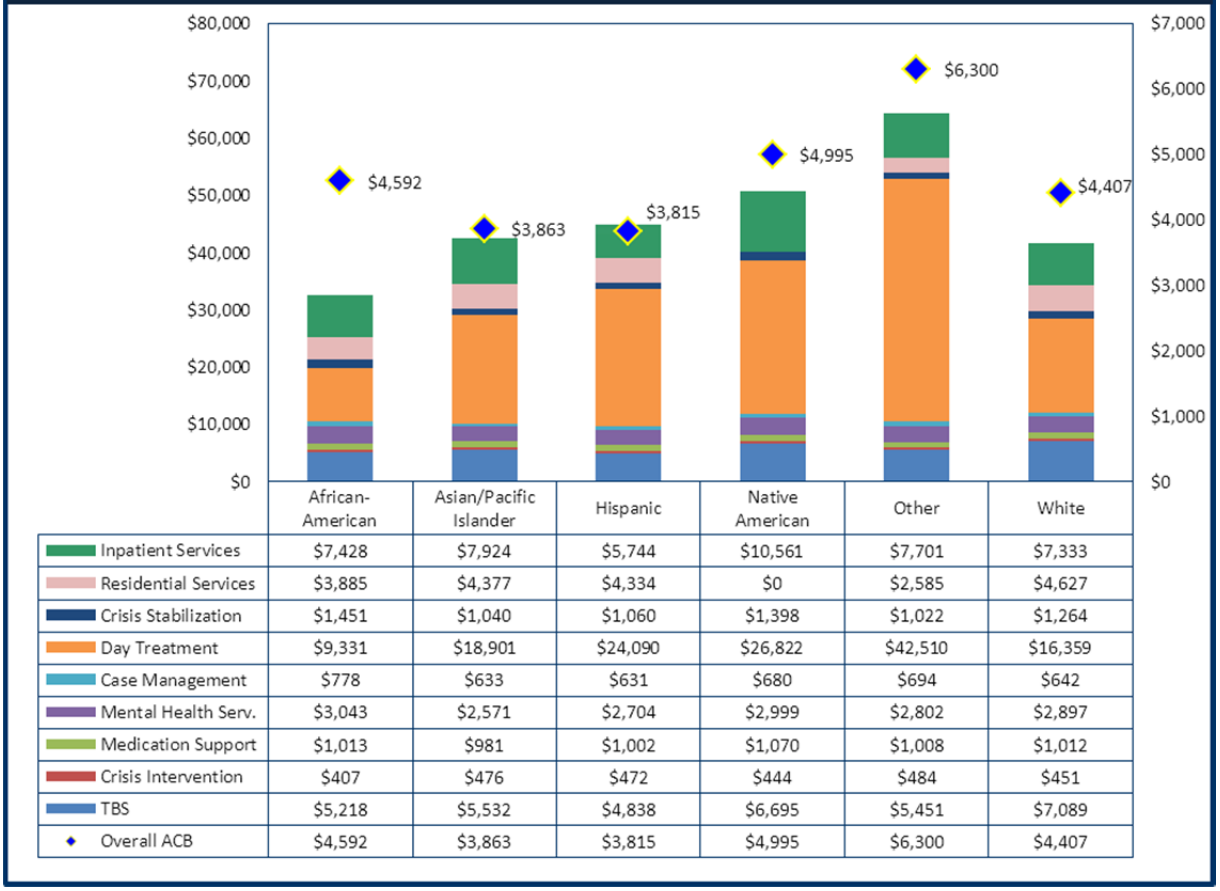

| | African-American | Asian/Pacific Islander | Hispanic | Native American | Other | White |
|---|---|---|---|---|---|---|
| Inpatient Services | $8,688 | $8,875 | $6,340 | $8,683 | $9,983 | $7,392 |
| Residential Services | $7,860 | $8,692 | $7,976 | $6,318 | $7,455 | $7,559 |
| Crisis Stabilization | $2,071 | $2,072 | $1,543 | $2,318 | $2,171 | $1,996 |
| Day Treatment | $13,324 | $12,114 | $11,479 | $10,990 | $11,641 | $11,694 |
| Case Management | $870 | $901 | $800 | $1,087 | $1,059 | $985 |
| Mental Health Serv. | $3,618 | $2,915 | $3,763 | $3,556 | $3,583 | $3,229 |
| Medication Support | $1,201 | $1,192 | $1,317 | $1,502 | $1,467 | $1,386 |
| Crisis Intervention | $1,099 | $1,027 | $1,100 | $859 | $1,080 | $990 |
| TBS | $12,236 | $11,956 | $11,602 | $12,111 | $13,723 | $12,226 |
| Overall ACB | $5,459 | $4,250 | $5,017 | $5,604 | $8,865 | $4,956 |

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 | 76,426 | 58,452 | 167,110 | 3,408 | 10,029 | 149,906 |
| Inpatient Services | 6,391 | 2,932 | 10,525 | 307 | 2,973 | 12,294 |
| Residential Services | 903 | 640 | 705 | 49 | 121 | 2386 |
| Crisis Stabilization | 7,155 | 3,536 | 7,545 | 265 | 550 | 10,434 |
| Day Treatment | 1,396 | 604 | 1,407 | 38 | 104 | 1,578 |
| Case Management | 32,719 | 24,224 | 66,998 | 1,564 | 2,917 | 61,832 |
| Mental Health Serv. | 60,538 | 46,177 | 146,443 | 2,705 | 6,003 | 117,686 |
| Medication Support | 40,531 | 35,184 | 64,431 | 1,628 | 3,762 | 84,609 |
| Crisis Intervention | 8,012 | 4,658 | 13,558 | 478 | 886 | 18,761 |
| TBS | 1,452 | 617 | 3,095 | 56 | 139 | 2,394 |

## SERVICE TYPE BY ETHNICITY - MHP

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




| | African-American | Asian/Pacific Islander | Hispanic | Native American | Other | White |
|---|---|---|---|---|---|---|
| Inpatient Services | $7,428 | $7,924 | $5,744 | $10,561 | $7,701 | $7,333 |
| Residential Services | $3,885 | $4,377 | $4,334 | $0 | $2,585 | $4,627 |
| Crisis Stabilization | $1,451 | $1,040 | $1,060 | $1,398 | $1,022 | $1,264 |
| Day Treatment | $9,331 | $18,901 | $24,090 | $26,822 | $42,510 | $16,359 |
| Case Management | $778 | $633 | $631 | $680 | $694 | $642 |
| Mental Health Serv. | $3,043 | $2,571 | $2,704 | $2,999 | $2,802 | $2,897 |
| Medication Support | $1,013 | $981 | $1,002 | $1,070 | $1,008 | $1,012 |
| Crisis Intervention | $407 | $476 | $472 | $444 | $484 | $451 |
| TBS | $5,218 | $5,532 | $4,838 | $6,695 | $5,451 | $7,089 |
| Overall ACB | $4,592 | $3,863 | $3,815 | $4,995 | $6,300 | $4,407 |

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

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

| | African-American | Asian/Pacific Islander | Hispanic | Native American | Other | White |
|---|---|---|---|---|---|---|
| **All** | **4,828** | **2,984** | **3,236** | **216** | **390** | **7,206** |
| Inpatient Services | 305 | 115 | 142 | 15 | 72 | 462 |
| Residential Services | 18 | 11 | 15 | 0 | 1 | 37 |
| Crisis Stabilization | 150 | 65 | 60 | 11 | 7 | 192 |
| Day Treatment | 16 | 6 | 7 | 2 | 1 | 23 |
| Case Management | 3,538 | 2,275 | 2,320 | 158 | 241 | 5,419 |
| Mental Health Serv. | 4,440 | 2,731 | 3,051 | 188 | 293 | 6,543 |
| Medication Support | 2,569 | 1,977 | 1,260 | 131 | 212 | 4,388 |
| Crisis Intervention | 189 | 100 | 105 | 17 | 12 | 352 |
| TBS | 108 | 38 | 38 | 4 | 5 | 126 |

## HIGH COST BENEFICIARIES

**Figure D-10. Statewide High-Cost Beneficiaries CY12**

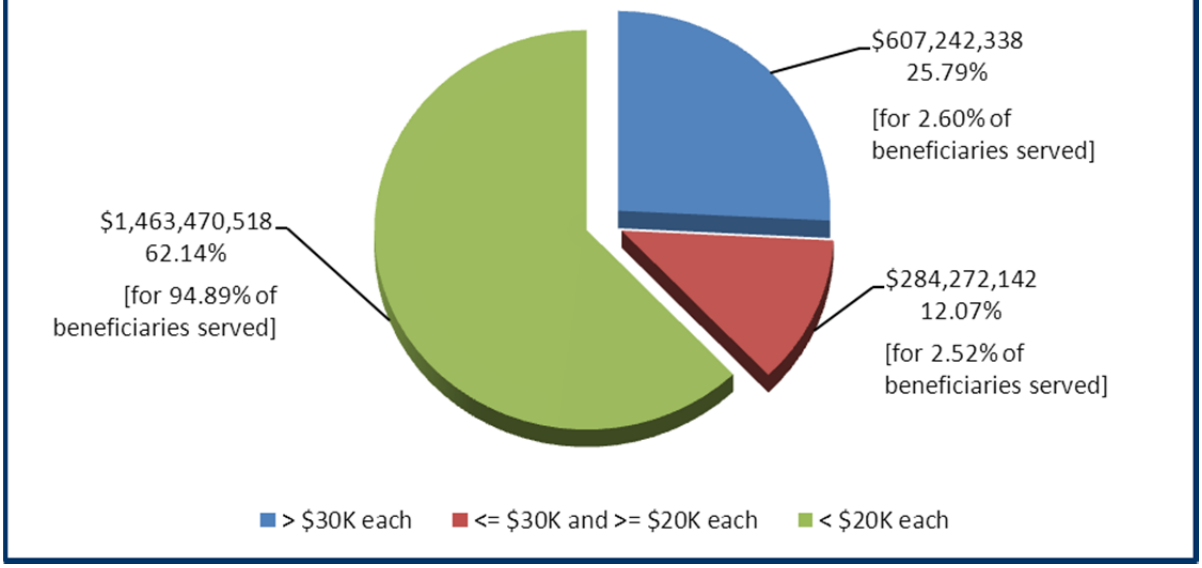
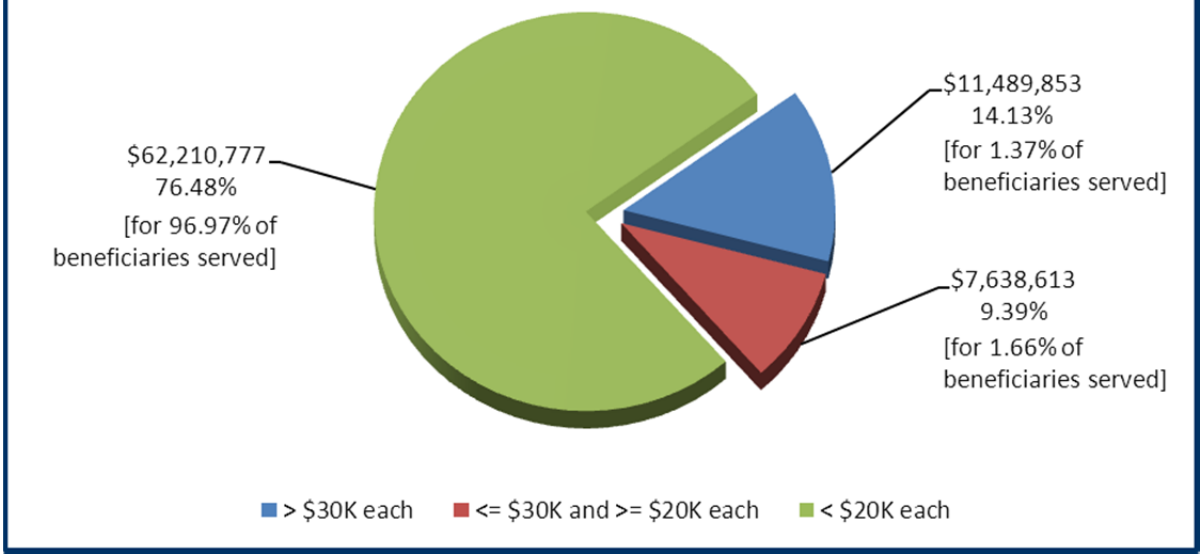



**Figure D-11. Sacramento High-Cost Beneficiaries CY12**



## 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** | 167,110 | 3.88% | 149,906 | 9.73% | $5,017 | $4,956 | .40 | 1.01 |
| **Sacramento CY12** | 3,236 | 3.93% | 7,206 | 7.90% | $3,815 | $4,407 | .50 | .87 |
| **Sacramento CY11** | 3,097 | 3.76% | 7,350 | 8.13% | $4,291 | $4,705 | .46 | .91 |
| **Sacramento CY10** | 2,917 | 3.61% | 6,884 | 7.88% | $4,504 | $4,685 | .46 | .96 |
| **Sacramento CY09** | 3,224 | 4.04% | 8,427 | 9.63% | $4,692 | $4,621 | .42 | 1.02 |

| 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** | 234,975 | 5.26% | 230,356 | 6.60% | $4,550 | $5,582 | .80 | .82 |
| **Sacramento CY12** | 9,691 | 5.17% | 9,169 | 6.16% | $4,098 | $4,539 | .84 | .90 |
| **Sacramento CY11** | 9,342 | 5.05% | 8,755 | 5.98% | $4,325 | $5,063 | .84 | .85 |
| **Sacramento CY10** | 8,682 | 4.88% | 8,407 | 5.96% | $4,443 | $5,117 | .82 | .87 |
| **Sacramento CY09** | 10,837 | 6.14% | 9,745 | 7.05% | $4,209 | $5,338 | .87 | .79 |

## ELIGIBLES VERSUS BENEFICIARIES SERVED - FOSTER CARE

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

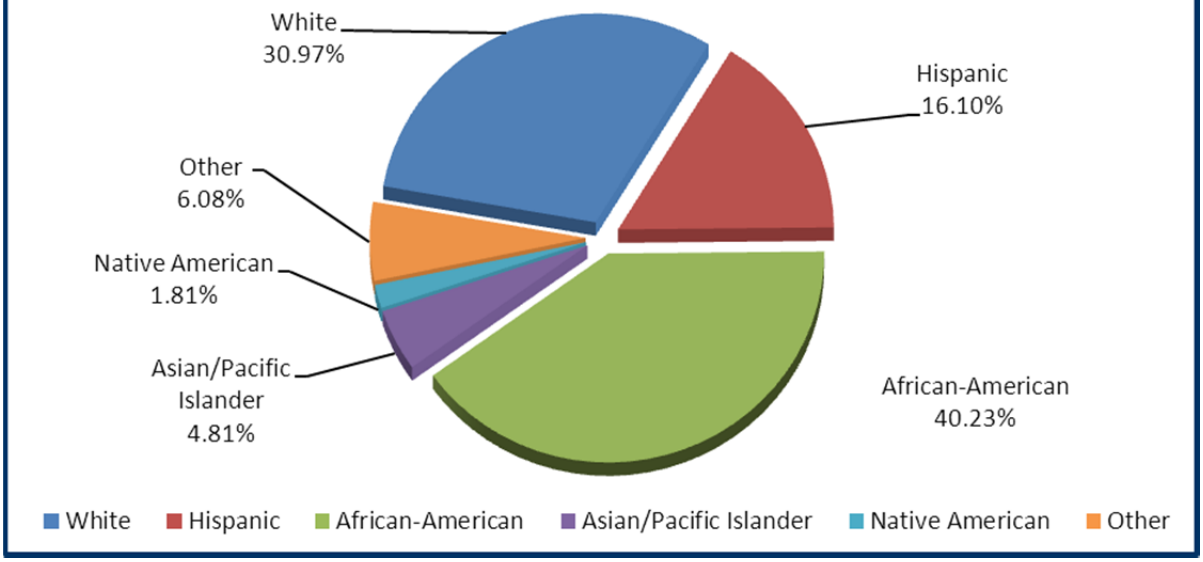
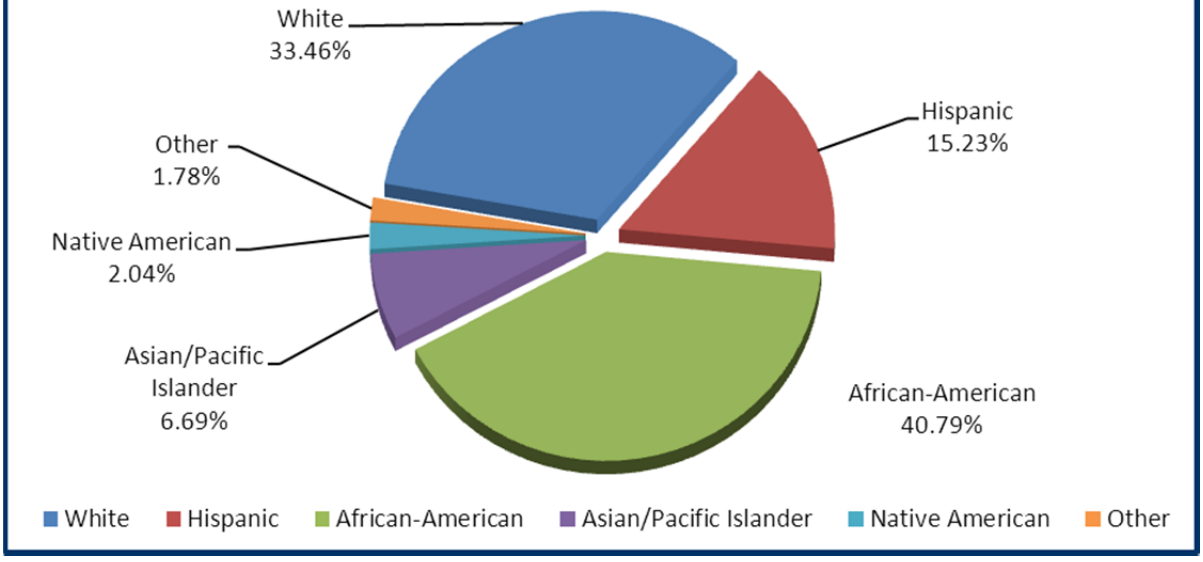



**Figure D-15. Sacramento Medi-Cal Beneficiaries Served, by Race/Ethnicity -Foster Care CY12**



## ELIGIBLES VERSUS BENEFICIARIES SERVED - TRANSITION AGE YOUTH

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

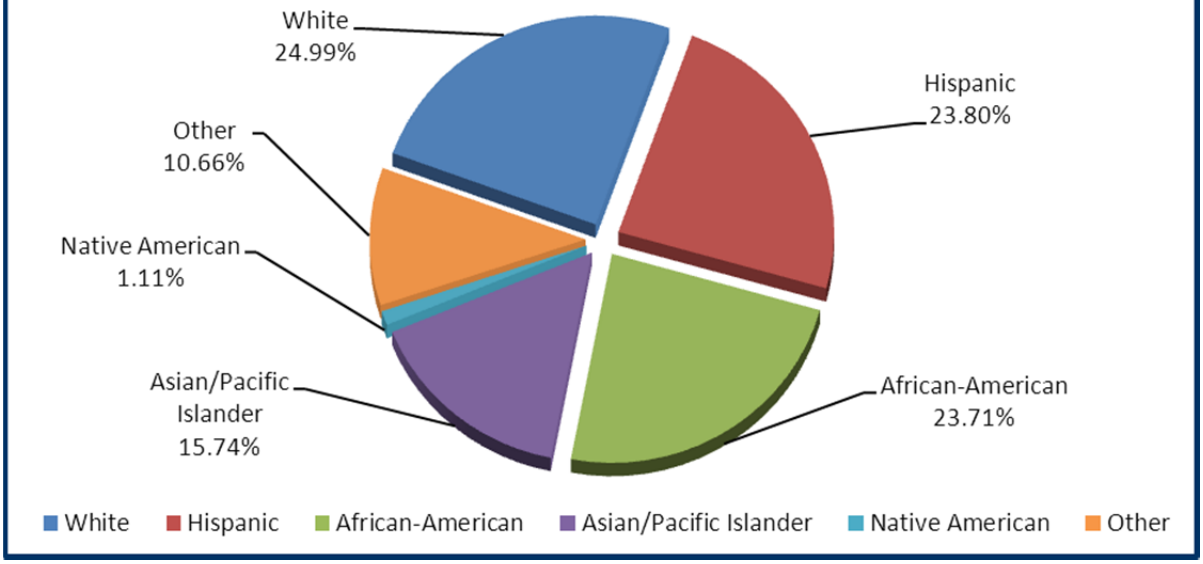
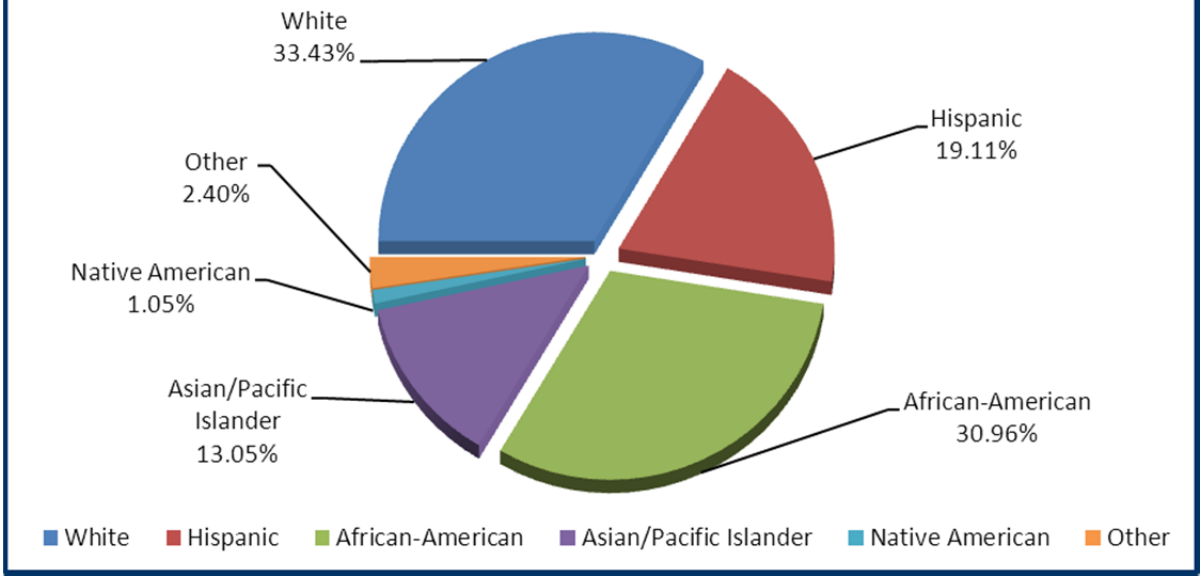



**Figure D-17. Sacramento Medi-Cal Beneficiaries Served, by Race/Ethnicity - Transition Age Youth CY12**



# *E. Attachment—PIP Validation Tool*

**FY13-14 Review of: Sacramento** ☒ Clinical ☐ Non-Clinical

**PIP Title: Primary Care**

**Date PIP Began: October 2012 (December 2010)**

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

**Descriptive Category: Physical Health Care**

**Target Population: All population- Adults**

| Step | | Rating | | | | Comments/Recommendations |
|---|---|---|---|---|---|---|
| | | Met | Partial | Not Met | N/A | |
| **1** | **Study topic**<br>*The study topic:* Physical ailment co-morbidity in SMI patients. Improving the physical health of SMI patients with co-occurring chronic medical conditions. | | | | | |
| 1.1 | Focuses on an identified problem that reflects high volume, high risk conditions, or underserved populations | X | | | | |
| 1.2 | Was selected following data collection and analysis of data that supports the identified problem | X | | | | |
| 1.3 | Addresses key aspects of care and services | X | | | | |
| 1.4 | Includes all eligible populations that meet the study criteria, and does not exclude consumers with special needs | X | | | | |
| 1.5 | Has the potential to improve consumer mental health outcomes, functional status, satisfaction, or related processes of care designed to improve same | X | | | | |
| **Totals for Step 1:** | | **5** | | | | |
| **2** | **Study Question Definition**<br>*The written study question:* | | | | | |
| 2.1 | Identifies the problem targeted for improvement | X | | | | |
| 2.2 | Includes the specific population to be addressed | X | | | | |
| 2.3 | Includes a general approach to interventions | X | | | | |

| Step | | Rating | | | | Comments/Recommendations |
|---|---|---|---|---|---|---|
| | | Met | Partial | Not Met | N/A | |
| 2.4 | Is answerable/demonstrable | X | | | | |
| 2.5 | Is within the MHP's scope of influence | X | | | | |
| **Totals for Step 2:** | | **5** | | | | |
| **3** | **Clearly Defined Study Indicators** *The study indicators:* | | | | | |
| 3.1 | Are clearly defined, objective, and measurable | X | | | | |
| 3.2 | Are designed to answer the study question | X | | | | |
| 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 | | | | |
| 3.4 | Have accessible data that can be collected for each indicator | X | | | | |
| 3.5 | Utilize existing baseline data that demonstrate the current status for each indicator | X | | | | |
| 3.6 | Identify relevant benchmarks for each indicator | | | | X | |
| 3.7 | Identify a specific, measurable goal(s) for each indicator | X | | | | |
| **Totals for Step 3:** | | **6** | | | **1** | |
| **4** | **Correctly Identified Study Population** *The method for identifying the study population:* | | | | | |
| 4.1 | Is accurately and completely defined | X | | | | |
| 4.2 | Included a data collection approach that captures all consumers for whom the study question applies | X | | | | |
| **Totals for Step 4:** | | **2** | | | | |
| **5** | **Use of Valid Sampling Techniques** *The sampling techniques:* | | | | | |
| 5.1 | Consider the true or estimated frequency of occurrence in the population | | | | X | |
| 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 | | | | X | |

| Step | | Rating | | | | Comments/Recommendations |
|---|---|---|---|---|---|---|
| | | Met | Partial | Not Met | N/A | |
| | of the eligible population that allows for generalization of the results to the study population | | | | | |
| **Totals for Step 5:** | | | | | **5** | |
| **6** | **Accurate/Complete Data Collection** *The data techniques* | | | | | |
| 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** | | | | |
| 6.4 | Provides a timeline for the collection of baseline and remeasurement data | **X** | | | | |
| 6.5 | Identify qualified personnel to collect the data | **X** | | | | |
| **Totals for Step 6:** | | **5** | | | | |
| **7** | **Appropriate Intervention and Improvement Strategies** *The planned/implemented intervention(s) for improvement:* | | | | | |
| 7.1 | Are related to causes/barriers identified through data analyses and QI processes | **X** | | | | |
| 7.2 | Have the potential to be applied system wide to induce significant change | **X** | | | | |
| 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:** | | **4** | | | | |
| **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** | | There are no post-intervention results representing this year's efforts. |
| 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 | | | **X** | | |

| Step | | Rating | | | | Comments/Recommendations |
|---|---|---|---|---|---|---|
| | | Met | Partial | Not Met | N/A | |
| | remeasurement of study indicators | | | | | |
| 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:** | | | | 6 | | |
| **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:** | | | | 4 | | |
| **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:** | | | | 1 | | |

**FY13-14 Review of: Sacramento** ☐ Clinical ☒ Non-Clinical

**PIP Title: Decreasing Child Psychiatric Hospitalization Through The Use of CANS**

**Date PIP Began: January 2012**

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

**Descriptive Category: Improved diagnosis or treatment processes**

**Target Population: Other- youth**

| Step | | Rating | | | | Comments/Recommendations |
|---|---|---|---|---|---|---|
| | | Met | Partial | Not Met | N/A | |
| **1** | **Study topic**<br>*The study topic:* decided to use the CANS data to identify the collection of needs and strengths that have a high likelihood of resulting in hospitalization or crisis stabilization services. It is expected the interventions identified and implemented to prevent future hospitalizations will ultimately lead to higher quality of life, less disruption in achieving developmental milestones and community integration, and lower mental health costs. | | | | | |
| 1.1 | Focuses on an identified problem that reflects high volume, high risk conditions, or underserved populations | **X** | | | | |
| 1.2 | Was selected following data collection and analysis of data that supports the identified problem | **X** | | | | |
| 1.3 | Addresses key aspects of care and services | **X** | | | | |
| 1.4 | Includes all eligible populations that meet the study criteria, and does not exclude consumers with special needs | | **X** | | | The focus continues only on the FIT and wraparound youth. |
| 1.5 | Has the potential to improve consumer mental health outcomes, functional status, satisfaction, or related processes of care designed to improve same | **X** | | | | |
| **Totals for Step 1:** | | **4** | **1** | | | |
| **2** | **Study Question Definition**<br>*The written study question:* Can CANS data be used to identify clients with needs that correlate to hospitalization or MERT usage so that subsequent (new and continuing) CANS assessments can be used to focus on interventions to prevent hospitalization and use of ISU? Is the Adjustment to Trauma element useful in correlating trauma to hospitalization or MERT usage or suggesting the need to adopt the Trauma Module in CANS? | | | | | |
| 2.1 | Identifies the problem targeted for | **X** | | | | |

| Step | | Rating | | | | Comments/Recommendations |
|---|---|---|---|---|---|---|
| | | Met | Partial | Not Met | N/A | |
| | improvement | | | | | |
| 2.2 | Includes the specific population to be addressed | X | | | | |
| 2.3 | Includes a general approach to interventions | X | | | | |
| 2.4 | Is answerable/demonstrable | X | | | | |
| 2.5 | Is within the MHP's scope of influence | X | | | | |
| **Totals for Step 2:** | | **5** | | | | |
| **3** | **Clearly Defined Study Indicators**<br>*The study indicators:* # of consumers hospitalized, # of consumers with ISU contacts, LOS in hospital, # of repeat MERT/Hospitalization | | | | | |
| 3.1 | Are clearly defined, objective, and measurable | X | | | | |
| 3.2 | Are designed to answer the study question | X | | | | |
| 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 | | | | |
| 3.4 | Have accessible data that can be collected for each indicator | X | | | | |
| 3.5 | Utilize existing baseline data that demonstrate the current status for each indicator | X | | | | |
| 3.6 | Identify relevant benchmarks for each indicator | | | X | | |
| 3.7 | Identify a specific, measurable goal(s) for each indicator | X | | | | |
| **Totals for Step 3:** | | **6** | | **1** | | |
| **4** | **Correctly Identified Study Population**<br>*The method for identifying the study population:* | | | | | |
| 4.1 | Is accurately and completely defined | X | | | | |
| 4.2 | Included a data collection approach that captures all consumers for whom the study question applies | X | | | | CANS data was collected for 864 youth during the periods of January through June 2012, compared against baseline period of July to December 2010.<br>January through June 2013 showed 1073 youth. |
| **Totals for Step 4:** | | **2** | | | | |
| **5** | **Use of Valid Sampling Techniques**<br>*The sampling techniques* | | | | | |

| Step | | Rating | | | | Comments/Recommendations |
|---|---|---|---|---|---|---|
| | | Met | Partial | Not Met | N/A | |
| 5.1 | Consider the true or estimated frequency of occurrence in the population | | | | X | |
| 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:* | | | | | |
| 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** | | | Acute service utilization decreases were seen in all indicators, exceeding goals for improvement. |
| 6.4 | Provides a timeline for the collection of baseline and remeasurement data | | **X** | | | Continuous measurement would have been better, given different lengths of time frames shown and the number of months in those periods. |
| 6.5 | Identify qualified personnel to collect the data | **X** | | | | |
| **Totals for Step 6:** | | **3** | **2** | | | |
| **7** | **Appropriate Intervention and Improvement Strategies** *The planned/implemented intervention(s) for improvement:* | | | | | |
| 7.1 | Are related to causes/barriers identified through data analyses and QI processes | **X** | | | | Interventions this year included training family partners on the CANS so that they could better support families in using the CANS. |
| 7.2 | Have the potential to be applied system wide to induce significant change | **X** | | | | All child consumers |
| 7.3 | Are tied to a contingency plan for revision if the original intervention(s) is not successful | | **X** | | | CANS trauma module was implemented in May/June 2013 based upon prior year PIP results. |
| 7.4 | Are standardized and monitored when an intervention is successful | | | **X** | | |

| Step | | Rating | | | | Comments/Recommendations |
|---|---|---|---|---|---|---|
| | | Met | Partial | Not Met | N/A | |
| **Totals for Step 7:** | | **1** | **1** | **2** | | |
| **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** | | | | Comparison of consumers with adjustment to trauma action item versus not and hospitalized versus non-hospitalized. |
| 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:** | | **6** | | | | |
| **9** | **Improvement Achieved** *There is evidence for true improvement based on:* | | | | | |
| 9.1 | A consistent baseline and remeasurement methodology | | **X** | | | Inconsistent time frames. See 6.4 above. |
| 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** | | | | Unclear whether the use of the CANS triggers treatment plan modifications that impact consumer outcomes or if there are other issues simultaneously involved. Regardless, the MHP saw an increase in the use of CANS in treatment planning as well as improved outcomes for the consumers involved. |
| 9.4 | Statistical evidence for improvement | **X** | | | | |
| **Totals for Step 9:** | | **3** | **1** | | | |
| **10** | **Sustained Improvement Achieved** *There is evidence for sustained improvement based on:* | | | | | |
| | Repeated measurements over comparable | | | **X** | | Analysis has not been repeated in other |

| Step | | Rating | | | | Comments/Recommendations |
|---|---|---|---|---|---|---|
| | | Met | Partial | Not Met | N/A | |
| | time periods that demonstrate sustained improvement, or that any decline in improvement is not statistically significant | | | | | programs. |
| **Totals for Step 10:** | | | | **1** | | |

# *F. Attachment—MHP PIPs Submitted*

APS Healthcare
California EQRO
560 J Street, Suite 390
Sacramento, CA 95814

**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:** *Sacramento County*
**Date PIP Began:** *October 19, 2012*
**Title of PIP:** *Changing the culture of Mental Health to increase coordination with Primary Care*
**Clinical or Non-Clinical:** *Non-Clinical*

**Assemble multi-functional team**

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

The Committee consisted of a cross section of administration, service provider and advocacy. Sequences of committee meetings were held as well as sub-committee meetings where specific tasks were the focus of attention. The Adult PIP Committee was comprised of representatives from: Mental Health Plan (MHP) Quality Management (QM), Research, Evaluation and Performance Outcomes (REPO), Adult Mental Health Programs, Cultural Competence, University of California at Davis (UCD), Contract Providers, Contract Monitors representatives and Family Advocates. The brainstorming activities to understand the gaps and needs of the system to frame this Adult PIP began with an Adult PIP Committee meeting on October 19, 2012 and have continued through a series of committee and sub-committee meetings, individual communications with members of Adult PIP Committee, as well as through the Adult System of Care Programs and Quality Improvement Committee (QIC) monthly meeting report process.

The Adult PIP Committee membership is as follows:

**County Participants**
Kathy Aposhian, RN, Interim Quality Management, Chair, QIC, Chair PIP Committee
Uma Zykofsky, LCSW, Chief of Adult and Child/Youth Mental Health Programs
Jesus Cervantes, Psy D. / LMFT, Mental Health Program Coordinator, Quality Management
Michelle Schuhmann, MPH, LCSW, Program Planner, Research, Evaluation and Performance Outcomes
Lisa Sabillo, Program Planner, Office of the Director
Jo Ann Johnson, LCSW, Cultural Competence Program Manager
Terry Nichols, LCSW, Mental Health Program Coordinator, Adult Mental Health Programs
Steve Ballanti, LCSW, Mental Health Program Coordinator, Adult Mental Health Programs
Bernice Zaborski, MHP, Mental Health Program Coordinator, Adult Mental Health Programs
Melody Boyle, LCSW, Senior Mental Health Counselor, Quality Management

**Provider and Advocate Participation**
Amanda Divine, LMFT, El Hogar - Adult Outpatient: Regional Support Team
Dan Gordon, MD, El Hogar - Adult Outpatient: Regional Support Team
Paul Heffner, ASW, El Hogar - Adult Outpatient: Regional Support Team
Marilyn Hillerman, Family Advocate- MHANCA
Paul Cecchettini, Ed. D Psychologist, Turning Point –Adult Outpatient: Regional Support Team
Alexis, Lyon, MFTI, Turning Point –Adult Outpatient: Regional Support Team
Lynn Place, MHRS, Human Resource Consultants-Adult OP: Regional Support Team
Marlyn Sepulveda, ASW, Human Resource Consultants -T-CORE-
Sherri Mikel, MHRS, and Human Resource Consultants-Adult Outpatient: Regional Support Team
Wendy Hoffman-Blank, LCSW, Visions Unlimited- Adult Outpatient: Regional Support Team
Cindy Lopez, ASW, Visions Unlimited- Adult Outpatient: Regional Support Team

**Contributions from UCD Department of Psychiatry dually boarded medical team:**
Dr. David Liu, Psychiatry/Family Medicine
Dr. Jaesu Han, MD, Psychiatry/Family Medicine

**"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 client population it affects.**

There is sufficient literature demonstrating that mortality associated with severe mental illness is well known (Brown, 1997; Harris and Barraclough, 1998; Sahaert al., 2007). Individuals with severe mental illness are more likely to have physical co-morbidities, more likely to have physical health problems that are not being treated, and more physical co-morbidities are associated with worse mental health (Dixon et al., 1999). In May 2010, the State Department of Health Care Services (DCHS), the State Department of Mental Health (DMH) and the California Institute of Mental Health initiated a six-county pilot collaborative to improve the health of individuals with severe mental illness and co-occurring chronic medical disorders through more effective partnerships between mental health and primary care providers. Sacramento County's Primary Care and Behavioral Health Division was one of six counties in this pilot collaborative through the CALMEND project. The CALMEND project has also acknowledged that there is growing evidence that physical health problems are often caused and/or exacerbated by mental health problems.

Often these medical conditions are preventable chronic illnesses, such as asthma, diabetes, hypertension and cardiovascular diseases, which are made worse by lack of treatment and poor health habits. There are many factors that contribute to the poor physical health of people with SMI including lifestyle factors, medication side effects and disparities in healthcare. In a literature review published in the Journal of Psychopharmacology November 2010 (Lawrence and Kisely, 2010) the issues of physical co-morbidities and inequalities in medical treatment are attributed to a combination of factors including system issues, such as separation of mental health services from other medical services, healthcare provider issues including the pervasive stigma associated with mental illness, and consequences of mental illness and side effects of mental health treatment.

To address systemic barriers having to do with the separation of mental healthcare and physical healthcare a range of integrated models have been proposed (Vreeland, 2007). These include co-location of services, having staff from one service visit another on a regular basis, or appointing case managers to act as liaisons between mental health and physical healthcare providers. Griswold et al, (2005, 2008) found that nurse case managers were effective in increasing the percentage of patients with severe mental illness who were successfully linked to primary care services. In another study, the use of case managers as liaisons with primary care physicians was associated with significant improvements in the quality and outcomes of primary care (Druss et al., 2010). It is well known that the stigma surrounding mental health pervades all

aspects of society, including the healthcare system. One issue in the reduced access to primary care for people with severe mental illness is that some practitioners regard people with severe mental illness as being difficult or disruptive. Most often primary care physicians receive little to no training in mental health issues and are ill-equipped to address mental health issues and behaviors. Sartorius (2007b) has suggested that a campaign to reduce stigma and discrimination within the entire healthcare sector should be a high priority in an effort to reduce stigma associated with mental illness in the population at large. Mental health case managers and psychiatrists working in partnership with primary care physicians also provides the opportunity to cross train both sectors and heighten awareness of both the mental and physical health needs of people with severe mental illness.

The importance of integrating mental health and primary care was acknowledged in 2003 with the release of the President's New Freedom Commission on Mental Health, *Achieving the Promise: Transforming Mental Health Care in America*. One of many responses to this report was the establishment of the Primary Care/Mental Health Integration Workgroup, commonly referred to as the "Integration Workgroup". The overall mission of the Integration workgroup is to improve the health of people with and at risk for mental illnesses through expanded access to integrated health care services. Evidence indicates that integrated care improves access to and service outcomes for persons with or at risk of mental illness. Integrated services help maintain mental wellness and prevent the occurrence of mental distress or the exacerbation of existing mental illnesses. Integrating mental health and physical health for persons with severe mental illness is not only a National need and priority, but is a local need as well.

During FY 2010-2011 The Sacramento County Department of Health and Human Services (DHHS), through its Primary Care Division and Behavioral Health Division, built up a multifaceted plan to increase the access to coordinated and/or integrated care for persons with mental illness and co-occurring physical health needs. While the MHP serves clients with specialty mental health needs, physical care falls outside the direct system of care. However, costs of this care or lack thereof impact mental health outcomes and general health outcomes for clients. Increased costs for either physical or mental health impacts community and client resources. The client populations affected by this PIP are Medi-cal eligible adult clients meeting target population and being served in the Sacramento County MHP.

During FY 2011-12, 4,706 individuals were served in the Regional Support Team (RST) clinics in the MHP. Table 1 shows the number and percentage of the same clients who have one or more reported serious medical condition. Table 2 shows the number of clients reporting each medical condition and the percentage of total clients with each condition. The data highlights those serious medical conditions chosen for the focus of the last PIP as well as other conditions frequently effecting RST clients and affect their quality of life significantly.

**Table 1**

| | Number | Percent |
|---|---|---|
| **Clients with one medical condition** | 1,109 | 23.6% |
| **Clients with two medical conditions** | 863 | 18.3% |
| **Clients with or more three medical conditions** | 1,812 | 38.5% |
| **No Medical Condition** | 393 | 8.4% |
| **Not Reported** | 529 | 11.2% |
| **Total** | 4,706 | 100.0% |

The clients who receive services at the RST providers are experiencing many chronic medical conditions, most often hypertension and high cholesterol, followed by diabetes and chronic pain. Over 80% of clients have one or more medical condition. Additionally, almost 40% of clients have three or more medical conditions, 56.8% have two or more medical conditions and only 8.4% report having no medical condition.

**Table 2**

| N=4,706 | Number | Percentage |
|---|---|---|
| **Arthritis** | 461 | 9.8% |
| **Asthma** | 362 | 7.7% |
| **Cardio/cardiovascular Disease** | 198 | 4.2% |
| **Cerebrovascular Disease** | 34 | 0.7% |
| **Cholesterol** | 971 | 20.6% |
| **Chronic pain** | 647 | 13.7% |
| **Diabetes** | 644 | 13.7% |
| **Digestive Disorders** | 404 | 8.6% |
| **Hypertension** | 1,249 | 26.5% |
| **Liver disease** | 319 | 6.8% |
| **Migraines** | 259 | 5.5% |
| **No medical condition** | 393 | 8.4% |
| **Obesity** | 438 | 9.3% |
| **Other**** | 2,288 | 48.6% |
| **Not Reported** | 529 | 11.2% |

**Totals do not equal 100% due to clients reporting more than one medical condition*
***Other includes everything from cancer to sexually transmitted diseases*

Through the Quality Improvement Committee's Executive Committee, the Sacramento County MHP collects and reviews incident reports from mental health service providers for clients who have died. One purpose of these reports is to look at all instances where deaths correlate with medical and psychiatric causes, as well as the effectiveness of clinical and community perspective. During the last two Fiscal Years 2010-2012, the average age of MHP clients who were reported as deceased was 50.4 years. The vast majority, 74%, were between 25 and 59 years of age when they died. Additionally, 60.3% of these clients had one of the following serious medical conditions: asthma, high cholesterol, cardio-vascular disease, diabetes, high blood pressure, hepatitis or liver disease. This supports the need for closely coordinated physical and mental health treatment for the clients we serve.

During FY 2010-2011 the Sacramento MHP implemented a PIP as an attempt to address documentation issues related to co-occurring physical health issues. The PIP results were very successful primarily in terms of identifying and documenting PCP, medical condition and coordination of care/addressing medical condition in both the case record and electronic files. It brought a heightened awareness to provider staff and it became apparent through chart reviews and data extracts (from Avatar) that some of the PIP interventions had influenced non PIP chart and electronic file documentation. While a successful change in documentation process took place across RST providers that participated in the PIP, efforts to coordinate with the PCP fell short. Initial attempts at using a form to communicate with the PCP were not successful. Providers had difficulty getting the PCP to respond to the form or to return their calls. The majority of the coordination of care was obtaining release of information documents so that staff could discuss or obtain medical information from the PCP/PCP office. Follow up to medical care consisted of staff discussing medical issues and care with the client and encouraging and/or assisting the client in seeking care for their concerns. While these are worthwhile and beneficial to the client, the need to integrate care with the PCP is also important. The PIP committee has recognized the need for a culture shift in our MHP that incorporates physical health issues and begins to treat the "whole person".

Consequently, during EQRO exit interview, it was decided to establish a new Adult PIP Committee to develop and implement the 2012-2013 PIP to follow up and develop a PIP with new strategies to improve the coordination of care on behalf of the client between Mental Health and PCP's in the community with the ultimate goal of improving the overall health of our clients.

**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?**

On October 19, 2012, the Adult PIP committee met to begin the planning and analysis for the 2012-13 PIP. Members of the committee represented a diverse mix of service providers, Quality Management staff, Research, Evaluation and Performance

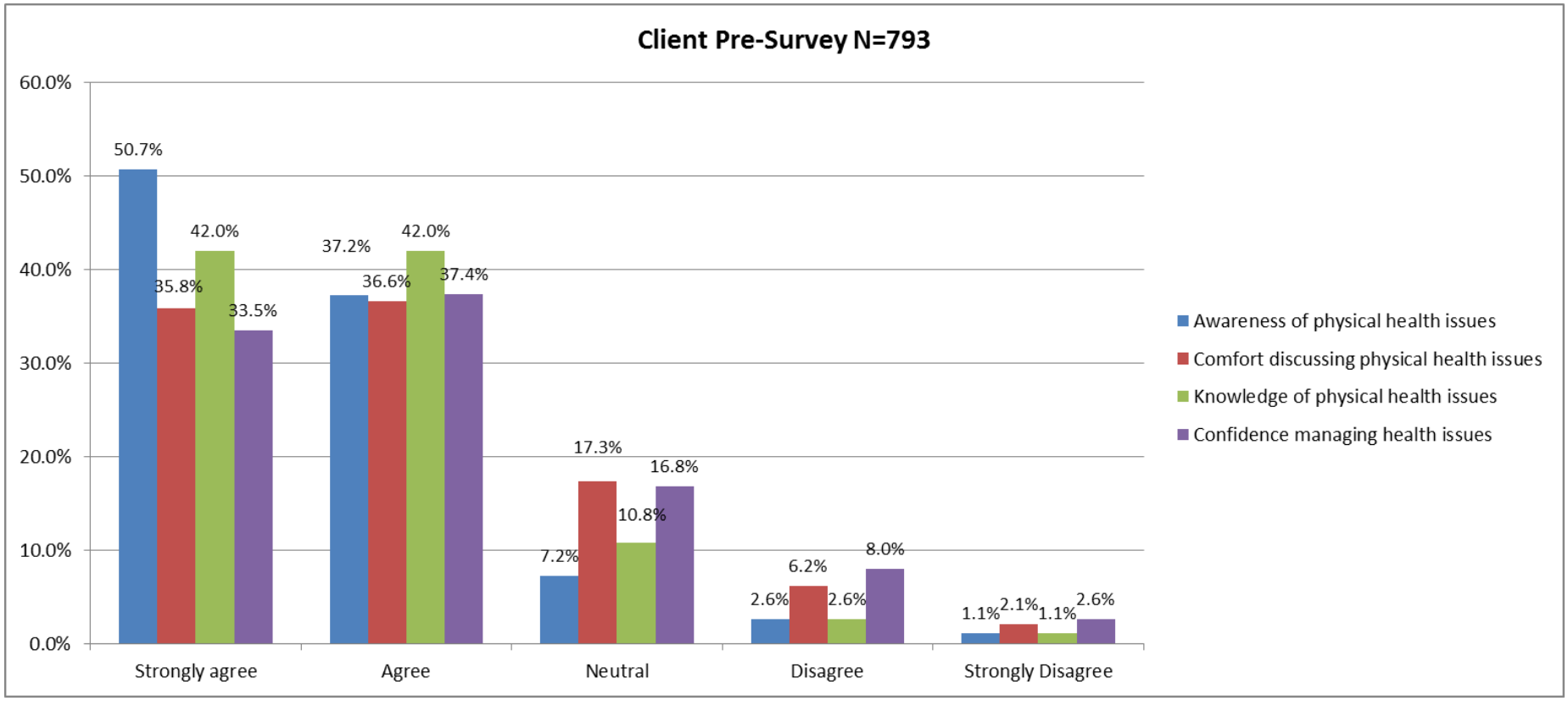
Outcome (REPO) staff, adult programs staff, adult mental health provider's staff and family advocate representation. Brainstorming on barriers/causes affecting integration of mental health services with primary care in the Sacramento County's mental health clients was completed and documented in meeting minutes. Following is the result of the brainstorming covering different areas that the committee recognized as existing barriers:

1. There is no effective working relationship/coordination between mental health and primary health care systems.
2. There is no system in place for communication, referral and follow-up between mental health and primary health care systems.
3. Mental health clients and mental health clinical staff have little to no training regarding how to approach medical doctors about medical conditions.
4. There is a need for qualified mental health staff available in the mental health clinics to educate clients and staff on different illnesses that co-occur with mental health conditions.
5. Primary Care Doctors have minimum training in mental health and don't feel comfortable treating mental health consumers.
6. There is no available supportive educational information (pamphlets, posters, magazines) in the mental health clinics to motivate/educate mental health clients regarding healthy life styles.
7. Lack of training for mental health staff about healthy lifestyle choices (nutrition, exercise, weight management, smoking cessation, etc.)
8. Lack of case consultation for either MDs, clinicians or other staff to support clients that are dealing with medical problems.
9. Lack of client knowledge about healthy lifestyle choices (nutrition, exercise, weight management, smoking cessation, etc.)
10. Client lack knowledge of symptom recognition and how to manage their symptoms.
11. Mental Health staff believes that physical health is not their responsibility.
12. Mental Health staff believes that physical health is not within their scope of practice.
13. Mental health clients do not feel comfortable discussing their physical health needs with mental health staff.

After the brainstorming, it was agreed that while last year's PIP was successful in changing a documentation process, additional efforts are needed in order to improve the coordination of care with the PCP. The goal of the current PIP is to change the culture of the RST clinics to include primary care, put systems for close coordination in place, and increase both staff and clients' awareness, knowledge and comfort around physical health issues.

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

In an effort to assess the existing culture around physical and mental health integration and verify the barriers identified in the brainstorming session a pre-post tool was developed for the PIP to collect baseline data. Clients at the RST clinics were asked to complete a survey during May of 2013 regarding their knowledge and awareness of physical health issues, their comfort level discussing physical health issues with their mental health provider and their confidence in managing their health issues. The graph below shows the results of the pre-survey by domain area. The specific questions for each domain can be seen in Table 3.



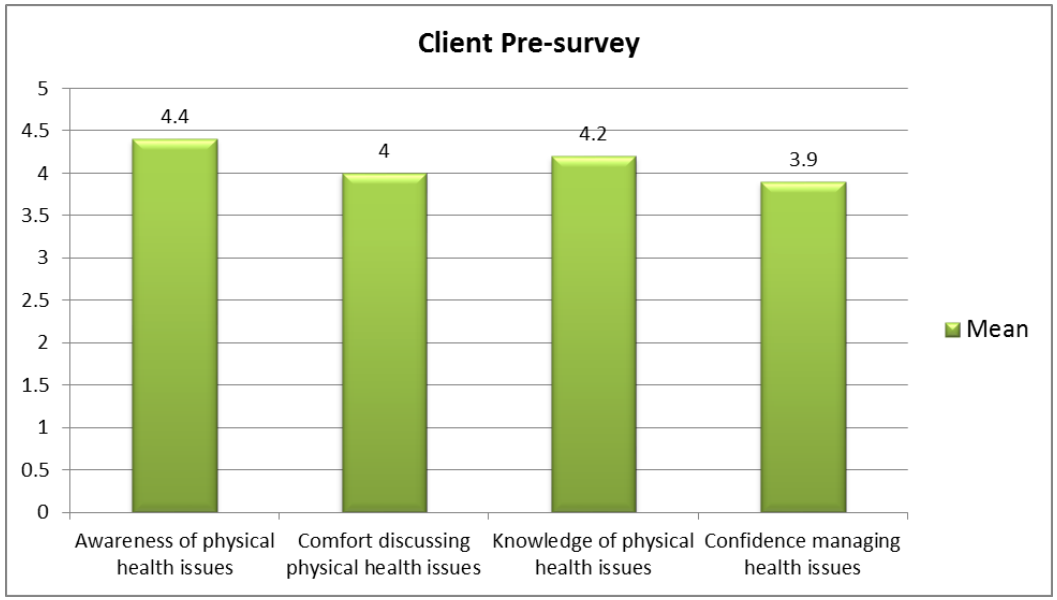

Nearly 30% of all clients are not confident in managing their health issues, and 25% are not comfortable discussing physical health issues with MH staff. When looking more closely at the responses to specific questions in each domain, 80% of clients report being comfortable discussing physical health issues with MH staff, but only 64% would like help with their physical health care issues from MH staff. This may be a result of the clients' perception of the role of the MH staff, or related to the fear or stigma and discrimination. In the Confidence domain, 87% of clients go to the doctor when they have a physical health problem, while only 54% are able to manage their health problems on a daily basis. This speaks to the need for wellness education and assistance for clients, to enable them to take care of themselves.

The table below shows the survey results for each question as well as the mean scores for each question and domain.

**Table 3-Client Pre-Survey Detail**

| N=793 | Strongly Agree | % Strongly Agree | Agree | % Agree | Neutral | % Neutral | Disagree | % Disagree | Strongly Disagree | % Strongly Disagree | Mean Score |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ***Awareness*** | | | | | | | | | | | ***4.4*** |
| Mental health symptoms can affect my physical health | 363 | 45.8% | 319 | 40.2% | 58 | 7.3% | 35 | 4.4% | 11 | 1.4% | 4.3 |
| It is important to take care of both my physical health and mental health | 487 | 61.4% | 258 | 32.5% | 26 | 3.3% | 8 | 1.0% | 6 | 0.8% | 4.5 |
| It is important to me that all my doctors/care providers talk to each other about my health and wellness | 357 | 45.0% | 308 | 38.8% | 88 | 11.1% | 20 | 2.5% | 9 | 1.1% | 4.3 |
| ***Comfort*** | | | | | | | | | | | ***4.0*** |
| I feel comfortable discussing physical health problems with MH program staff | 339 | 42.7% | 296 | 37.3% | 109 | 13.7% | 29 | 3.7% | 7 | 0.9% | 4.2 |
| I would like help from MH program staff concerning my physical health care | 228 | 28.8% | 285 | 35.9% | 165 | 20.8% | 69 | 8.7% | 27 | 3.4% | 3.8 |
| ***Knowledge*** | | | | | | | | | | | ***4.2*** |
| I have a good understanding of my physical health issues | 304 | 38.3% | 313 | 39.5% | 121 | 15.3% | 30 | 3.8% | 13 | 1.6% | 4.1 |
| I know when I have physical health symptoms that might mean I need to go to my medical doctor | 362 | 45.6% | 353 | 44.5% | 50 | 6.3% | 12 | 1.5% | 5 | 0.6% | 4.4 |
| ***Confidence*** | | | | | | | | | | | ***3.9*** |
| I am able to manage my health problems and the affect they have over my daily life | 164 | 20.7% | 269 | 33.9% | 206 | 26.0% | 104 | 13.1% | 32 | 4.0% | 3.6 |
| I go to my medical doctor when I have a physical health problem | 367 | 46.3% | 324 | 40.9% | 61 | 7.7% | 23 | 2.9% | 9 | 1.1% | 4.3 |

Below is a graph of the Mean scores in each domain.



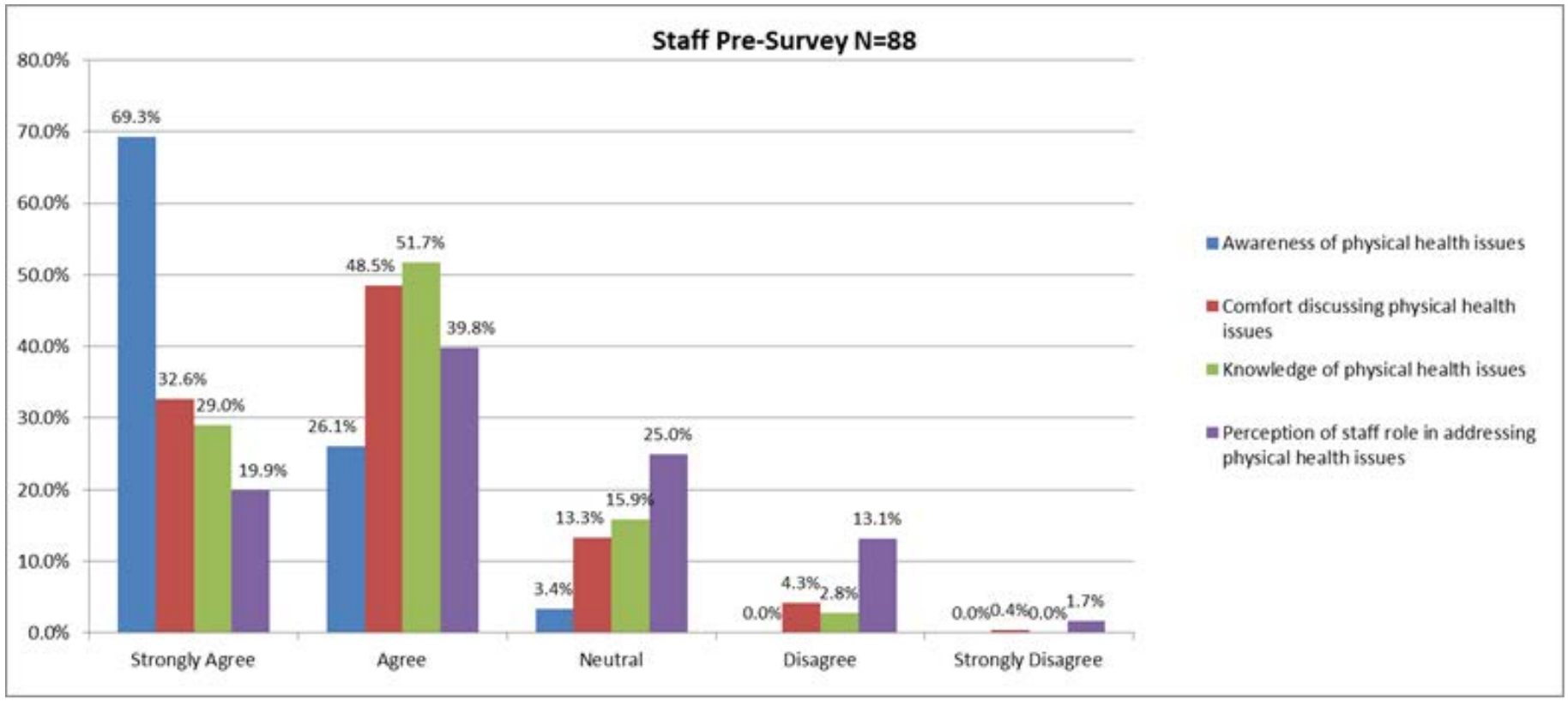

Clients were also asked to rate how they felt about their lives in general on a 7 point scale.

**Table 4-Client Satisfaction and Well-being**

| | Terrible | | Unhappy | | Mostly Dissatisfied | | Mixed | | Mostly Satisfied | | Pleased | | Delighted | | Mean Score |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| N=793 | N | % | N | % | N | % | N | % | N | % | N | % | N | % | *Total: 4.0* |
| About your life in general? | 46 | 5.8 | 100 | 12.6 | 59 | 7.4 | 265 | 33.4 | 153 | 19.3 | 100 | 12.6 | 50 | 6.3 | *3.9* |
| Your health in general? | 42 | 5.3 | 106 | 13.4 | 70 | 8.8 | 242 | 30.5 | 188 | 23.7 | 87 | 11.0 | 39 | 4.9 | *3.9* |
| Your physical condition? | 59 | 7.4 | 113 | 14.2 | 77 | 9.7 | 226 | 28.5 | 173 | 21.8 | 81 | 10.2 | 44 | 5.5 | *4.0* |
| Your emotional well-being | 71 | 9.0 | 118 | 14.9 | 59 | 7.4 | 245 | 30.9 | 139 | 17.5 | 92 | 11.6 | 47 | 5.9 | *4.1* |

The majority of clients report they have mixed feelings about their lives, physical health and emotional well-being. More than 25% feel mostly dissatisfied, unhappy or terrible in these areas. This is in contrast to clients' responses in the previous table around comfort, awareness and knowledge of physical health issues. The mean score in all domains in table 3 is between 3.9 and 4.4, on a scale from 1 to 5. In table 4 the mean score is 4.0, but this is closer to the midpoint of the seven point scale, indicating more mixed emotions rather than satisfaction with life in these areas. The data suggest that clients need additional education and assistance in managing their health conditions in order to feel better.

Similarly, staff were surveyed during May 2013 about their awareness, knowledge of and comfort discussing physical health care issues and their perception of their role in addressing the client's physical health care needs. Staff surveyed include those who have direct client contact (MH service providers, doctors and nurses). The following graph contains the results of the staff pre-survey. The questions for each domain are specified in Table 5.

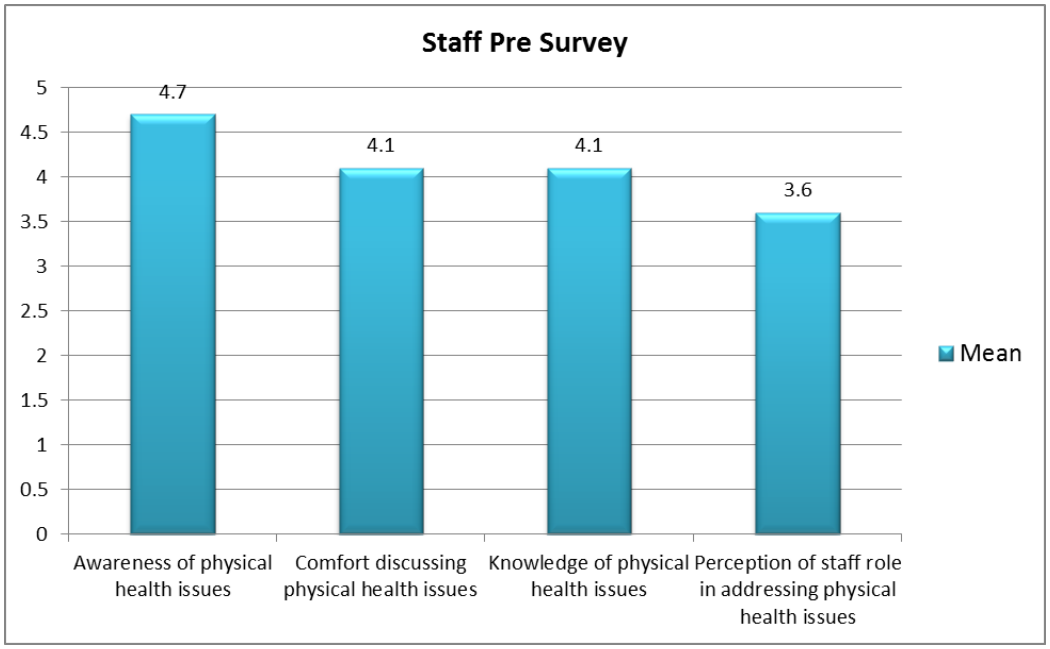



Although staff feel that they are well aware of the importance of physical health issues and 80% agree they are comfortable discussing and have knowledge about these issues, almost 40% of staff are neutral or do not perceive it to be in their scope to provide assistance with physical health care issues. This indicates a need to put systems in place which allow for close coordination between primary care clinics and mental health staff. Short of completely integrated teams, an increase in staff comfort level and confidence in dealing with primary care issues is valuable. In a truly integrated system we would expect to see a higher percentage of staff who strongly agree in the Comfort, Awareness and Staff Role domains.

**Table 5-Staff Pre-Survey Detail**

| N=88 | Strongly Agree | % Strongly Agree | Agree | % Agree | Neutral | % Neutral | Disagree | % Disagree | Strongly Disagree | % Strongly Disagree | Mean Score |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ***Awareness*** | | | | | | | | | | | ***4.7*** |
| Physical health plays a vital role in mental health treatment | 60 | 68.2% | 24 | 27.3% | 4 | 4.5% | 0 | 0.0% | 0 | 0.0% | 4.6 |
| It is important to integrate physical health and mental health care | 62 | 70.5% | 22 | 25.0% | 2 | 2.3% | 0 | 0.0% | 0 | 0.0% | 4.7 |
| ***Comfort*** | | | | | | | | | | | ***4.1*** |
| I am able to assist consumers to talk with their primary care physician | 28 | 31.8% | 46 | 52.3% | 7 | 8.0% | 5 | 5.7% | 0 | 0.0% | 4.1 |
| I have confidence in my ability/know how to teach consumers skills to enable them to take responsibility for their health | 29 | 33.0% | 41 | 46.6% | 14 | 15.9% | 4 | 4.5% | 0 | 0.0% | 4.1 |
| I feel comfortable discussing physical health problems with consumers | 29 | 33.0% | 41 | 46.6% | 14 | 15.9% | 3 | 3.4% | 1 | 1.1% | 4.1 |
| ***Knowledge*** | | | | | | | | | | | ***4.1*** |
| I have a good understanding of physical health issues | 28 | 31.8% | 47 | 53.4% | 13 | 14.8% | 0 | 0.0% | 0 | 0.0% | 4.2 |
| I am able to recognize physical health symptoms that might indicate the need for a primary care appointment | 23 | 26.1% | 44 | 50.0% | 15 | 17.0% | 5 | 5.7% | 0 | 0.0% | 4.0 |
| ***Staff role*** | | | | | | | | | | | ***3.6*** |
| It is easy to make a referral for a consumer to a primary care provider | 16 | 18.2% | 27 | 30.7% | 25 | 28.4% | 17 | 19.3% | 2 | 2.3% | 3.4 |
| It is my responsibility to assist a consumer to follow-up with the primary care provider when the consumer has a medical or medication issue | 19 | 21.6% | 43 | 48.9% | 19 | 21.6% | 6 | 6.8% | 1 | 1.1% | 3.9 |

The graph below depicts the mean scores for the staff pre survey.




The mean score for the awareness domain is 4.7, while the mean for staff role is only 3.6, suggesting that although staff are aware of the importance of the integration of physical and mental health issues, they do not consider it a part of the mental health clinics' array of service delivery options. The data support the goal of the PIP, to change the culture of the RST clinics to improve the relationship between primary care and mental health at both the individual and system level.

**Table A – List of Validated Causes/Barriers**

| Describe Cause/Barrier | Briefly describe data examined to validate the barrier |
|---|---|
| Clients lack knowledge about physical health issues | % of responses indicating Neutral or Disagree in the knowledge domain on the pre-survey |
| Clients are not comfortable discussing their physical health needs with mental health providers | % of responses indicating Neutral or Disagree in the comfort domain on the pre-survey |
| Clients are not confident in managing their physical health | % of responses indicating Neutral or Disagree in the confidence domain on the pre-survey |
| Staff lack knowledge about physical health conditions, symptoms and the interaction between mental health and physical health | % of responses indicating Neutral or Disagree in the knowledge domain on the pre-survey |

| Describe Cause/Barrier | Briefly describe data examined to validate the barrier |
|---|---|
| Mental health Staff are not comfortable discussing physical health issues with clients | % of responses indicating Neutral or Disagree in the comfort domain on the pre-survey |
| Mental health Staff do not perceive physical health issues a part of the mental health clinics' array of service delivery options | % of responses indicating Neutral or Disagree in the staff role domain on the pre-survey |
| Culture/systems are not in place that connect/integrate mental health and physical health care | None of the RSTs have systems in place to effectively coordinate with primary care |

## 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.**

Will implementation of staff training on physical health issues, wellness groups for clients and establishment of collaboration with a primary health care provider result in increased coordination of care, leading to improved primary care access and treatment for mental health clients?

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

The PIP includes all beneficiaries for whom the question applies. All four RST's were chosen as the pilot population to test the interventions on a small scale. The intention is to determine the benefits of the interventions and apply successful interventions to the entire MHP.

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

The study population includes all clients receiving outpatient mental health services at all four RSTs. Currently there are approximately 4,289 clients open at the four RSTs.

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

All clients receiving outpatient mental health services at all the four RSTs will have the opportunity to complete the Consumer pre-post survey. All RST staff who are in a position where they have contact with clients for the purposes of delivering MH services (Personal Service Coordinators, Nurses, Doctors) will be asked to complete the Staff pre-post survey. Pre-Post data will also be collected from clients who attend health and wellness groups and staff who attend training geared to specific physical health issues.

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

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

**"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?**
The performance indicators were selected to support the hypothesis that implementation of staff training, wellness groups for clients and establishment of a collaboration between the four Regional Support Teams (RSTs) and a primary care provider will result in improved primary care access and treatment for mental health clients.

**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?**
The performance indicators measure factors associated with improved knowledge, confidence and awareness of physical health care issues and the connection with mental health. The indicators also measure changes in coordination of care, both of which will result in better mental and physical outcomes for clients.

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

| # | Describe Performance Indicator | Numerator | Denominator | Baseline for performance indicator | Goal |
|---|---|---|---|---|---|
| 1 | Increase in staff knowledge of physical health care issues | Sum of staff scores for items in the knowledge domain on the survey | # of staff that respond to items in the knowledge domain in the survey multiplied by the number of questions in that domain | 4.1 | 4.3 |

| # | Describe Performance Indicator | Numerator | Denominator | Baseline for performance indicator | Goal |
|---|---|---|---|---|---|
| 2 | Increase in staff awareness regarding physical health care issues | Sum of staff scores for items in the awareness domain on the survey | # of staff that respond to items in the awareness domain in the survey multiplied by the number of questions in that domain | 4.7 | 4.8 |
| 3 | Increase in staff comfort level in counseling clients about physical health care issues | Sum of staff scores for items in the comfort domain on the survey | # of staff that respond to items in the comfort domain in the survey multiplied by the number of questions in that domain | 4.1 | 4.3 |
| 4 | Increase in perception of staff role in addressing physical health care issues | Sum of staff scores for items in the staff role domain on the survey | # of staff that respond to items in the staff role domain in the survey multiplied by the number of questions in that domain | 3.6 | 3.9 |
| 5 | Increase in client knowledge of physical health issues | Sum of client scores for items in the knowledge domain on the survey | # of clients that respond to items in the knowledge domain on the survey multiplied by the number of questions in that domain | 4.2 | 4.3 |
| 6 | Increase in client awareness regarding physical health issues | Sum of client scores for items in the awareness domain on the survey | # of clients that respond to items in the awareness domain on the survey multiplied by the number of | 4.4 | 4.5 |

| # | Describe Performance Indicator | Numerator | Denominator | Baseline for performance indicator | Goal |
|---|---|---|---|---|---|
| | | | questions in that domain | | |
| 7 | Increase in client comfort level discussing physical health care issues with a mental health provider | Sum of client scores for items in the comfort domain on the survey | # of clients that respond to items in the comfort domain on the survey multiplied by the number of questions in that domain | 4.0 | 4.1 |
| 8 | Increase in client confidence in managing their health issues | Sum of client scores for items in the confidence domain on the survey | # of clients that respond to the confidence domain on the survey multiplied by the number of questions in that domain | 3.9 | 4.0 |
| 9 | Increase in client satisfaction with their lives in general | Sum of client scores for items in the life satisfaction domain on the survey | # of clients that respond to the life satisfaction domain on the survey multiplied by the number of questions in that domain | 4.0 | 4.5 |
| 10 | Establishment of a collaboration between the RSTs and a primary care provider | # of Collaborations | # of RSTs | 0% | 100% |

**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 | RST staff training about physical health issues most common to clients | • Medical issues are not addressed/followed up by RST staff<br>• Inability to recognize symptoms<br>• Staff discomfort in discussing health issues with clients<br>• Clients discomfort with discussing health issues with MH staff<br>• Concern about scope of practice | 4/1/2013 |
| 2 | Provide physical health and wellness education for RST clients | • Clients are not aware of the importance of coordination of physical and MH care<br>• Clients don't recognize physical health symptoms<br>• Clients want to keep physical health and mental health issues separate<br>• Clients are not comfortable talking with PC provider | 4/1/2013 |
| 3 | Establish a letter of agreement with a primary health care health provider (documented process for linkage, collaborative relationship, liaison etc) | • Lack of coordination of care following known PCP appointments<br>• Lack of communication and trust between primary care and mental health providers | 4/1/2013 |
| 4 | Physical improvements to each RST that include health and wellness information and disease prevention in the form of brochures, posters and video presentations, which are easily accessible to clients | • Clients are not aware of the importance of coordination of physical and MH care<br>• Clients don't recognize physical health symptoms<br>• Clients want to keep physical health and mental health issues separate<br>• Clients are not comfortable talking with PC provider | 4/1/2013 |
| 5 | Examples of samples provided for RST staff to guide documentation of medical issues in the | • Staff perception of MH clinics' array of services | 4/1/2013 |

| Number of Intervention | List each specific intervention | Barrier(s)/causes each specific intervention is designed to target | Dates Applied |
|---|---|---|---|
| | progress note | • Lack of coordination of care following known PCP appointments<br>• Staff discomfort in discussing health issues with clients | |

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

**11. Describe the data to be collected.**

Data regarding RST clients' knowledge, awareness and comfort discussing physical health issues, access to care and overall health and well-being will be collected. Demographic data including age, race, ethnicity and preferred language will also be captured. Before and after each client wellness group series, data will be collected about knowledge and attitudes regarding the physical health and disease prevention issues specific to the group. Wellness groups include topics such as: Nutrition, Smoking Cessation, Exercise and Wellness Groups.
Similarly, data will be collected from all relevant RST staff regarding their knowledge, awareness, comfort counseling clients about physical health issues and scope of practice. For each staff training data will be collected pre and post regarding the information presented, the benefits of the training and how training could be improved. Staff trainings include topics such as: COPD, Asthma, Hypertension and Smoking Cessation, and are usually completed in the same day.

**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 collected from Sacramento County's existing data information and billing system, Avatar. Additional data will be collected through surveys for RST clients and staff. Demographic data will be collected from Avatar, and data regarding RST clients' knowledge, awareness and comfort discussing physical health issues, access to care and overall health and well-being will be collected using surveys. Clients will be asked to complete a voluntary survey one time during the month of March 2013 to obtain a baseline and once again in March 2014 to obtain follow-up data. Pre and Post surveys for those clients who attend wellness groups will used to gather data specific to each group. Staff data will be collected similarly, using surveys, in March 2013 and again in March 2014. Data regarding staff training will be collected through training surveys, and collected as training is implemented at each RST site.

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

Data will be reviewed periodically to ensure accuracy and adherence to the PIP requirements. Feedback regarding the accuracy and completeness of the data will be given to the RSTs and others involved in the project. After March 31, 2014, one year after baseline data were collected, the data will be analyzed against performance indicators to measure improvement.

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

RST staff including case managers, medical staff, office managers and front desk staff will collect data by asking clients to complete the voluntary surveys. The Research, Evaluation and Performance Outcome (REPO) staff responsible for collecting data from the agency and collecting data from the Avatar information system have at least a BA degree in Social Services or a related field and have been analyzing and reporting on data for the REPO unit for over 6 years.

**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.**

**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?**

California EQRO
560 J Street, Suite 390
Sacramento, CA 95814

**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:** Sacramento County
**Date PIP Began:** January 3, 2012
**Title of PIP:** Decreasing Child Psychiatric Hospitalization Through The Use of CANS
**Clinical or Non-Clinical:** Non-Clinical

## Assemble multi-functional team

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

The Sacramento County Mental Health Plan (MHP) established a Children's PIP Committee to develop and implement this PIP. The core committee consisted of County staff representing Program Development and Support (PDS) staff, Research, Evaluation and Performance Outcomes (REPO) staff, and Quality Management (QM) staff. The in-development PIP was presented to representatives from the contracted provider community in a special Provider Input meeting and to members of the Children's Stakeholder Committee at their regular meeting. The input received at both of these venues is included. Additionally, representatives from the Provider Community providing Wraparound and Flexible Integrated Therapy (FIT) Services were invited to participate in the workgroup to direct the Performance Improvement Project.

**County Participants**

Kathy Aposhian, RN, Interim Program Manger, Quality Management, Sponsor of the EPSDT PIP Committee
Lisa Bertaccini, LCSW, Chief, Child and Family Mental Health, Chair of the EPSDT PIP Committee
Wendy Greene, MA, Program Manager, Child and Family Mental Health Contracts & Access Team
Lisa Harmon, Program Planner, Research, Evaluation and Performance Outcomes
JoAnn Johnson, Program Manger Cultural Competence and Interim Program Manager Research, Evaluation and Performance Outcomes
Matt Quinley, LCSW, Program Coordinator, Quality Management
Alex Rechs, LMFT, Program Coordinator, Quality Management
Anne-Marie Rucker, MBA, PMP, Program Planner, Child and Family Mental Health
Lisa Sabillo, Division Manager, Support Services
Michelle Schuhmann, LCSW, MPH, Program Planner, Research, Evaluation and Performance Outcomes
Kathryn Skrabo, MSW, Program Planner, Mental Health Services Act
Billee Willson, MBA, Program Planner, Child and Family Mental Health
Uma Zykofsky, LCSW, Division Manger, Outpatient Mental Health Services

**Provider and Advocate Participation**

Rikke Addis, MA, Sacramento Children's Home
Deborah Bennett, Stanford Youth Solutions
Ebony Chambers, Youth Peer Mentor, Stanford Youth Solutions

Teressa Dane, Family Partner, San Juan Unified School District
Belle Darsie, Stanford Youth Solutions
Kimberly, Diggles, Stanford Youth Solutions
Linda Fong-Somera, MPH, Program Planner, First 5 Sacramento Commission
Gayaneh Karapetian, Sacramento Children's Home
Julie Kauffman, MSW, PPSC, Learning Support Services Specialist II, Sacramento City Unified School District
Stephanie Kelly, Stanford Youth Solutions
Pam McPhail, Family Partner, Sacramento Children's Home
Alex Poe, Youth Peer Mentor, Dignity Health
Princess Rehman, Youth Peer Partner, Sacramento Children's Home
Pamela Robinson, Sacramento County Office of Education
Lynette Thorlakson, EMQ Families First
Tina Traxler, River Oak Center for Children
Roland Udy, River Oak Center for Children
Karen Vang, River Oak Center for Children
Kao Vue, Family Partner, Mental Health America of Sacramento
John Woolcott, Sacramento Children's Home

**"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.**

In the 2010 and 2011 Performance Improvement Plan, the MHP developed and implemented a performance improvement plan focused on the high cost of hospitalization among the EPSDT clients. While the PIP was not effective is showing a significant decrease in the high costs nor a decrease in the number of high cost clients, the MHP is still concerned with these high cost clients and examined other factors that lead to hospitalization. During the EQRO meetings with the MHP on September 23, 2011, it was suggested the MHP use the Child and Adolescent Needs and Strengths (CANS) data that the MHP had started collecting on a pilot basis with the intensive services programs, Flexible Integrated Treatment (FIT) and Wraparound to determine if the administration of the CANS assessment would decrease the occurrence of hospitalization and the use of crisis stabilization services and to identify the areas where interventions could be developed to address specific needs and ultimately reduce hospital and crisis stabilization costs.

In the previous PIP, demographic data for high cost clients was displayed of the high cost clients, broken out by the top 25% and the bottom 75%.

Table 1
Demographic Characteristics of High Cost Clients

| Characteristic | Top 25% High Cost (N=197) | | Bottom 75% High Cost (N=572) | |
|---|---|---|---|---|
| Age | | | | |
| | Avg=13 | Range, 4-20 | Avg=13 | Range, 2-21 |
| Gender | | | | |
| Male | 120 | 60.9 | 337 | 58.9 |
| Female | 77 | 39.1 | 235 | 41.1 |
| Ethnicity | | | | |
| Caucasian | 80 | 40.6 | 202 | 35.3 |
| African American | 52 | 26.4 | 178 | 31.1 |
| Hispanic | 38 | 19.3 | 99 | 17.3 |
| Multi-Ethnic | 19 | 9.6 | 64 | 11.2 |
| Other | 5 | 2.5 | 19 | 3.3 |
| Unknown | 3 | 1.5 | 10 | 1.7 |
| Preferred Language | | | | |
| English | 194 | 98.5 | 550 | 96.2 |
| Other | | 0.0 | 12 | 2.1 |
| Unknown/Not Reported | 3 | 1.5 | 10 | 1.7 |
| Primary Axis I | | | | |
| Bipolar | 50 | 25.4 | 87 | 15.2 |
| Anxiety | 37 | 18.8 | 114 | 19.9 |
| ADHD | 37 | 18.8 | 108 | 18.9 |
| Disruptive Disorders | 24 | 12.2 | 72 | 12.6 |
| Psychotic | 10 | 5.1 | 26 | 4.5 |
| Depressive | 11 | 5.6 | 77 | 13.5 |
| Adjustment | 8 | 4.1 | 46 | 8.0 |
| Other | 20 | 10.2 | 42 | 7.3 |
| Substance Use | | | | |
| Yes | 14 | 7.1 | 54 | 9.4 |
| No | 127 | 64.5 | 379 | 66.3 |
| Unknown/Not Reported | 56 | 28.4 | 139 | 24.3 |
| Trauma | | | | |
| Yes | 139 | 70.6% | 347 | 60.7% |
| No | 17 | 8.6% | 66 | 11.5% |
| Unknown | 41 | 20.8% | 159 | 27.8% |

Diagnosis and trauma data were presented along with other characteristics such as age, ethnicity, gender, language and substance use. It was noted that the incidence of Bipolar Disorder was slightly higher in the top 25% but the remaining characteristics were very similar.

Since the MHP desires to infuse trauma informed practices system-wide, it is noted that trauma was also slightly higher in the top 25%.

Here is why trauma-informed services make sense: Within a Behavioral Health Department, our target population of adults with a psychiatric disability, children with a serious emotional disturbance, youth and adults with substance abuse disorders, Individuals who receive services in outpatient, inpatient, residential, and crisis settings all have a significant sub-population of clients who have experienced trauma. Whether it is trauma from physical, sexual, or emotional abuse, trauma from witnessing violence at home or in the community, trauma from being removed from a home, trauma from living through a refugee experience, trauma for immigrants acclimating, historical trauma for individuals with long and deep roots tied to the trauma experienced by ancestors, or trauma tied to the stigma of a significant mental health or substance abuse disorder, there is an overarching theme of trauma that is too frequently minimized or ignored in mental health treatment. When trauma is not identified and treated, challenging, internal and external thoughts and behaviors interfere with a client's stability, functioning, and quality of life. In addition to mental health literature that speaks to this, our diverse stakeholder community in the MHSA planning process identified trauma as a key area of unmet needs. It therefore makes sense to adopt system-wide policies that focus on a trauma informed system that is cognizant of its diversity. So that wherever a client presents him or herself, whether at an inpatient setting, a detox program, a children's mental health clinic, trauma is screened for and assessed, with appropriate treatment planning and services provided. In this way, the addressing of trauma can be the platform from which mental health recovery can begin to occur.

In the previous PIP, the workgroup displayed the same characteristics used for High Cost Clients for Wraparound. The Wraparound clients were divided into two groups: high cost and low cost.

Table 2
Demographic Characteristics of Wraparound Clients

| | Wrap – High Cost | | Wrap – Low Cost | |
|---|---|---|---|---|
| Characteristic | N=156 | | N=94 | |
| Age | | | | |
| | Avg.=13 | Range, 6-18 | Avg=14 | Range, 7-18 |
| Gender | N | % | N | % |
| Male | 86 | 55.1 | 51 | 54.3 |
| Female | 70 | 44.9 | 41 | 43.6 |
| Unknown | --- | --- | 2 | 2.1 |
| Ethnicity | | | | |
| Caucasian | 59 | 37.8 | 50 | 53.2 |
| African American | 55 | 35.3 | 10 | 10.6 |
| Hispanic | 25 | 16.0 | 18 | 19.1 |
| Multi-Ethnic | 10 | 6.4 | 9 | 9.6 |
| Other | 3 | 1.9 | 2 | 2.1 |
| Unknown | 4 | 2.6 | 5 | 5.3 |
| Preferred Language | | | | |

| | | | | |
|---|---|---|---|---|
| English | 150 | 96.2 | 88 | 93.6 |
| Other | 2 | 1.3 | 2 | 2.1 |
| Unknown/Not Reported | 4 | 2.6 | 4 | 4.3 |
| Primary Axis I | | | | |
| Anxiety | 38 | 24.4 | 11 | 12.0 |
| Bipolar | 30 | 19.2 | 31 | 33.7 |
| Disruptive Disorders | 28 | 17.9 | 7 | 7.6 |
| ADHD | 27 | 17.3 | 8 | 8.7 |
| Psychotic | 2 | 1.3 | 2 | 2.2 |
| Depressive | 12 | 7.7 | 14 | 15.2 |
| Adjustment | 11 | 7.1 | 4 | 4.3 |
| Other | 8 | 5.1 | 15 | 16.0 |
| Unknown | --- | --- | 2 | 2.1 |
| Substance Use | | | | |
| Yes | 15 | 9.6 | 11 | 11.7 |
| No | 87 | 55.8 | 43 | 45.7 |
| Unknown/Not Reported | 54 | 34.6 | 40 | 45.6 |
| Trauma | | | | |
| Yes | 105 | 67.3 | 45 | 47.9 |
| No | 6 | 3.8 | 14 | 14.9 |
| Unknown/Not Reported | 45 | 28.8 | 35 | 37.2 |
| Service Information | | | | |
| Average Length of Stay | 1.6 years | Range 0.4-4.4 Years | 1.5 Years | Range 0.4-4.4 Years |
| Average Time in MH System | 5.8 Years | Range 0.9-14.8 Years | 4.8 Years | Range 0.8-13.7 Years |
| Inpatient | | | | |
| Unduplicated Youth | 28 | 17.9 | 3 | 3.2 |
| Total Hospitalizations | 45 | | 6 | |
| TBS Services | | | | |
| Unduplicated Youth | 39 | 25.0 | --- | --- |
| Episodes | 45 | | --- | --- |

In this group the diagnosis of Bipolar Disorder fell to the lower cost group while Anxiety, Disruptive Disorders, ADHD and trauma were most common in the high cost group.

Since the diagnosis data differs in each group, the data suggested the MHP look beyond the diagnosis to determine which clients were more likely to be hospitalized or use Crisis Stabilization services. The CANS assessment tool provides data that uses family and youth input in identifying the strengths and needs of the youth. An analysis of the data provided by the tool give the ability to identify action items that have a relationship to hospitalization or the use of crisis stabilization services on a macro level. Action items are the items that score in the range that suggests the youth's treatment plan should include a related action.

Given the historical perspective and the data available from the CANS pilot, the workgroup decided to use the CANS data to identify the collection of needs and strengths that have a high likelihood of resulting in hospitalization or crisis stabilization

services. It is expected the interventions identified and implemented to prevent future hospitalizations will ultimately lead to higher quality of life, less disruption in achieving developmental milestones and community integration, and lower mental health costs.

**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?**

From the last PIP, "high cost" users of mental health services are defined as youth who are hospitalized one or more times. They were the focus of the previous PIP. The high cost users continue to be a concern to the MHP because of both the excessive cost and the toll that it can take on the youth and their families. Interventions in the previous PIP focused on referrals to specialized programs; the focus of this PIP has been redirected to integration of existing resources.

Three studies were conducted to understand the causes of hospitalization. The first examined the results of initial Child and Adolescent Needs and Strengths (CANS) assessments as they related to hospitalization. The second piggybacked on the first to look specifically at two areas identified in the study to be high needs areas. The final study compared the hospitalization rate in the first six months of the FIT Program (prior to the implementation of CANS) to a six month period beginning twelve months after the CANS was implemented.

Study 1

Sacramento County Division of Mental Health began preparation for the use of the CANS assessment in February 2010. After nearly a year of planning, the MHP decided to pilot the CANS with its intensive programs: FIT and Wraparound.

The CANS was selected for use in Sacramento County because of its usefulness as a part of the clinical assessment with: a) dual child and family focus, b) individualization (consideration of cultural and developmental factors), c) recovery and strengths based framework, d) family empowerment (caregiver participates in and/or reviews ratings), e) clear identification of actions items (potential goals), and f) holistic approach (facilitates multi-disciplinary approach by assessing multiple areas of a youth's life).

The implementation of the CANS began on February 1, 2011. All new clients admitted in FIT and Wraparound programs after February 1st received an initial CANS assessment and a re-assessment every six months. The existing clients also received a CANS assessment; but for data analysis purposes, it was not considered an initial CANS assessment.

The MHP decided to analyze the CANS data collected for this population to determine if there were specific action items common to those youth who were hospitalized. The data was collected from the CANS assessments administered in the Flexible Integrated Treatment (FIT) and Wraparound programs beginning February 1, 2011.

This study focuses on the FIT and Wraparound clients admitted after January 1, 2011 who received a CANS assessment. The unduplicated clients (889) were then cross referenced for hospitalizations and (Minor Emergency Response Team) MERT visits. (MERT provides crisis stabilization services and for the ease of discussion, references to hospitalizations will include MERT visits for the remainder of this document.) Of these, 137 (15.4%) had one or more hospitalizations and 752 (84.6%) had no hospitalizations

For the 137 youth hospitalized there was a total of 536 hospitalizations; an average of 3.9 hospitalizations per client, with a range of 1 to 18 hospitalizations. The average length of stay in the hospital was 4.5 days, with a range of 0 to 39 days in the hospital.

The MHP decided it was important to identify the areas that youth were struggling with at the time they were hospitalized. Consequently, the focus was narrowed to youth with CANS assessments who were hospitalized 60 days before or after the completion of a CANS assessment. The intent was to identify areas that have higher numbers of action items on the CANS around the time of hospitalization.

There were 93 CANS assessments within 60 days of a hospitalization. The following charts show the action items in the seven areas of the CANS assessment for this sub-group of hospitalized youth and non-hospitalized youth.

Life Domain Functioning

In the Life Domain Functioning section, hospitalized youth had an average of 5.0 action items, whereas non-hospitalized youth had an average of 3.1 action items.

| LIFE DOMAIN FUNCTIONING | | | | |
|---|---|---|---|---|
| 0=no evidence of problems, history: 1=mild 2=moderate 3=severe 2 or 3=Action Items | | | | |
| | Hospitalized w/in 60 days +/- CANS Assessment N=93 | | Non-Hospitalized N=1080 | |
| | # Action Items | % | # Action Items | % |
| **Family** | 55 | 59.1 | 425 | 39.4 |
| **Living Situation** | 52 | 55.9 | 369 | 34.2 |
| **Social Functioning** | 49 | 52.7 | 374 | 34.6 |
| **Recreational** | 42 | 45.2 | 231 | 21.4 |
| **Developmental** | 9 | 9.7 | 68 | 6.3 |
| **Communication** | 22 | 23.7 | 149 | 13.8 |
| **Judgment** | 60 | 64.5 | 396 | 36.7 |
| **Job Functioning** | 3 | 3.2 | 26 | 2.4 |
| **Legal** | 17 | 18.3 | 109 | 10.1 |
| **Medical** | 10 | 10.7 | 47 | 4.4 |
| **Physical** | 5 | 5.4 | 25 | 2.3 |
| **Sexuality** | 18 | 19.4 | 43 | 4.0 |
| **Sleep** | 28 | 30.1 | 205 | 19.0 |
| **School Behavior** | 34 | 36.6 | 361 | 33.4 |
| **School Achievement** | 41 | 44.1 | 364 | 33.7 |
| **School Attendance** | 21 | 22.6 | 108 | 10.0 |

In every area of Life Domain Functioning, the hospitalized youth had a larger percentage of action items than non-hospitalized youth; showing the hospitalized youth had more life functioning needs.

Youth Strengths

In Youth Strengths, an action item is a 0 or 1, which is the opposite of all other domains on the CANS. Action items are the areas where youth have centerpiece or useful strengths to build on.

| YOUTH STRENGTHS | | | | |
|---|---|---|---|---|
| **0=centerpiece 1=useful 2=identified 3=not yet identified** | | | **0 or 1=Action Items** | |
| | **Hospitalized w/in 60 days +/- CANS Assessment N=93** | | **Non-Hospitalized N=1080** | |
| | **# Action Items** | **%** | **# Action Items** | **%** |
| **Family** | 48 | 51.6 | 743 | 68.8 |
| **Interpersonal** | 47 | 50.5 | 733 | 67.9 |
| **Optimism** | 34 | 36.6 | 730 | 67.6 |
| **Educational** | 62 | 67.7 | 742 | 68.7 |
| **Vocational** | 21 | 22.6 | 279 | 25.8 |
| **Talents/Interests** | 59 | 63.4 | 776 | 71.9 |
| **Spiritual/Religious** | 41 | 44.1 | 506 | 46.9 |
| **Community Life** | 45 | 48.4 | 557 | 51.6 |
| **Relationship Permanence** | 58 | 62.4 | 719 | 66.6 |
| **Resiliency** | 44 | 47.3 | 683 | 63.2 |
| **Resourcefulness** | 54 | 58.1 | 709 | 65.6 |

Hospitalized youth had an average of 5.5 action items, whereas the non-hospitalized youth had an average of 6.6 action items.

In every area of Youth Strengths, the non-hospitalized youth had a greater percentage of action items meaning the non-hospitalized youth had more areas of strength than the hospitalized youth.

Transition to Adulthood

In the Transition to Adulthood domain, hospitalized youth had an average of 1.1 action items, whereas the non-hospitalized youth had an average of 0.4 action items.

| TRANSITION TO ADULTHOOD | | | | |
|---|---|---|---|---|
| 0=no evidence of problems history: 1=mild 2=moderate 3=severe 2 or 3=Action Items | | | | |
| | Hospitalized w/in 60 days +/- CANS Assessment N=93 | | Non-Hospitalized N=1080 | |
| | # Action Items | % | # Action Items | % |
| **Independent Living** | 25 | 26.9 | 106 | 9.8 |
| **Transportation** | 14 | 15.1 | 64 | 5.9 |
| **Personality Disorder** | 4 | 4.3 | 7 | 0.6 |
| **Parenting Roles** | 6 | 6.5 | 27 | 2.5 |
| **Medication Adherence** | 13 | 14.0 | 29 | 2.7 |
| **Educational Attainment** | 24 | 25.8 | 100 | 9.3 |
| **Financial Resources** | 19 | 20.4 | 97 | 9.0 |

The hospitalized youth had a greater percentage of action items in every area; showing they had more transition to adulthood needs than non-hospitalized youth.

Acculturation

In the Acculturation section, hospitalized youth had an average of 0.3 action items, whereas the non-hospitalized youth had an average of 0.1 action items.

| ACCULTURATION | | | | |
|---|---|---|---|---|
| 0=no evidence of problems history: 1=mild 2=moderate 3=severe 2 or 3=Action Items | | | | |
| | Hospitalized w/in 60 days +/- CANS Assessment N=93 | | Non-Hospitalized N=1080 | |
| | # Action Items | % | # Action Items | % |
| **Language** | 6 | 6.5 | 55 | 5.1 |
| **Identity** | 5 | 5.4 | 52 | 4.8 |
| **Ritual** | 6 | 6.5 | 17 | 1.6 |
| **Cultural Stress** | 12 | 12.9 | 27 | 2.5 |

The hospitalized youth had a greater percentage of action items in every area; showing they had more acculturation needs than non-hospitalized youth.

Caregiver Strengths and Needs

In the Caregiver Strengths and Needs section, hospitalized youth had an average of 2.1 action items, whereas the non-hospitalized youth had an average of 1.2 action items.

| CAREGIVER STRENGTHS AND NEEDS | | | | |
|---|---|---|---|---|
| 0=no evidence of problems history: 1=mild 2=moderate 3=severe 2 or 3=Action Items | | | | |
| | Hospitalized w/in 60 days +/- CANS Assessment N=93 | | Non-Hospitalized N=1080 | |
| | # Action Items | % | # Action Items | % |
| **Supervision** | 30 | 32.3 | 171 | 15.8 |
| **Involvement** | 12 | 12.9 | 65 | 6.0 |
| **Knowledge** | 22 | 23.7 | 140 | 12.8 |
| **Organization** | 15 | 16.1 | 88 | 8.1 |
| **Social Resources** | 22 | 23.7 | 171 | 15.8 |
| **Residential Stability** | 5 | 5.4 | 48 | 4.4 |
| **Physical** | 14 | 15.1 | 86 | 8.0 |
| **Mental Health** | 17 | 18.3 | 93 | 8.6 |
| **Substance Abuse** | 2 | 2.2 | 16 | 1.5 |
| **Developmental** | 1 | 1.1 | 7 | 0.6 |
| **Access to Child Care** | 9 | 9.7 | 79 | 7.3 |
| **Family Stress** | 38 | 40.9 | 325 | 30.1 |
| **Safety** | 4 | 4.3 | 37 | 3.4 |

The hospitalized youth overall had a greater percentage of action items in every area; showing they had more caregiver needs than non-hospitalized youth.

Youth Risk Behaviors

In the Youth Risk Behaviors section, hospitalized youth had an average of 2.0 action items, whereas the non-hospitalized youth had an average of 0.7 action items.

| YOUTH RISK BEHAVIORS | | | | |
|---|---|---|---|---|
| 0=no evidence of problems history: 1=mild 2=moderate 3=severe 2 or 3=Action Items | | | | |
| | Hospitalized w/in 60 days +/- CANS Assessment N=93 | | Non-Hospitalized N=1080 | |
| | # Action Items | % | # Action Items | % |
| **Suicide Risk** | 42 | 45.2 | 53 | 4.9 |
| **Self Mutilation** | 22 | 23.7 | 28 | 2.6 |
| **Other Self Harm** | 14 | 15.1 | 59 | 5.5 |
| **Danger to Others** | 32 | 34.4 | 154 | 14.3 |
| **Sexual Aggression** | 9 | 9.7 | 26 | 2.4 |
| **Runaway** | 13 | 14.0 | 79 | 7.3 |
| **Delinquency** | 9 | 9.7 | 63 | 5.8 |
| **Fire Setting** | 3 | 3.2 | 29 | 2.7 |
| **Sanction Seeking Behavior** | 23 | 24.7 | 157 | 14.5 |
| **Bullying** | 15 | 16.1 | 105 | 9.7 |

In every area of Youth Risk Behaviors the hospitalized youth had a greater percentage of action items than non-hospitalized youth meaning hospitalized clients presented with more risk behaviors.

Youth Behavioral/Emotional Needs

In the Youth Behavioral/Emotional Needs section, hospitalized youth had an average of 4.1 action items, whereas the non-hospitalized youth had an average of 2.4 action items.

| YOUTH BEHAVIORAL/EMOTIONAL NEEDS | | | | |
|---|---|---|---|---|
| 0=no evidence of problems history: 1=mild 2=moderate 3=severe 2 or 3=Action Items | | | | |
| | Hospitalized w/in 60 days +/- CANS Assessment N=93 | | Non-Hospitalized N=1080 | |
| | # Action Items | % | # Action Items | % |
| **Psychosis** | 15 | 16.1 | 19 | 1.8 |
| **Impulse/Hyper** | 47 | 50.5 | 450 | 41.7 |
| **Depression** | 59 | 63.4 | 296 | 27.4 |
| **Anxiety** | 51 | 54.8 | 354 | 32.8 |
| **Oppositional** | 53 | 57.0 | 475 | 44.0 |
| **Conduct** | 24 | 25.8 | 147 | 13.6 |
| **Adjustment to Trauma** | 42 | 45.2 | 304 | 28.1 |
| **Anger Control** | 60 | 64.5 | 501 | 46.4 |
| **Substance Use** | 15 | 16.1 | 51 | 4.7 |
| **Eating Disturbance** | 12 | 12.9 | 38 | 3.5 |

It was the intent of the MHP to use this information in the future to identify, at the time of a new assessment, youth at risk of hospitalization who need to be targeted for specific interventions. However, from the data collected it was found the hospitalized youth had a greater percentage of action items in every area showing they had more behavioral/emotional needs than non-hospitalized youth.

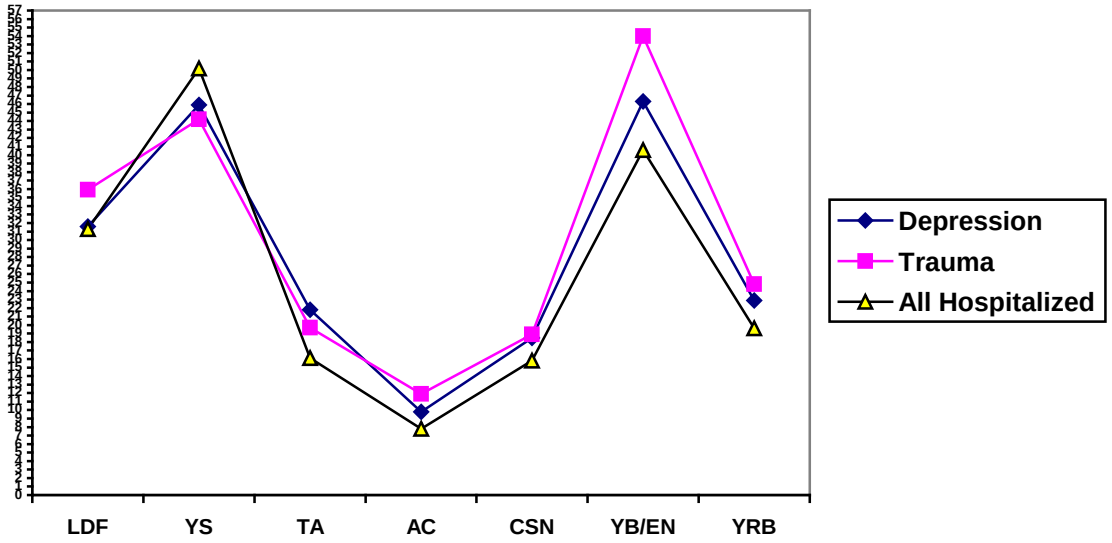
Overall, the CANS assessments provided the evidence and detail to support the already known principle that youth with higher needs and less strength are more likely to be hospitalized than those possessing more strengths and fewer needs. While this outcome is to be expected, the detail of the needs and strengths areas in the CANS assessment allows the MHP to further focus on specific areas and provides support for the development of interventions to support the youth and families.

Study 2

Two particular areas of interest to the MHP resulting from Study 1 are Depression and Adjustment to Trauma.

The data from Study 1 was further analyzed for youth with action items of Depression and Adjustment to Trauma in the Youth Behavioral/Emotional Needs domain. This decision was made because there was an 131.4% increase in Depression and a 60.9% increase in Adjustment to Trauma for youth who had been hospitalized compared to those who had not.

The chart below displays the data that shows youth who have action items for Depression and Adjustment to Trauma have more needs and fewer strengths in every domain measured by the CANS when compare to all of the youth hospitalized.



Study 3 - Pre/Post CANS Analysis

Concerns raised during the course of the PIP planning moved the MHP to conduct another analysis to determine if the act of administering CANS assessment alone would impact the hospitalizations. Data for two time periods were analyzed: July to December 2010 and January to June 2012.

| | 2010 | | 2012 | |
|---|---|---|---|---|
| | **All** | **Unduplicated** | **All** | **Unduplicated** |
| **FIT & WRAP** | 1028 | 996 | 883 | 864 |
| **Hospitalizations** | 151 | 67 | 129 | 69 |
| **Percentage** | 14.7% | 6.7% | 14.6% | 8.0% |
| | | | | |
| **Difference** | | | 0.7% | 19.4% |

The study shows no decrease in hospitalizations and a slight increase in the percentage of unduplicated youth hospitalizations. It is evident that the CANS assessment alone did not reduced hospitalizations in this time period.

In an effort to further understand the role of trauma in relationship to hospitalization and to understand how trauma is related to the other high need areas identified in the initial study of literature associated with trauma treatments was sought out. The literature consulted gave the following information:

- Children subjected to severe maltreatment frequently present with other psychiatric disorders, such as depression and anxiety, and may at times manifest symptoms consistent with others, including ADHD and Pediatric Bipolar Disorder (NASMHPS/NTC, 2004)
- There is also misdiagnosis, which occurs when other psychiatric disorders are inaccurately diagnosed, based on over lapping symptoms and the lack of trauma as a diagnostic reference point. The following generalizations are made in the joint NASMHPS-NTAC Report:
    - The role of trauma frequently goes unrecognized. One example involves the child whose depression is missed, due to the prominence of trauma-related externalizing behaviors.
    - Internalized responses by females may involve social withdrawal and lack of response to adult efforts at engagement. More severe responses include depression, dissociative reactions, self-injurious behaviors, and suicidality.
    - Males also withdraw and become depressed, but rarely will acknowledge depression.
- Posttraumatic Stress Disorder (PTSD) is not the most common psychiatric diagnosis in children with histories of chronic trauma. However, because there currently is no other diagnostic entity that describes the pervasive impact

of trauma on child development these children are given a range of "comorbid" diagnoses. By relegating the full spectrum of trauma-related problems to seemingly unrelated "comorbid" conditions, fundamental trauma-related disturbances may be lost to scientific investigation, and clinicians may run the risk of applying treatment approaches that are not helpful. (van der Kolk, B.A., 2005)

The literature consultation suggests there is a relationship between other high need areas related to hospitalization, identified in the initial study, and to trauma.

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

The PIP workgroup presented Study 1 and Study 2 to the FIT and Wraparound provider representatives and members of the Children's Stakeholder Committee (a group that represents internal and external partners). In these meetings, the barriers for the use of CANS in reducing hospitalization were identified. They included the perceived failure on the part of some clinicians to integrate the CANS assessment into treatment planning and the lack of understanding by family partners and youth peer mentors concerning the usefulness of the CANS assessment. These are barriers that require system interventions.

While there was active support from the provider group for development of trauma informed treatment, they felt their staff needed more options for the treatment of trauma. The lack of options for treating youth with adjustment to trauma issues is a barrier for providing trauma informed treatment modalities.

**Table A – List of Validated Causes/Barriers**

| Describe Cause/Barrier | Briefly describe data examined to validate the barrier |
|---|---|
| Lack of integration of CANS in treatment planning | Pre/Post CANS Analysis showing no reduction of hospitalization and provider feedback. |
| Families and Advocates not always understanding CANS assessment. | Provider feedback. |
| Adjustment to Trauma is a specific area that needs further treatment options. | Provider feedback. |

## 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.**

Can CANS data be used to identify clients with needs that correlate to hospitalization or MERT usage so that subsequent (new and continuing) CANS assessments can be used to focus on interventions to prevent hospitalization and use of MERT?

Is the Adjustment to Trauma element useful in correlating trauma to hospitalization or MERT usage or suggesting the need to adopt the Trauma Module in CANS?

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

No. Currently the CANS assessment is being piloted with all beneficiaries receiving FIT and Wraparound services. The roll out of the CANS instrument to all Sacramento County Children's Mental Health beneficiaries is tied to the Avatar Clinical Workstation rolling implementation beginning in calendar year 2012. These beneficiaries are not included in this PIP.

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

In the first year of CANS implementation with FIT and Wraparound providers, there were 889 unduplicated youth served in the program (admitted after January 1, 2011). For the second time period (Jan-June 2013) there were 1073 unduplicated youth served in the programs. So while the time period was shorter, there actually was a larger total number of youth in the population.

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

Currently, all FIT and Wraparound clients, who also have a completed CANS assessment, will be included in the collection of data. Those clients will be broken out into four categories, those who have been hospitalized versus those who have not and within these two groups, those who have identified Adjustment to Trauma as an action item and those who have not. The number of hospitalized with and without an Adjustment to Trauma totaled 88 in the 2011 study and 74 in the 2013 study. The number of non-hospitalized was far greater. In the study, all of the hospitalized and an approximately equal number of non-hospitalized clients were selected.

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

Due to the large number of beneficiaries in the non-hospitalized group, a randomized selection process was used.

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

**Study 1:** A total of 173 clients were selected for the 2011 study. The non-hospitalized clients were sampled at about 5%, or 85 clients which is slightly more than the hospitalized clients with Adjustment to Trauma (39) and non-Adjustment to trauma (49).

**Study 2:** A total of 154 clients were selected for the 2011 study. The non-hospitalized clients were sampled at about 5%, or 80 clients which is slightly more than the hospitalized clients with Adjustment to Trauma (35) and non-Adjustment to trauma (39).

100% of the hospitalized clients and 5% of the non-hospitalized clients is large enough to give a fair interpretation of the data.

**"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?**

As outlined in section three, reduction of hospitalizations and MERT usage are the primary goals. Both are very high cost services and are disruptive to the lives of youth and families. It is hoped that by reducing both the number of youths hospitalized and the duration of their hospitalizations costs will be decreased and the lives and function of youth and caregivers improved. The goals listed in the table below were selected based on historical data. The goals were set at a level that could not be reached by accident and any improvement achieved would be statistically significant.

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

| # | Describe Performance Indicator | Numerator | Denominator | Baseline for performance indicator | Goal |
|---|---|---|---|---|---|
| 1 | Number of Hospitalized Clients | Number of FIT & Wrap Clients with Hospitalizations (201) | Total number of FIT & Wrap Clients (972) | Percent of Unduplicated Clients Hospitalized (20.7%) | 28% Decrease |
| 2 | Number of MERT Clients | Number of FIT & Wrap Clients with MERT Usage (54) | Total number of FIT & Wrap Clients (972) | Percent of Unduplicated Clients with MERT Usage (5.6%) | 40% Decrease |
| 3 | Length of Hospital Stay | Total Number of Days in Hospital (2,419) | Number of FIT & Wrap Hospitalizations (536) | Average Number of Days in Hospital (4.5) | 7% Decrease |
| 4 | Number of Clients Hospitalized or using MERT more than one time | Number of clients with more than one hospitalization or MERT visit (122) | Total number of FIT & Wrap Clients (972) | Percent of Clients Hospitalized or using MERT more than one time (12.6%) | 10% Decrease |

**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.**

The interventions selected are directly related to the barriers that hinder the CANS from being used to reduced hospitalization and developing staff skills in treatment of trauma. The first two interventions will support both the clinician and the family partner or youth peer mentor in using the CANS assessment to support the treatment planning and service delivery.

The chart reviews were conducted twice; the first chart review occurred during May 2013 reviewing the 16-month period from January 2011 to April 2012 and the second chart review occurred in August 2013 reviewing the six-month period from January 2013 to June 2013. The first chart review established a baseline measurement and the second measured the effectiveness of the interventions.

## Table C - Interventions

| Number of Intervention | List each specific intervention | Barrier(s)/causes each specific intervention is designed to target | Dates Applied |
|---|---|---|---|
| 1 | Expanded training on CANS utilization for clinicians | • Lack of integration of CANS in treatment planning | April 2013 to present |
| 2 | New training on CANS assessment for Family Partners and Youth Peer Mentors | • Family partner and youth peer mentor involvement in CANS process and utilization | April 19, 2013 |
| 3 | Implement CANS Trauma Module | • Provide specific information on the trauma type to be treated | May 2013 |
| 4 | Chart Reviews for four groups (Hospitalized vs. Non-Hospitalized and Adjustment to Trauma identified vs Non) | • Identify what services and resources are currently being used when a client has Trauma marked as a need<br>• Measure the changes resulting from applied interventions | May 2013 (2011 Data) & August 2013 (2013 Data) |

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

**11. Describe the data to be collected.**

Clients served by FIT and Wraparound programs will have CANS assessment data and any relevant hospitalization data collected to understand the impacts of training provided and the implementation of the Trauma Module. In addition, a chart review tool will identify whether or not the CANS assessment was used in developing the treatment plan. The tool will also include: modality changes, diagnosis, medications and living situations. This data will be collected for four groups. The two categories are 1) all hospitalized and 2) a sample of non-hospitalized. Both categories will include clients with Adjustment to Trauma identified and clients without Adjustment to Trauma identified for a total of four groups.

**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 Hospitalization data is gathered through Sacramento County's existing data information system, Avatar. CANS data is collected from FIT and Wraparound programs via a Sacramento County created Access database. Data is submitted biannually by the providers. Once the Clinical Workstation is rolled out, CANS data will be accessible via Avatar.

Chart Reviews will be conducted by Quality Management (QM), REPO and Children's Mental Health staff at the provider sites. All files of FIT and Wraparound clients who were hospitalized and a 5% sampling of the non-hospitalized clients will be conducted using a chart review tool designed for this data collection activity.

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

At the end of one year following the implementation of the PIP, data will be summarized and analyzed for trends and relationships. Data collected on all clients included in the PIP will be analyzed against performance indicators to measure improvement.

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

The Research, Evaluation and Performance Outcome (REPO) staff are responsible for collecting the data from the agencies and extracting Avatar information system data have at least a BA degree in Psychology, Social Services or other related fields and have been analyzing and reporting on data for the REPO unit for over seven years. The REPO staff has received continuous training on data analysis and performance outcomes. The Quality Management and Children's Mental Health staff conducted the chart reviews and have at least a Master's degree in a field of clinical work and extensive experience in chart reviews.

**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?**

The data collection was performed by 1) having each intensive service provider send data from their CANS database to the county and 2) collecting the hospitalization data from Avatar (the county Medi-Cal billing system). The data analysis was then performed in an Access database. The analysis itself occurred as planned. However, the second period analyzed was shorter than initially planned because the interventions did not rollout until the last six months of the study. While the timeframe was shortened, the number clients studied increased. These issues did not trigger modifications to the project.

The results of the analysis did not trigger QI projects; however the following QI projects were the direct result of the PIP process.

- The MHP is interested in knowing if the findings of this study will be replicated in future years and is adding several of the questions from the Chart Review Tool in the Utilization Review (UR) tool. These questions are related to use of the CANS assessments in treatment planning, follow-up, and identification of trauma.
- During the initial work for this PIP, trauma was identified as one of the main indicators of hospitalization and MERT usage. Additionally, the Katie A. lawsuit implementation increases the focus on trauma. Consequently, there is a plan in place to make “trauma informed” training available for entire Children’s mental health system.
- The PIP study, which used the CANS pilot as its population, confirmed for the MHP the need to take the CANS to scale. This resulted in the CANS being rolled out to all of the service providers and CANS training and certification for provider staff in both basic and intensive outpatient services so the entire system can be measured and analyzed.

**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** | | | | | | | |
| Number of Hospitalized Clients | *Jan 2011-April 2012* | *Number FIT & Wrap Clients w/Hosp/Total Number FIT & Wrap Clients* ***20.7% (201/972)*** | *28% decrease* | *See Table C* | *Jan-June 2013* | Percent of Unduplicated Clients Hospitalized **8.3%** ***(89/1073)*** | *60% decrease in hospitalizations* |
| Number of MERT Clients | *Jan 2011-April 2012* | *Number FIT & Wrap Clients with MERT Usage/ Total Number of FIT & Wrap Clients* ***5.6% (54/972)*** | *40% decrease* | *See Table C* | *Jan-June 2013* | Percent of Unduplicated Clients with MERT Usage ***1.7% (18/1073)*** | *70% decrease in MERT Usage* |
| Length of Hospital Stay | *Jan 2011-April 2012* | *Total Number of Days in Hospital/Number of FIT & Wrap Hospitalizations* ***4.5 (2419/536)*** | *7% decrease* | *See Table C* | *Jan-June 2013* | Average Number of Days in Hospital **4.0** ***(619/153)*** | *11% decrease in average number of days in hospital* |
| Number of Clients Hospitalized or using MERT more than one time | *Jan 2011-April 2012* | *Number of clients with more than one hospitalization or MERT visit* ***12.6% (122/972)*** | *10% decrease* | *See Table C* | *Jan-June 2013* | Percent of Clients Hospitalized or using MERT more than one time ***3.2% (34/1073)*** | *75% decrease in Clients Hospitalized or using MERT more than one time* |

It was the intent of this PIP to reduce the use of hospitalization and MERT by increasing CANS results usage overall, in treatment planning and follow-up. To this end, a baseline for use of CANS results in these three areas was developed and then re-measured for a period about 12 months later. The chart review data is below.

The chart review was conducted for the same time periods as the data analysis, there were 173 clients selected for review for the 2011 time period and 154 clients for the 2013 time period. The chart review, looked at how much the CANS was used in treatment and how trauma, when identified, was addressed and treated. The hope was to see an increase in CANS utilization in treatment.

## CANS USAGE

| | 2011 | | | | | | | | | | 2013 | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Hospitalized | | | | Non-Hospitalized | | | | Totals (N=173) | | Hospitalized | | | | Non-Hospitalized | | | | Totals (N=154) | |
| | Trauma (N=39) | | Non (N=49) | | Trauma (N=42) | | Non (N=43) | | | | Trauma (N=35) | | Non (N=39) | | Trauma (N=40) | | Non (N=40) | | | |
| | # | % | # | % | # | % | # | % | # | % | # | % | # | % | # | % | # | % | # | % |
| **CANS results used?** | **22** | **56.4** | **24** | **49.0** | **25** | **59.5** | **14** | **32.6** | **85** | **49.1** | **20** | **57.1** | **29** | **74.4** | **24** | **60.0** | **26** | **65.0** | **99** | **64.3** |
| Progress note link to CANS | 18 | 46.2 | 18 | 36.7 | 21 | 50.0 | 12 | 27.9 | 69 | 39.9 | 14 | 40.0 | 18 | 46.2 | 15 | 37.5 | 16 | 40.0 | 63 | 40.9 |
| Treatment Plan Goal link to CANS | 5 | 12.8 | 6 | 12.2 | 4 | 9.5 | 3 | 7.0 | 18 | 10.4 | 11 | 31.4 | 13 | 33.3 | 19 | 47.5 | 19 | 47.5 | 62 | 40.3 |

For the 2011 review period, the CANS results were being used in treatment about 49% of the time, with slightly better usage for clients with Trauma identified.

For the 2013 review period, an increase was seen in CANS results being used in treatment for every group. On average, the CANS is now being used 64% of the time. The treatment plan goals being linked to CANS also increased.

| | 2011 | | | | | | | | | | 2013 | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Hospitalized | | | | Non-Hospitalized | | | | Totals (N=173) | | Hospitalized | | | | Non-Hospitalized | | | | Totals (N=154) | |
| | Trauma (N=39) | | Non (N=49) | | Trauma (N=42) | | Non (N=43) | | | | Trauma (N=35) | | Non (N=39) | | Trauma (N=40) | | Non (N=40) | | | |
| | # | % | # | % | # | % | # | % | # | % | # | % | # | % | # | % | # | % | # | % |
| **CANS results used – subsequent sessions?** | **2** | **5.1** | **10** | **20.4** | **3** | **7.1** | **2** | **4.7** | **17** | **9.8** | **10** | **28.6** | **13** | **33.3** | **14** | **35.0** | **16** | **40.0** | **53** | **34.4** |
| Progress Update | 1 | 2.6 | 8 | 16.3 | 1 | 2.4 | 1 | 2.3 | 11 | 6.4 | 5 | 14.3 | 6 | 15.4 | 7 | 17.5 | 8 | 20.0 | 26 | 16.9 |
| Discuss Strengths | 1 | 2.6 | 5 | 10.2 | 0 | 0.0 | 0 | 0.0 | 6 | 3.5 | 4 | 11.4 | 4 | 10.3 | 2 | 5.0 | 6 | 15.0 | 16 | 10.4 |
| Community Support Referrals | 0 | 0.0 | 2 | 4.1 | 1 | 2.4 | 0 | 0.0 | 3 | 1.7 | 1 | 2.9 | 3 | 7.7 | 1 | 2.5 | 4 | 10.0 | 9 | 5.8 |
| Adjust Current Goals | 0 | 0.0 | 1 | 2.0 | 1 | 2.4 | 1 | 2.3 | 3 | 1.7 | 3 | 8.6 | 6 | 15.4 | 5 | 12.5 | 7 | 17.5 | 21 | 13.6 |
| Discuss Discharge | 1 | 2.6 | 1 | 2.0 | 1 | 2.4 | 2 | 4.7 | 5 | 2.9 | 0 | 0.0 | 2 | 5.1 | 4 | 10.0 | 0 | 0.0 | 6 | 3.9 |

For the 2011 review period, very few youth had CANS results used in subsequent sessions (9.8% overall). For the 2013 review period, CANS results being used in subsequent sessions increased (34.4% overall).

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

**16. Describe issues associated with data analysis:**

A smaller sample was used with the second set of data because of the methodology selected to choose the first sample was applied to the second sample, and fewer children in the second sample met the established criteria. The timeframe for the sample also decreased because the interventions were not rolled out until the first half of 2013; this resulted a six month time period for re-measurement. The first set of data (used as baseline) contained nearly 16 months of data.

**a. Data cycles clearly identify when measurements occur.**

The workgroup clearly defined the timeframes for each measurement period and the criteria for selecting the populations to be measured.

**b. Statistical significance**

The hospitalization and MERT data was analyzed over time for four different time periods to determine the goal for percentage improvement. It was important to be sure any improvement was not accidental and any improvement achieved would be significant.

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

The time period for re-measurement was shorter, as described in 17.

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

It is difficult to say with 100% certainty that the interventions put into place are the only reason hospitalizations, MERT usage, hospital length of stay and repeat hospitalizations decreased as this was not a controlled study. Additionally, there are other factors at play here: In January 2011, the CANS pilot was started in conjunction with the implementation of the Flexible Integrated Treatment (FIT) program where clinicians were given the flexibility to increase or decrease service intensity based on the child's needs. This could have been a factor in the reductions seen in hospitalization and MERT usage in this population.

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

The intent of the PIP was to increase the use of the CANS in treatment and goal planning to see if it would have an effect on reducing hospitalizations and MERT usage. As seen in the chart review, the CANS assessment is being used more in treatment and in goal planning. Additionally a significant reduction in hospitalizations, MERT usage, hospital length of stay and repeat hospitalizations occurred in this population.

The PIP was also successful in prompting system changes such as:

- Revising the UR tool to include the PIP chart review questions about the use of CANS in the development of treatment, goal planning and in follow-up. The data results will not be available until these questions have been implemented and several UR cycles have elapsed.
- Training of Family Partners where they learned about the CANS and how to support families around the use of the CANS. Family Partners feedback after the training was they felt more equipped to support families concerning the CANS.
- Putting the CANS report tools in the hands of the clinicians. As evidenced by the second stage of the PIP study, clinicians are using the CANS assessment results more often.
- Adding the Trauma Module to both the stand alone databases and to Avatar and revising the CANS tool and manual to accommodate the change. The Trauma Modules were implemented in May and June so no results are available. The expected results of the Trauma Module implementation are that clinicians will be able to identify and treat trauma immediately and potentially reduce incidences of hospitalization and use of MERT.
- Installing the CANS on both Avatar and databases for non-Avatar user providers so the CANS can be rolled out to all county mental health programs. CANS has been rolled out for use by all county mental health programs, a memo to remind providers of the expectation to use is being drafted.
- Expanding CANS training to include clinicians from all county mental health programs. The number of trainers and certified users of CANS increased.
- Increasing the use of EBPs. While this is not a follow-up activity it is an interesting consequence. Providers are noticing an increase in use of EBPs and chart reviewers noticed an increase in introducing EBP options to families.

**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?**

The methodology for selecting FIT or Wrap clients for this study began with a group who had been hospitalized within 60 days of having a CANS assessment and had an Adjustment to Trauma action item. The second group selected was again was hospitalized within 60 days of a CANS assessment but did not have an Adjustment to Trauma action item. Based on the number of clients that met this criterion, two additional groups were sampled from the non-hospitalized with both an Adjustment to Trauma action item and without. The same methodology of collecting the data from the four groups was used with the second set of data; however the time period for collecting the second set of data was shorter. No modifications made based on the results.

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

Yes, all performance indicators showed a decrease in costly (for the county) and disruptive (to clients and family) hospitalization and MERT usage.

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

Clinicians are using the CANS tool more often and focusing more on Trauma, which was identified as a high correlation with hospitalization and MERT usage.

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

Data was analyzed for four time periods prior to interventions being put in place and the percentage goals were then set by being at or below the lowest reduction found. All indicators came in below the goal, showing true improvement.

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

It is too soon to be able to see continued improvement since the last period measured just ended. This is something the MHP will follow-up on to see if it is replicated with the other programs using the CANS assessment. The MHP will be using the UR process to track this.